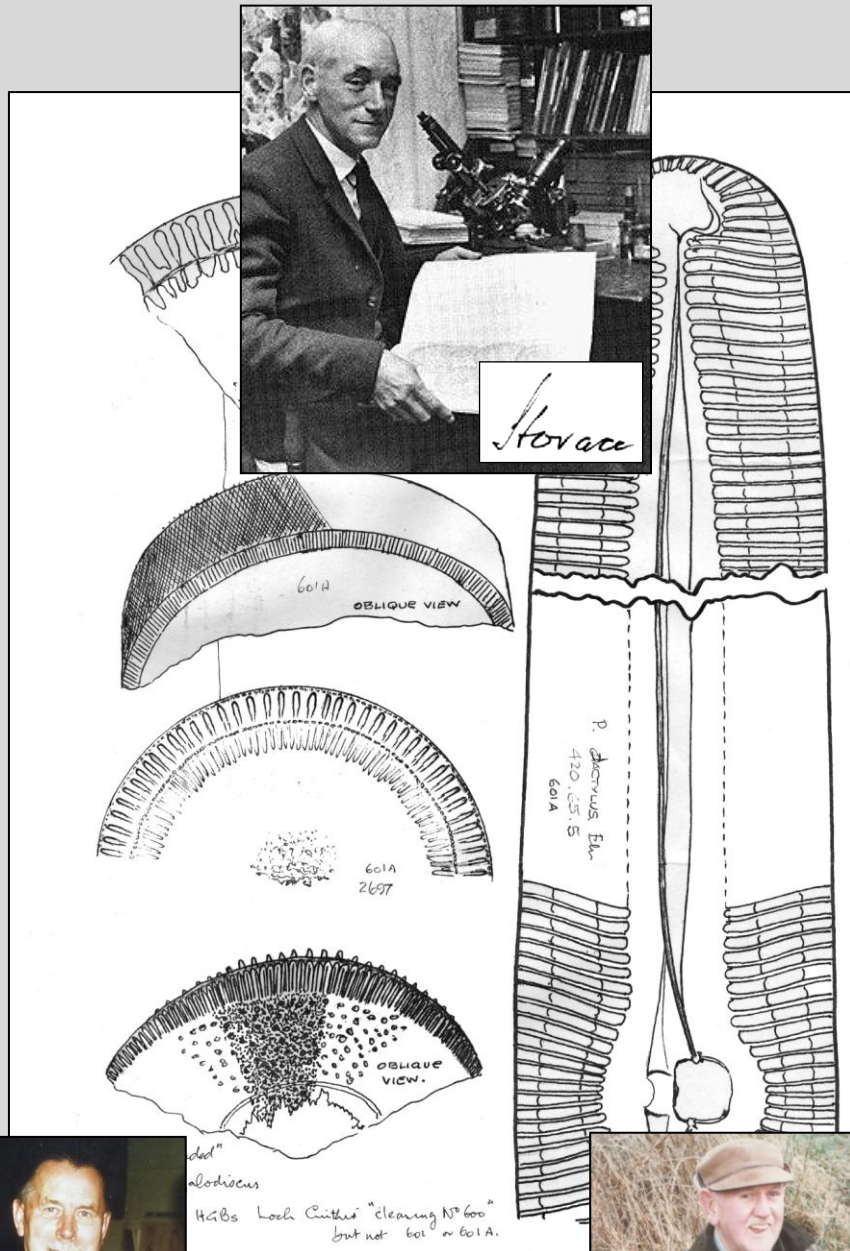


# Horace George Barber's Miscellaneous Diatom Plates





## Horace George Barber's Miscellaneous Diatom Plates Annotated by Horace Barber, Bernard Hartley and John Carter

These plates were originated by Horace George Barber and sent to both John Ripley Carter and Bernard Hartley for comment, criticism and identification.

The copies herein are those sent to Bernard Hartley (and archived by him) and include annotations and names mainly by the recipient. Locations, dimensions, slide numbers and some of the name suggestions are by Horace Barber.

It is likely that these plates, as originals no longer exist, as Horace cut these up to paste into his notebooks following comment by Carter and Hartley. This is quoted as being the case in a letter to Bernard from Horace as follows:

Hafan  
91 Mancetter Road  
Nuneaton  
February 1972

Dear Bernard,

Your slides travelled quite safe and am very pleased to receive them. The R. Thames one is most interesting and the *Hydrosera* a welcome addition. You will see I've made a sketch of same, somewhat skeleton-wise but I am sure you will recognise sufficient to give an idea of the form. Too complete I often find makes for too heavy an effect and Indian Ink, however fine, defeats its object and appears a Bloody Black Mass, whereas it should be a picture of a glass object!

Personally I think Mr. Gleave [sic] (H. H. Gleave of Bexhill-on-Sea, formerly of Thornton Heath, Surrey) should bring this form to notice thro the journal [published – *Hydrosera triquetra*, a diatom new to European waters – *Diatom Research* 8, 65-71] and if he is a poorer sketcher than I then no doubt my arm could be suitably twisted! The *P. angulatum* I've a bucket full from many years ago and my forms are frail; this is generally the case when there is a bloom of them!

Regarding the check-list I cannot say that I have great confidence in such affairs for I always ask myself "how reliable is the identification, all due respects to the author, but there are so many, many synonyms, poor illustrations, doubtful forms, etc., etc., vital points often ignored or not seen, that it is like building sand castles. When all said and done identification, other than seeing the original forms, is hard. So often it's just personal opinion and this can be dangerously elastic. I know, I've done it! And suppose still do. Only sheer experience of seeing many gatherings, sketching as accurately as possible and realising the characteristic features which are stable! When I look at some of my earlier efforts I smile to myself, there are innumerable forms which I just don't know and am not afraid of admitting. Far better this than live with one's head in a bag.

Now I am enclosing the diatoms I've sketched this last fortnight or so and prior to sending them to John (Carter) for his views – you will note I have put in my remarks – Each form in linked by dimension numbers – such as 31.7.14 or 31 $\mu$  long, 7 $\mu$  broad 14 stria in 10 $\mu$ . With *Nitzschia* there are 4 numbers, the fourth is rate of Keel punctae in 10  $\mu$ .

You are quite at liberty to take copies of these but please look after the originals and do not fold etc.

I shall, of course, get copies made to send to JRC. The originals will be cut up and worked in amongst the rest.

Please return the notes along with the sketches.

Well must close and go to bed.

Yours,

Horace

These plates were left to Klaus-Dieter Kemp as part of Bernard's bequest and have been passed to the Editors for compilation and publication as he recognised their value to other diatomists.

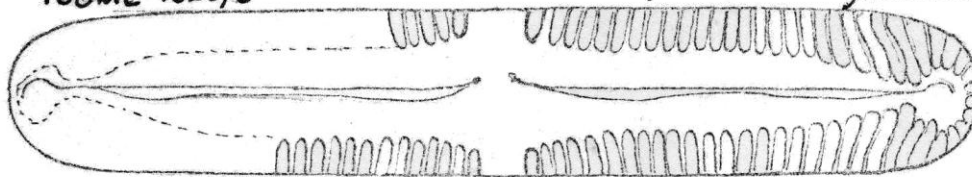
## Horace George Barber's Miscellaneous Diatom Plates

The following Miscellaneous Plates exist in the archive and are reproduced as the body of this work. The plates are contained in two Lever Arch Files.

File 1	File 2
1-12	333-341
14-80	343-348
82-101	350-358
160	360-369(x2)
162-163	370-386
165	390 (x2)
170-171	391-417
173-174	421-457
181	(no plate 458 existed - this is noted in the archive)
183-190	459-466
192-200A	
202-203	
206-214	
230-233	
235-237	
244-245	
248	
254-297	
Re-used numbers 294-297 (different plates)	
298-323	
<b>No. of Plates - 226</b>	<b>No. of Plates -132</b>
<b>No .of Figures – 1800+</b>	<b>No .of Figures -2000+</b>

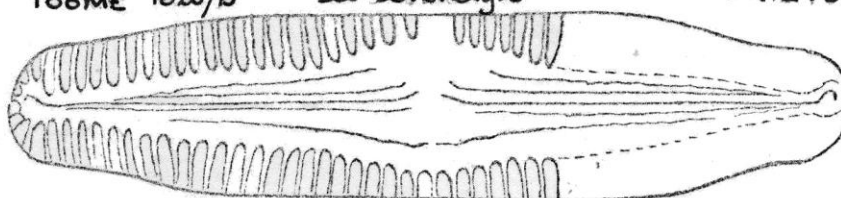
Whether the missing numbers actually existed, are lost or simply were not sent to Bernard Hartley is unknown at this time.

*Pinnularia brevicostata* Cleve.  
= ~~(Pinnularia)~~ *conspicua* A. Cleve 64.10.9.  
TOOME 1620/B

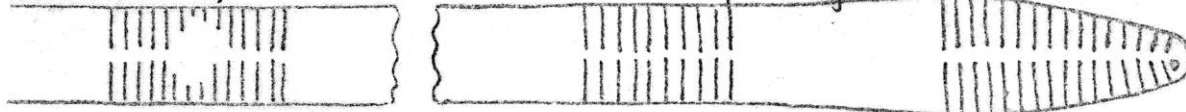


*Pinnularia nodosa* Ehrh.

TOOME 1620/B See Sovereign 54.12.8.

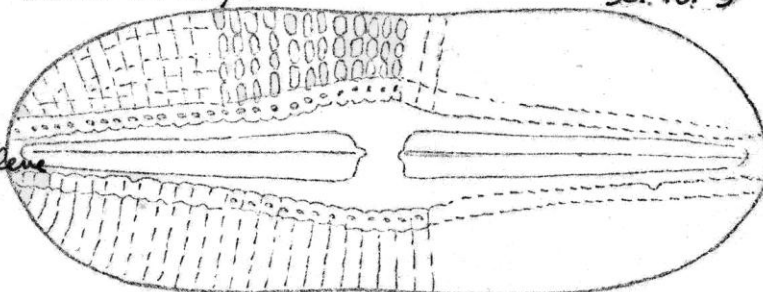


TOOME 1620/B *Synedra ulna* var. *spathulifera* Grun. 280.6.9.

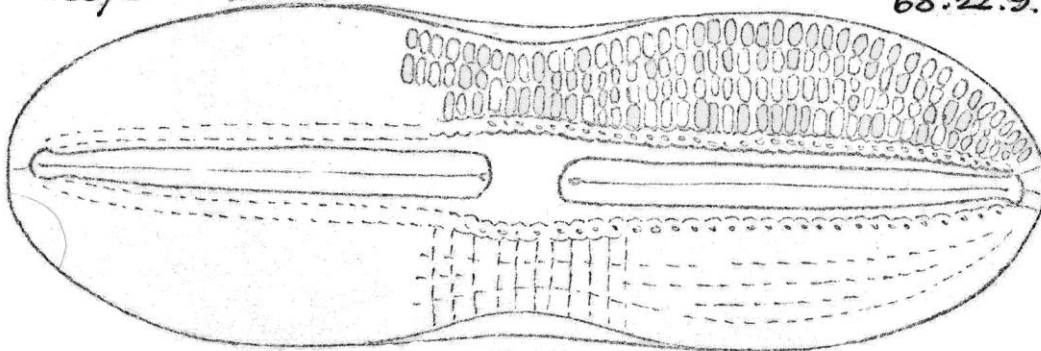


*Diploneis donblittensis*  
var. *subconstricta* A. Cleve  
[Hust 1076 + LH 398].

TOOME B. 1620/B 50.18.9



535/B. CADNANT. 68.22.9.

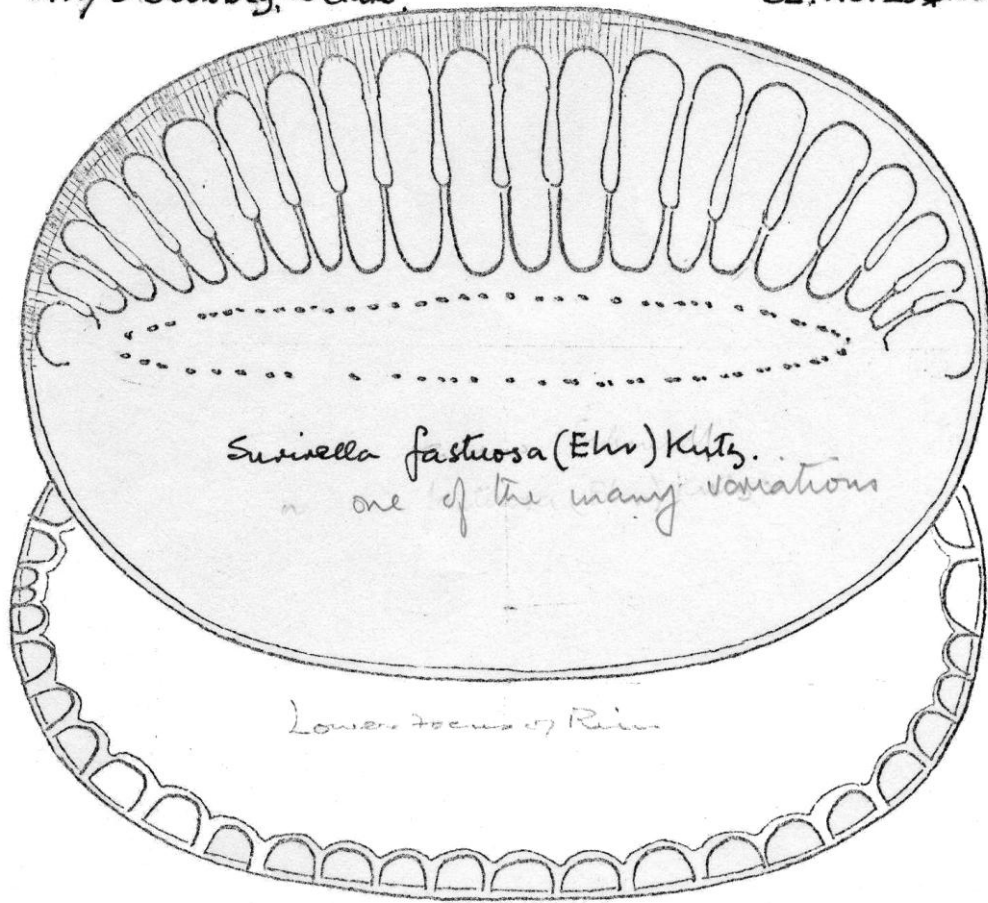


*Diploneis didyma* (Ehrh.) Cleve.  
HGb says I. sp. *donblittensis* var

Miscellaneous Plate 2

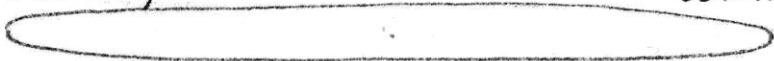
1471/B Doon Beg, Co Clare

62. A3. 23 <sup>12</sup> 100.



PIDD 1658/B.

50.4.x



? Girdle of diatom

Pidd. 1658/B.

56.3/2 30.11 1100.

?



*Nitzschia confinis* Hust

*Nitzschia byzophela* Hust



48.5. 20

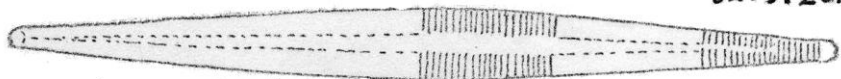
varieties of  
*Synedra affinis*. Kütz.

PIDD 1658/B

*Synedra* ? *apicula*

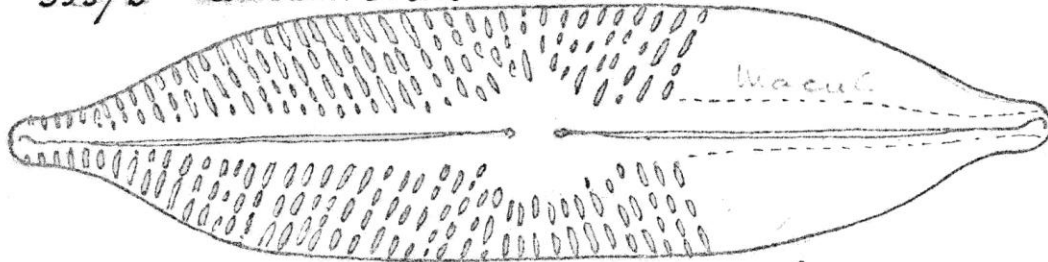
54.5.20.

= *S. tabulata*

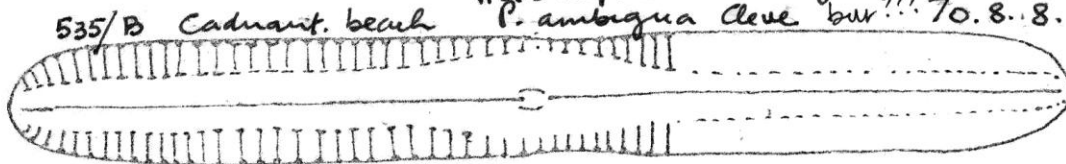


PIDD. 1658/B.

535/B Cadnant: beach Nav. maurosa Donkin 68. 16. 8.

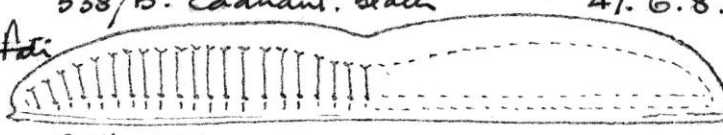


535/B Cadnant: beach H.G.B says side view of P. ambigua Cleve but ??? 70. 8. 8.



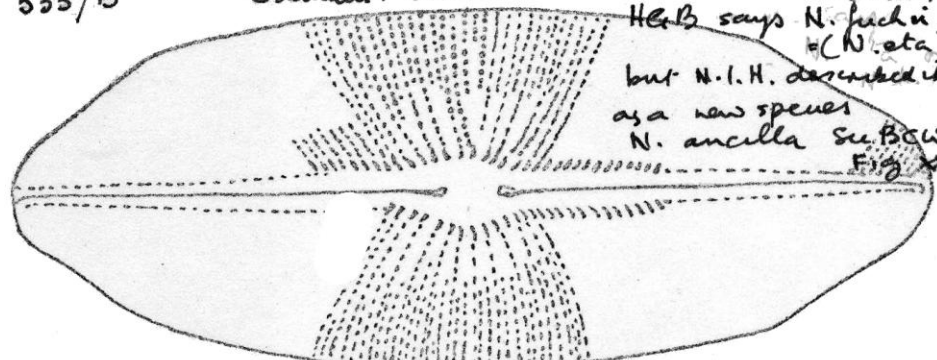
H.G.B says Symplocos arcus. but See Hamula (Ceratonere) arcus. (Hamula) etc Var amphioxys.

538/B. Cadnant: beach 47. 6. 8.

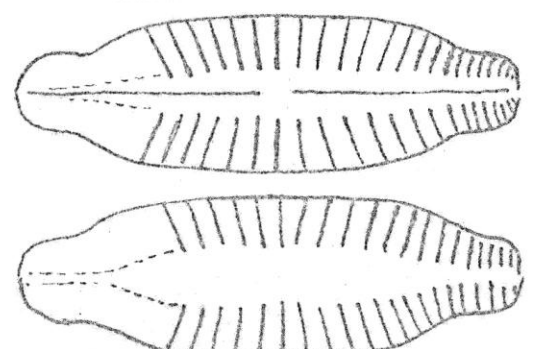


Hamula arcus (Kütz) Hust. 455/B R. Owen. 34. 6. 15.

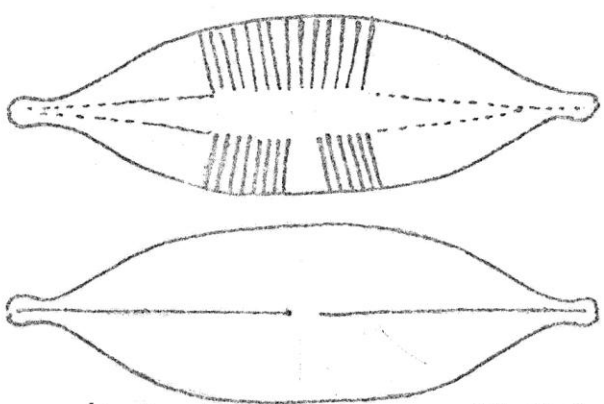
535/B Cadnant: beach H.G.B says N. fuchsii (= N. eta) but N.I.H. described it later as a new species N. ancilla see B&W Fig XXI/12



375/XH Land port 17. 5. 15 W.I.C. CAE.



Achmanthes plönessis Hust.

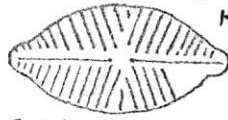


1389/B. R.W. Bay 38. 12. 9 Achmanthes haynaldi Sclarschm

Miscellaneous Plate 4

Nav. ? anglica Kalfs.

15.7 1/2 15

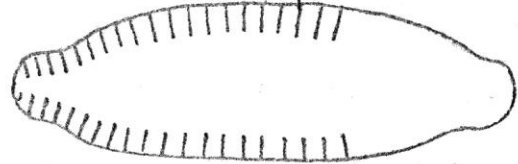


375H

HGB not happy about central area



Achnanthes plörensensis



x2

Navicula schrenkii 12.2 1/2 21. Kützing



1460/B. Owen, Yerge & Co Donnegall x2.

Not A. Koltzei (see LH 279).



x2

1545/B TOOME

? P. legumina (but with a furca and stomata)

67.11.12



HGB says see Act Ent 1093

P. rigida - No!

Act Ent 1056.

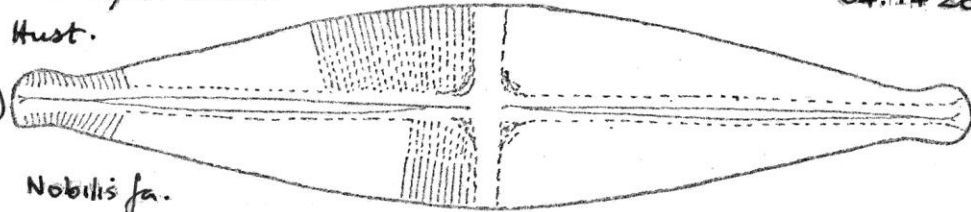
P. laevigata fu.

? P. stomatophoroides.

HGB says the area are not consistent var. ovata? 64.114 20 mayer

Stauroneis alabamiae Hust. = (S. nobilis Schumann)

1545/B. TOOME.



Nobilis fa.

1545/B. TOOME.

? Pinnularia brevicostata Cleve 74.12.9.

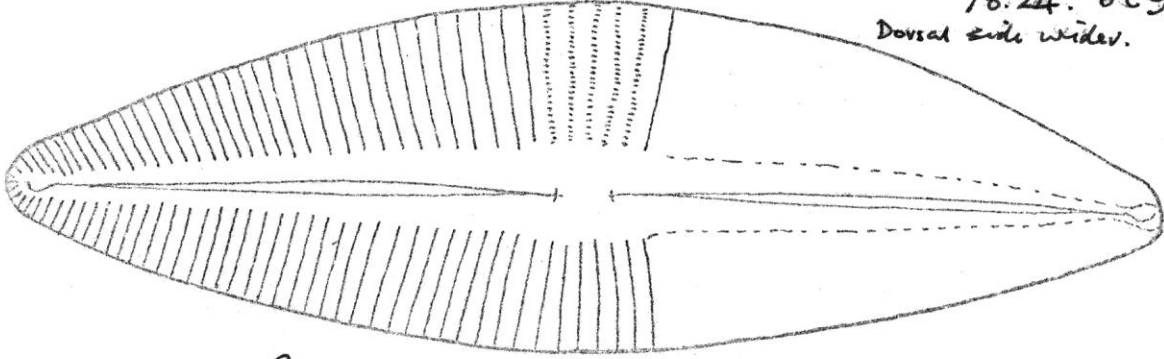
(Pinnularia crucifera Cleve) ✓



1545/B TOOME

78.24. 6 C 9 E.

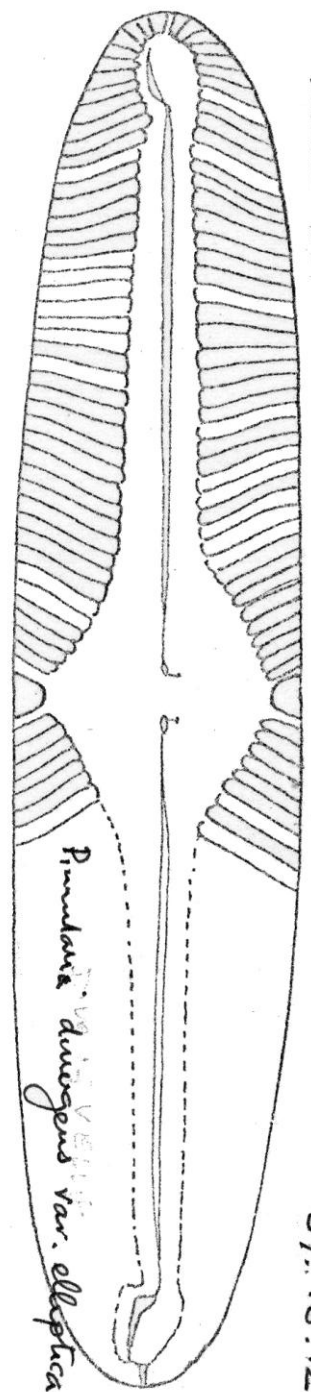
Dorsal side wider.



Cymbella ehrenbergii Kütz.



Toome B1.



87. 18. 12

*Pinnularia divergens* var. *elliptica*. Gilv.

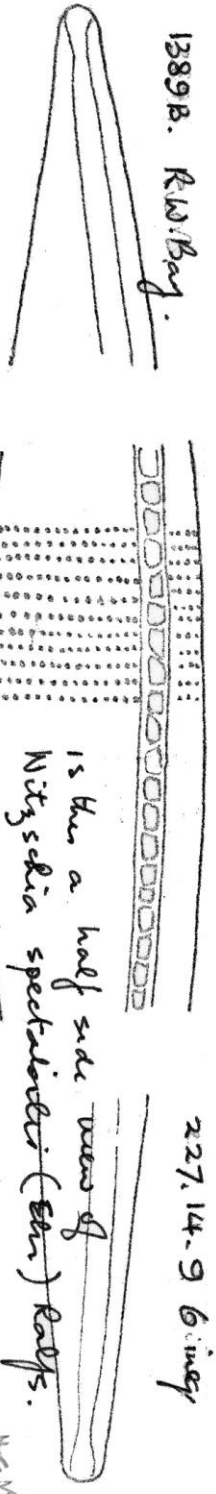
955/B. R. Ogden



94. 6. 15

*Hammea arcus* = (*Ceratonereis arcus* Kütz.) which H.G.B. calls *Synedra arcus*.

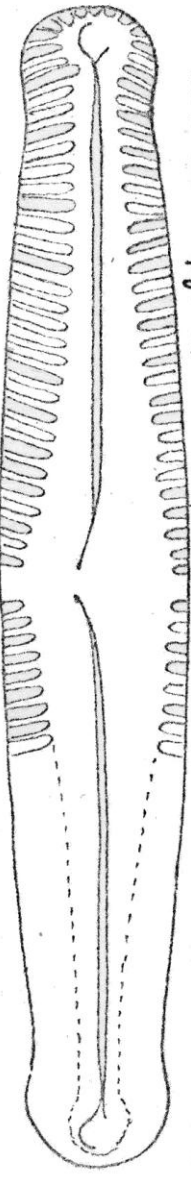
1389B. R.W. Bay.



227. 14. 9 6. ineq

is the a half size version of *Nitzschia spectabilis* (Ehr.) Kütz. to *Nitzschia claviformis* Sarg H.G.B.

L. Corriou Copy 519



75. 12. 8 1/2

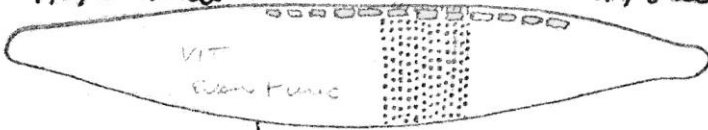
? *P. albaugensis* var. *pallida* (Sarg H.G.B.)

Miscellaneous Plate 6

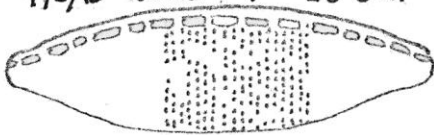
975/B Battle. (Earth floor - fresh soil). 46.8.20



975/B Battle 47820



975/B Battle 28821 *Nitzskea vitrea*



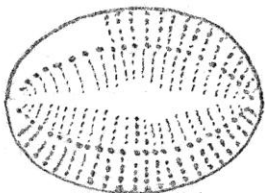
*Amphora*

14.3 x



No striae visible. 1003/B Tewkes Present in Maltvaeth

16.12.12 CAE.



1389/B R.W. Bay.

*Cocconeis fluminaensis*

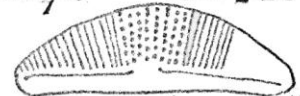
975/B Battle 26.4.16



*Amphora*? notmanni  
975/B Battle 24.4.16

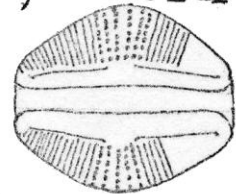


1003/B 18.5.22

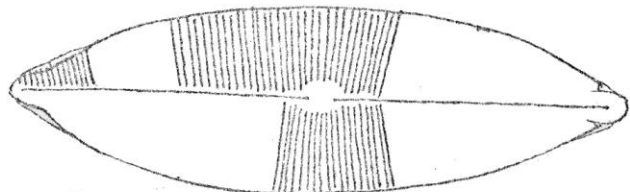
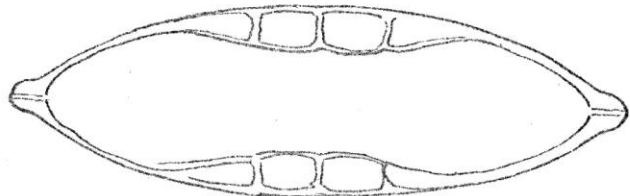


Tewkes. *Amphora veneta*

1003/B 14.5.22



Tewkes.



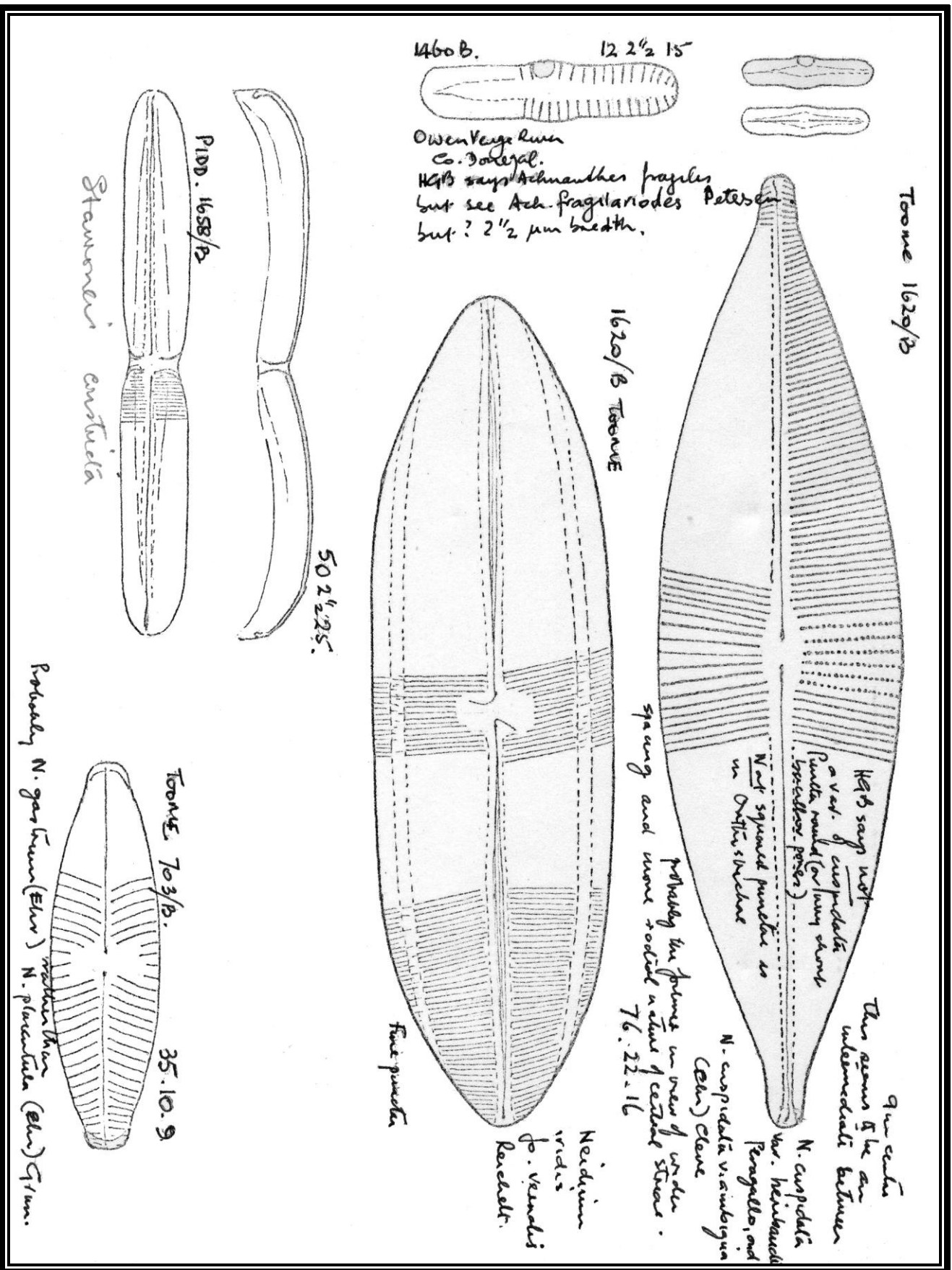
535/B Cadnant. (Mawie) 43.12.21  
*Mastogloia*? *exigua* K4.2.3.



Note: only one short stria  
1389/B R.W. Bay.

47.8 x 3.4. Cos  
3-9 KP.

? *Nitzskea rhopaloides*  
See Hustedt's - "Beaufort"

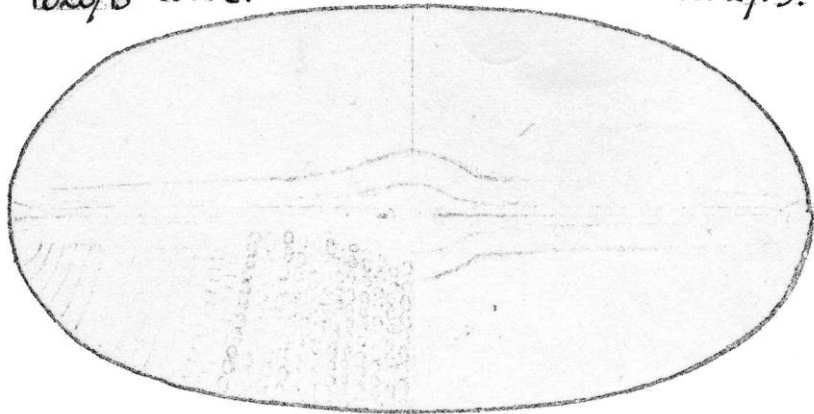
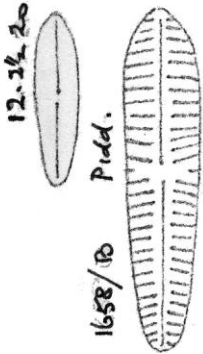


Miscellaneous Plate 8

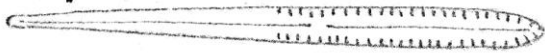
many of these forms are from Piddinghoe in Sussex

1620/B Toome.

54.27.9. P 10 1/2

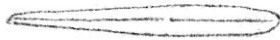


1658/B Pidd.

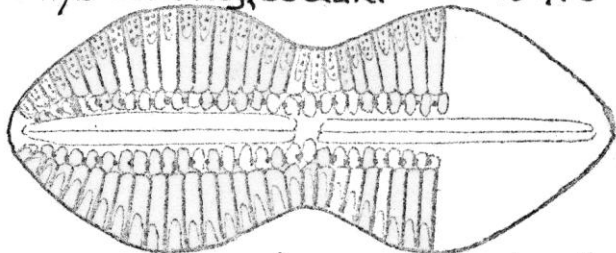


14471/B Doon Beg, Co. Clare.

40.17.8.



18. 3. 20. Toome.



8. 2 1/2 20.



1658/B. Pidd.

Crabro forma. *Diploneis Crabro* Ehr  
or possibly *Dip. Crabro* v. *excavata* Hust.

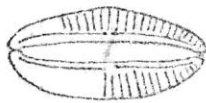


12. 2. 18

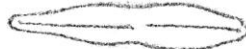
1658/B. Pidd. 35. 4. 16.  
*Synedra Fragilium* *inexistans*



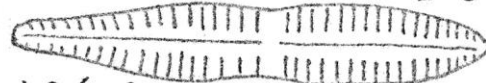
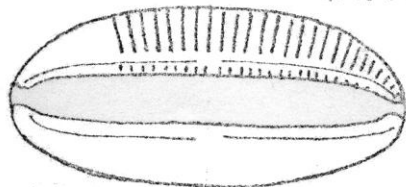
1658/B Pidd. *Amphora* *Levina* ?



14. 3. 18 CAE



16. 2 1/2 20

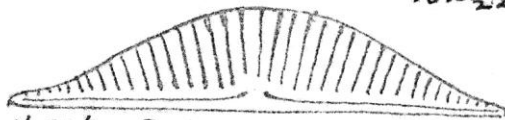


1658/B Pidd.

1658/B Pidd. *Amphora*  
*Amphora*

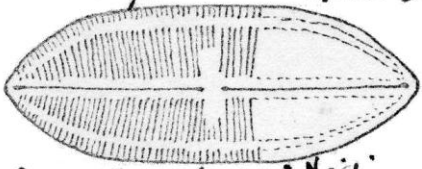


18. 3 1/2 20



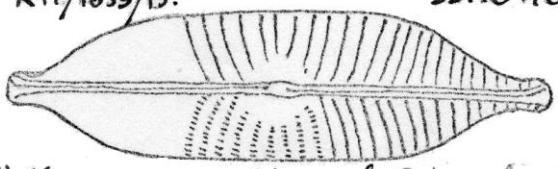
1658/B Pidd.

Landport.  
RIF. 1659/B 27.16.19



Radiate throughout : *Neidium debium* (E) Cleve  
or ? *Neidium dilatatum* (E) Cleve

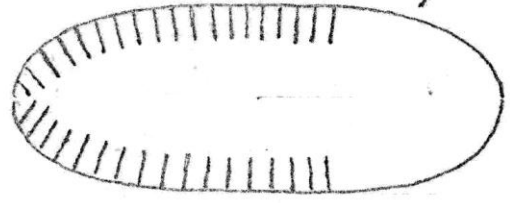
RIF/1659/B. 35.10.10



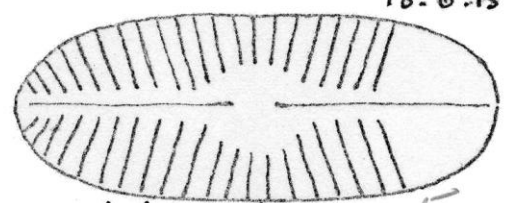
*Navicula* ? *rhynchoccephala*



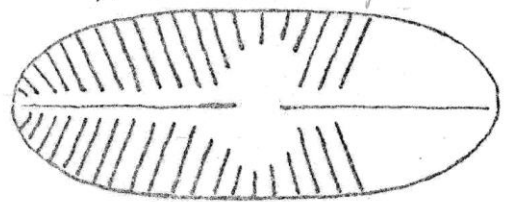
RIF 1659/B.



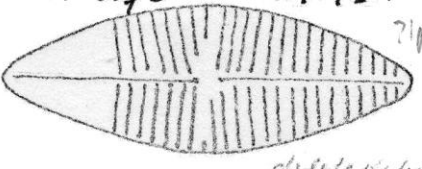
18.6.15



*Achnanthes rupestris*



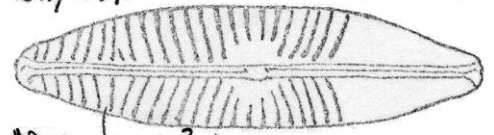
RIF/1659/B 27-9 1/2 11



? *Nav meniscus*

*dilatatum*

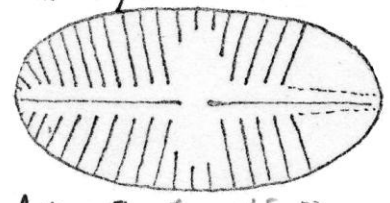
RIF/1659? 30.8.11



*Nav. cavi* ?  
Not Rhync.

? *Nav. graciloides*. A Mayer  
H&B says ? *N. cavi* Ehr.  
The says central area is wrong for *graciloides*

12.6.16  
SWIC  
CAE.  
RIF1659/B



*Achnanthes rupestris*??

RIF1659/B 20.6.19.

*Navicula*

? var *exilis*



RIF. 1659/B. 20.6.20+

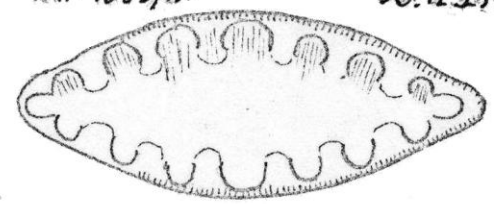
SWIC  
VCAE



? *Nav. tenuipunctata* Hust.

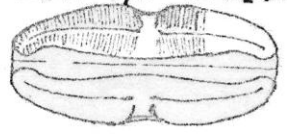
RIF 1659/B.

30.12.23 also  
mu

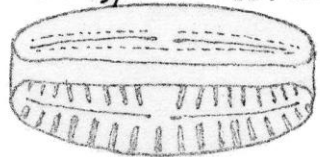


RIF. 1659/B. 18.3 1/2 X

*Amphota  
perpusilla*



RIF1659/B. 10.5.16.



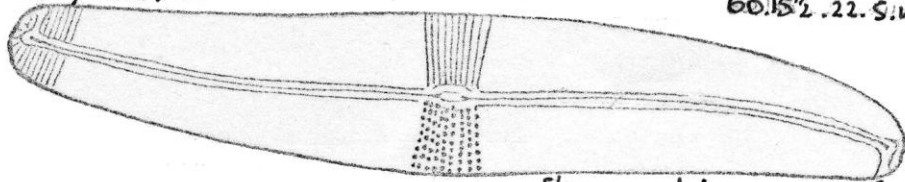
*Cymbella sinuata* Greg

Miscellaneous Plate 10

This seems rather broad @ 15 2µ out.  
otherwise could be *Gyrodinium scalproides* (Rabh) Cleve

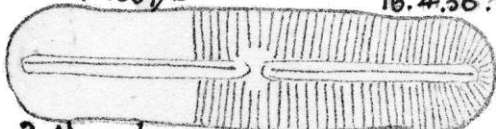
RIF/1659/B.

60.15 1/2 .22. S.W.I.C.



RIF/1659/B

16.4.30?



? *Nav. laevissima* Kutz. H.G.B. say No  
= (*Nav. bacilliformis* Grun)  
= (*Nav. willrothii* (Lagerl.)  
Temp & Prov.

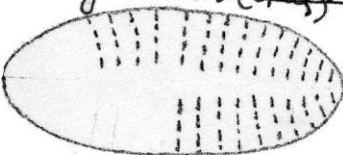
1660/B



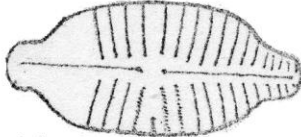
C7

? *Nav. cincta* (Ehrh) Grun 24.5.12.  
or *Nav. digitata* (Grun) A. Schmidt

RIF/1659/B.



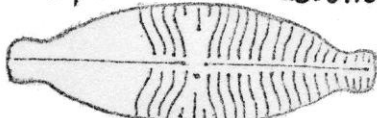
1660/B 23.10.7  
*Coconeis distans* var.  
? - *debesi* Hust.



1660/B 20.8 1/2 9.  
*Nav. anglica* Rabh.

1659/B

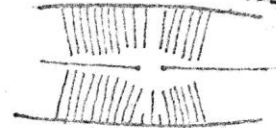
25.8.16.



*N. decussis* (Grun) A.S.A. 398/36  
Stigma often difficult to see  
See also P.V.R. 40/15.  
which is very similar to  
*N. anglica* except in the stigma.

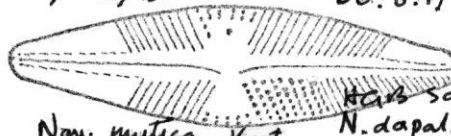
Stoma very fine - round punctae

1659/B



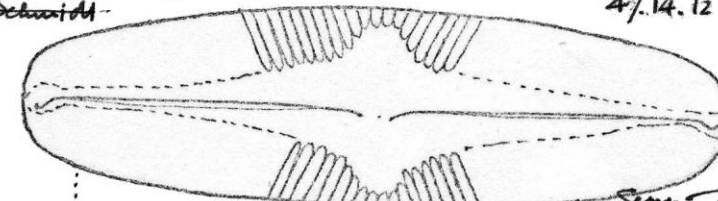
RIF/1659/B.

30.8.17

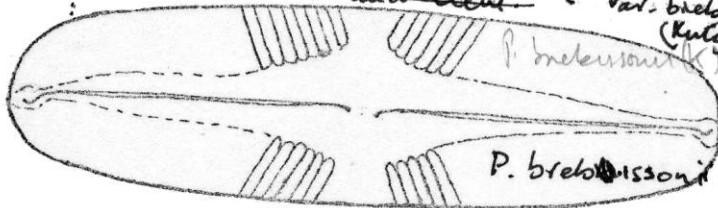


H.G.B. says  
*Nav. mutica* Kutz. *N. dapsiformis*

47.14.12



Frustule *P. kanelica* Cleve  
or (*P. microstauron*  
var. *brebissonii*  
(Kutz) Hust.)  
Rabh.



*P. brebissonii* (Kutz) Rabh.

1659/B.

40.6 1/2 14.



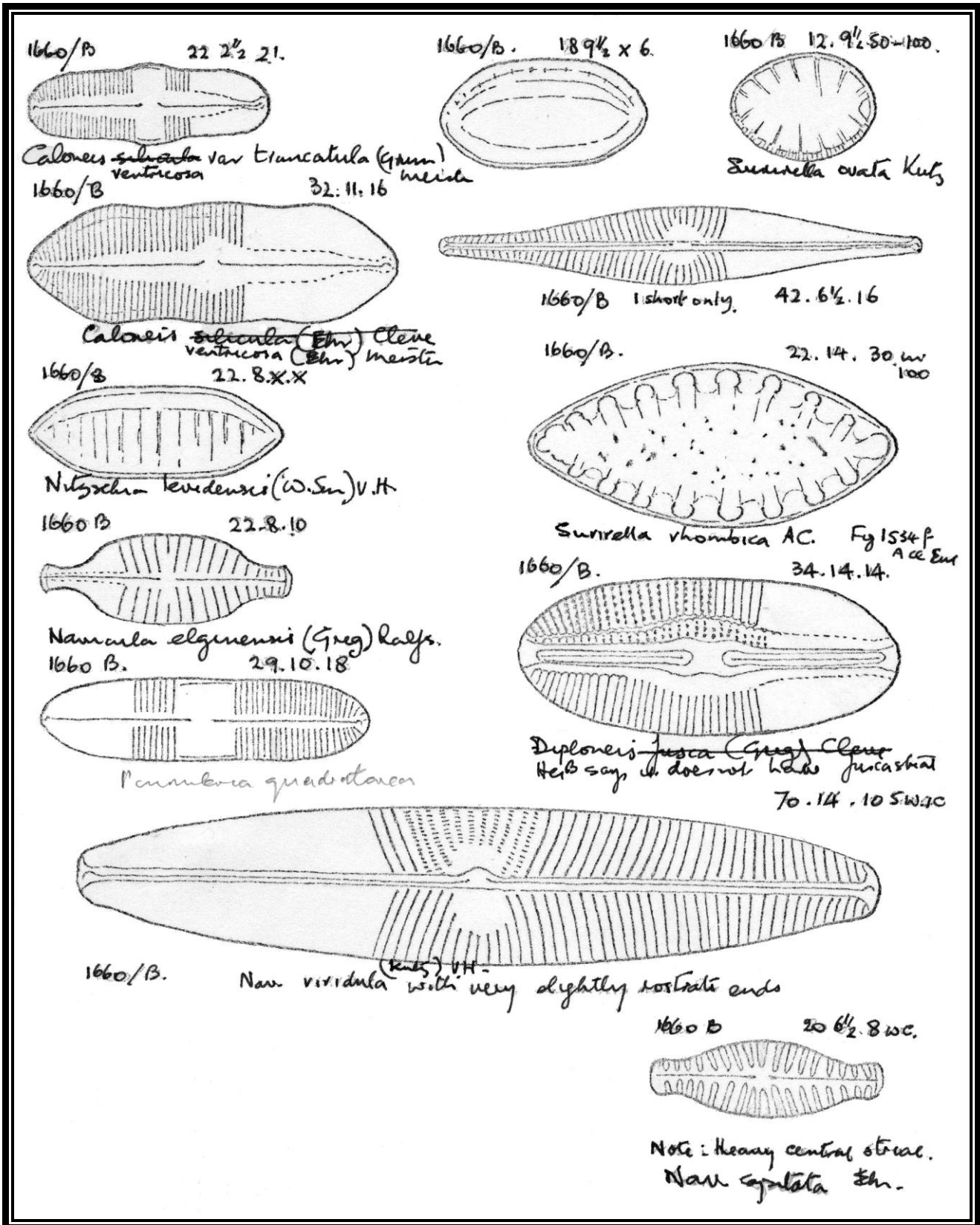
? *Pinnularia stauroptera* var.  
A.C. Eul. 10912. but H.G.B. says striae too high  
He thinks *P. leptostomoides* A.C. ✓

RIF/1659/B.

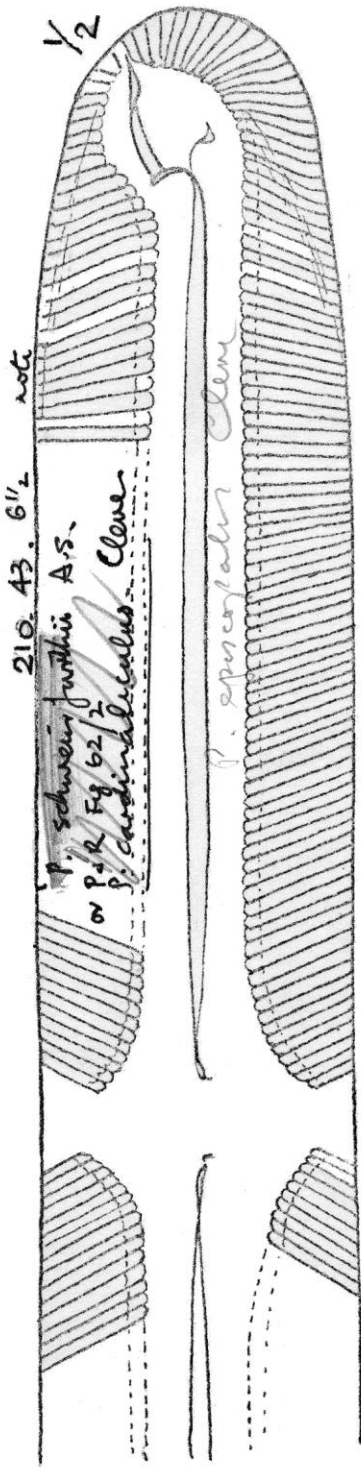
*Micraschna seda* Hantzsch

77.6 1/2 .6-7 in 10µ

O. Müller

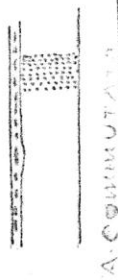


Miscellaneous Plate 12

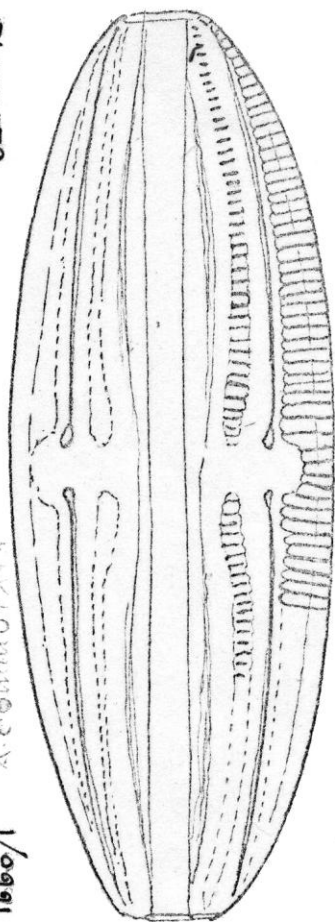


HGB says *Nitzschia sigma* for but  
check on *Nitzschia lorenziana* Cleve.

1660/1



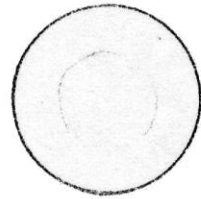
62. 22. 12



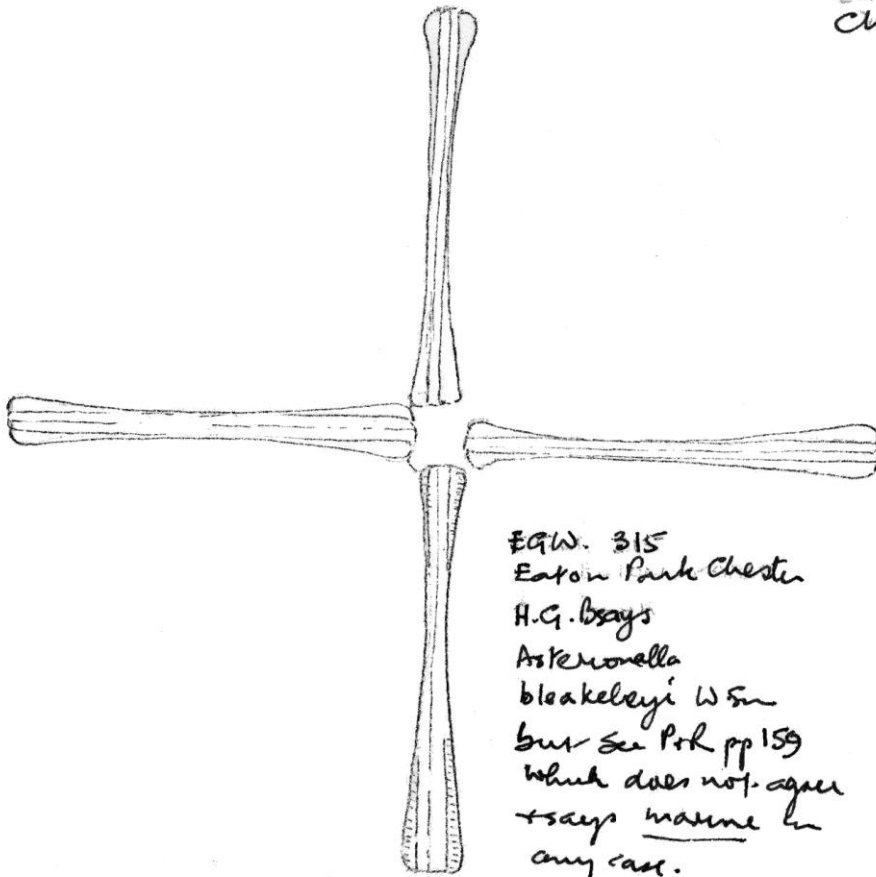
~~Actinanthus~~  
*Amphora ovalis* Kütz  
 HGB skull number 11 is *A. commutata*  
 more like LH628 than LH632



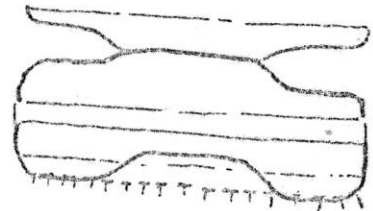
EQ.W. 215  
Eaton Park  
Chester.



? size



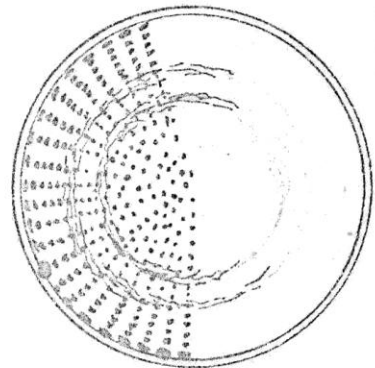
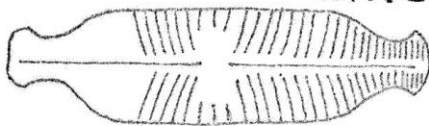
EQ.W. 315  
Eaton Park Chester  
H.G. says  
Asterionella  
bloakeleyi W Sm  
but see Ptk pp 159  
which does not agree  
+ says maxima in  
any case.



check with *A. formosa* Hass when a  
valve view is illustrated.

1344/B A131

26.8.12



? size

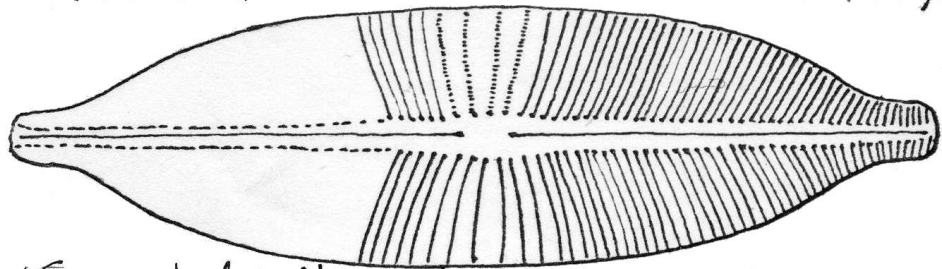
*Nannula dicephala* (Ehr) W Sm  
more parallel sided than normal

Miscellaneous Plate 15

418/B Pan m Q

21/22 C M W

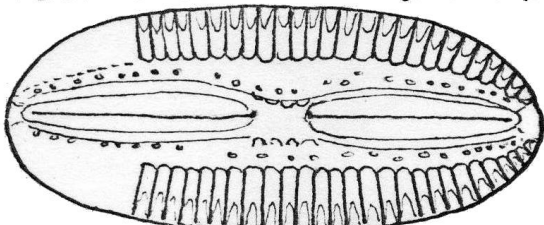
58.16. 6/15



*Su. humilis* *Eximianus* *trifidus* *N. accurata* Puncta not as for *Acrop* & End of stem larger puncta.

Re 350/B RWP

35.14.9.

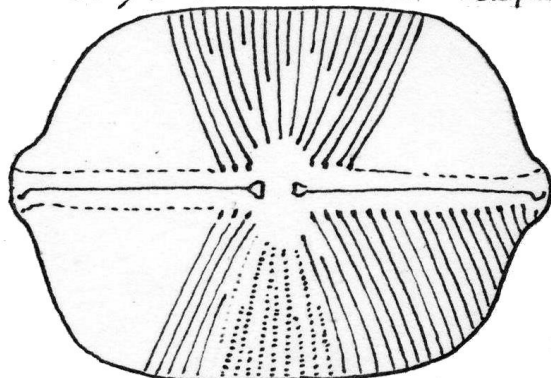


7 Dip. *coffae* *perpus* or a small Dip. *eudoxia*.

Re 380/B RWB

*Humerosa*

352912

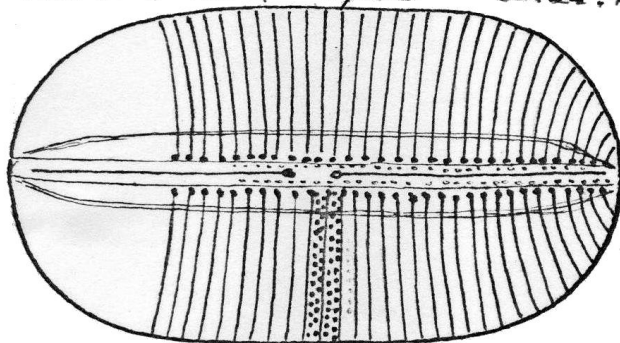


a small *N. humerosa*

Re 350/B RWB

24/6C

38.22.9.



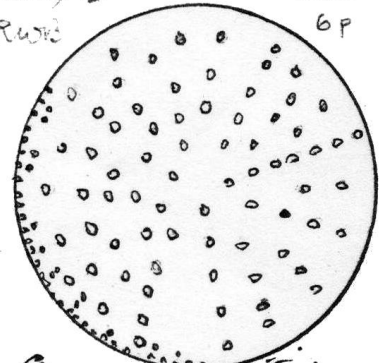
Very narrow axial ridge & Punctate!  
Not *littoralis*

Re 380/B

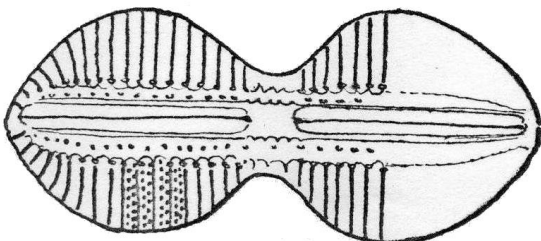
RWB

24 D

6 P



*Coscinodiscus nitida*



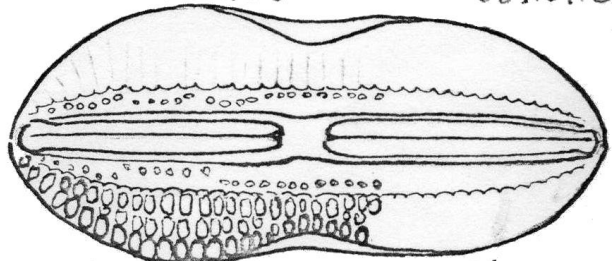
Re 380/B RWB

24/6C

35.15.11

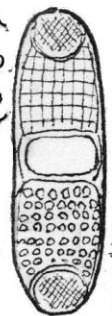
Re 380/B RWB

38.16.10

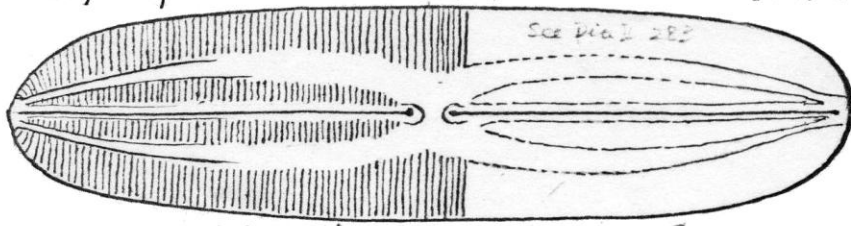


Dip. *bombus* or *didyma*

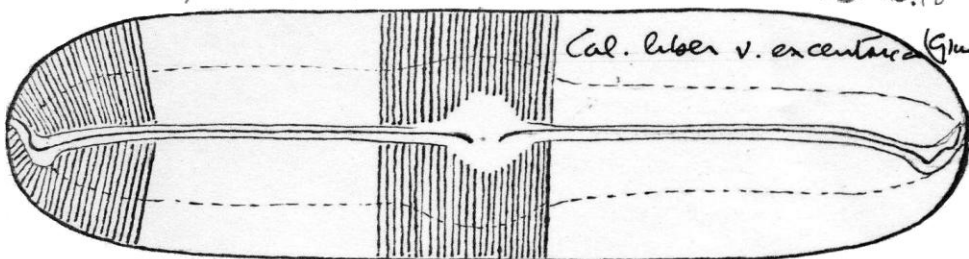
2069  
5257 B *Cyrtus longicaud*



See West-Beaufort  
528A/B *Cyrtus N. litoricola* Hustw. 55.14.17

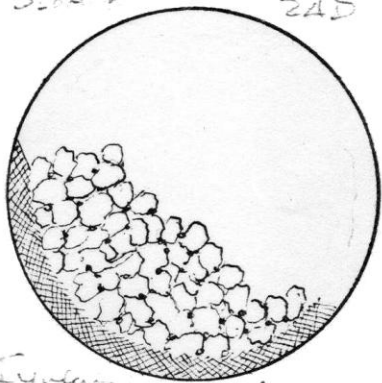


See Plate 282  
*Cyrtus lanceol.* 62.16.18  
setae lines + raphe ridge Sussman at ends.



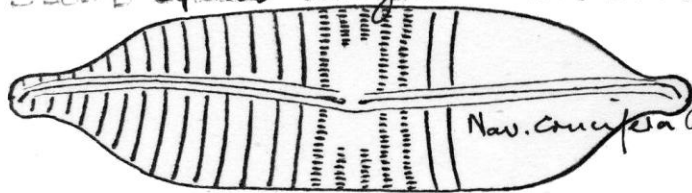
Cal. liber v. excentrica (Grun) Cl

528A/B 24D



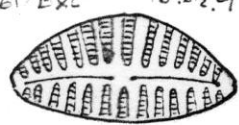
*Cyrtus lanceol.*

528A/B *Cyrtus lanceol* 50.12.7 1/2

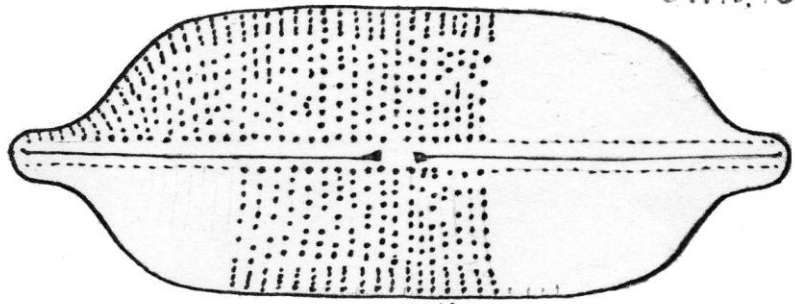


Nav. crucifera Grun

See P 357 Dia II  
1661 BXC 15.6 1/2 9  
*Cyrtella thesonii* Chol.



528A/B *Cyrtus lanceol* 51.18.10

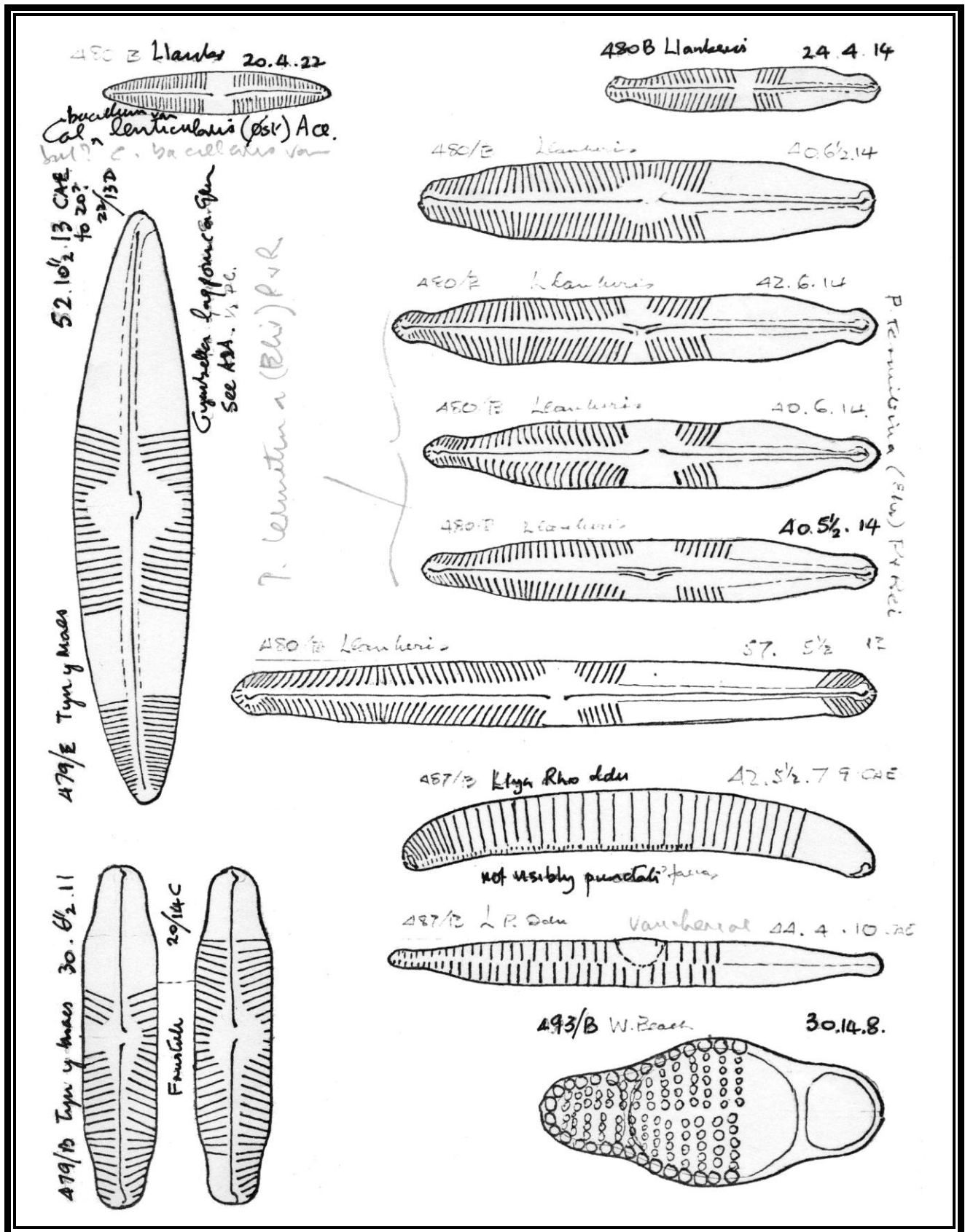


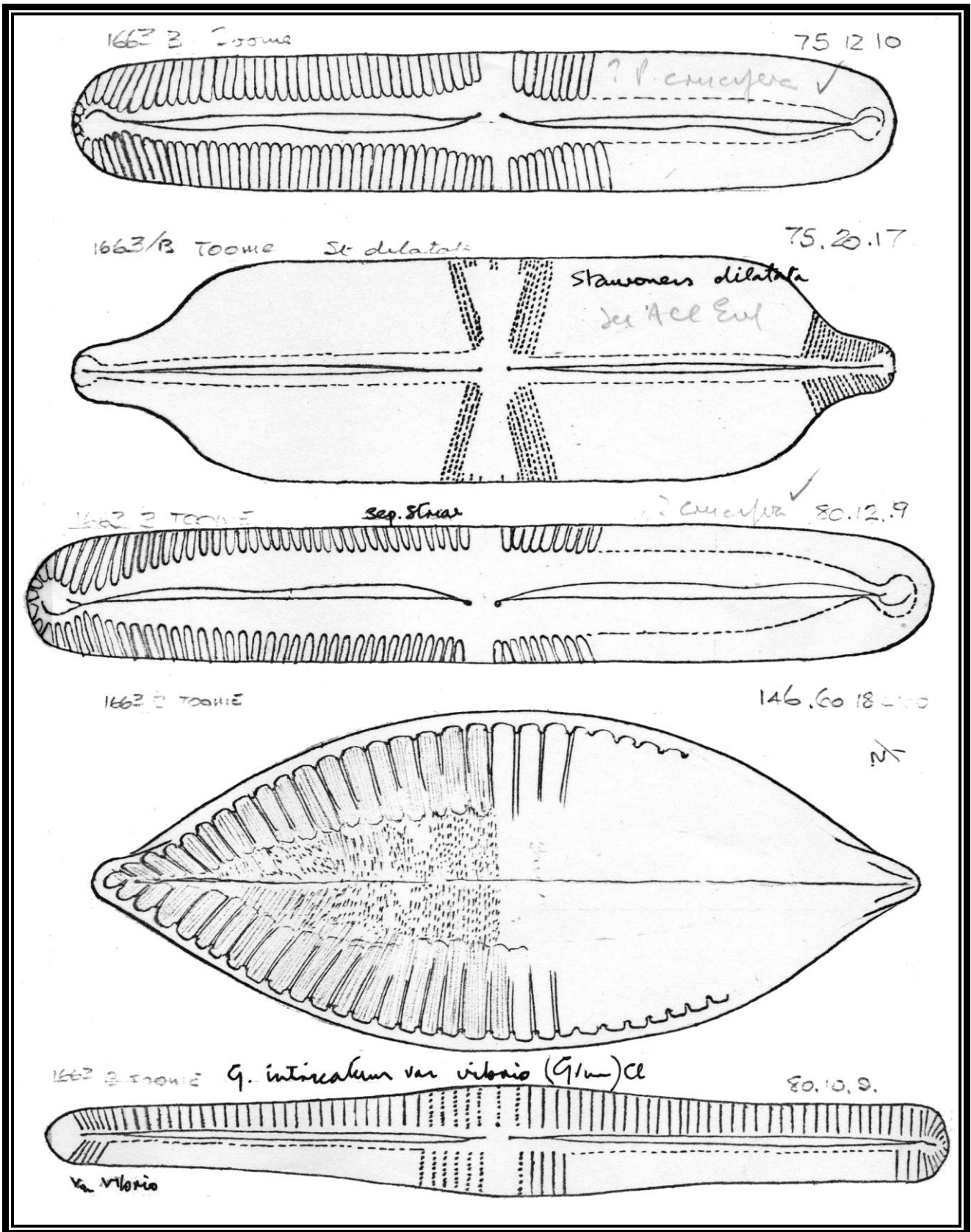
N. MENDICIANA Nav. mendiciana

1661 BXC 8.2 1/2 18  
DURNET HEAD  
3/2/266 ?

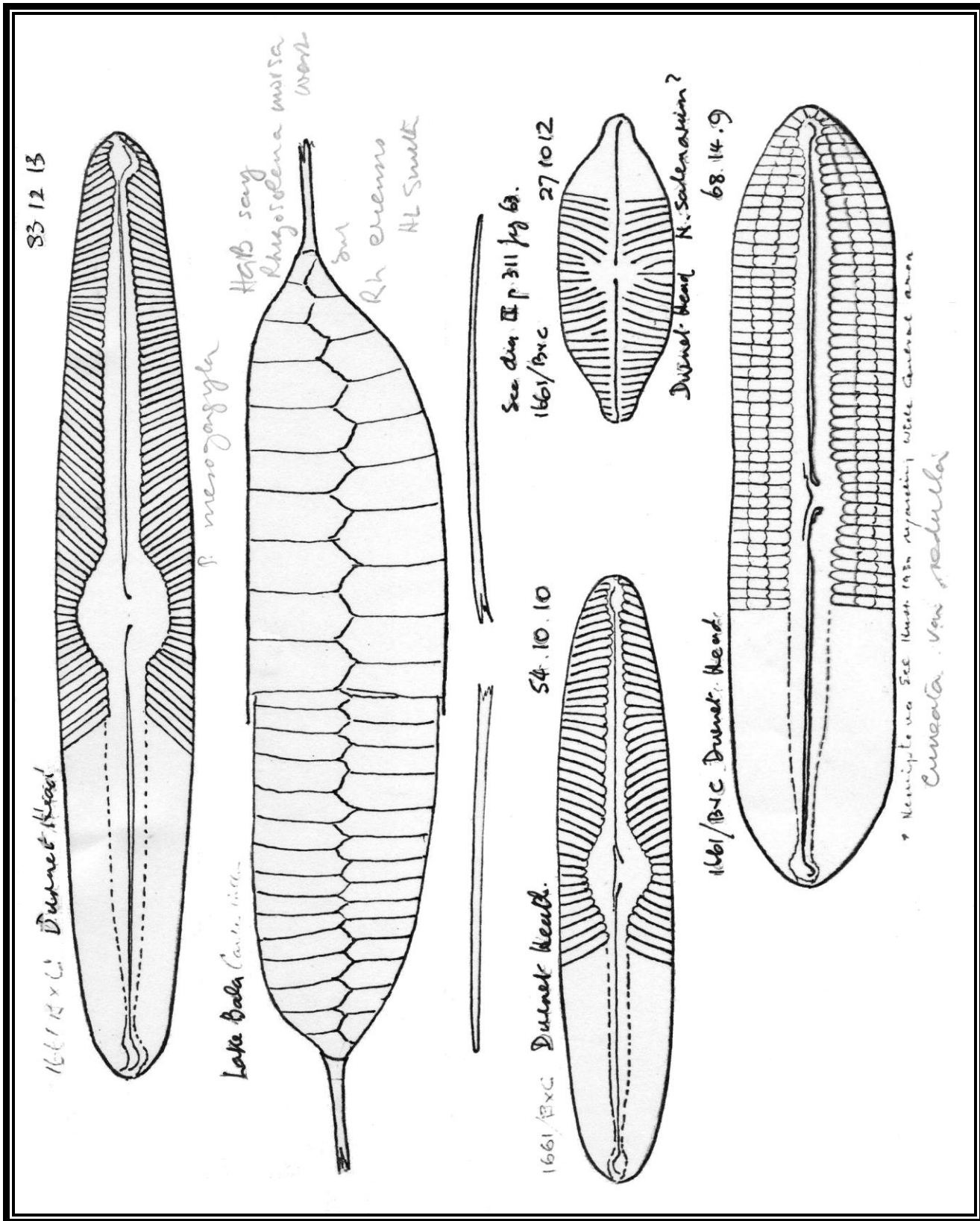


Miscellaneous Plate 17





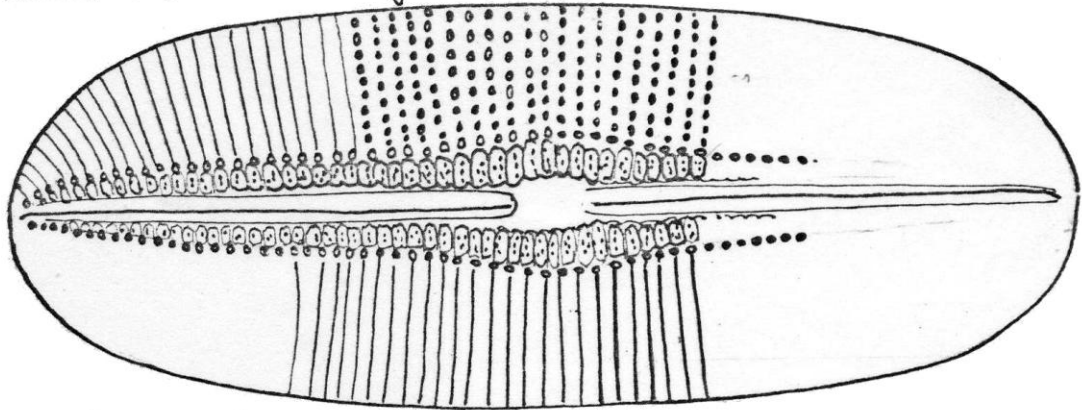
Miscellaneous Plate 19



Re 370 Re 12 2.

*fusca* cycle

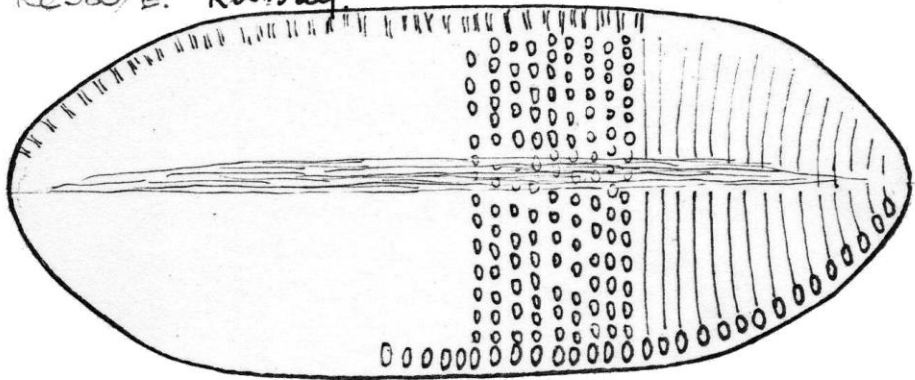
68.268.



? faint overlapping sec. structure

Re 380/B. RW Bay.

59.23.7. ?



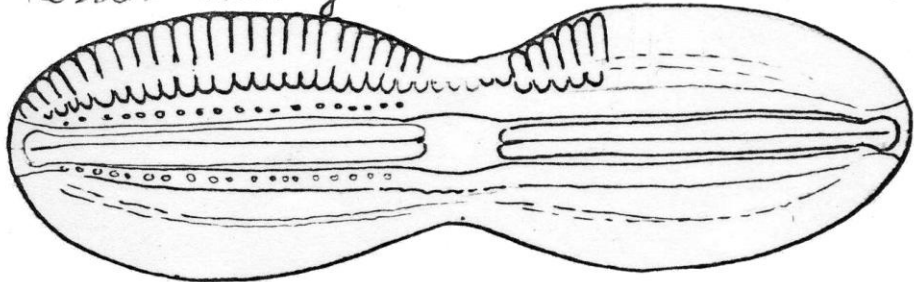
The Coto 502/3



14 6. 12-16 ends

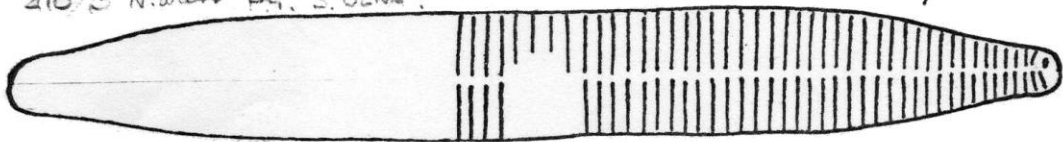
Re 380/B RW Bay

58 9/10

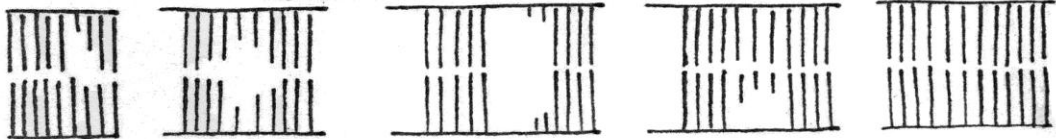


410/3 N. W. W. PG. S. ULNA ?

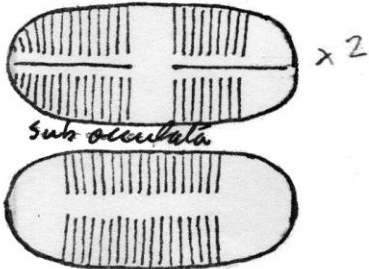
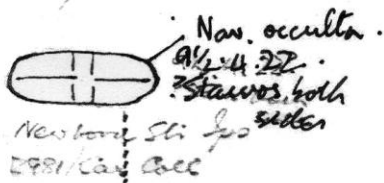
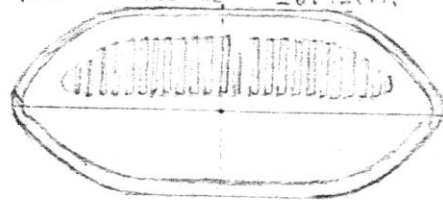
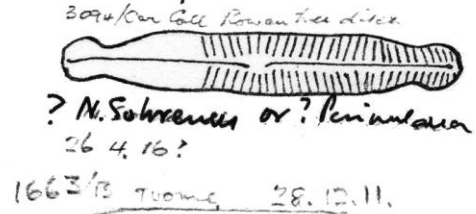
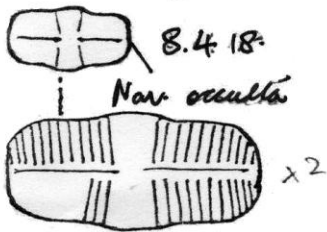
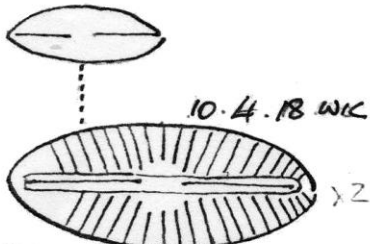
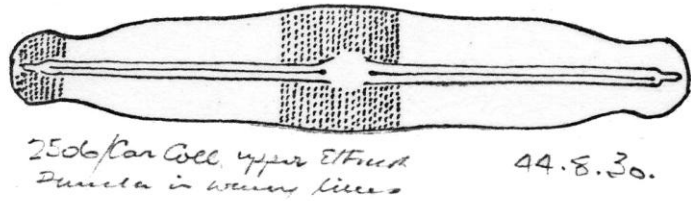
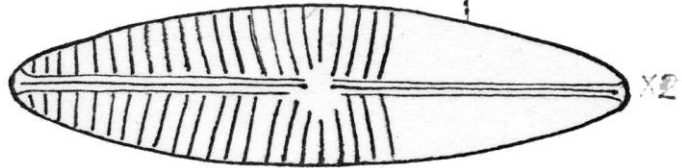
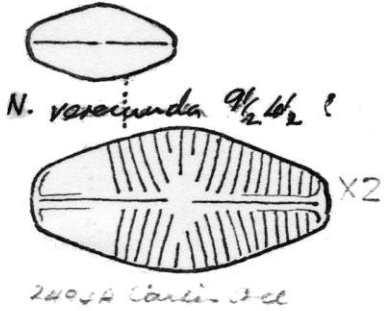
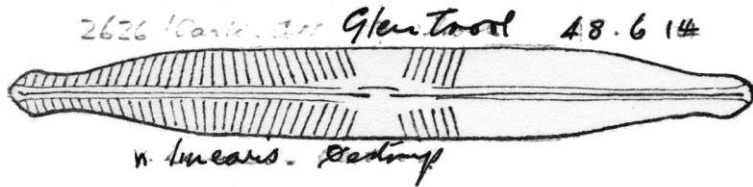
67.8.10.



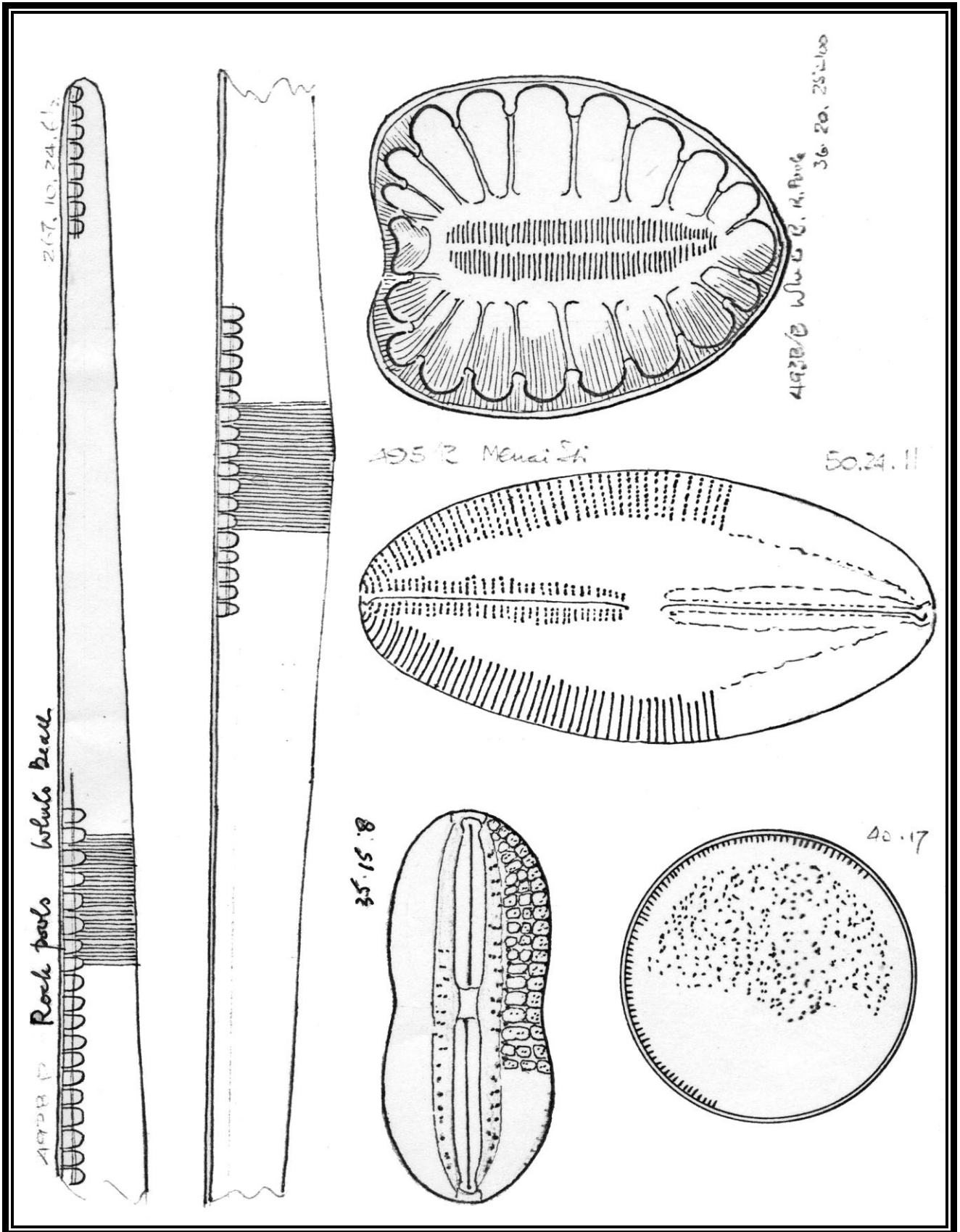
Genetic Variations.



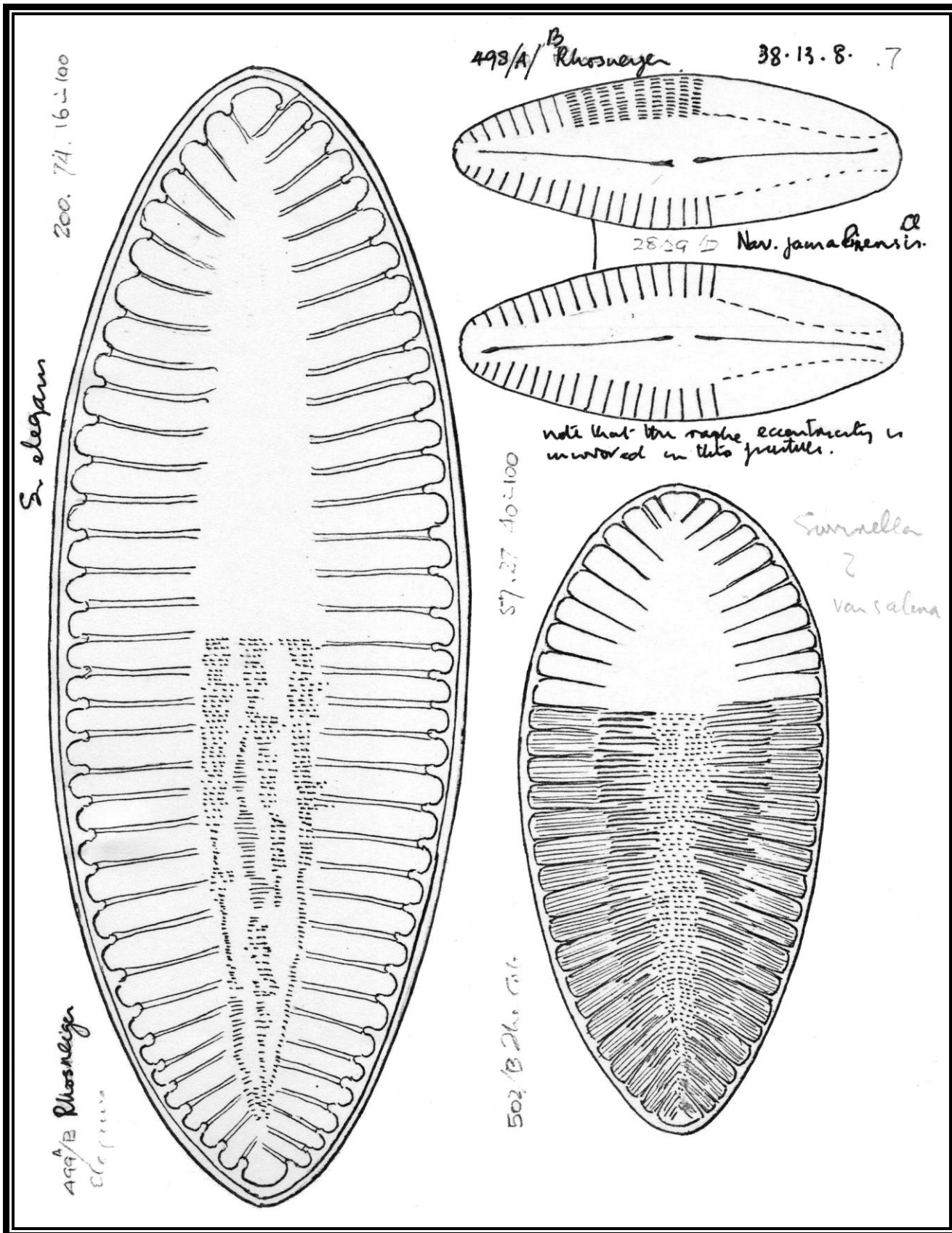
Miscellaneous Plate 21

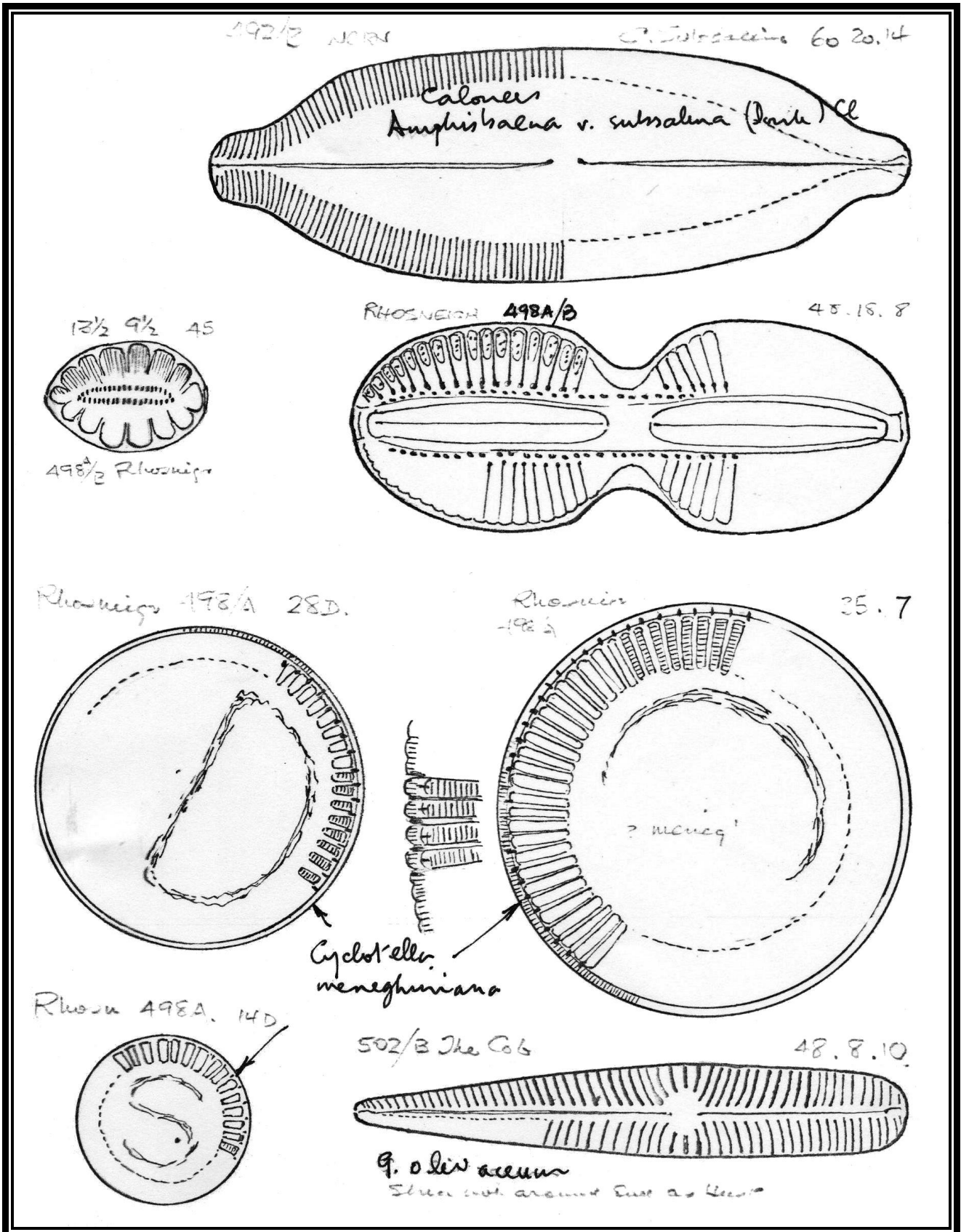




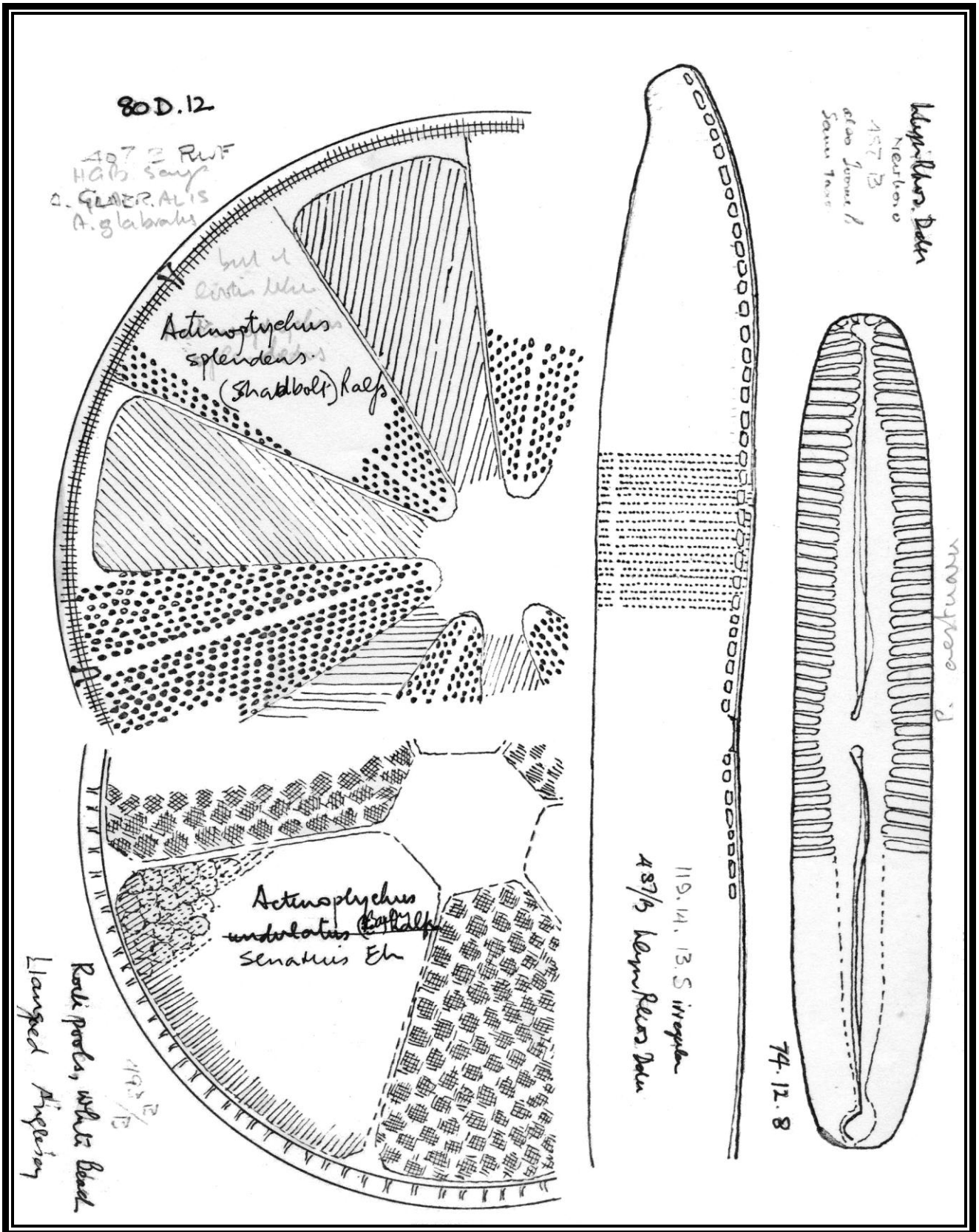


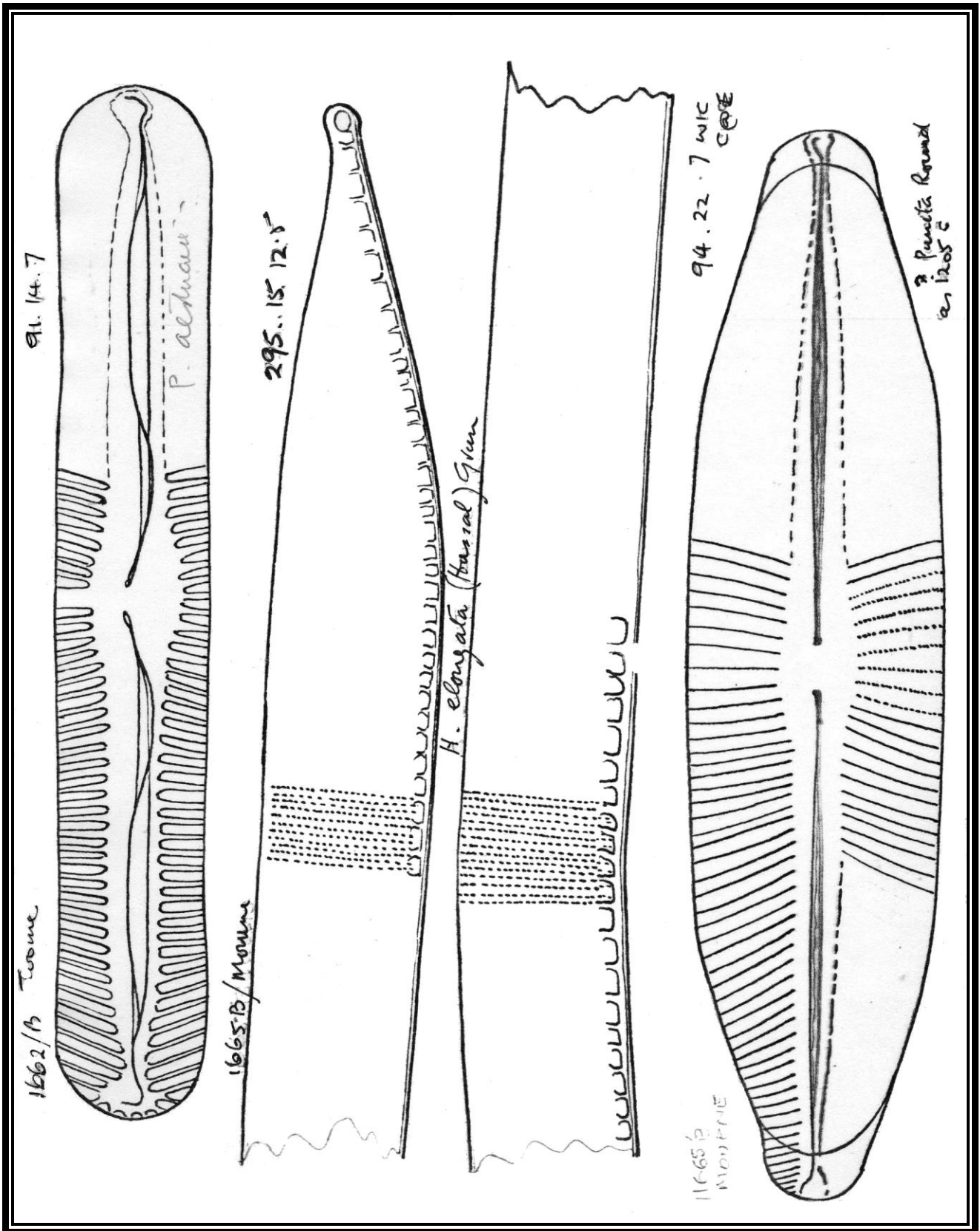
Miscellaneous Plate 23





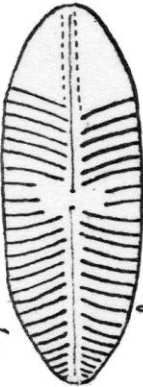
Miscellaneous Plate 25



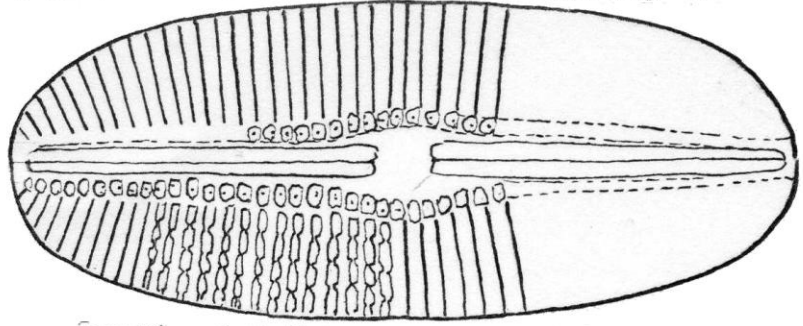


Miscellaneous Plate 27

1665/B MOURNE 24.8 1/2 || WIDE EACH  
fine spines  
? Monoculture form



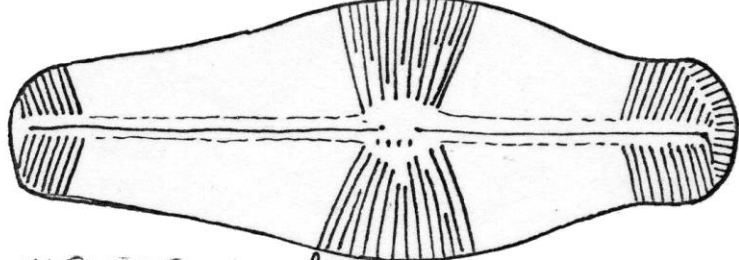
1665 B MOURNE 50.20 8



*Penula det S. Komar*

1665 B D. Form outline Var 94.35..8

x 1/2



MOURNE. not frequent.

1665 B MOURNE

*P. stauoptera*

67. 8. 9.



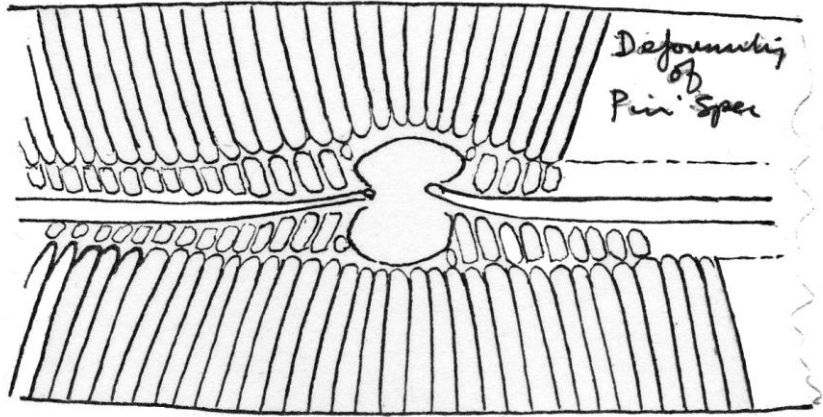
*P. aculeiceps*?  
hemispherical  
HEL  
P. type

End filia not as close as *Los Braunii*

1665/B TOOME  
Hypocryptothrix are *Synedra*  
*Synedra berolinensis*  
*Synedra berolinensis* hemispherical  
but they look like *S. varicostata*

1665 B MOURNE

200. 27. 6

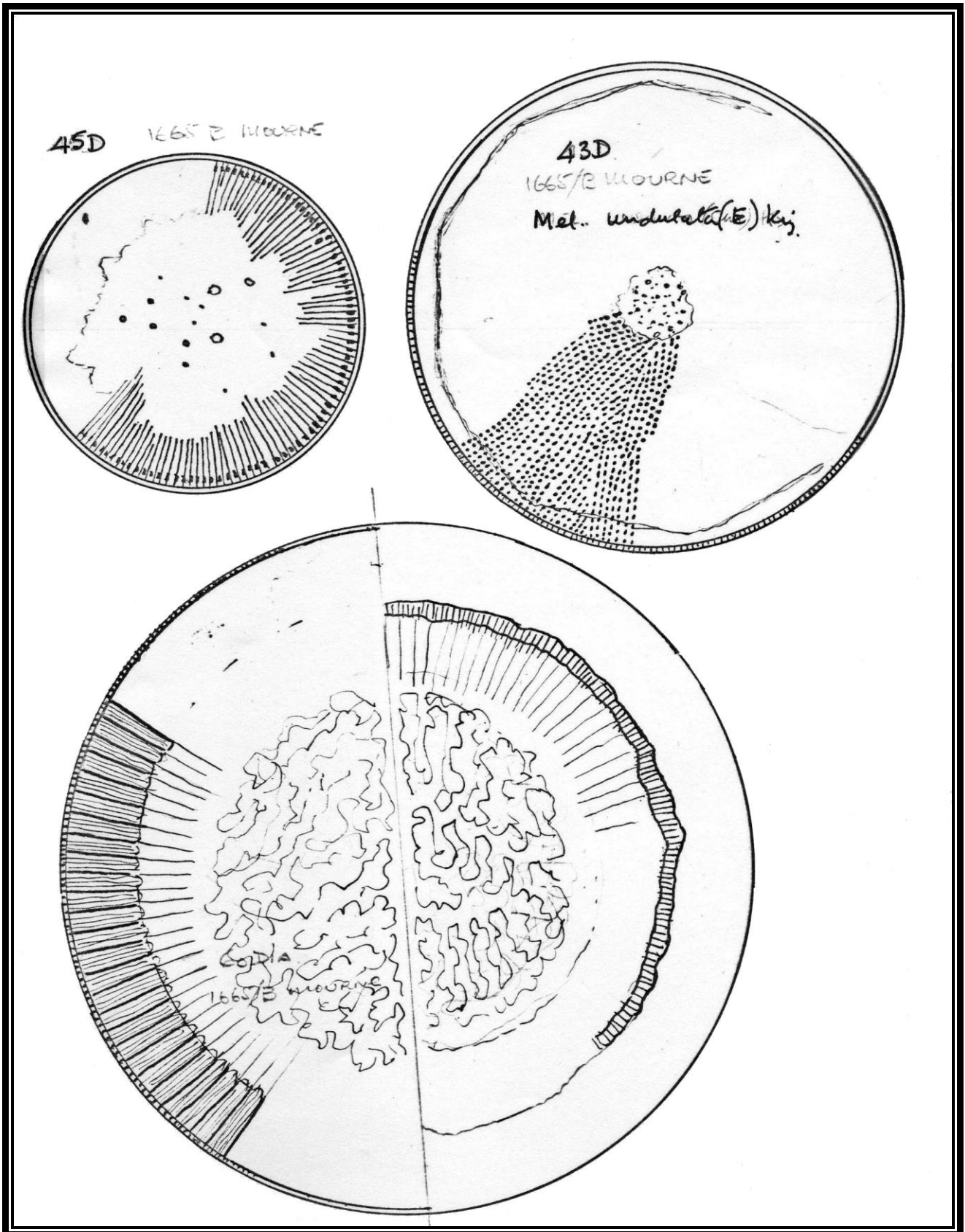


Deformation of Pen. Spec

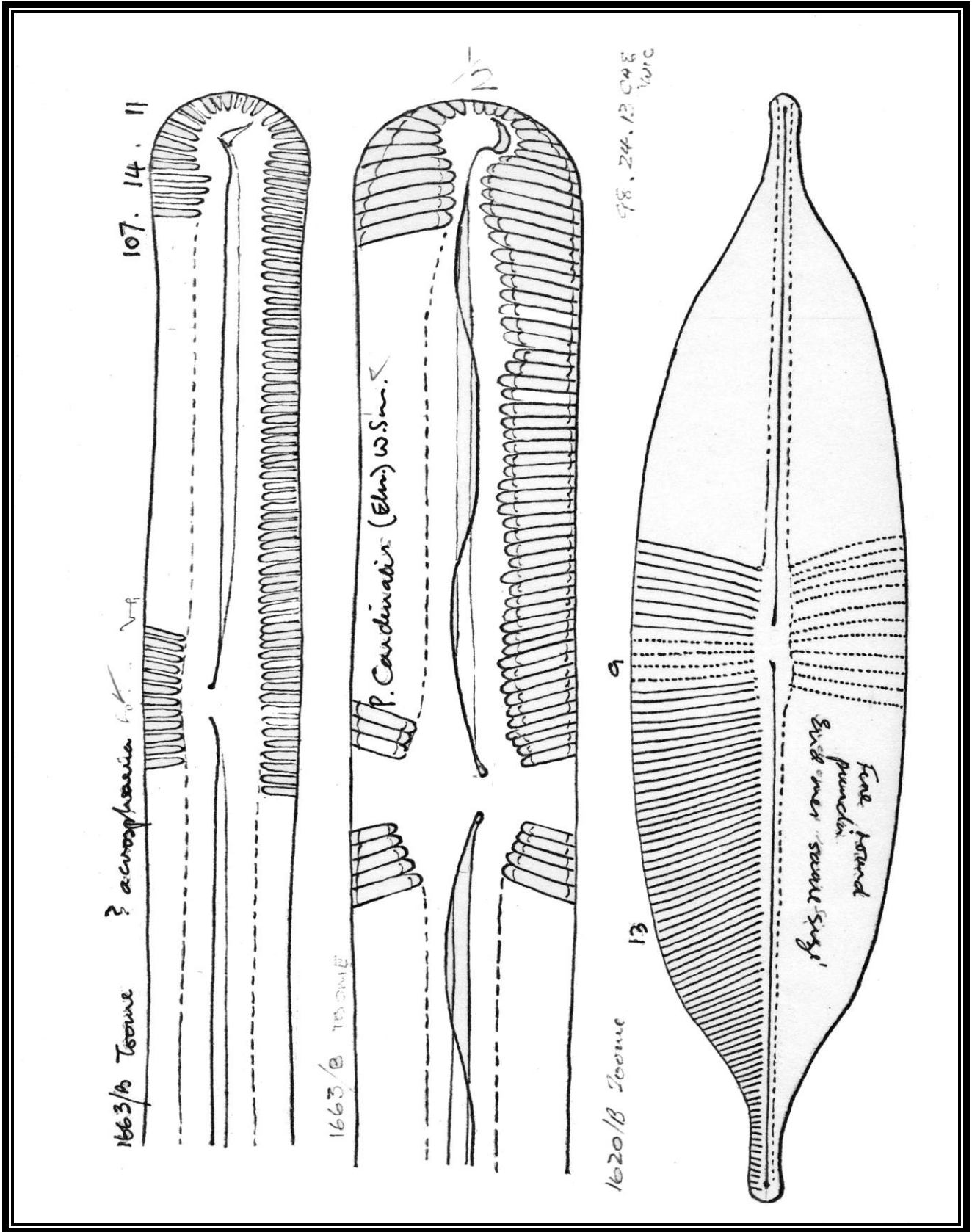
? *Synedra* 18.4 1/2 9



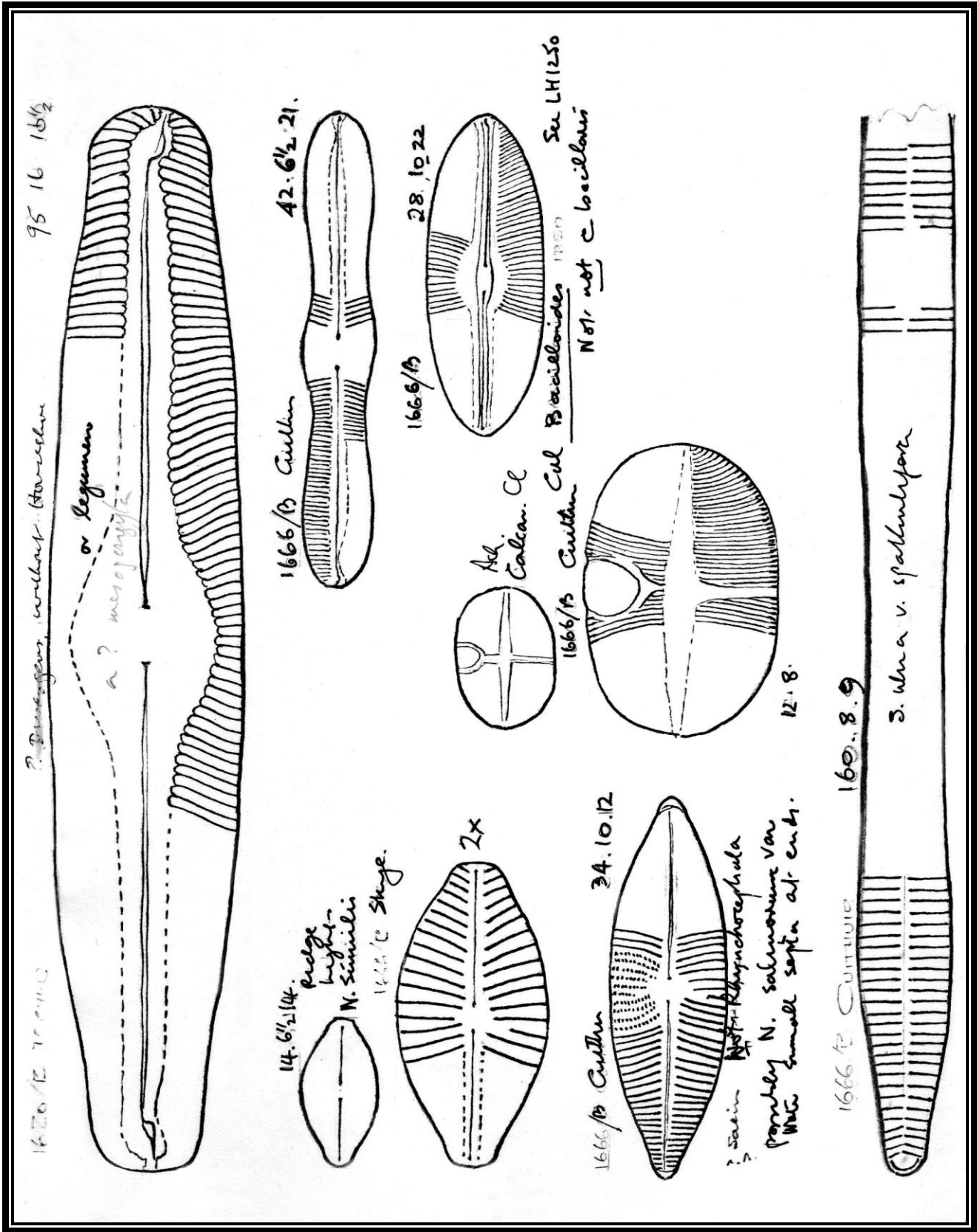
*P. major* v. *scabrosa* Acl



Miscellaneous Plate 29

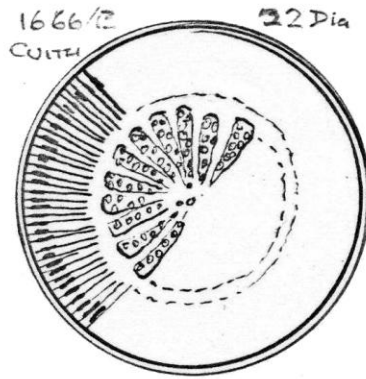
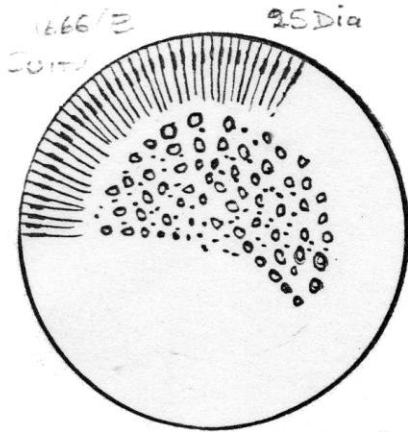
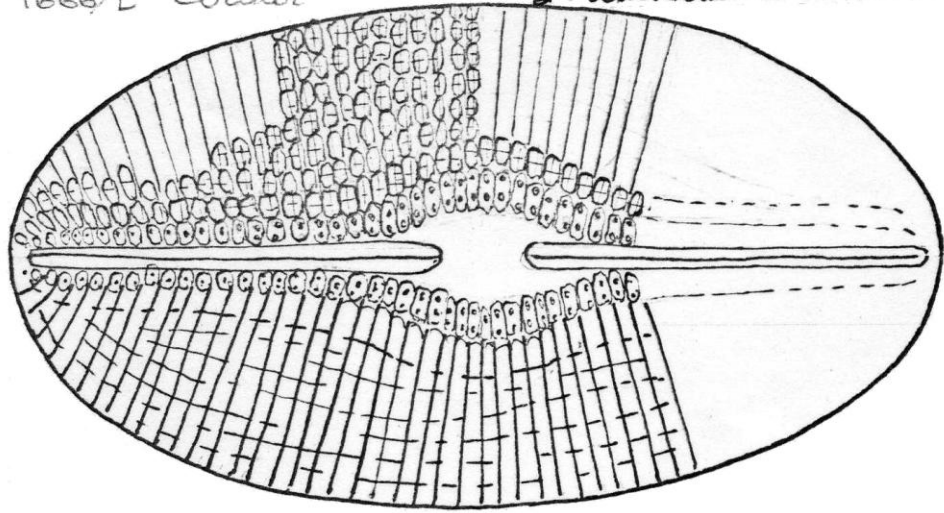
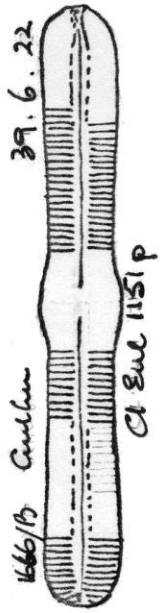






Miscellaneous Plate 31

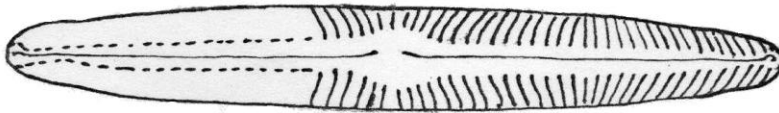
1666/E Cuthis ? *Diptomes elliptica* or *D. dimidiata* 60.76.7



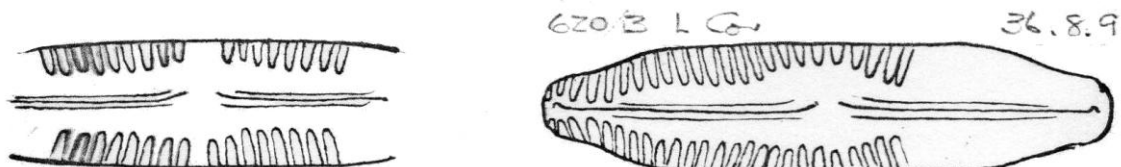
432/B R. Glaslyn Beach -micro 64.93.14



Central Groove barely visible just above Sema



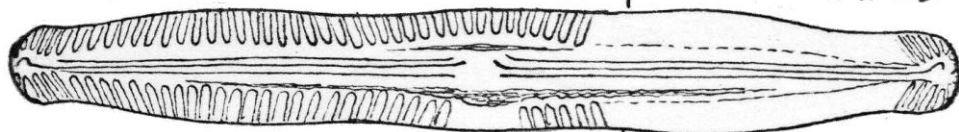
432/B R. Glaslyn Beach -micro + same 50.62.12 1/2  
ends very slight rostrate



620/B L COR

620/B L COR

36.8.9

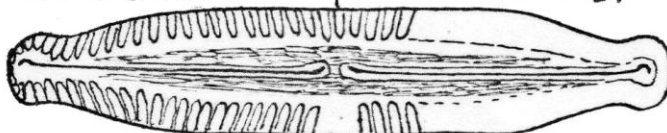


64.8.9

4. *Pennularia nodosa*  
Ehr

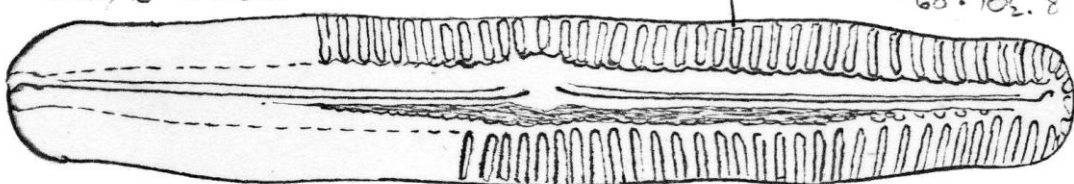
620/B L COR

42.8.9.

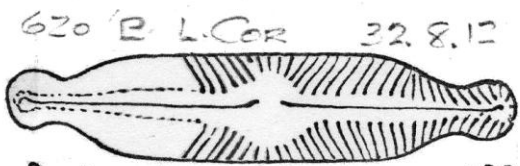


620/B L COR.

68.10.8

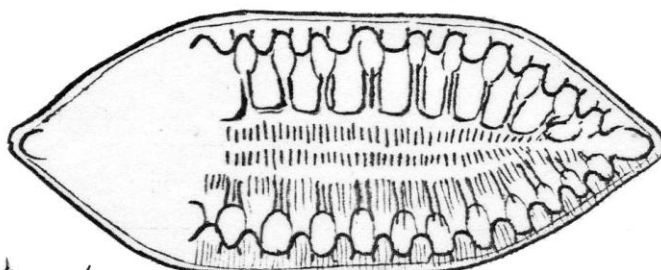


*Pennularia nodosa*

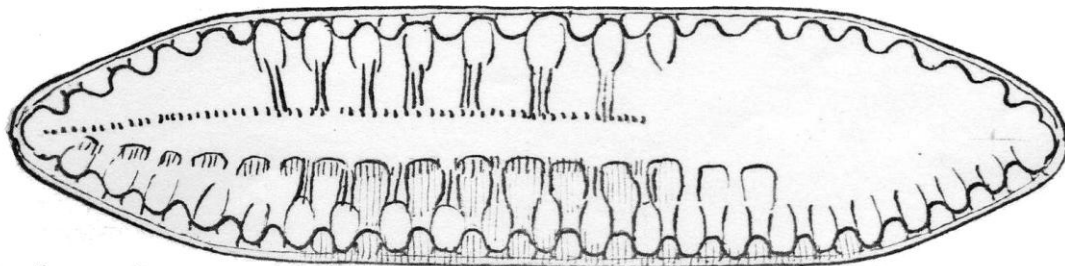


620/B L COR 32.8.12

*P. interrupta* vs *miniatissima* ???



620/B Corol. S. ? *birostrata* 42.16.30  
m10

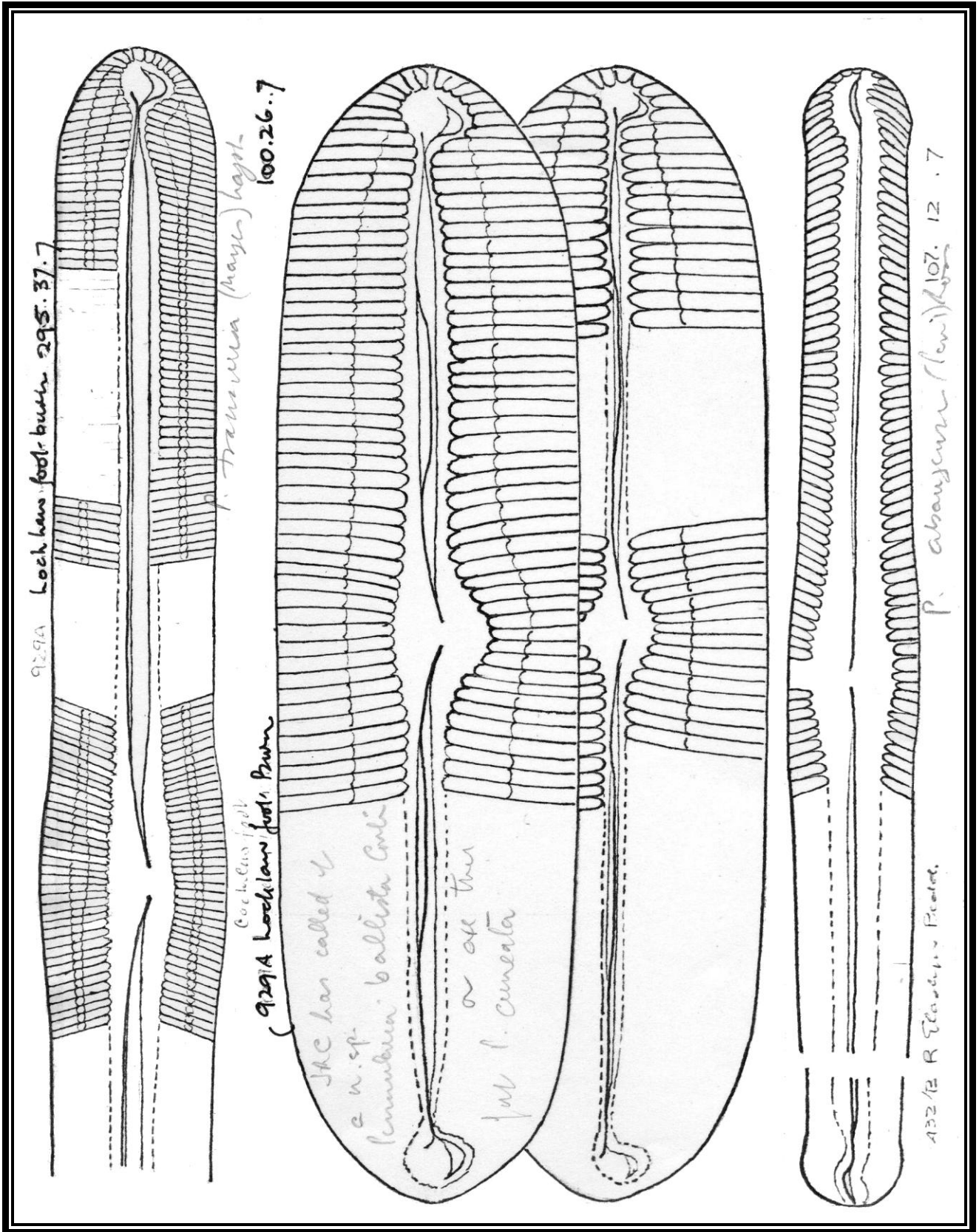


67.16.30 m100.

*S. birostrata*

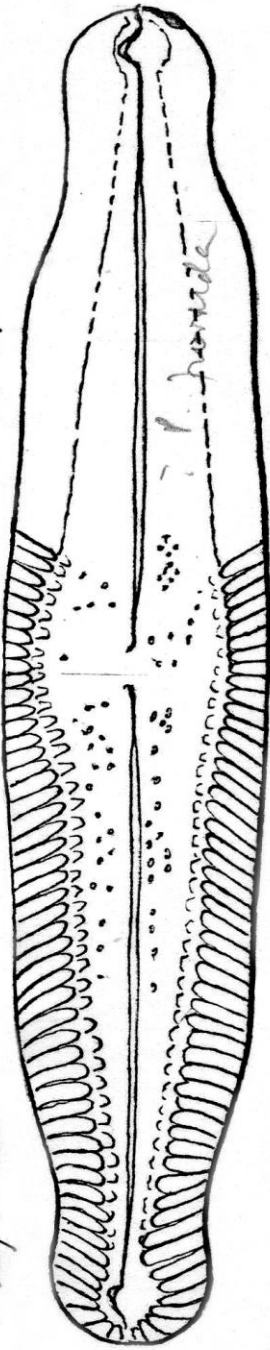
620/B Corol.

Miscellaneous Plate 33



670/B COROK.

86.17.9



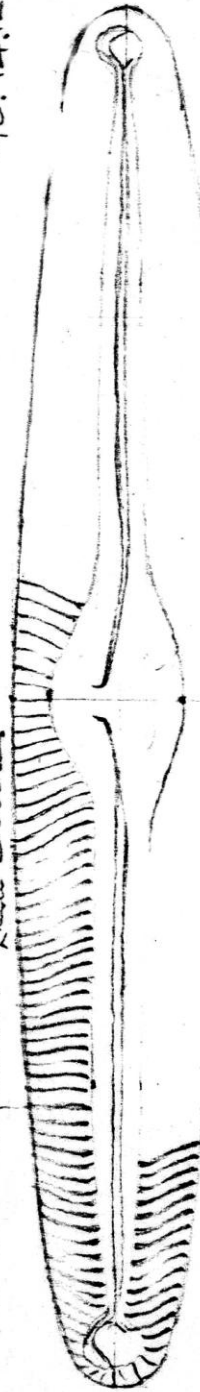
617/B Lynne Dehman

66.8.12



617/B STOMATOPHORA! Lyn Dehman

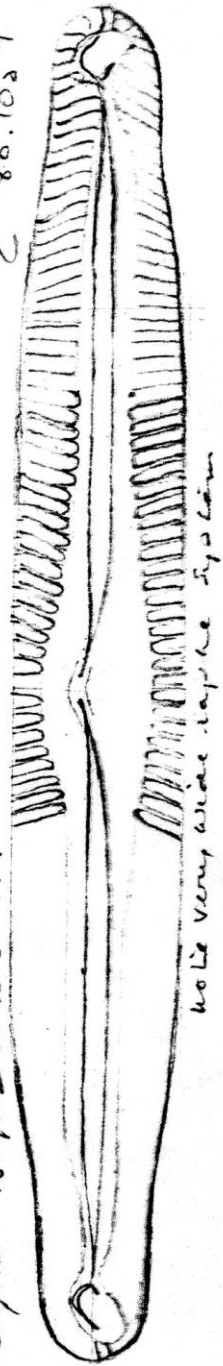
90.14.12



Ventral

617/B Lyn Dehman P.?

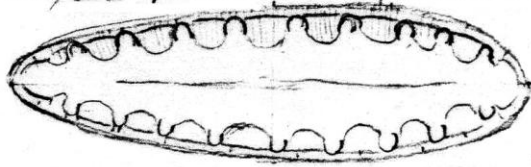
2 88.10.9



No. 12 Very close to Lyn Dehman

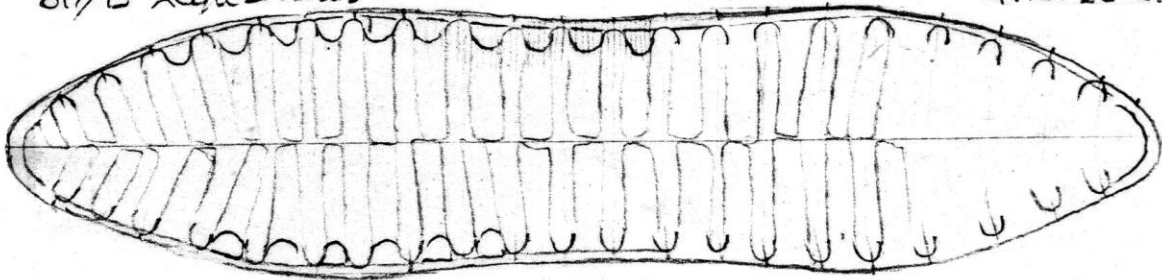
Miscellaneous Plate 35

617/B *L. Dines* 34.10. 20 < 100



617/B *L. Dines*

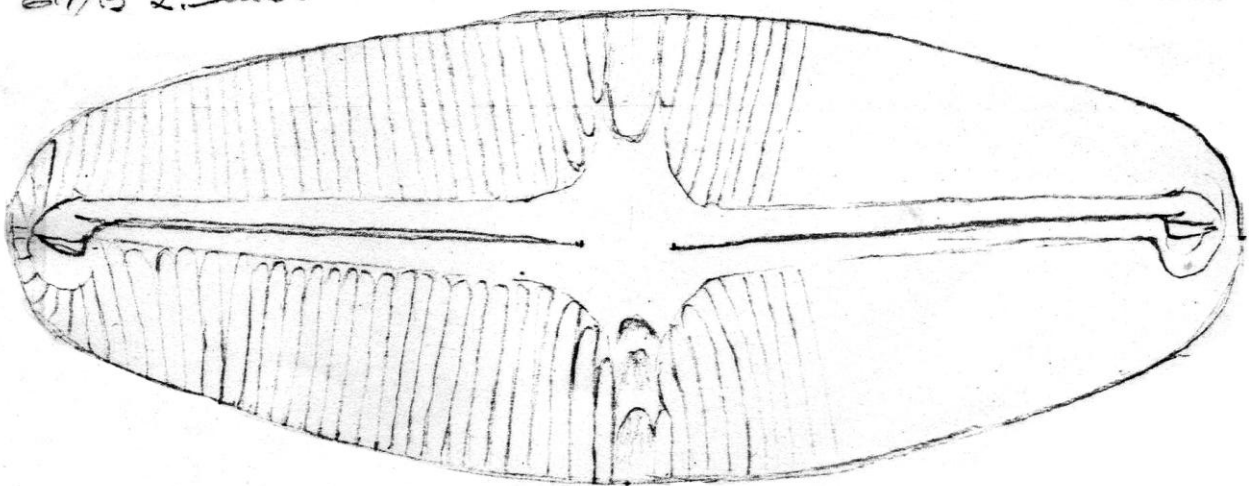
74.18. 25 < 100



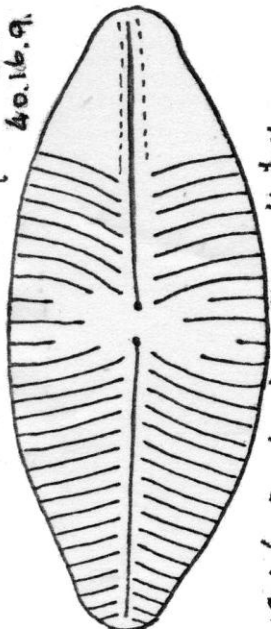
*Dela v. elliptica*

617/B *L. Dines*

80.30. 8



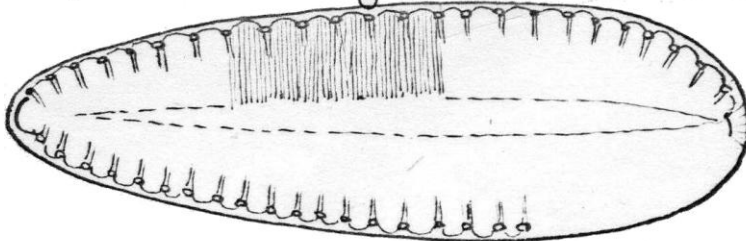
Nov. Gasterium Fucus punctatus and limble  
40.16.9.



1526/B Buckenham Ferry N. Jalk

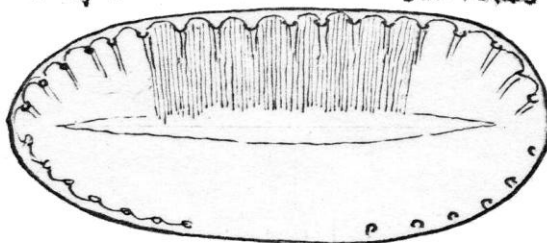
1029/B Lenses - Beddingham.

48.16.45 in 100



1529/B Lenses

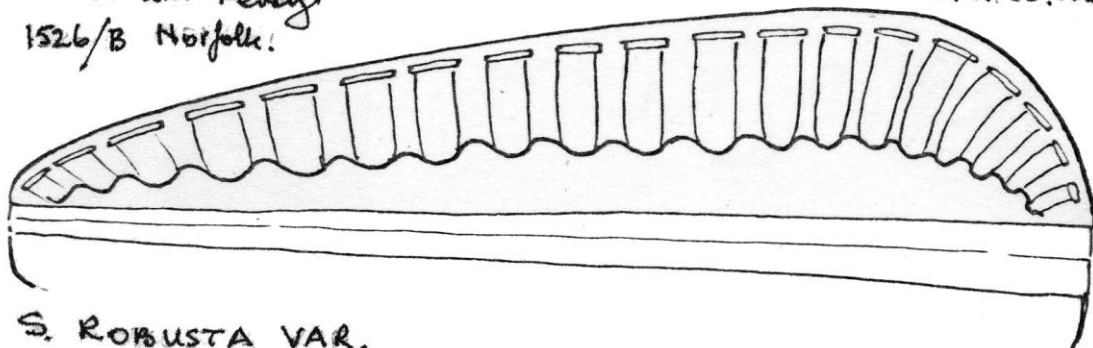
35.16.45



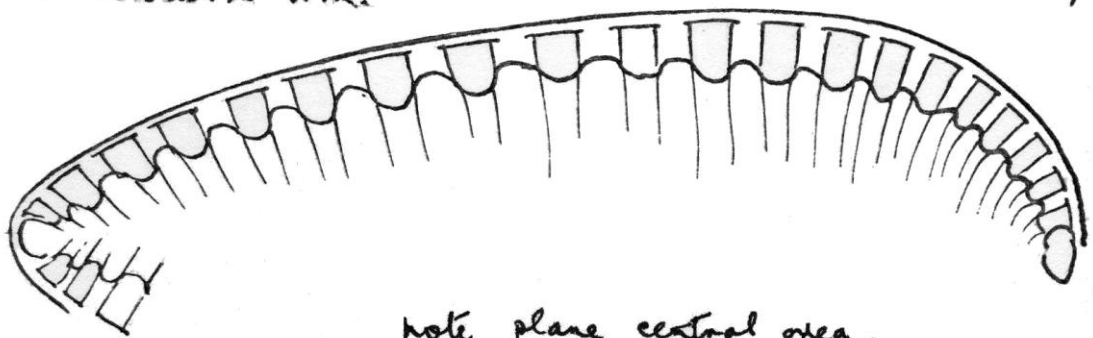
*Saxidilla salina.*

Buckenham Ferry  
1526/B Norfolk.

140. 30. 15 in 100

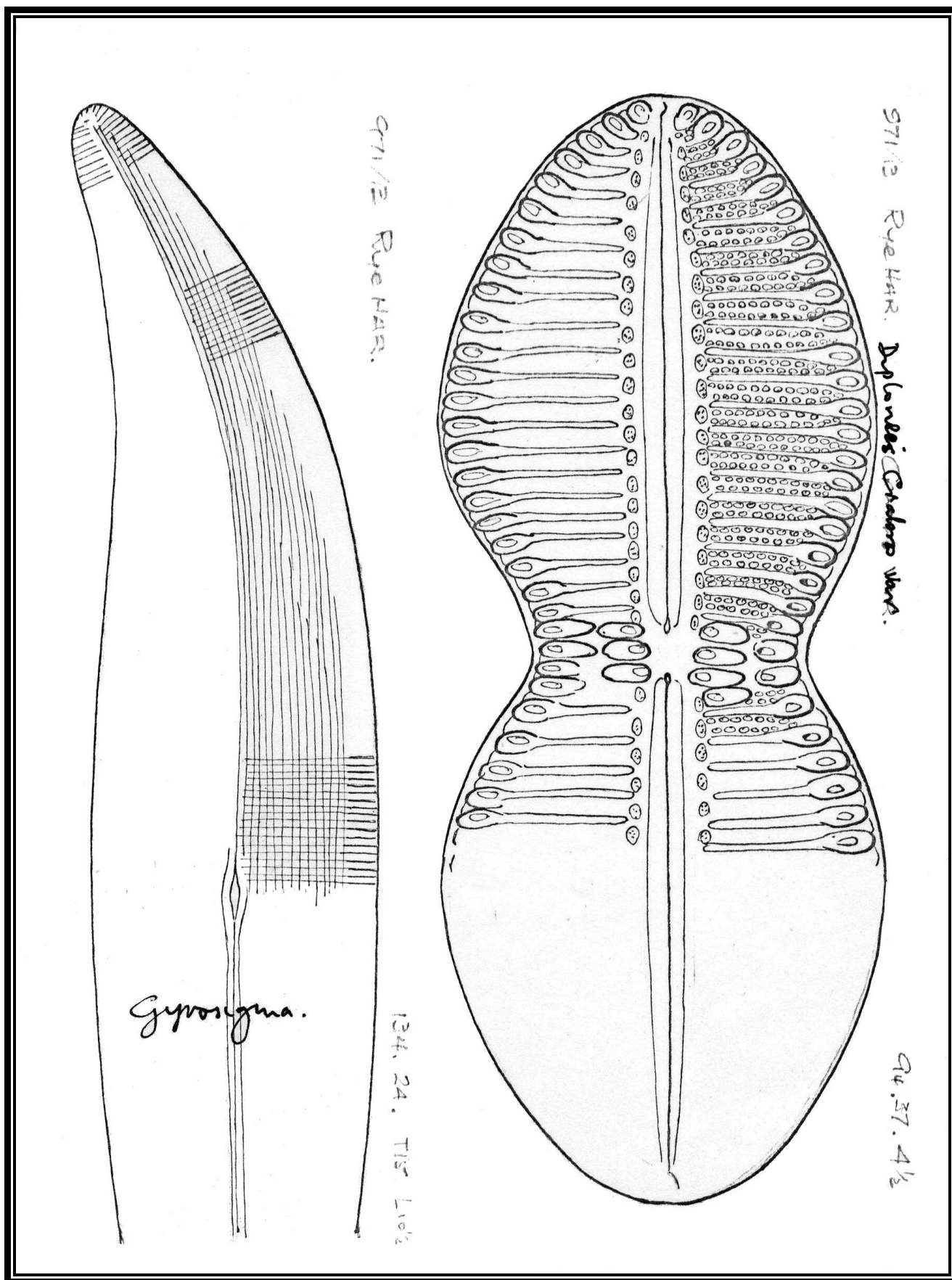


*S. ROBUSTA* VAR.

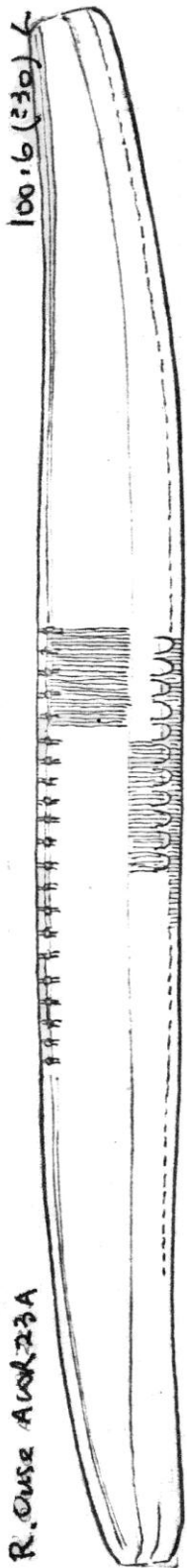


note plane central area.

Miscellaneous Plate 37







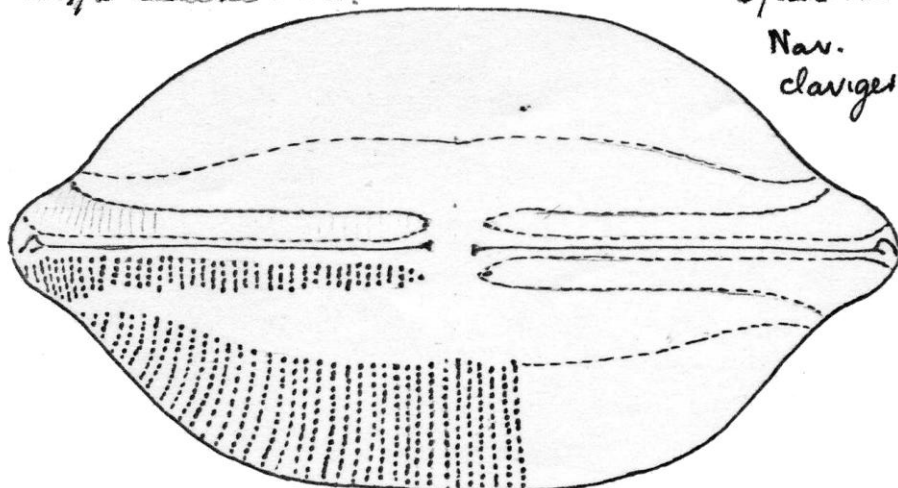
R. Ouse AWR23A

seems to small for *Nitzschia signoides*

1517/B Comber Sx.

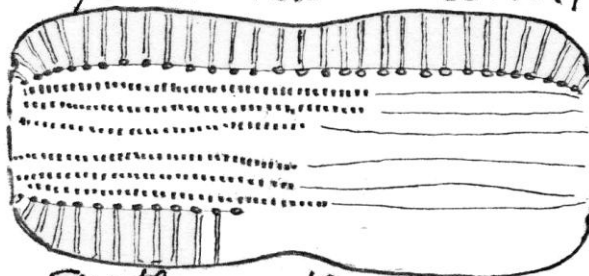
57.30.12

*Nav. clavata*



1517/B Comber Sx

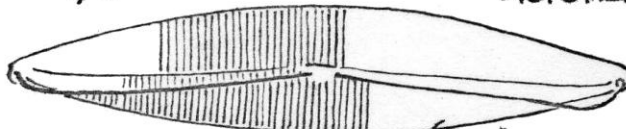
39.16.7



Girdle of *P. ambigua*

1517/B Comber Sx.

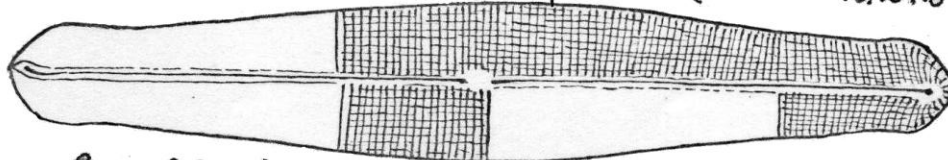
40.8.20



*Tropidoneis gibberula* (Grun) Cl.

R. Ouse Sx AWR23A? Nav.

*scapularum* (Bril. 40.10.18)

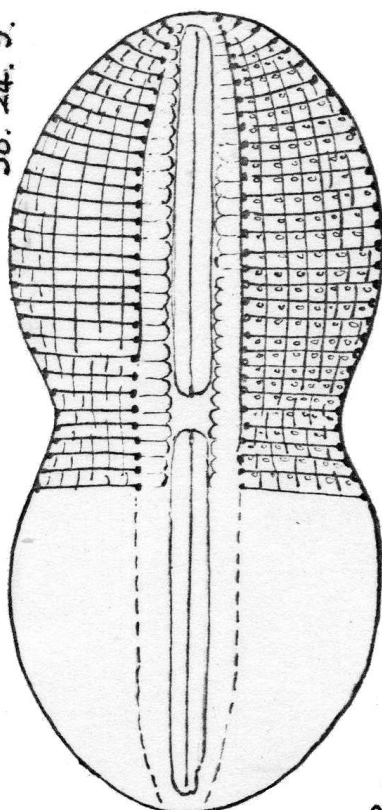


Rows of round punctures in wavy lines.

Possibly *N. scapularum* v. *belgica* but?

Miscellaneous Plate 39

50. 24. 9.



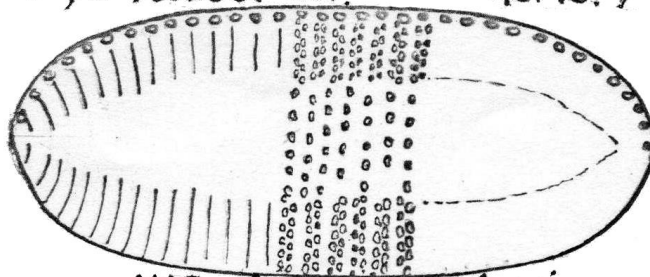
1131/B Tenby.

? *D. chettonensis*

1132/B CALDEY Is.

422/B Penard Est.

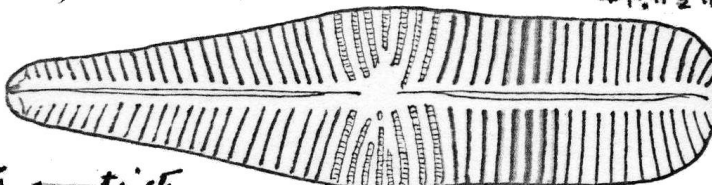
40. 16. 7. 7



*Nitzschia naviculans*

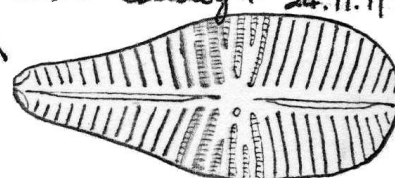
1132/B CALDEY I.

44. 11 1/2 II

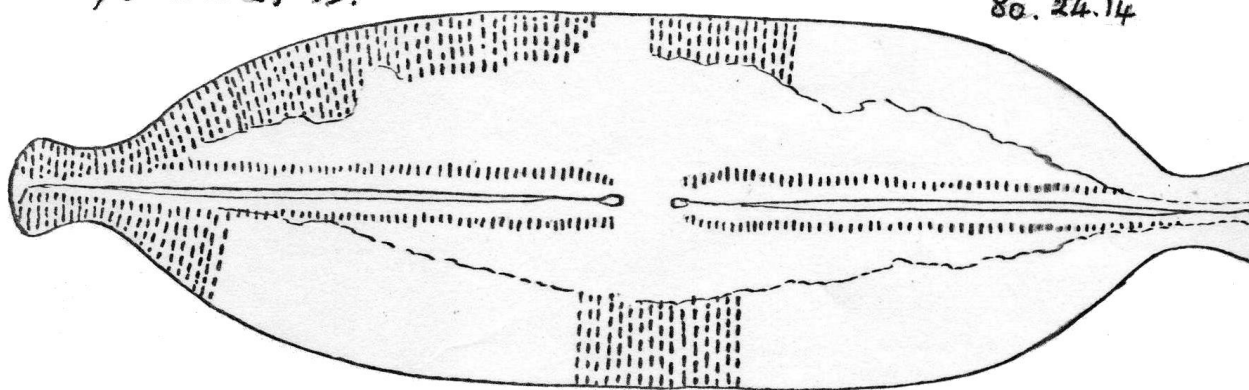


*G. constrictum*  
varieties

1132/B Caldey I. 24. 11. 11



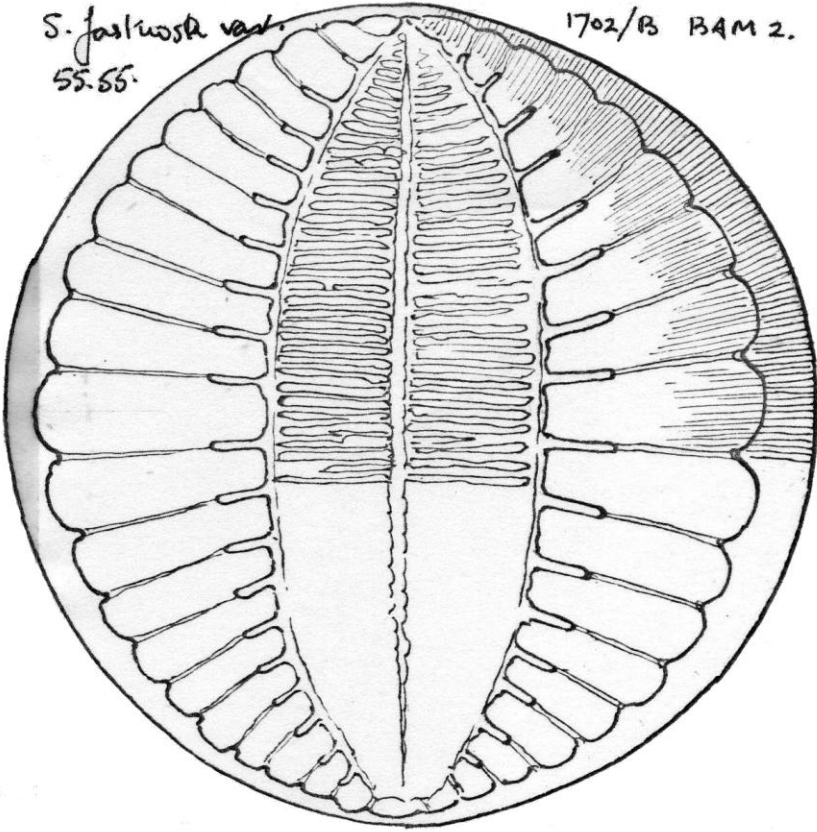
80. 24. 14



*Anomoeoneis sculpta* var. *capitata*.

*S. fastuosa* var.  
55.55.

1702/B BAM 2.

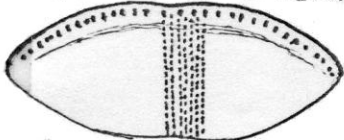


317A/c. Col

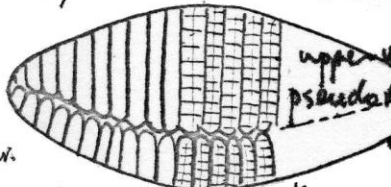
West. End. Drawn - sum 365.

1702 B. BAM 3 22.8/30.15

1703/B Bambo. 26. 12. 8



? Small Nitz. triblonella var.

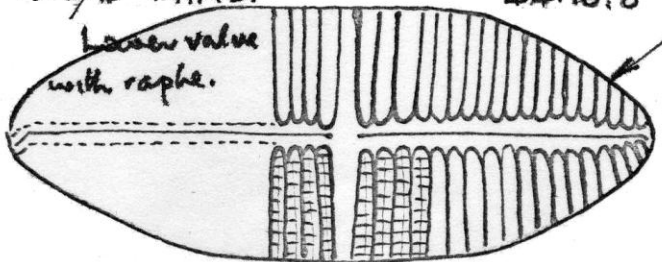


*Achnanthes longipes* Agardh

1702/B BAM B.

44. 16. 8

lower valve with raphe.

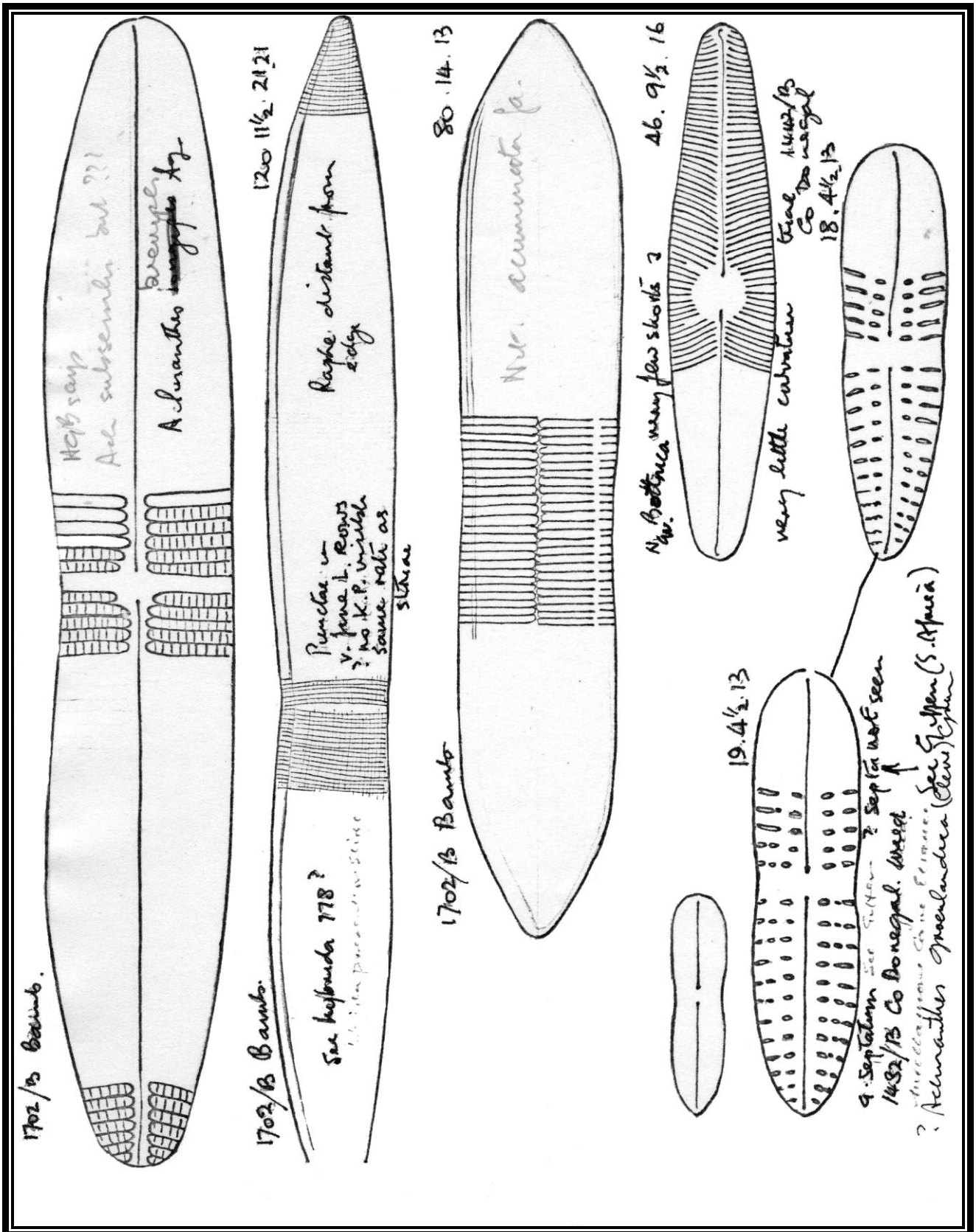


*A. subsessilis*

*Stauroneis? acaps v. hyalina*

132. 18. 27?

Miscellaneous Plate 41

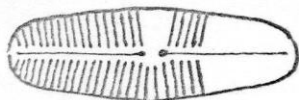


18. 6. 14

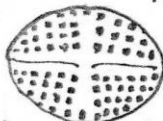
42

10. 8. 9

1042/B Ben howers AW 2152



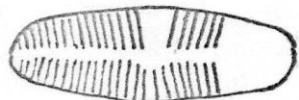
No horse shoe



1432/B Ft Will Nav.

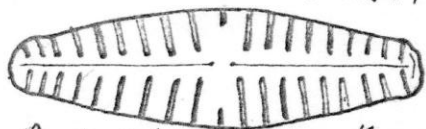


14-4. 14



1432/B Ft william A26/31

pseudostriae is parallel



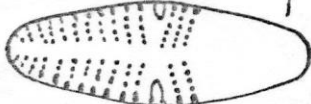
x 2

- Raphe v. fine. No puncta  
- Spumponema.

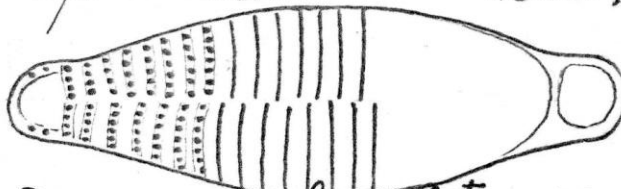
1432/B Ft. William

40. 12. 7

Achnanthes prominens var. shoe.



1432/B Ft. Will 20. 5 1/2 9



Dimerogramma lanceolatum var.

10. 6. 15

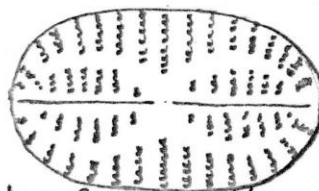
14. 6 1/2 10



1432/B. Ach but not Ach Hancockiana - too coarse



1452/B Ft. Will



Nota Dip. but Lyralae Navicula

not N. abrupta

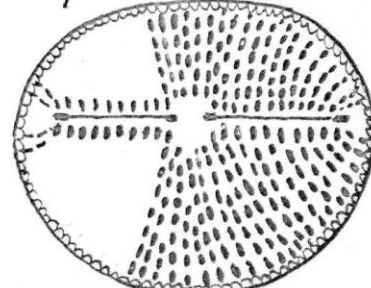


Denticula subtilis Grun 13 1/2 2. 12.

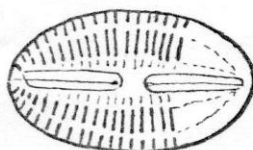
1456/B Ft. Will 24. 18. 10



1452/B Ft. Will



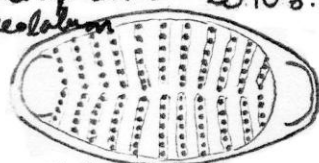
Achnanthes excentrica.



? Dip notabilis small form

1432/B Ft. Will Sp? 16. 8. 15

Dimerogramma lanceolatum var.



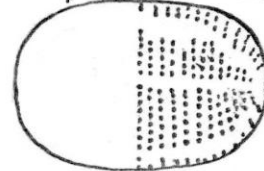
1456/B Ft. William

1156/B 16. 12. 7/8



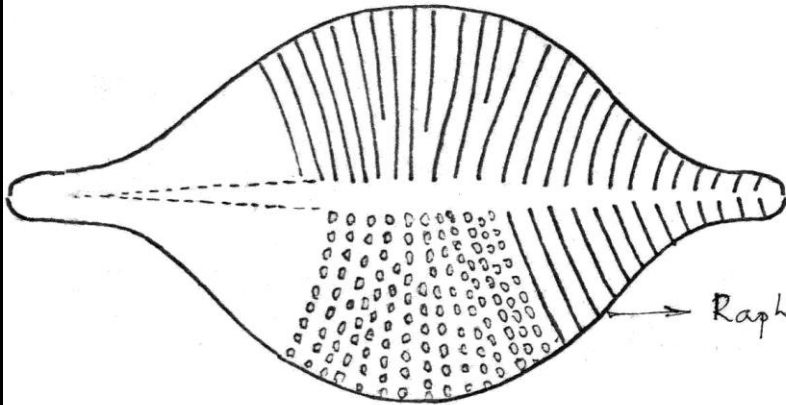
Cocconeis Fr. Will

1456/B Ft. Will 16. 11. 15

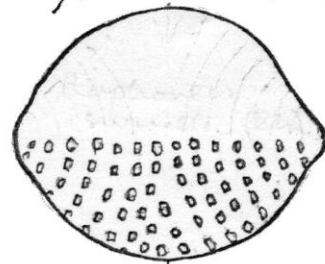


Cocconeis

Miscellaneous Plate 43

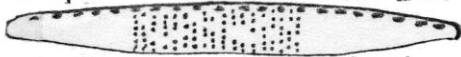


1020/B Thau 20.16.7 1/2



Raphoneis amphicos Ehr

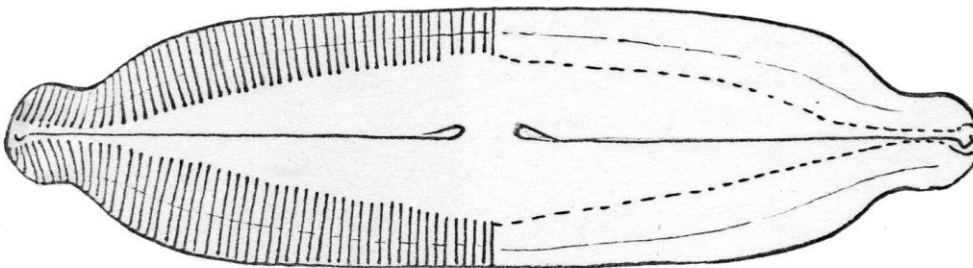
976/B Balle 30.3 1/2 14 ? T.



Nitz. amphibia fo ?

note: - irregular puncta

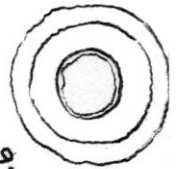
64.17.15



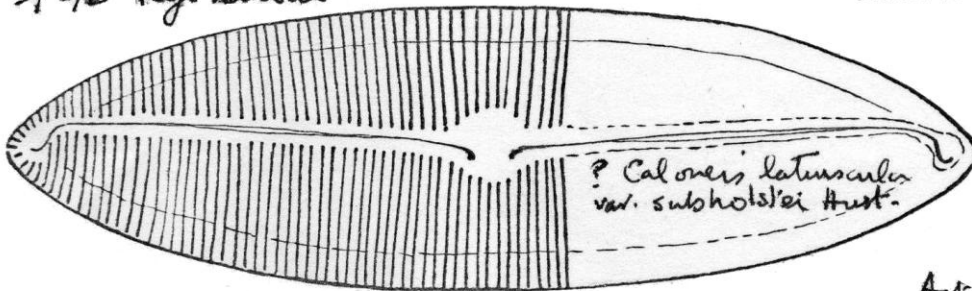
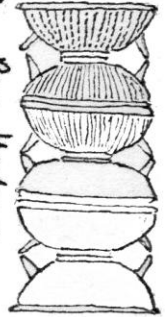
Cal. Aph v. subsp. NOT TYPE 973/B Dee Estuary

973/B Rye Harbour

64.18.13



971/B Rye Harbour  
Hyalodiscus scoticus



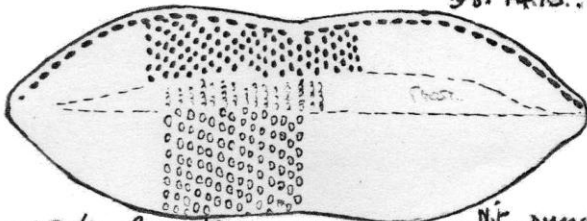
? Caloneis latiuscula  
var. subholstei Hust.

38. 14.15. 10

Act. senarius

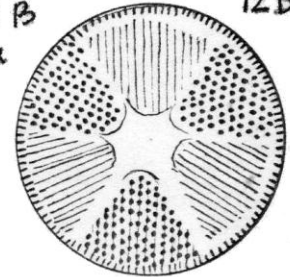
973 B  
Rye

12 D.



973/B Rye Harbour  
lower punctae larger

Nitz. punctata  
fo. constricta Grun.



11. 1063 Peabody coll. 40.5 1/2 18



both valves of one frustule



Nav. pupula var. tectangulosis.

1063 24.4.22

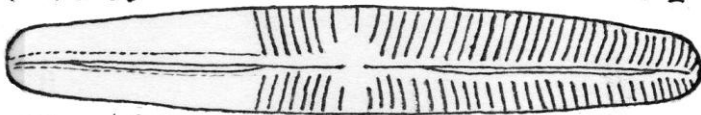


Cal? tepidula.

44

A11 1063

45.7 1/2 12



Cymbella  
obtusula

? a form of Amphiox veneta

20 3/2 28 cae

P11 1063



? not veneta or notmani.

maybe gracillima

Stria very fine to poles & all away rows

P11 1063

35.6 1/2 22



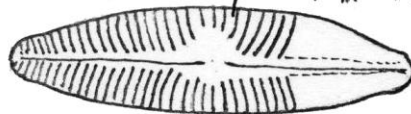
P11. 1063 Peabody Collection

31.4 1/2 22



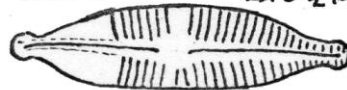
fine puncta marked Stairones  
axial area very narrow parvula var  
See Acas 2/6/811 Promenula

P11 1063 Peabody 27.7.14 5/2 CAE

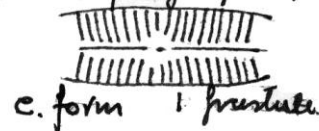


3201 C

22.5 1/2 14

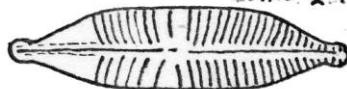


Kelasey Crag - Yorks



c. form 1 frustule

22.5 1/2 13 CAE



13201 C.

24.4.23



? micro

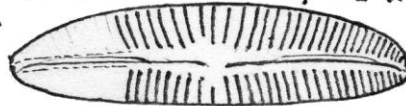
13201 C Kelasey Crag 24.8.13/11



Cymbella obtusa small form

13201 C

27.6 1/2 13 CAE



C. obtusa

Miscellaneous Plate 45

13201/C Kilnsey Crag 44.6.9 CAE. 13201C.

24.5.15 D/12V

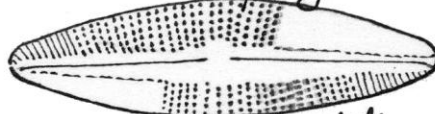


Closely punctate ? Group - sub clavatum  
*G. helicicum* v. *kennerlyi* (Friedl) Hust.



Striae fairly rounded - Punctate close set. } *Cymbella*  
*hybridiformis*

13201 c. Kilnsey Crag 28.8.15 CAE



striae punctate *Cymbella*

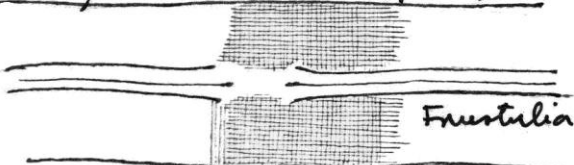
13202/c 18.2.13.



Slapstone Lake



13201/C 37.6 ? 35.

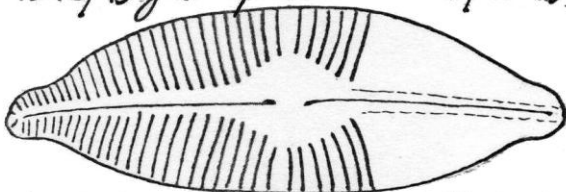


*Frustulia*

note v. *saxonica* ? type *fr. undulata* Hust.

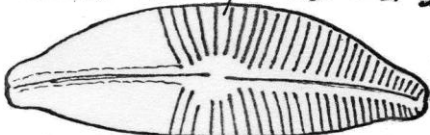
1346/B Greatip SE

37.12 13. CAE  
 12 DOR  
 3 V  
 WIC



punctate not visible ? *Cymbella naviculiformis* ?

1060 B Ices tip 28.8.12 12 DOR  
 3 V  
 WIC  
 CAE



Note Ventral striae shorten at central area!

13201 C Kilnsey Crag. Yorks 39.8.15 CAE

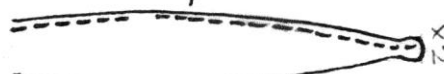


striae punctate see ASA 377 figs 8,9,10.

13201C 24.4.21



finely punctate striae  
 Kilnsey Crag. *Cymbella*  
 ? *microcephala*



? *N. Kutzy usgrana*

30.6.13 ? 30



13202 C Slapstone Lake

13202 C 32.6.17 WIC  
 seae



*Cymbella delicatula* Kutzy.  
 centres variable @ times



x2.

13202 c 22.4.21 ?



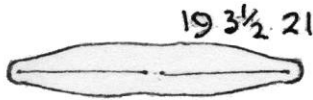
ANO. *exilis*



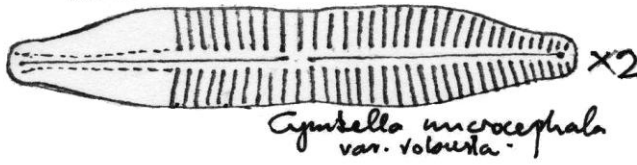
13202C Slapstone Lake

N. can 48.10.12





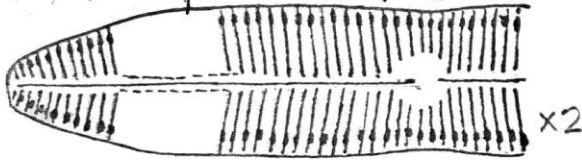
3124 Cav Slapstone site  
Marslet A 57015



*Cymbella microcephala*  
var. *volucella*

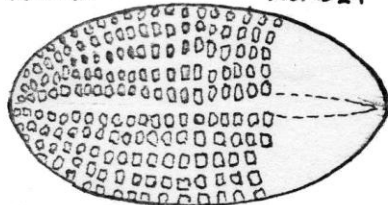


3124 Cav Slapstone site .27 9/2 .25



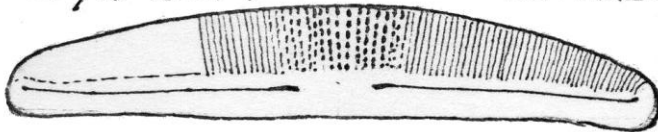
MARKED 27-28 ? OP  
to this a *Wavencia*

556 B 25 13 1/2 11



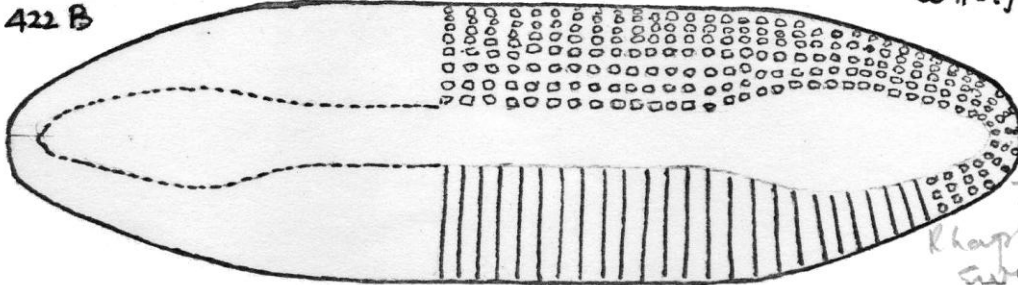
Puncta more angular  
Well Red Widge Bay

856/B RIV.PK



Pearl and Lake

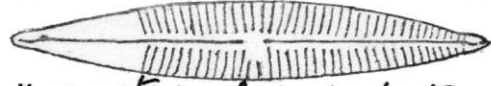
422 B



60.18.7

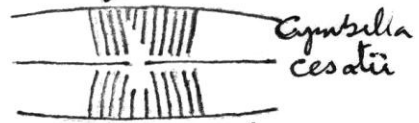
*Rhaphoneis*  
*Sirenella* sp.

3124 c Cav Coll. 32.5.15



No puncta + only 2 short striae

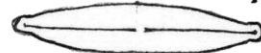
Too close



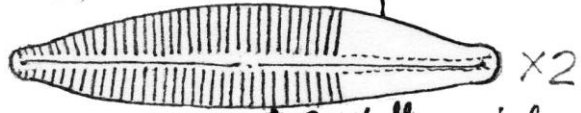
*Cymbella*  
*cesatii*

Central area variable

16.3/2 .27



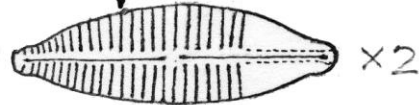
12449/CARC.



*Cymbella*  
*microcephala*

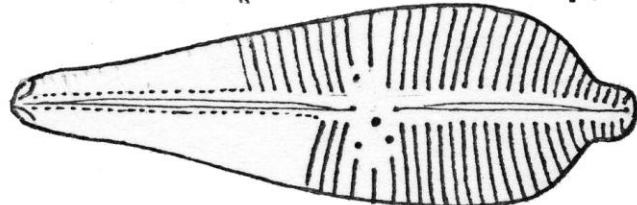
11.3/2 23 CAE

note  
parallel  
striae



856 B RIV PK

41.14.10



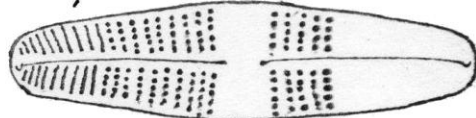
*Gomphonema* *auger* var  
or ? *G. olivaceoides*

42.6/2.20 striae

*Amphioxys*  
*veneta*

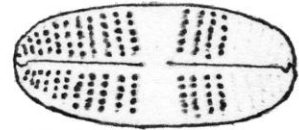
Miscellaneous Plate 47

3124/E Fort William 30.8.11



*A. promentuarum* Giffen

1456 B 18.8.11

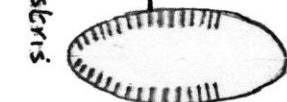


Fort Will. *A. promentuarum* Giffen

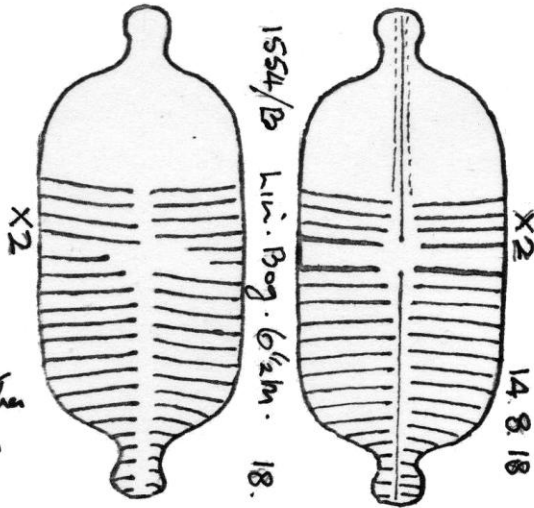
1456 B 14.6.16



Comp. frustule



*Ach. rufescens*



*Achnanthes exigua*

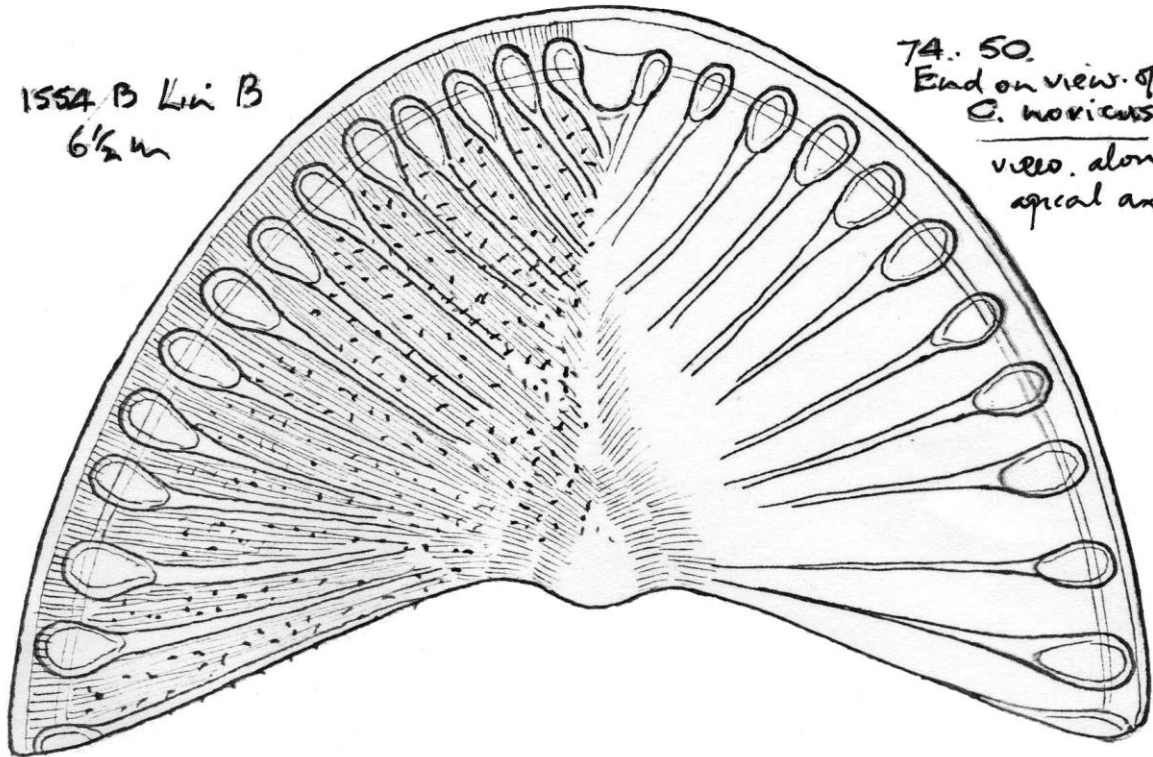
1554/B Lin. Bog. 6 1/2 m. 18.

1554 B Lin B. 6 1/2 m *A. nodosa* from Linton 55.8.10



(Good copy.)

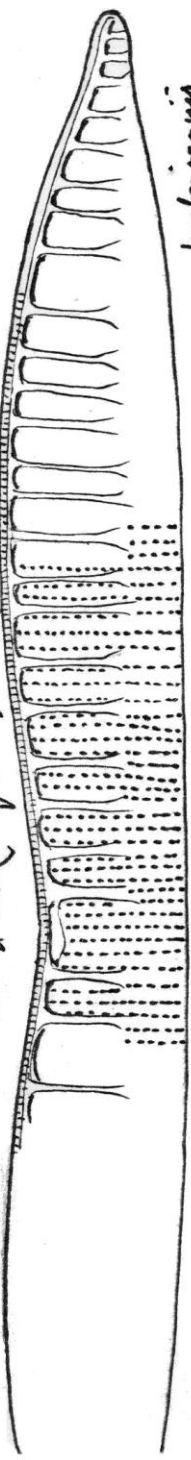
1554 B Lin B  
6 1/2 m



74. 50.  
End on view of  
*C. novius*.

view along  
apical axis

1672 B Baum 2. *Hantzschia (Nitzschia) virgata* 120.12.8.324

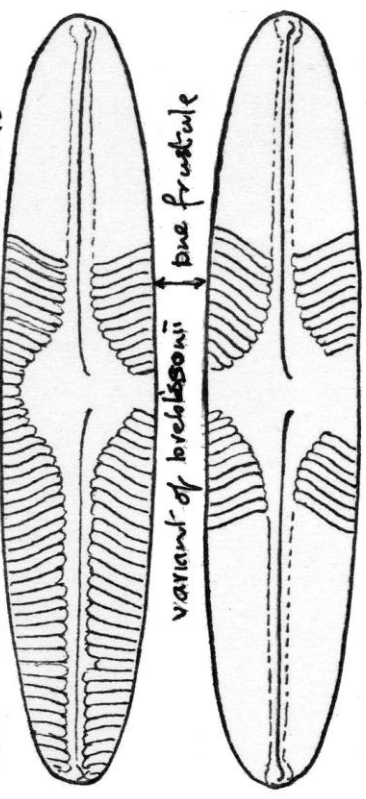


3124 C 22 4 1/2 21



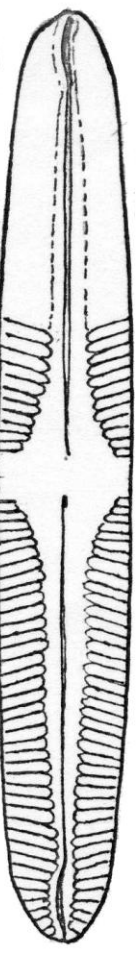
Slaperstone Sike  
Kop v parva *Closepunda*  
*Nendrum Koslovii* v. parva

Sutton Plk *P. microtauta* var *brevissonii* 50.10.13



variant of *brevissonii* one frustule

Sutton Plk ? *Stomatophora* but no stomata. 60.8 1/2.12



357A/B N Warr. 52.10.10

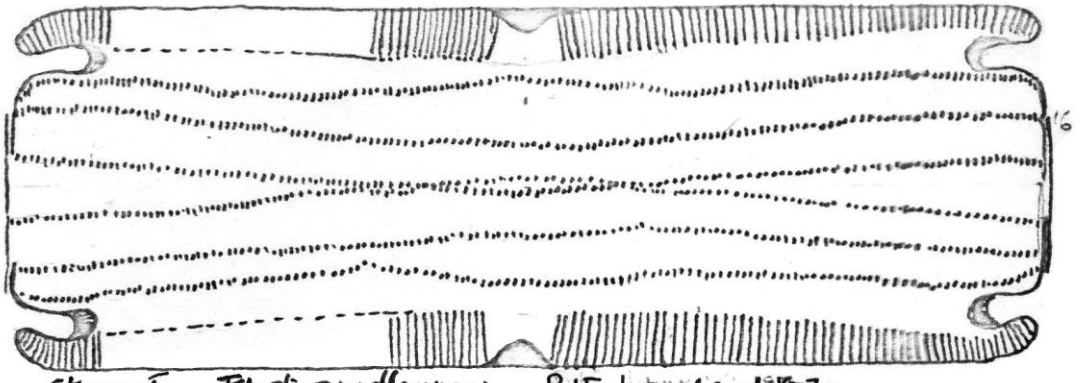


stria sep note large ends ? *brevissonii*

? *P. microtauta* var

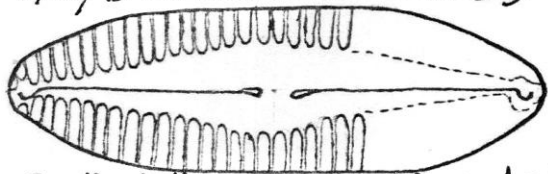
Miscellaneous Plate 49

135.24.13



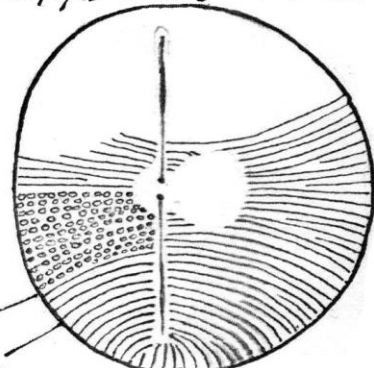
*St. acuta* - Frust. girdle view. RIF hand print 1970

1700/B Sutton Park 35.10 1/2 9



See Hust Hemiptera which A.C. Eul places back into *P. acuminata*.

1672/B BAMB 24D.15

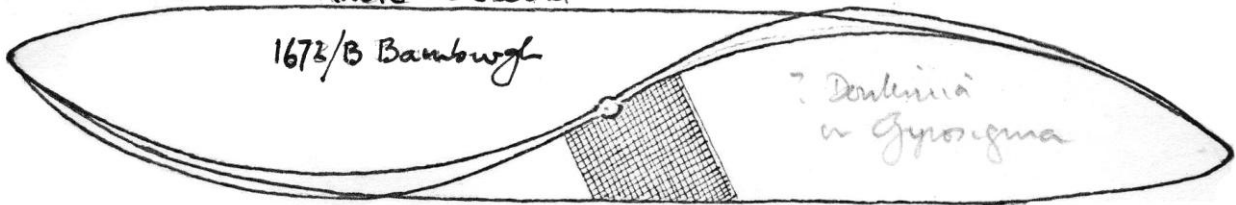


*Anorthoneis excentrica*

80.12.18

Rhizoc <sup>sigma</sup> ocean.

?? (rounded Puncta drop in size to centre)



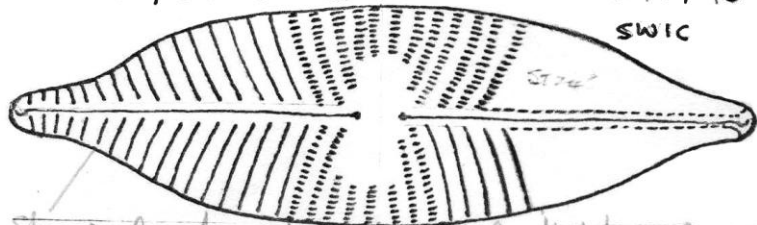
1672/B Bambough

? *Denticula* or *Gyrosigma*

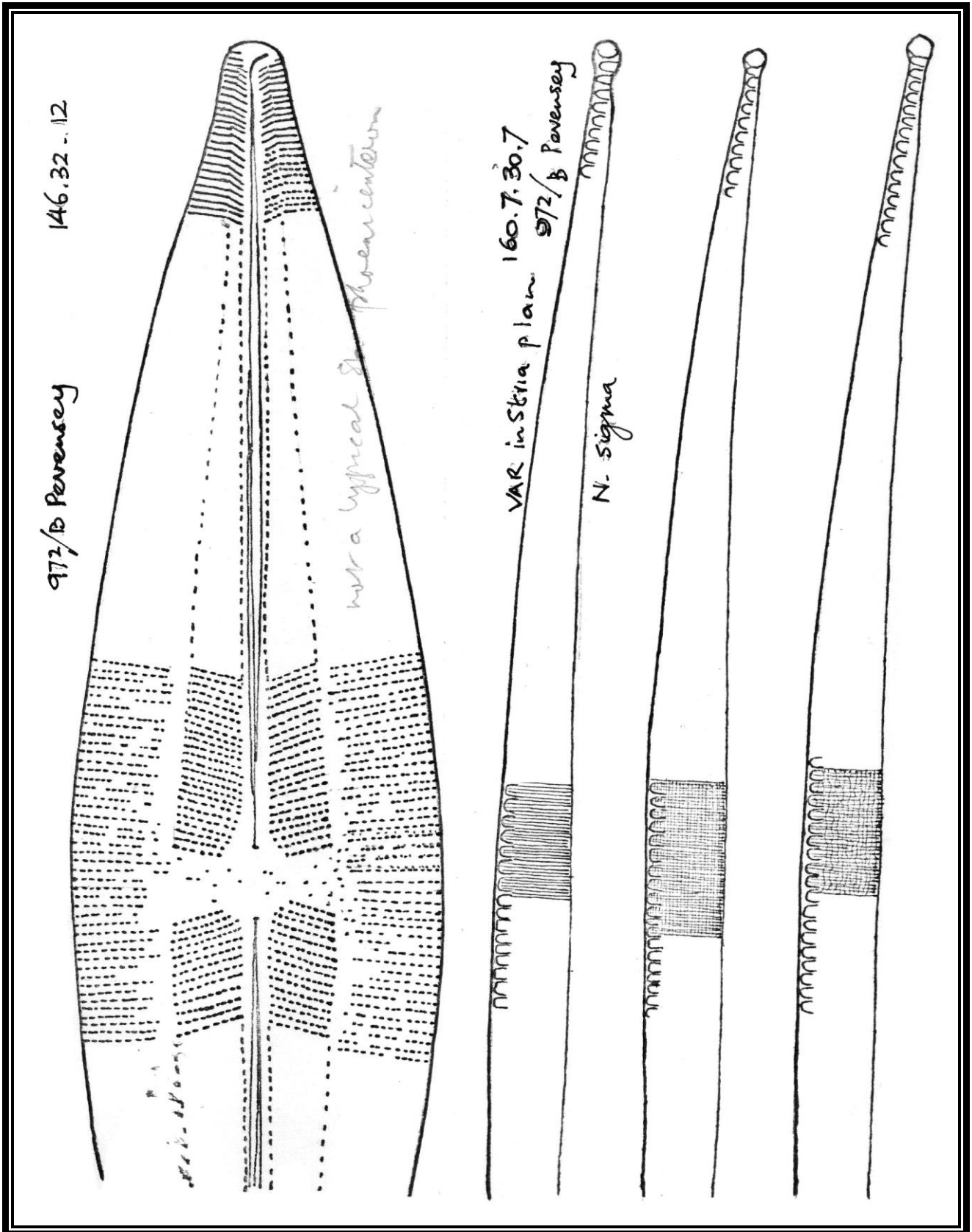
1672 B Bamb

48.14.8

SWIC

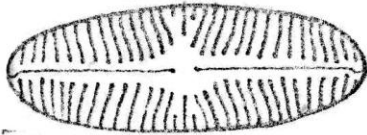


striae low for *rhychocephala* high for *menocera*



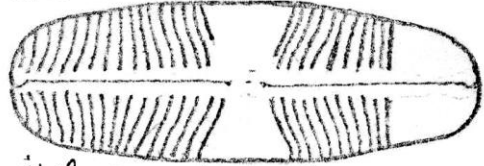
Miscellaneous Plate 51

12211/0/00 23.8 13.



Probably *Navicula*  
succedentiform  
P. Nav. digitigradate?  
in Flw. location

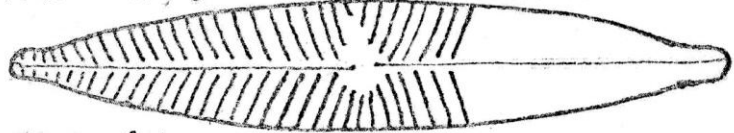
NW-357A/B 30 10 14



*Navicula cruciformis*?  
not Brach

NW 357A/B

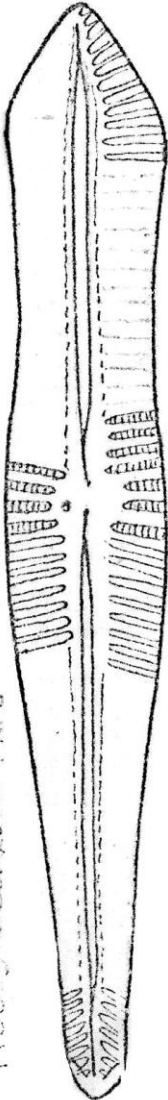
46.8.9



Line = like *tadrisa* - well arched  $\frac{22}{20}$ B

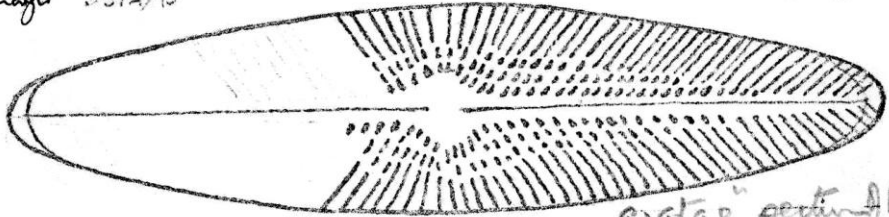
56 13 13

70.10.9



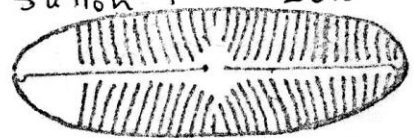
1700/B Scot. loc. ? loc

Newbrough <sup>Waver</sup> 357A/B



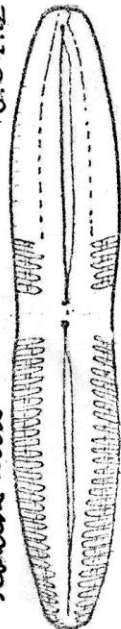
*aratae* section of Nav

Sullon P 26.8.12

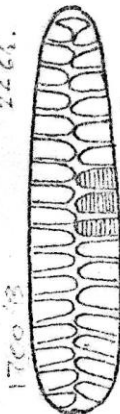


D.R. for Clg 801/B

Scottish loc. 40.6.12



1700/B Calomen shroderi ??



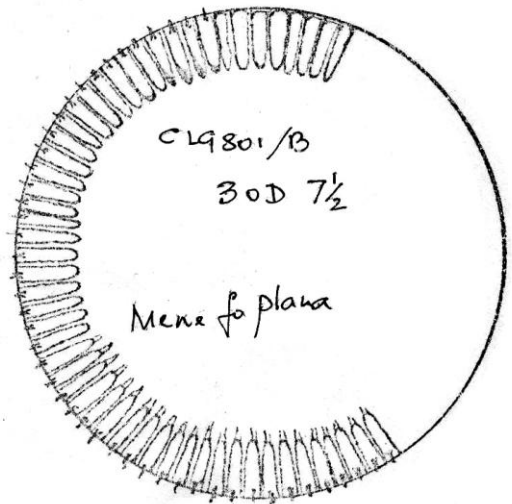
22.6.12

? *Opheura schwaigi*



22.5.9

1700/B Y. Group  
Scot. L.



CL9801/B

30D 7 1/2

*Mene fo plana*

135.6.20.9

F. PUNCTATE

N. ZENILIS

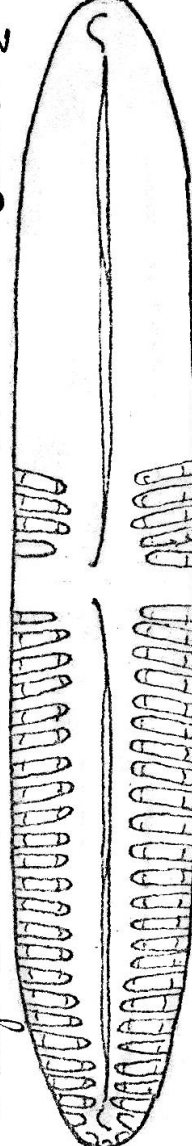
13213XC



P. 1505 Easton (E. Green) Cleve

JRC says Cleve should have said P. 1605 STAUROH

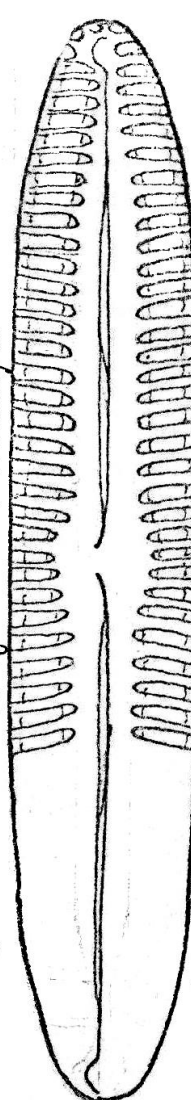
62.10.8 1/2



NOTE LBS + Raphe Unicolor type but narrower

NO. LBS " Same form non interrupted

58.10.7 1/4



1557/B EVERIT MOSS

402/B REGALYN

44.8.11/11

WIC. CAE

" Like a wide form of C. caesia "

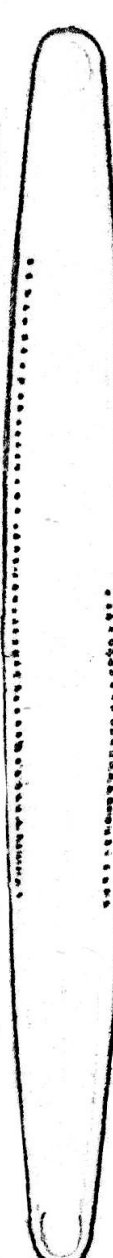
HAB though Cymb. spicula Hook.

SYNEDRA ? Sp

408/B W B

12.0.18 ENT

67.6/2.16

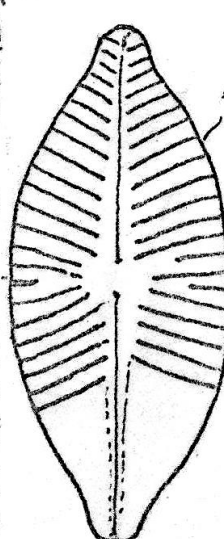


only these puncta no distinct PUNCTO raphe.

Possibly a guide or minor plate.

28.12.9

LIN Bog 62.14 1554/B



" ? odd form of N. placidula "

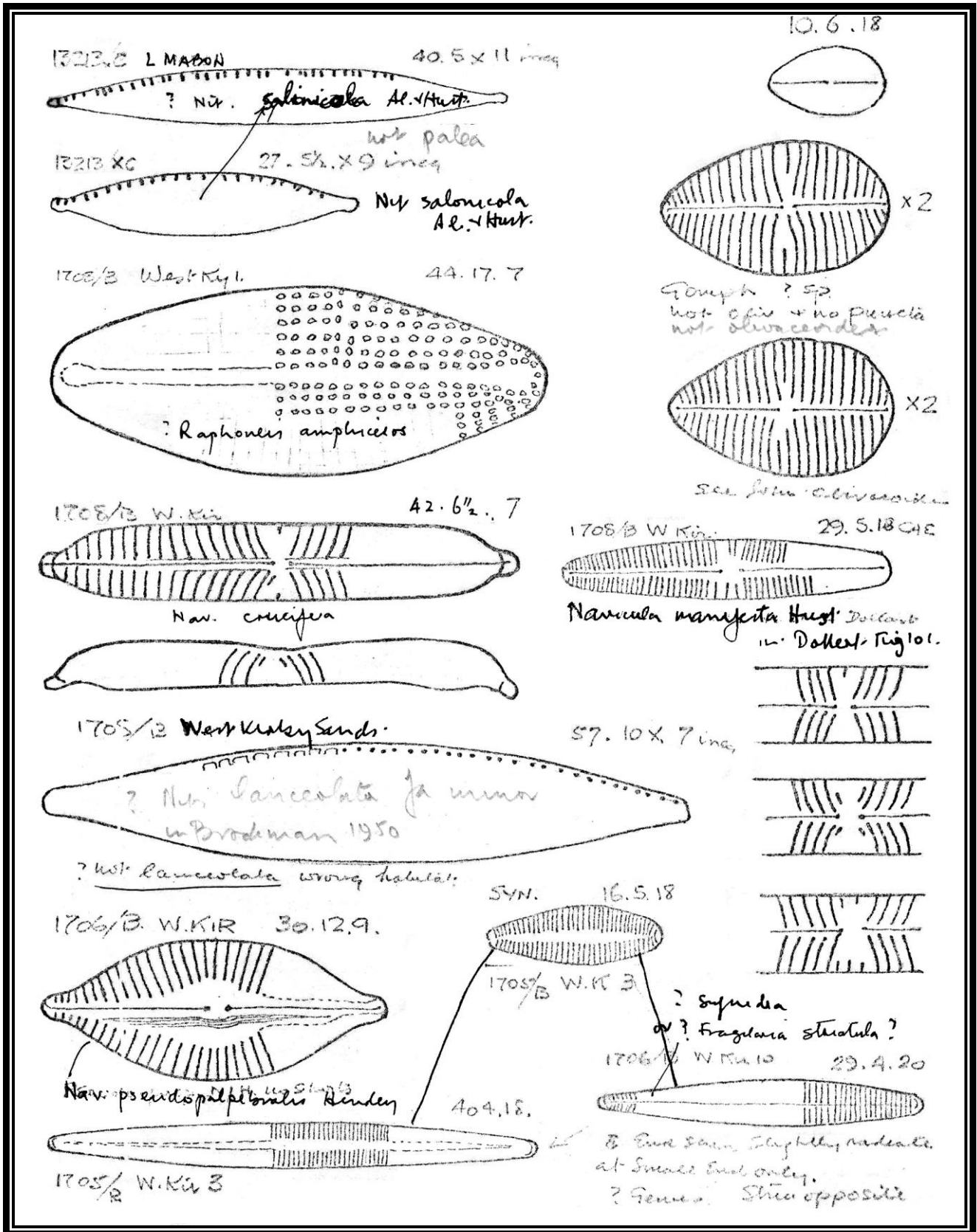
432/B 14.6.28



See Rabh. Fig 831

of Actinanthus hungarica v. helvetica.

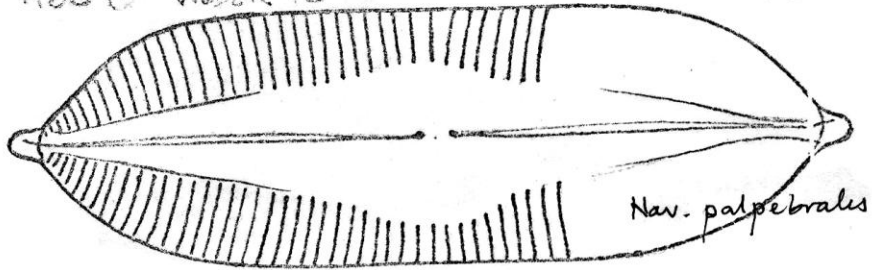
Miscellaneous Plate 53





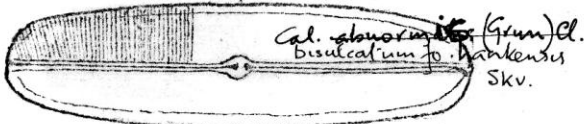
1706/B Westk 10

54.16.11



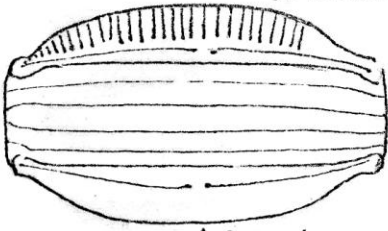
Nav. palpebralis

Cal. abnormis (Grun) Cl  
1705/B V.KIR 3 30.8.30+

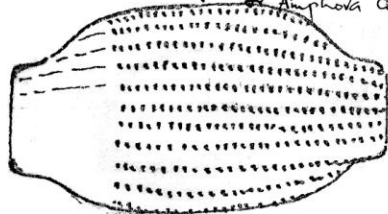


Cal. abnormis (Grun) Cl.  
bisculatum fo. hankensis  
Skv.

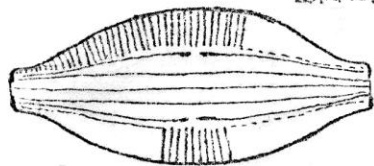
marked 2 spots striae fine & faint  
2A. 11.12



? Amphora exigua  
Amphora coffea/pennis

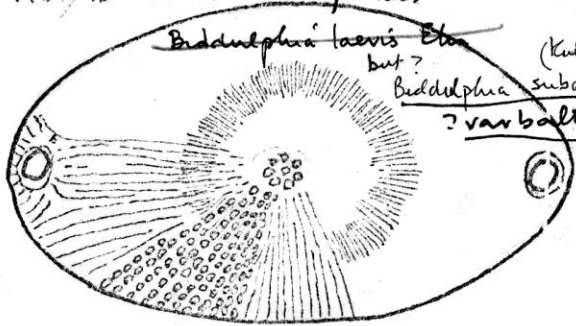


BH/156 Saethoune Norf.  
23.10.18.



BH/156 Saethoune  
A little lighter & finer striae  
Amphora spp

1707/B West Kentsy Sands 36. 20.13



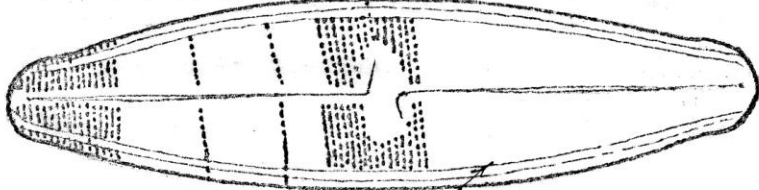
Biddulphia laevis Ebn  
but?  
Biddulphia subaequalis  
? var baltica.  
(Kütz) Kalf.

1705/B W.Kir 3 34. 5.22 CAE

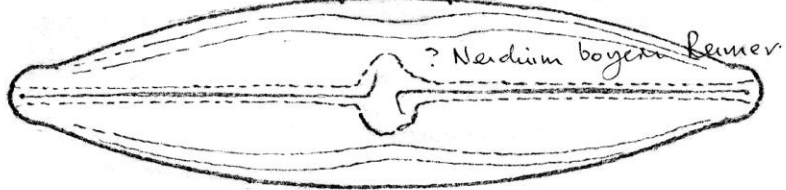


Amphipleura subtilans (Frent) Cl.

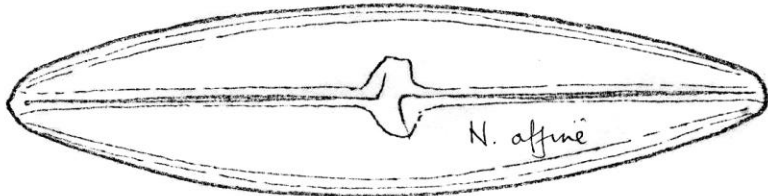
1703/B Ashton P WIRD. 48.12.19.



Neidium affine (Ebn) Cleve

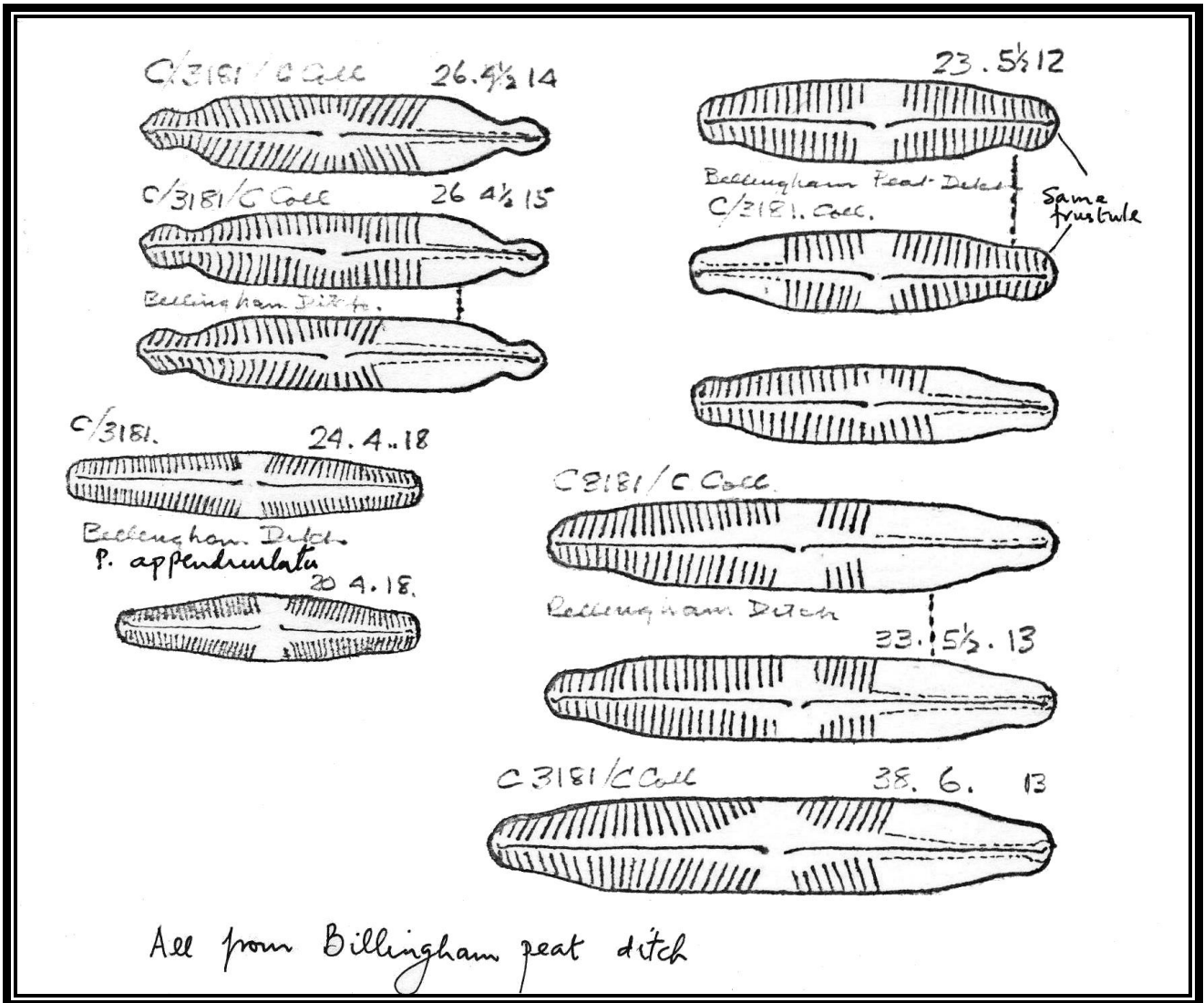


? Neidium boycei Lemmer

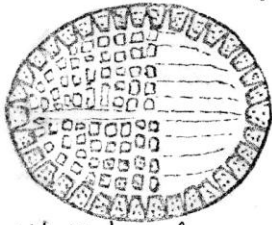


N. affine

Miscellaneous Plate 55

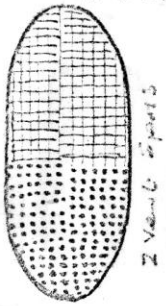


408 B 18.14.8



White beach  
Coc. scutellum

18.8.14



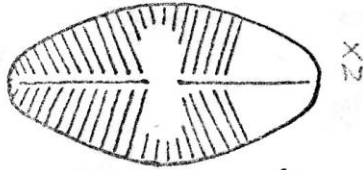
2 Horn's Spots

408 B W.B.  
? Rhododonta  
No septa



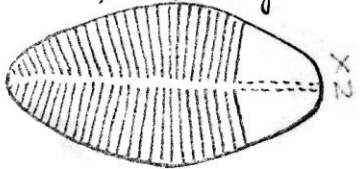
10 5/2 20 cal.

Achnanthes subaloides



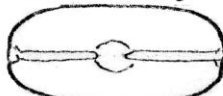
X2

13226A/c: Grassington



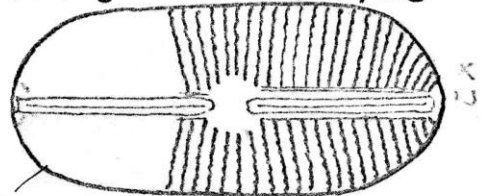
X2

14.6.22 - EAF



Grassington -

13226A/xC

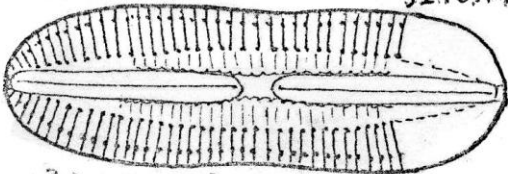


X2

Dip. minuta.

408/B W.B.

32.10.14

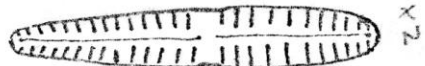


? D. VETULA? 4/20 15 spec.  
H.G.B. says  
? Dip. Vetula.

12.2.17.



marked 4 spots



X2

BH/436 Salt House

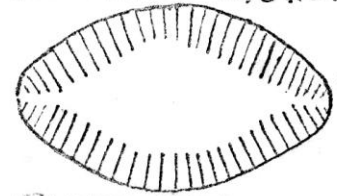
See Gony x PIDD.

??? form of exiguum ???



10.6.18.

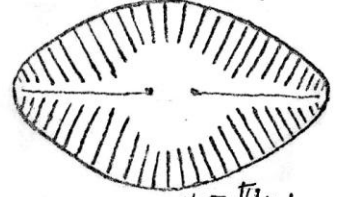
13226A/xC



X2

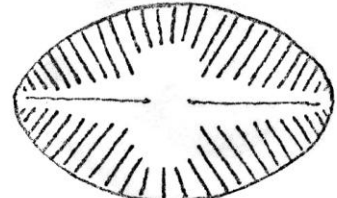
GRASSINGTON

A MONTANA KR ✓



X2

Center variable + outline

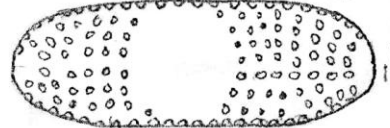


X2

12.4.16?



408/B White B. ? Gony



X2

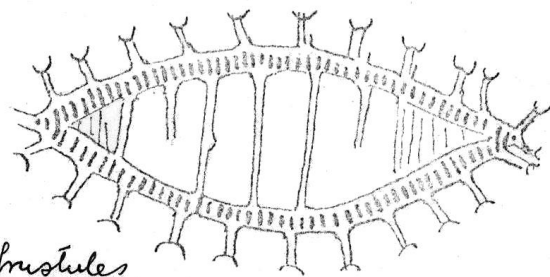
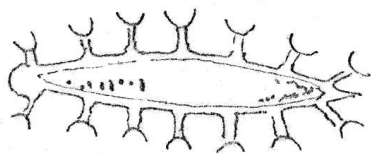
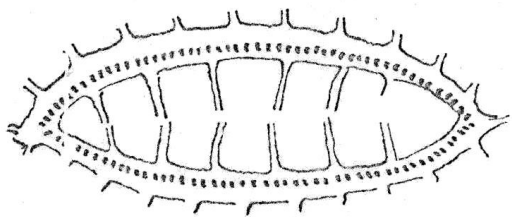
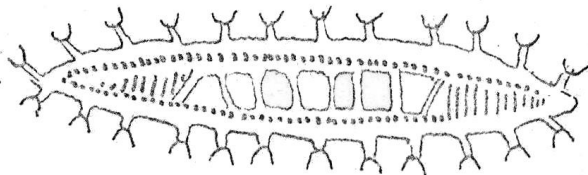
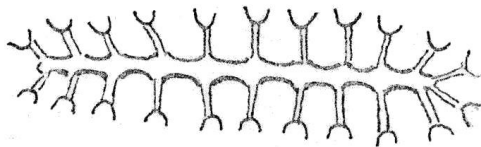
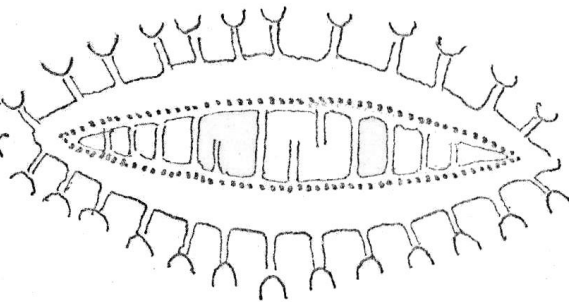
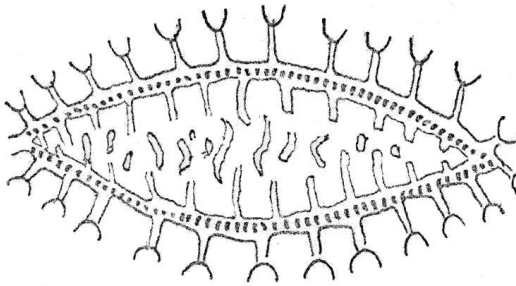
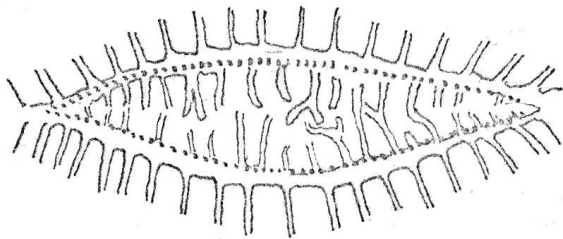
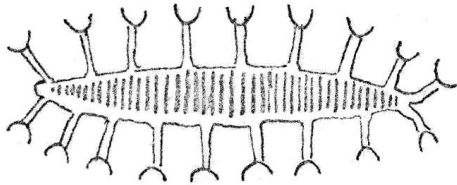
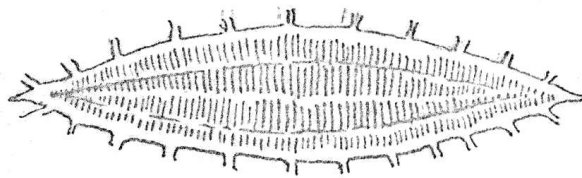
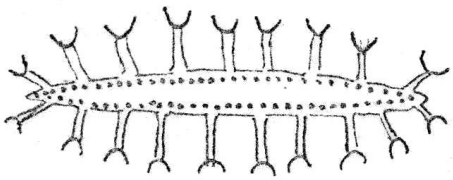
2 Horn's Spots

? Plagiogramma

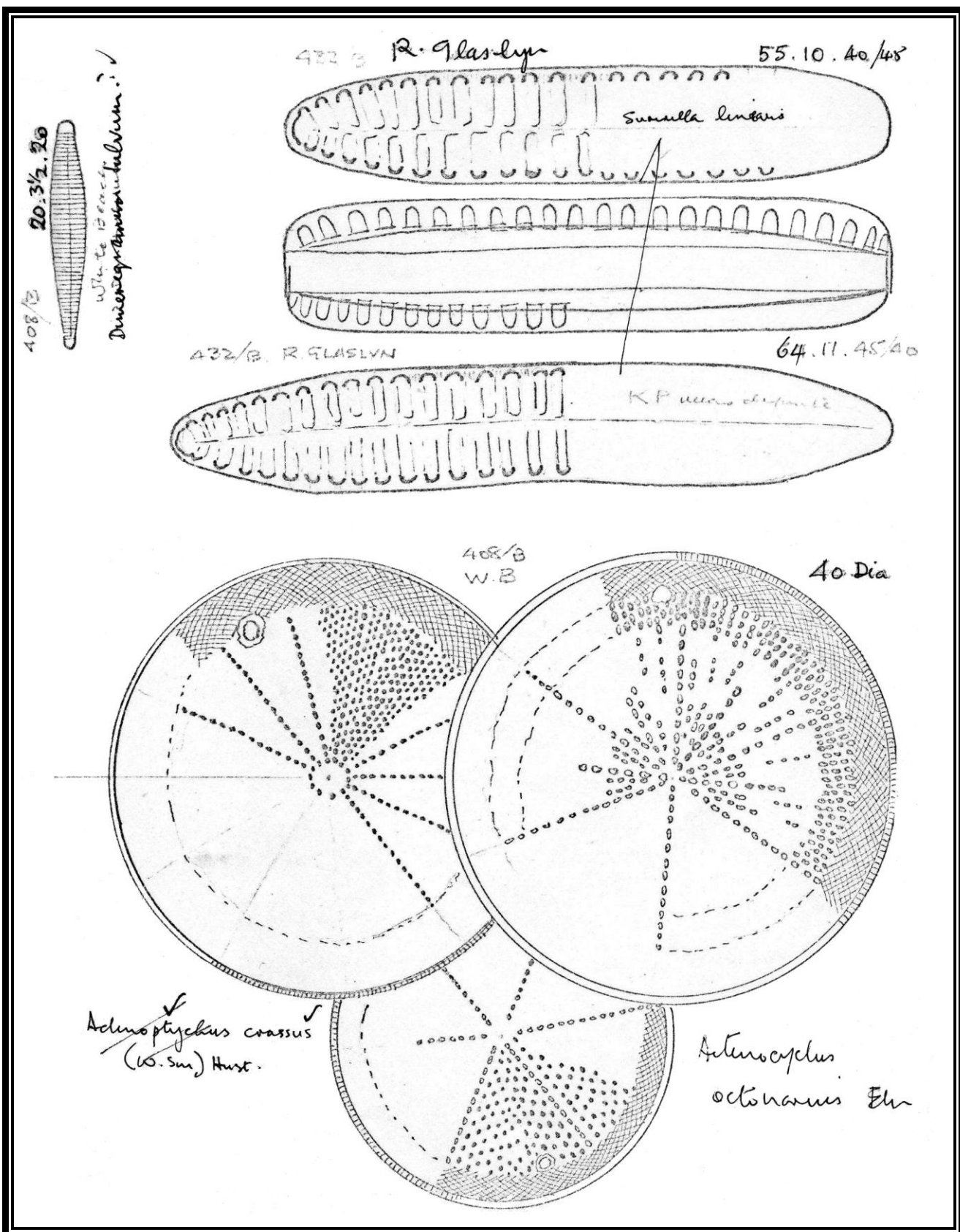
\_\_\_\_\_ X2

Miscellaneous Plate 57

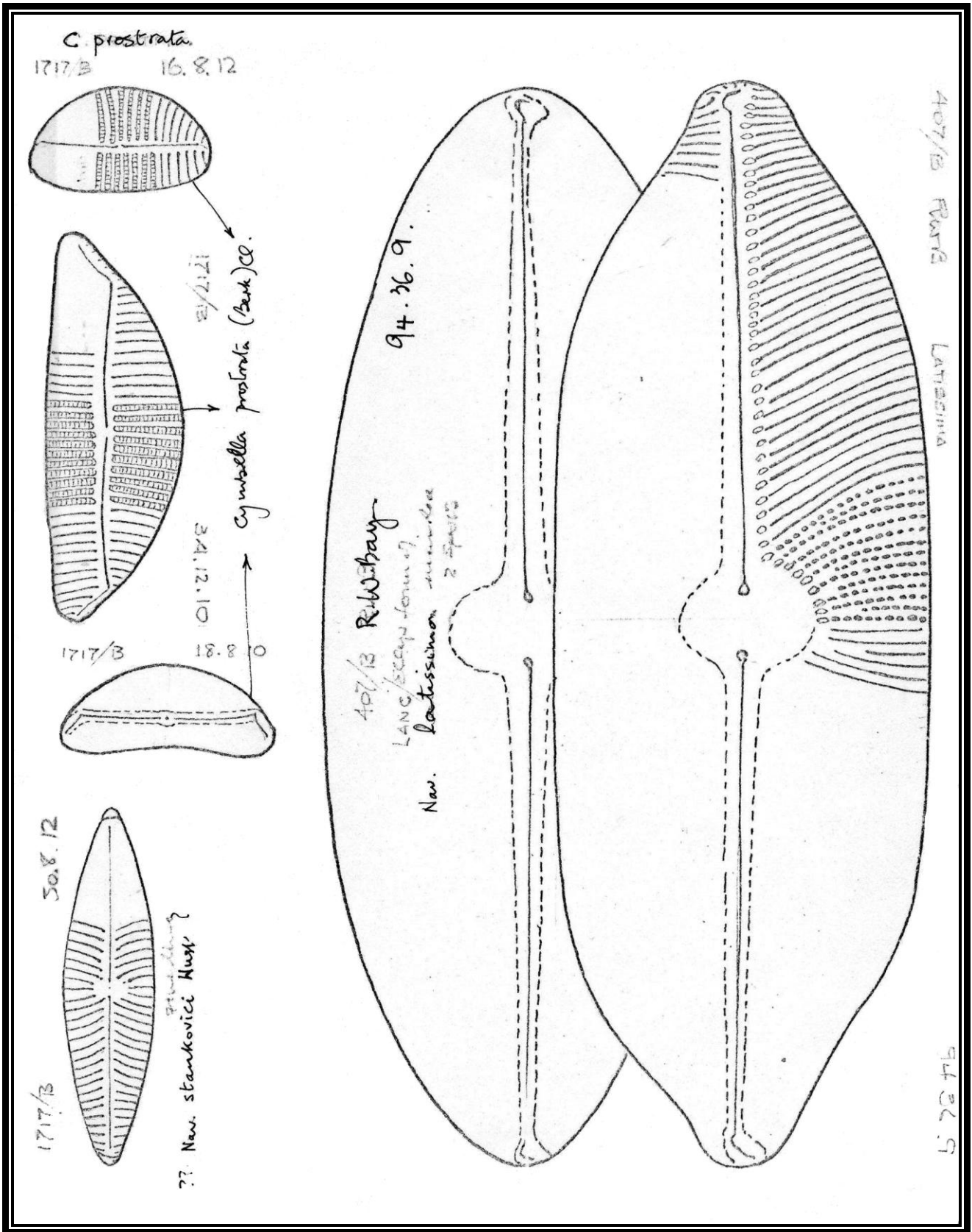
408/B White Bay.



Central areas of *Suwella fastuosa* frustules

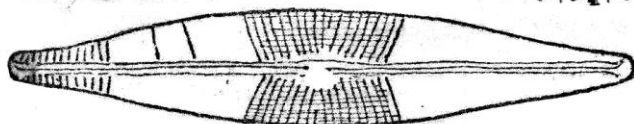


Miscellaneous Plate 59



1717/B WATTON

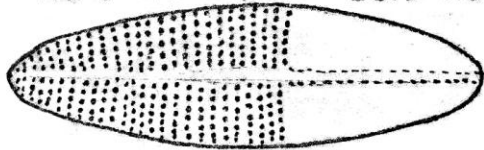
40.8 1/2 | 15 WIC



N HELV. BRUNN.

1717/B WATTON

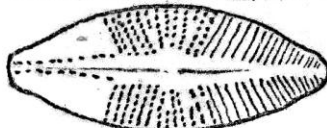
30.9 .10



Act. ? sp.

1717/B WATTON

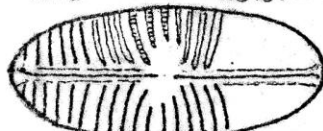
20.8.15 WIC CAE



Fauciale.  
See Paclans 39.

1717/B

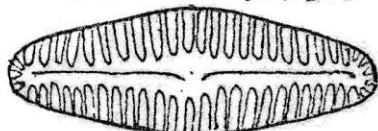
20.8.11 1/2



N. STANK four line

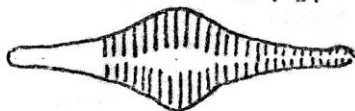
1717/B

24.8.9



Cym ?poroids  
See p 62.

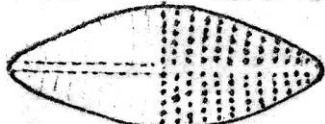
22.6 1/2 | 15



F. in flata

1717/B

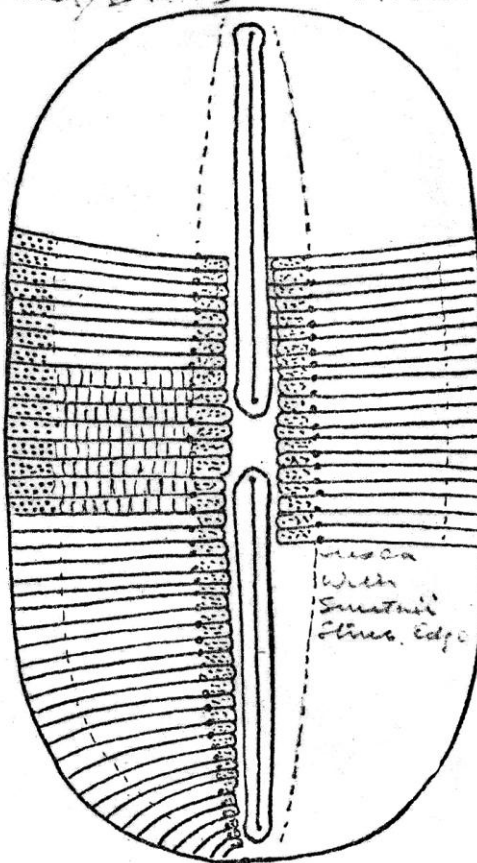
1717/B Watta 20.8.10



act. sp ?  
Same form as 20.9.10

407/B R. W. E

54.30.8

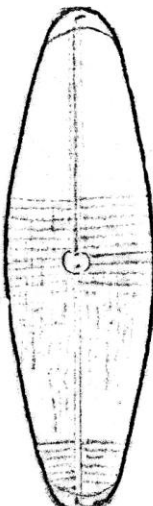


musca  
with  
Smutini  
lines. Edge

same form as 1717/B  
but size ?

1717/B

32.8.15



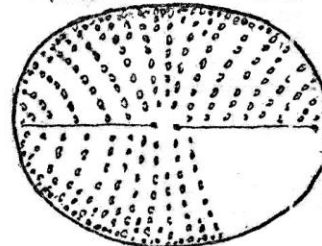
1717/B

20.10.

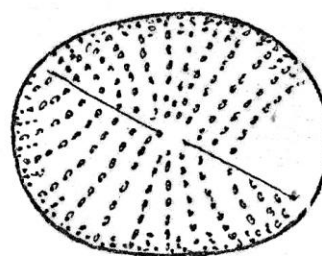


var within a form

1717/B Watta L.



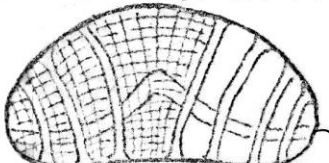
20.16.6?



fr. Climo. rapinis  
1 frustule

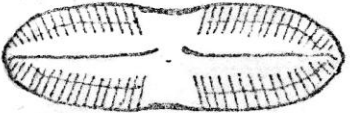
Miscellaneous Plate 61

1703/B <sup>Scott L</sup> 21.10.3.12 X Plas. Lalis 46.20.9. CAP.



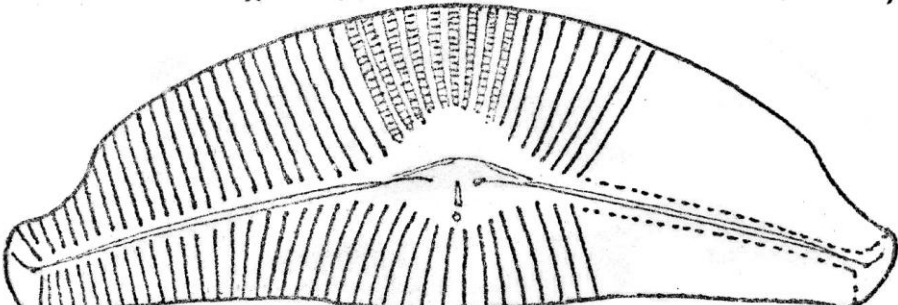
Just over 1/2 Ray's  
not a vestige? Small form of  
E. turgida

1703/B Scott L 22.6.15




Cal. Schroeder

13213/C Coll L. Mabon 57.20.9/11. 13213/XC




*Cymbella tumida* (Brady) Vilt ✓

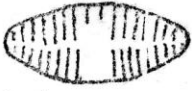
13213/C 18.5.13



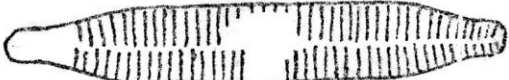
13213/C 18.4.12



L. MABON




22.4.12

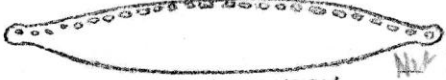


*Sinedra*? spp  
not vis punctate

L. MABON




13213/XC 28.5.X.8




L. MABON. *Not Solonchocella* ✓  
Velt

13213/XC 16.3.15  
? near 1815 Indiana ? 35

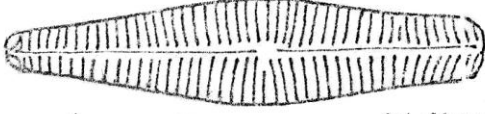


13213/XC L. MABON



*Nannula* 18.6.22. W.C.

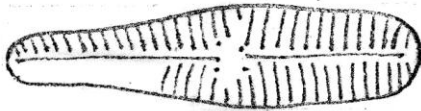
Gomph. spp.



1717/B NO CEN AREA 31.6.14.  
L. VITTO I

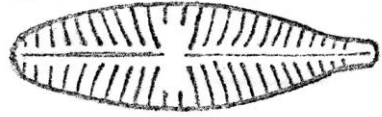


1717/B. Watton Loch 27.6.12



*G. olivaceoides* ✓

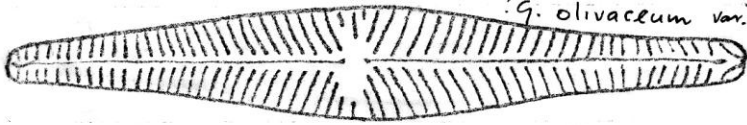
1717/B 24.7.10



Loch, Watton, Cath. Golph. *olivacea*

48.7.12

? *G. olivaceum* var. *calcareum* Cl.

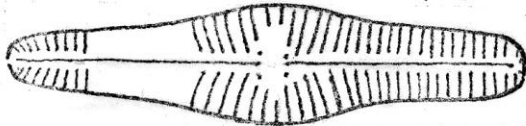


2 valves a slightly wider 1717/B NO STIGMA

34.8.12.

1717/B WATTON

? *Ach. calcareum* ?? 14.8.12



*G. olivaceoides* 1717/B

20 4 1/2 30?

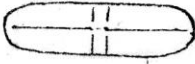


1717/B

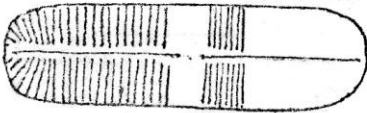


Cal. ? sp 2 valves.

? *Cal. bacillaris* Greg



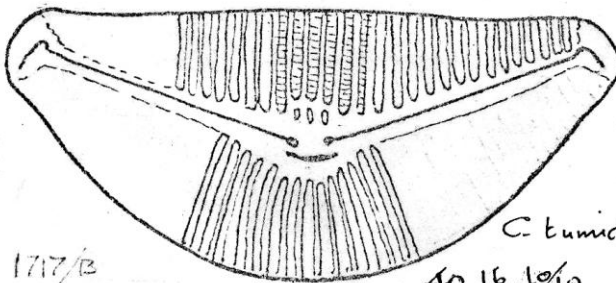
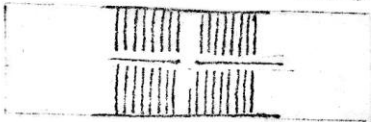
12.3 1/2 27?



x2

2 valves

1717/B

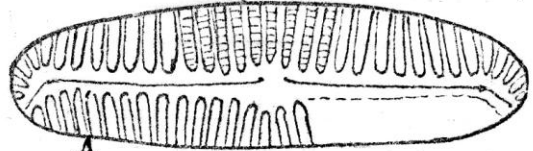


1717/B

*C. tumida*

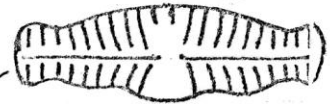
40 16.10/10.

1717/B 2 VALVE DOTS 34.9 1/2 9

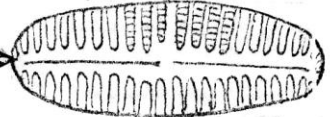


NOT *leucata*. ? *Cymbella*. ? *leucata*.  
2000 ? *Sem. punctata* round & Calcareum

1717/B 20.6.10

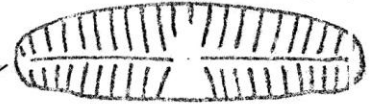


Capitate *Cymb. sinuata*  
Loch, Watton.



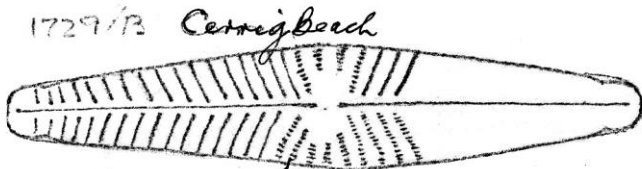
1717/B 20.8 1/2 9

22.8.9



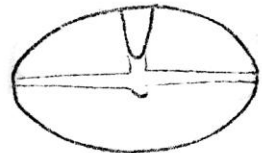
1717/B Watton. *Sinuata*  
Normal *Cymb. sinuata*

Miscellaneous Plate 63



1729/B Carrigbeeck

*Navicula inflexa*

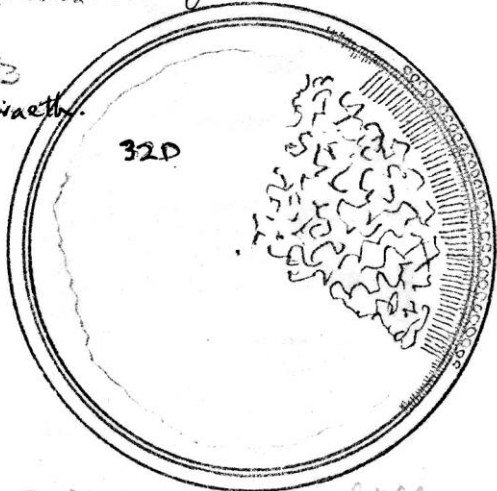


1717/B Watten

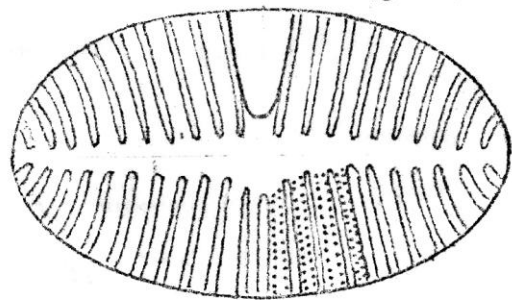
16.10.13

448/B

Pentiaeth.



32D



X2

? *Scordaria*  
*Achnanthes calcar-*

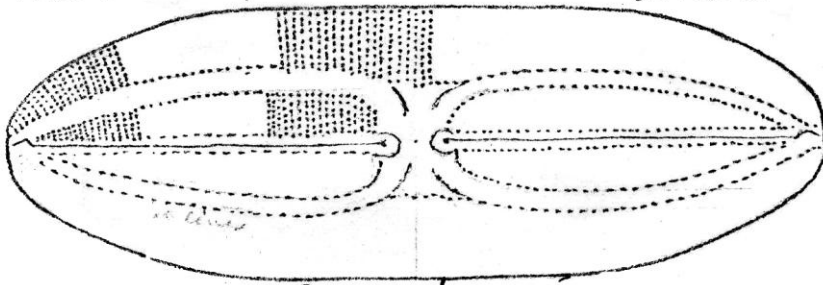
1717/B Watten

15D

? *Meloua* or *cyclotella*

1728/B Carrig

54.18.18.



? *Nav. forcipata*

See Pottent  
? *Cyclotella tenuis* Hurst  
See Hurst's Pottent

1717/B Watten

20D

1728/B Carrig

*Amphora proteus*

48.8.11.



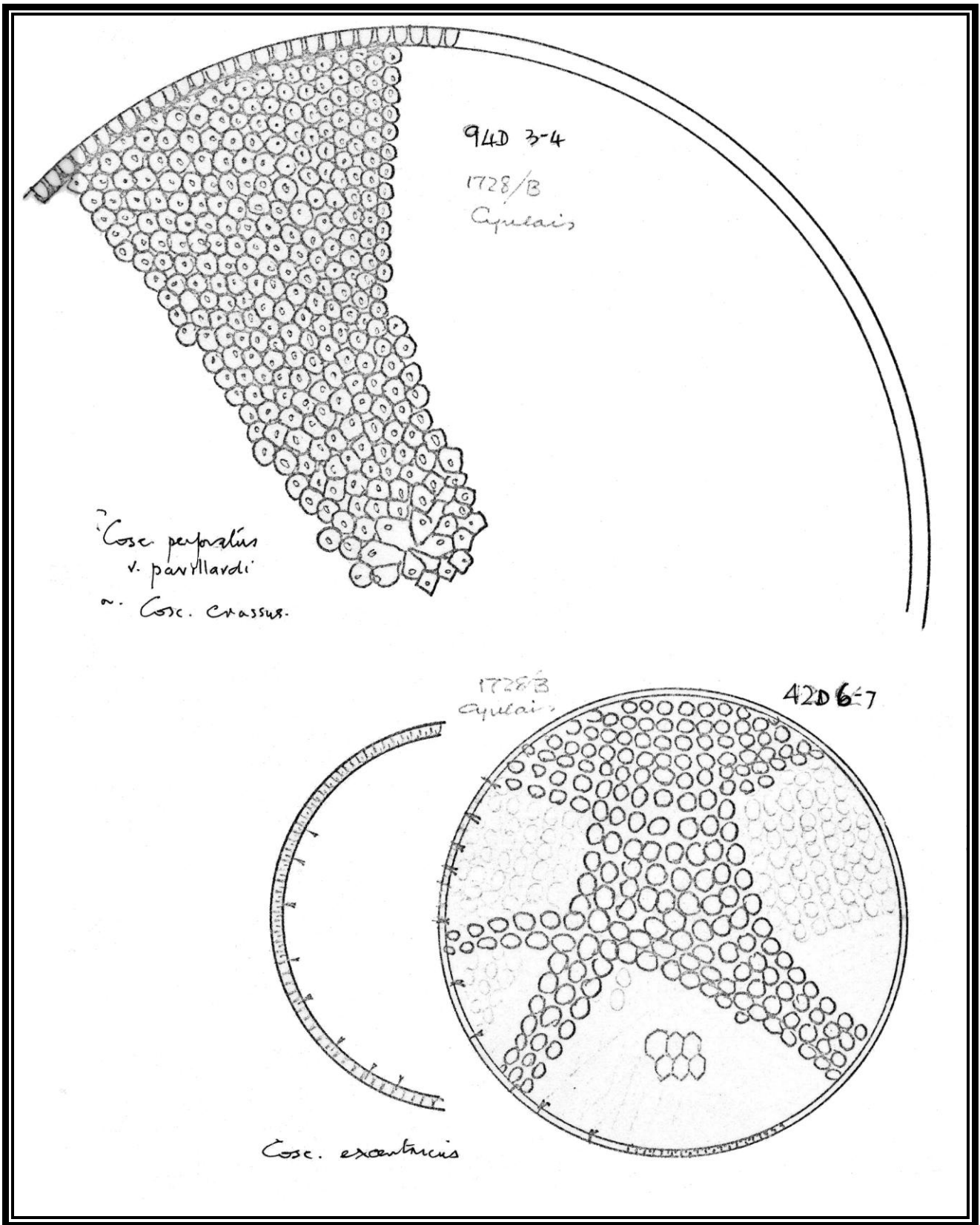
1728/B Carrig 2<sup>nd</sup> fan

CC Om Fra.  
*Cyclotella Comta* (Ehr)  
See Hurst's Pottent  
43.7 1/2 .11

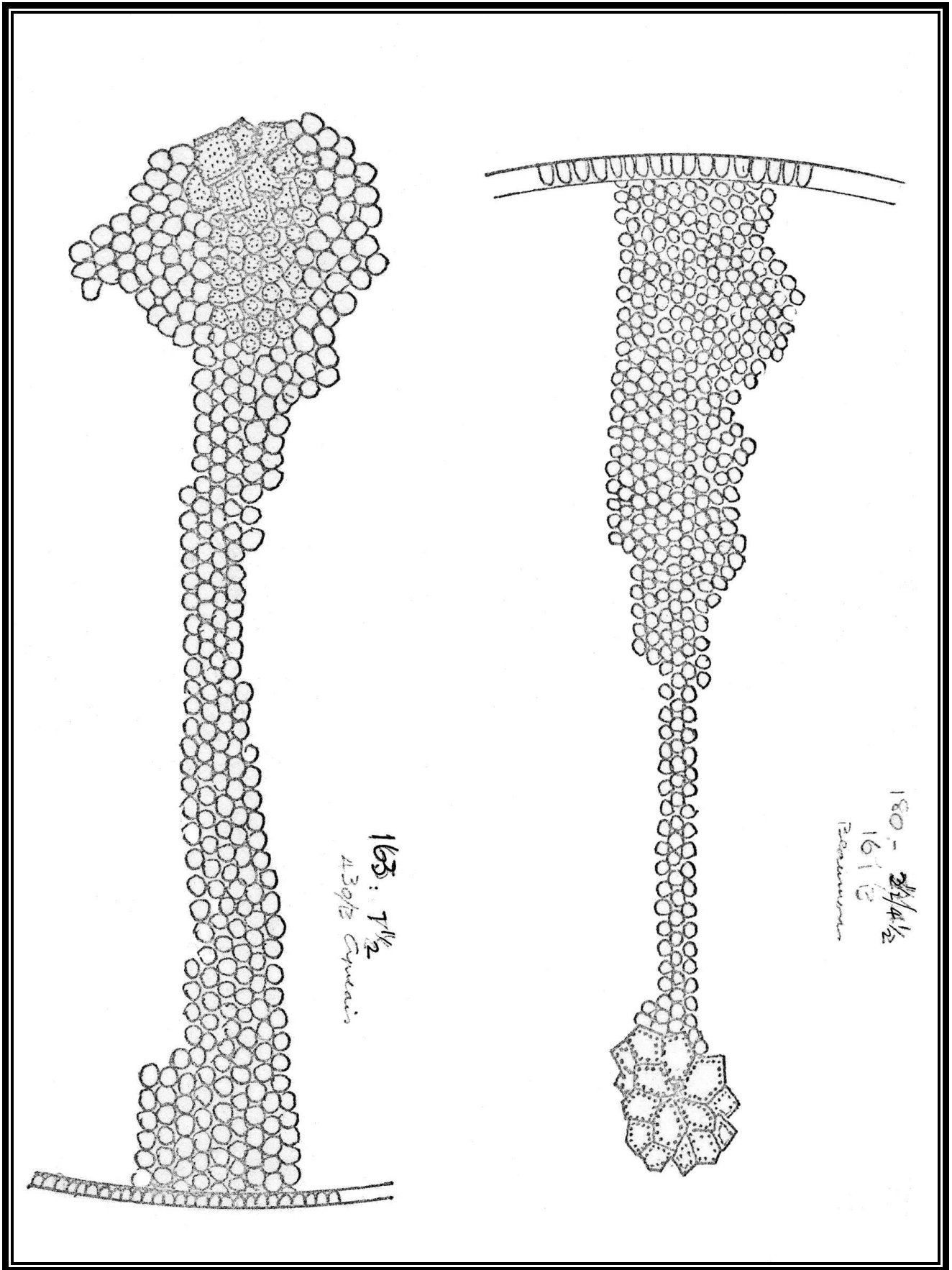


*Nav. planatica*

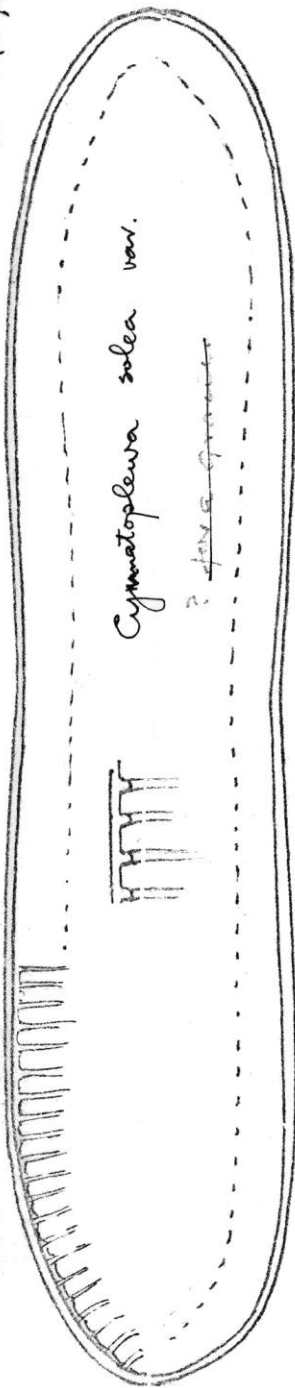
See also Hurst's *Amphora leucata*  
Hurst's *axiata*



Miscellaneous Plate 65



90. 19. 70-400



9194/B Melrose

1/4 X

366. 10. 24 .. 6 mag



Marginal 2 Spks

Only one specimen with this feature @ central portion.

N. dentata

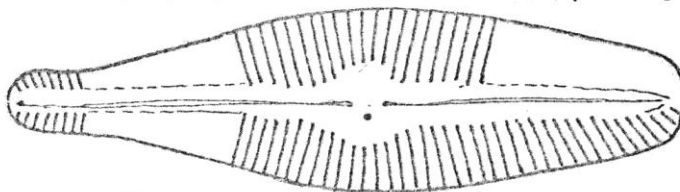
905/B Woodland Lock



Probably NOT Ace Sw 1746 A+B

9194 B Melrose

44. 12. 13

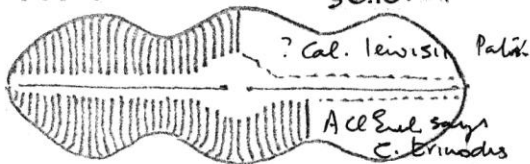


Gomph ventricosa

Very close photo.

809/B

30. 10. 21



? Cal. lewisii Pat. & A. C. Eul. says C. Brinodis

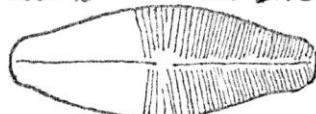
L. MARON. note striae rate also they are parallel not radiate as R. Pat. think

809/B MARON. 16. 4. 28. 5 1/2



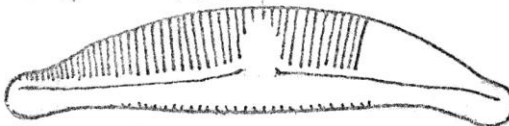
2 fine lines N. dentata var. detognii

1039/B 20. 7 1/2. 30+ cal.



Co centrim. AWR. 2 Spks ? N. detenta

1039/B 34. 6 1/2. 16 CAS



Co centrim AWR.

Amphora



Achnanthes flexella v. alpestris

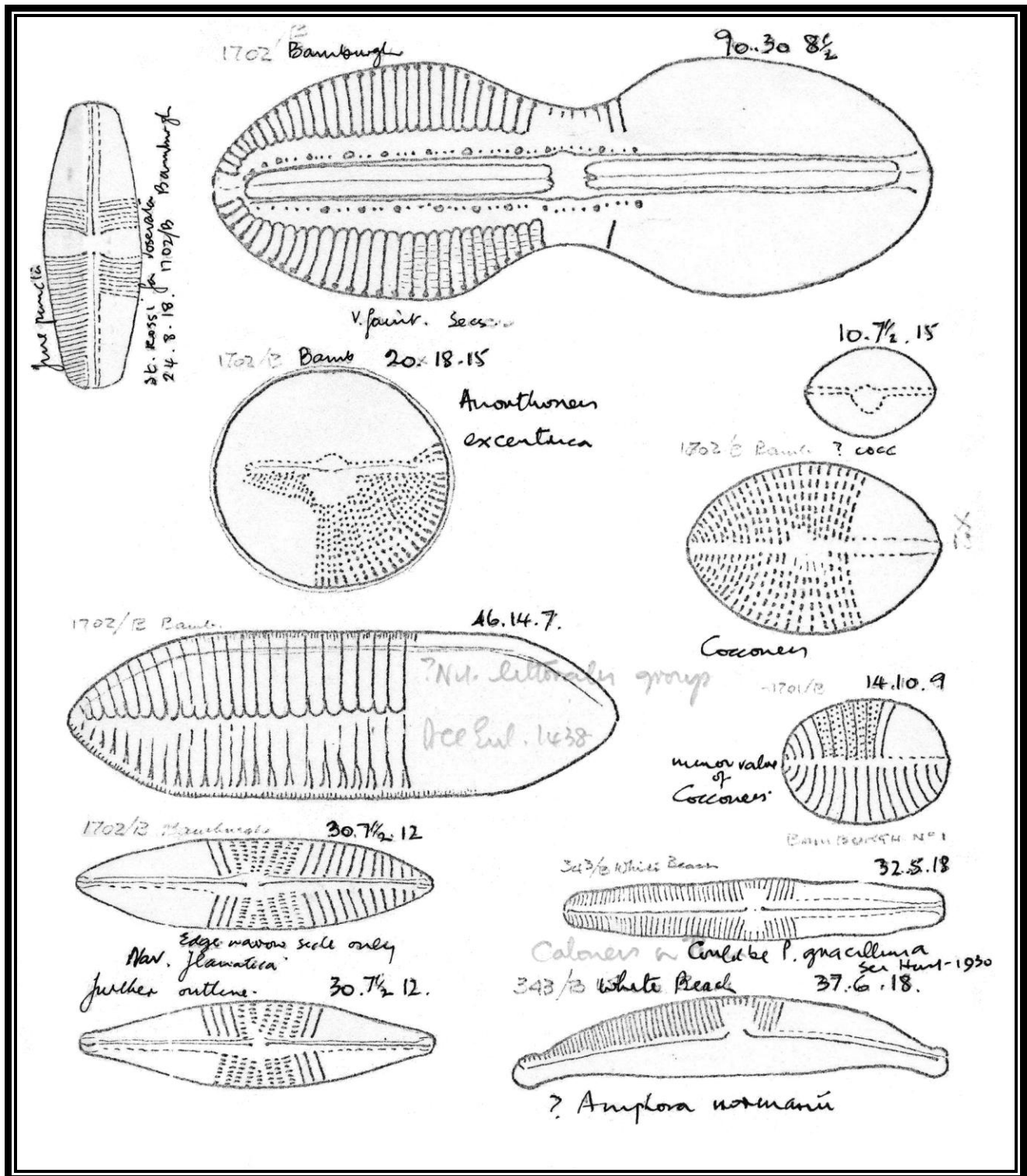


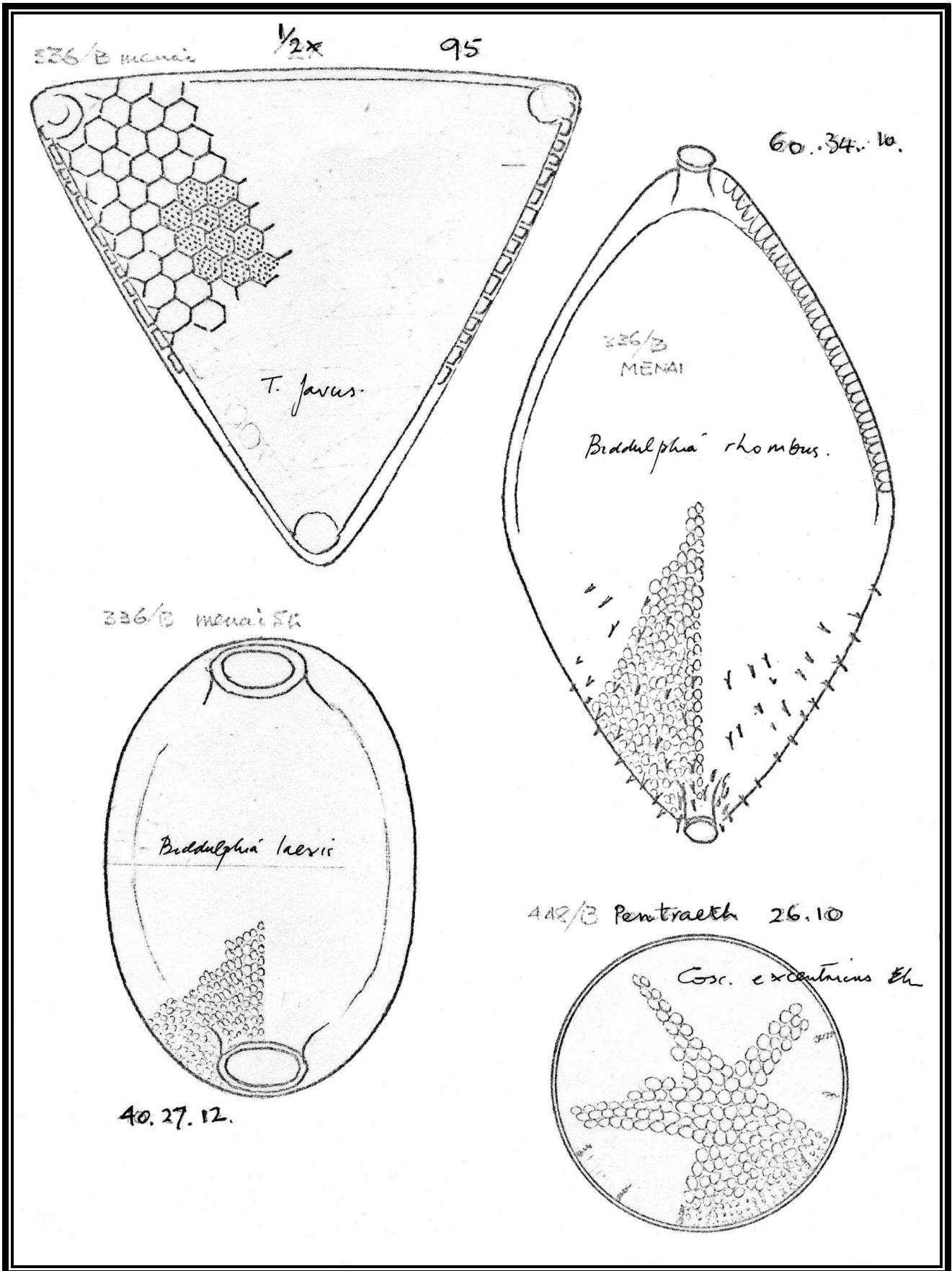
v. alpestris

24. 8. 25. 1475/B

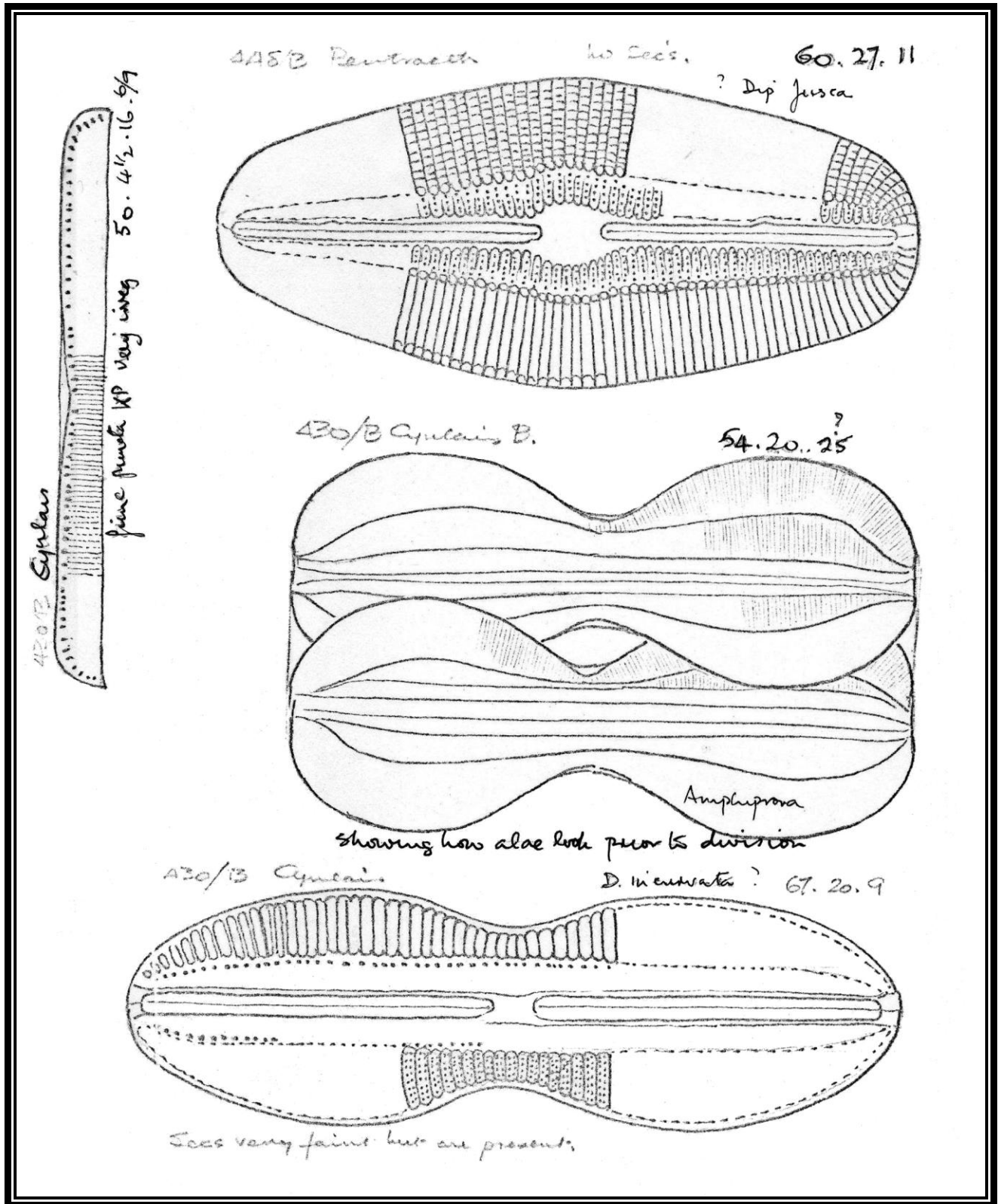
B. of Ross Co. Conn.

Miscellaneous Plate 67





Miscellaneous Plate 69





873/B. Kinton Bog. Fine, close puncta Raphe v. narrow slit

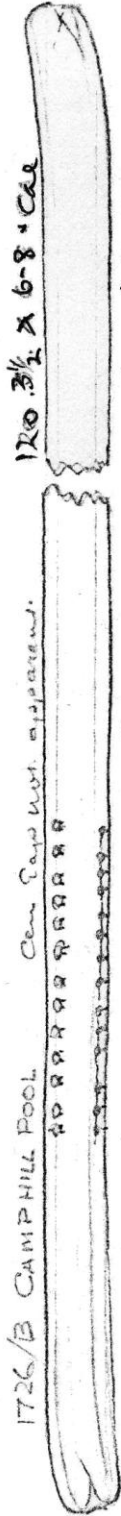
88. 8 1/2. 6 1/2



Gomph. intricatum

1726/B CAMP HILL POOL

Gen. Type not apparent.



120. 3 1/2 x 6-8 + cae

1726/B CH POOL

2. N. verruculosis (Mason) Hantzsch.

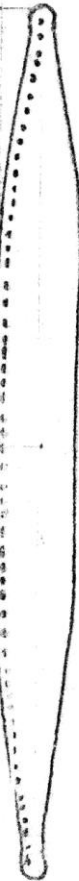


? N. flexa

73. 2 x 9/8 + cae

1726/B CH POOL

56. 5 x 10.



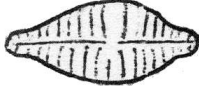
1726/B CH POOL

64. 6 x 6 image



Miscellaneous Plate 71

Gompho.  
12. 5 1/2. 12/5



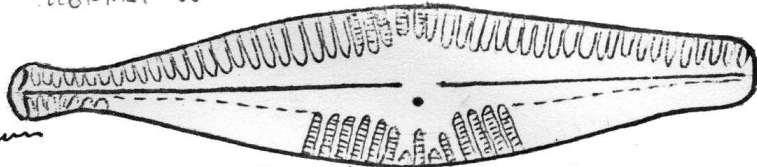
1773/B  
KIDD PK Gomph. parvulum



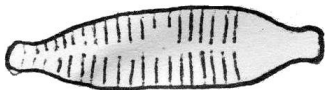
WIC CAE

MOFFAT W

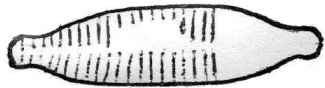
47.10.11



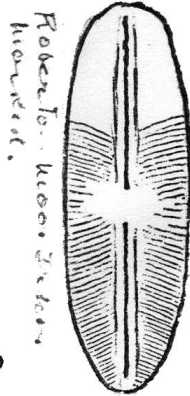
Gomphonema ventricosum



20.5.14



KIDD PARK  
Cap Synedra beralinensis  
Gen C V variable  
Lema



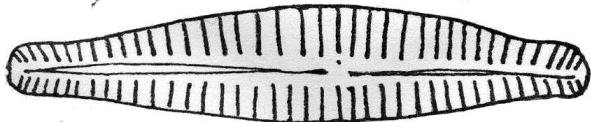
3242 C

15.8.27

Robert J. Kees-  
Hawford.

1797/B

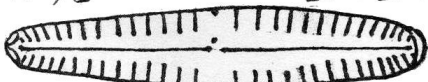
37. 7 1/2. 8D. 7 1/2 v.



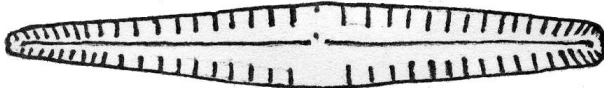
G/C ancyli Gomphonema ancyli.  
Sunbissin Ternoran (Cleve) Hust

1797/B

27 5/2. 10 CAE



SUNBISS T. x Peab  
Gomphonema intarcatum v. pumila.



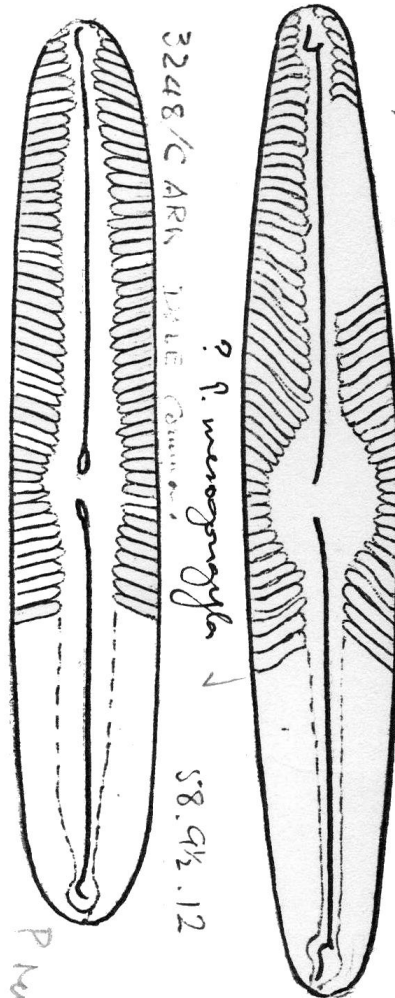
1797/B Sunbiss T.

38. 5 1/2. 8 CAE

Sec

650.

IN CL-51105' Gray.  
Sax. det. J. G.



3248/C

ARK. TALE QUINN.

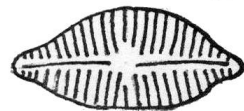
58.9 1/2. 12

? P. mesogonyla

3248/C ARKINGARTH TALE MARKED

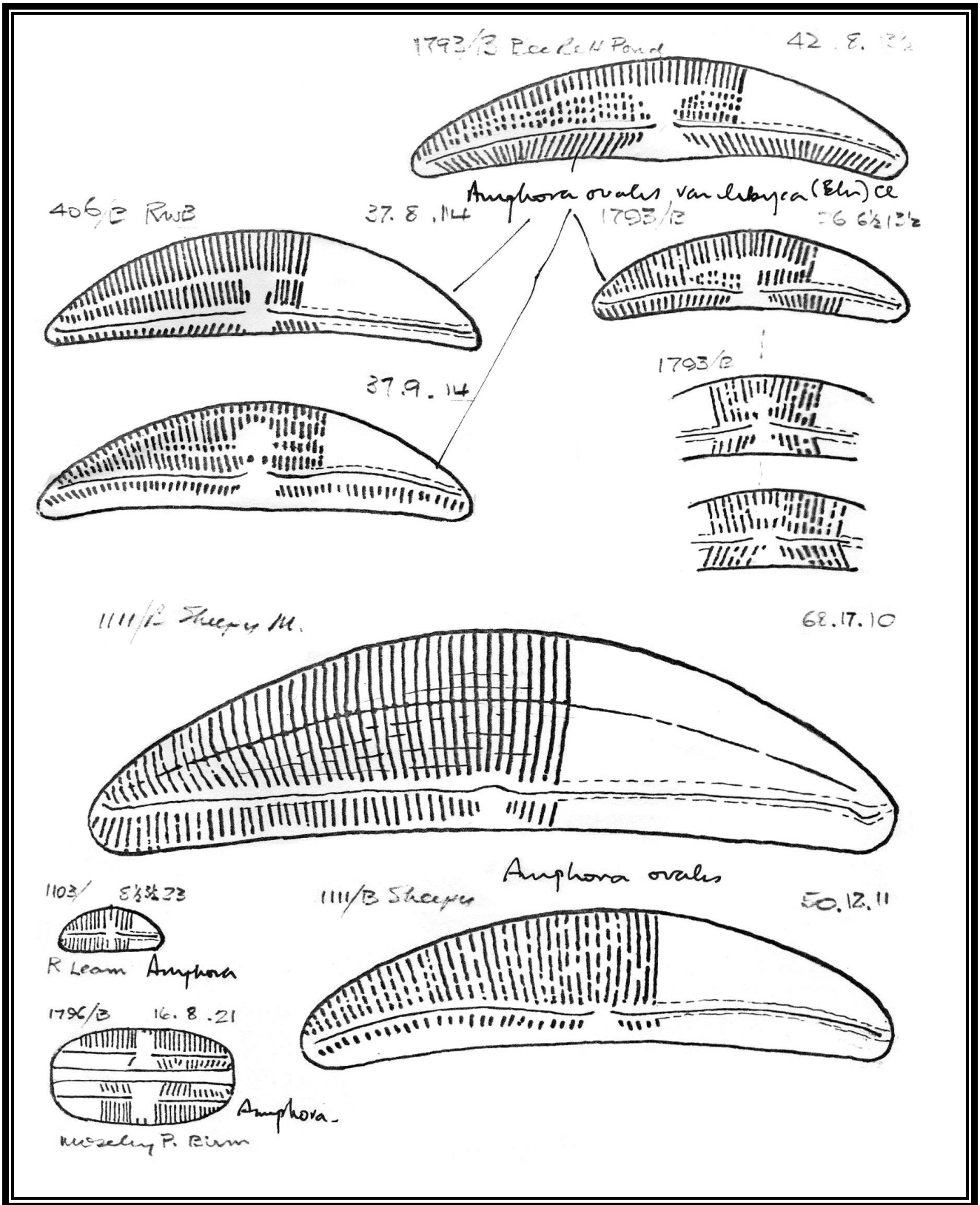
62.10.11

15.6.13



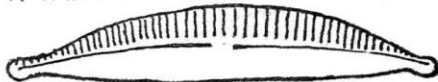
1797/B Sunbiss T  
Cymbella dotusiuscula

Cymbella



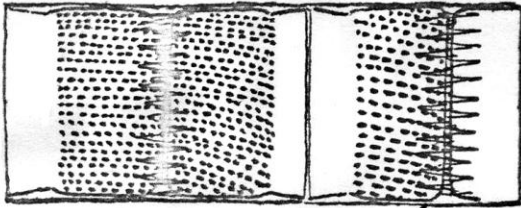
Miscellaneous Plate 73

774/B ANCH R.F. 28.5.15 CAE.

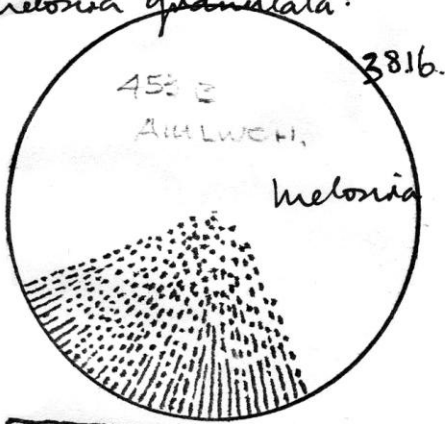


*Amphioxys notmani*

453/B AMLWCH 10.16

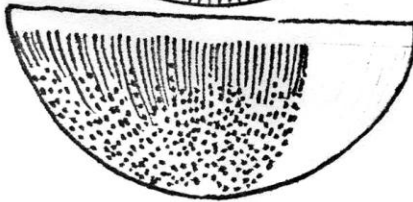


*Melosira granulata*

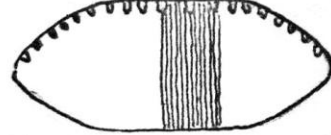


453 B  
AMLWCH

*Melosira*



1771/B LSW. 30.8.9 27+



*Nitzschia*

1771/B LSW. 30.7.9.27+



1771/B LSW. 34.5.16.7

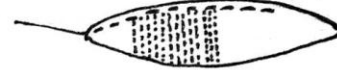


*Nitzschia*

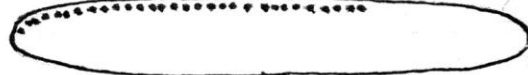


*Nitzschia amphibia*

16.4 16.7



1771/B LSW. 33.5 x 9/12



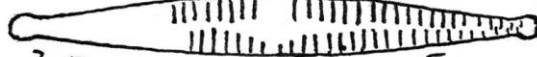
KP variable each valve

20.5 x 9/12

*Nitzschia*



1772/B G.M. tail 34.3 1/2 .13



? *Fragilaria vaucheriae* n. F.

13249 C *Chamaesira*



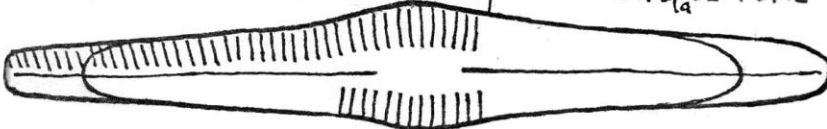
*P. debilis*  
(Pant.)  
C.

28.7 1/2 .12

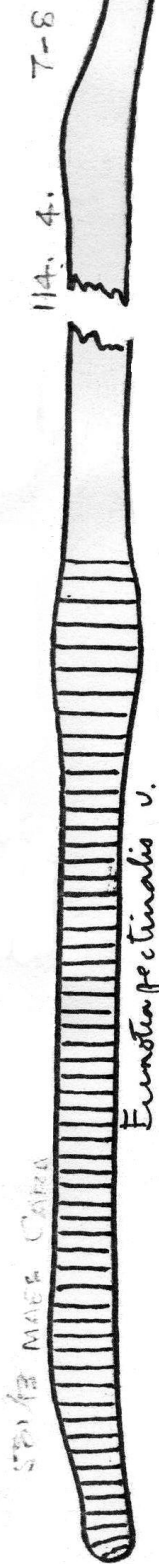
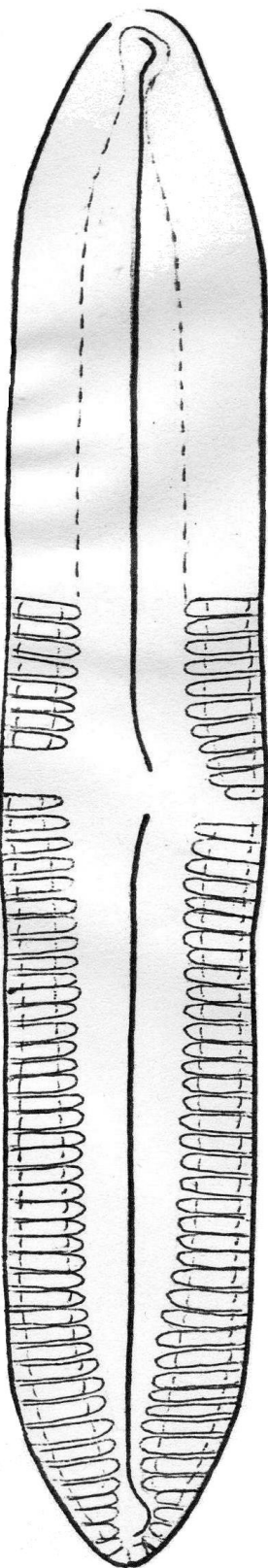
See Acl Eul 1041 B

or *P. hemiptera* v. *pumila* Acl  
See Acl Eul 1042 e

1773/B Kida PK RHOCOSPHEMIA *convoluta* 55.8.12

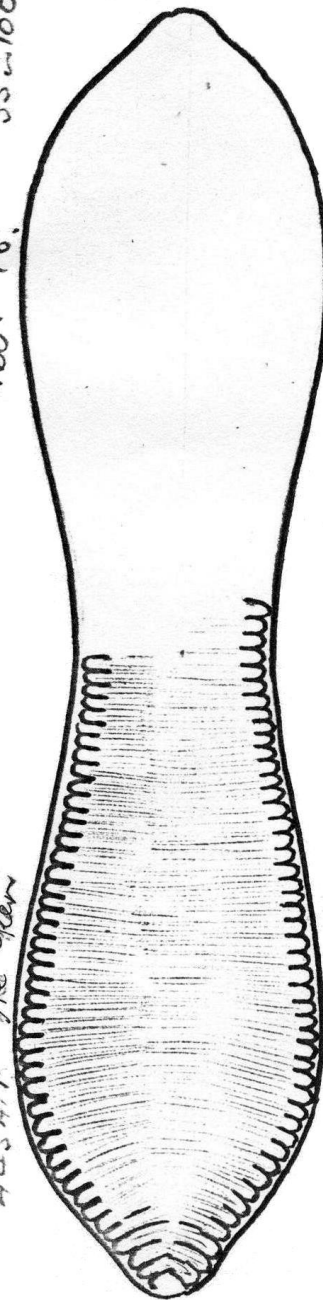


581 B Maes Casad ? P. Hemiptera ~ P. mullerica 100.18.8



*Eunotia pectinialis v. ventralis.*

445A/P Ike Glen 160. 18. 55-100 55°



*Cymatosira pleura solea*

1799/B 150.4 x .10



ABR. 1305.

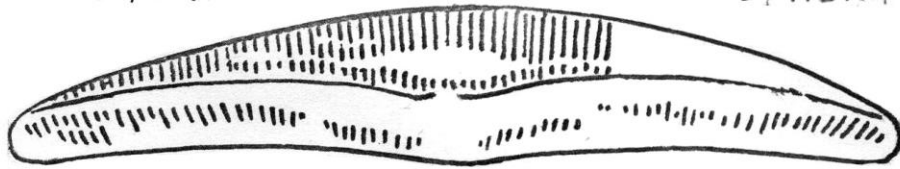
Nitzschia.

note N. tenuis see rounded Kp.

Miscellaneous Plate 75

448 12 Pentraeth RWB.

57.10.14

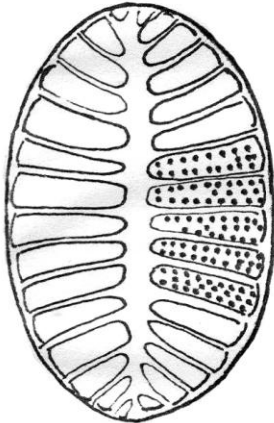
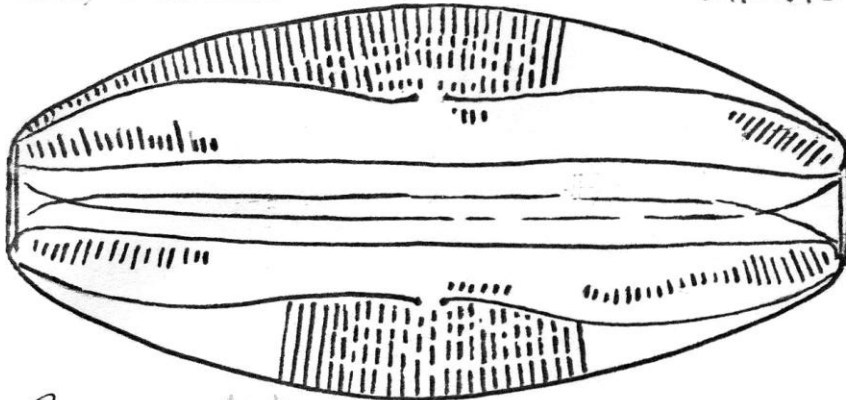


*Amphora*

448/13 Pentraeth RWB

54.24.13

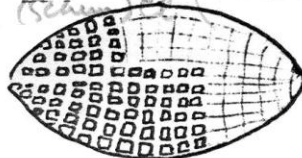
27.17.5



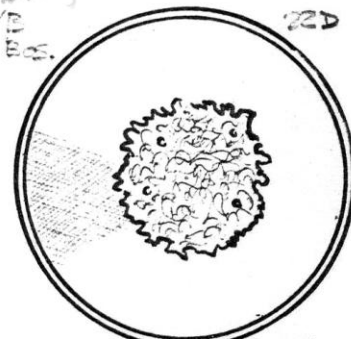
1800 E Kirkwall

*Cocconeis clandestina* A.Sch

*Cocconeis distans* Gray  
(*disculus* & *disculoides* Hust.)  
(Schum.)  
1799 E  
Aber. Esc.

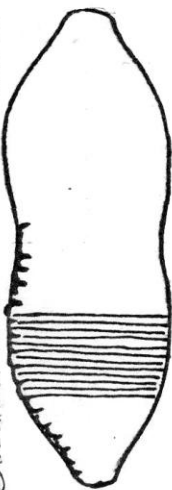


1800 1/2 18.10.9  
KIRKWALL

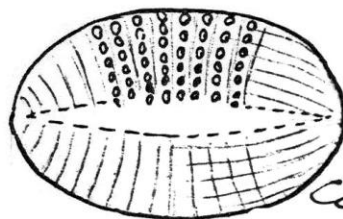


*Hyalodiscus scoticus*

30.10.22.11

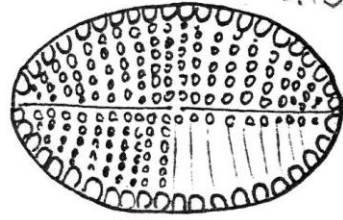


1809/13 *Mitzschia panduriformis*  
v. *contingens* Grun



*Cocconeis scutellum* v. *parva*  
Pavag.

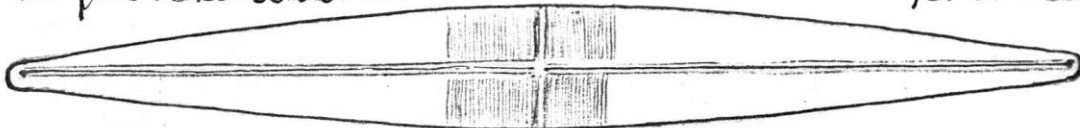
1800 1/2 Kirkwall 22 13.10 8



PARVA

*Nitzschia quadrangulata* Hust.

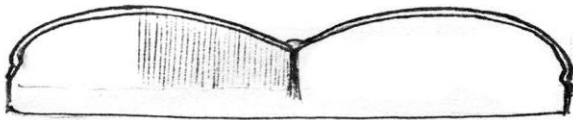
70. 8. ? 30



See P. 50 Vol 3/1 RAB

HOLCOMBE

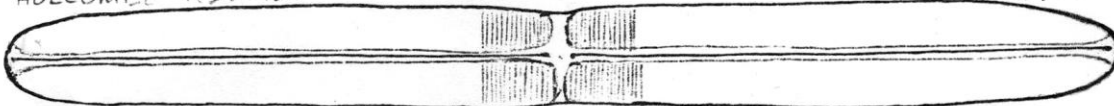
1798/13



Side View of

HOLCOMBE 1798/13.

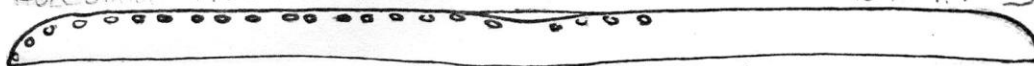
72. 6 1/2. ? 25



? *Stauroneis constructa*

HOLCOMBE 1798 B

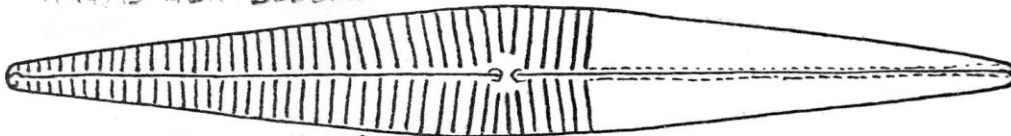
67. 4. X 5



1799/13 ABH BOSOM.

*Nitzschia*

66. 9. . 10

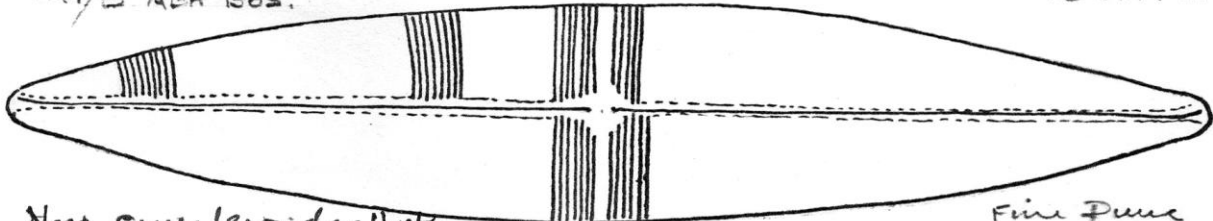


? *N. directa* v. *subtilis* Greg. P. 20 X 11 -

fine line

1799/13 ABH BOS.

78. 14. 21

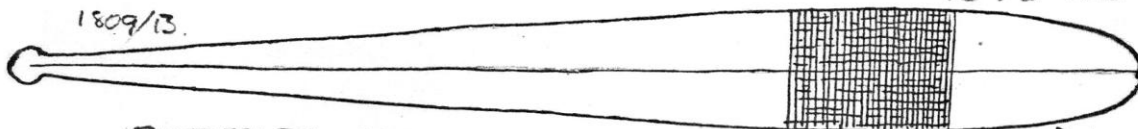


*Nitzschia crucifera* Hust

Fine Line

1809/13.

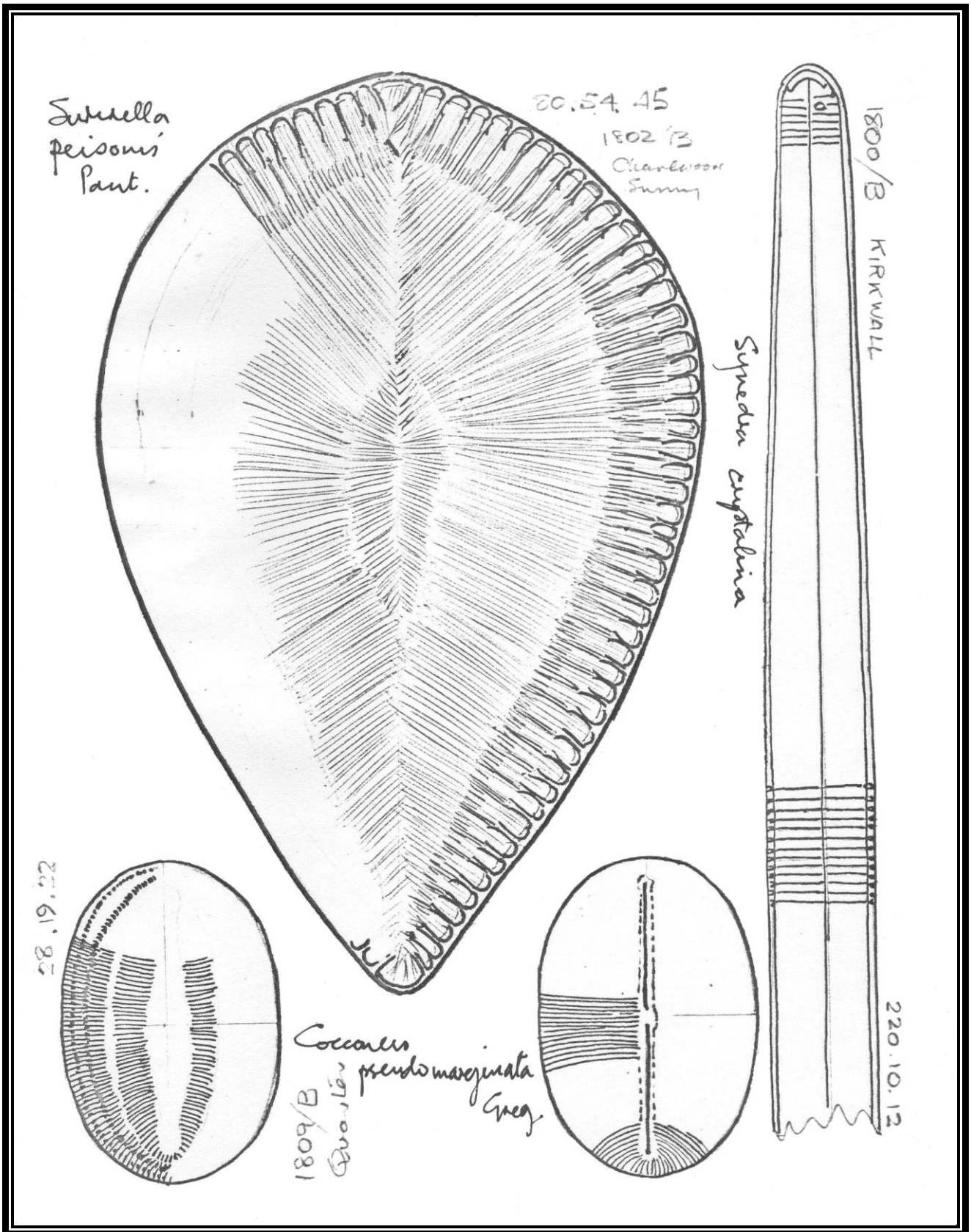
75. 8. . 22



QUARTERNESS - ORVINEY

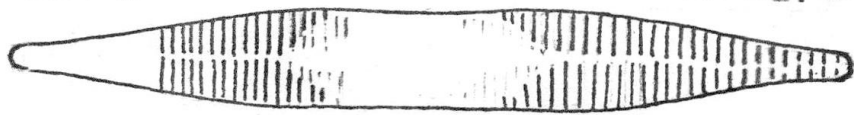
*Lichmophora fabelata* (Carm.) Ag.

Miscellaneous Plate 77

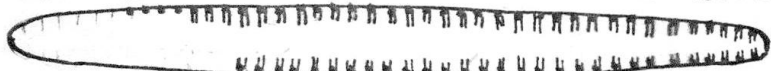




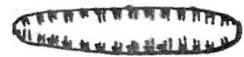
1807 B Boat. *Synedra* 48.5 1/2 .15



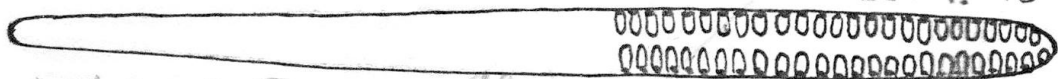
1807 B Boat 44.4 2 .10



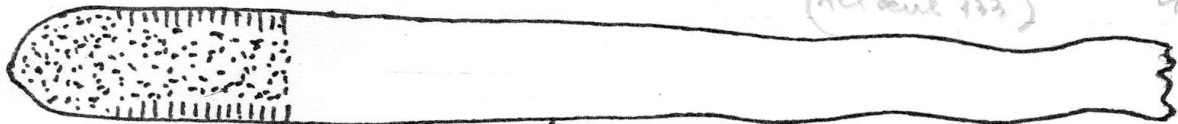
G. MARINA 12 2 1/2 .10



60.4 .10

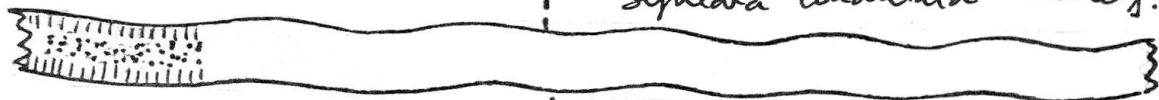


High says *Cymosella magna* but  
*Plagiosgramma rostrata* Green  
(Act. Bot. 333)

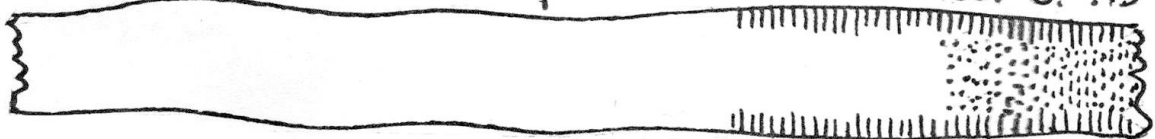


Quarterness Skerry

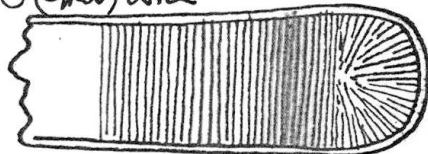
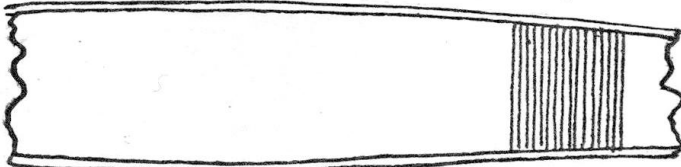
ORKNEY 1809 2  
*Synedra undulata* Barley.



460. 8. .13



1809 B ORK. *Synedra fulgens* (Green) Wh. 200. 10 .17

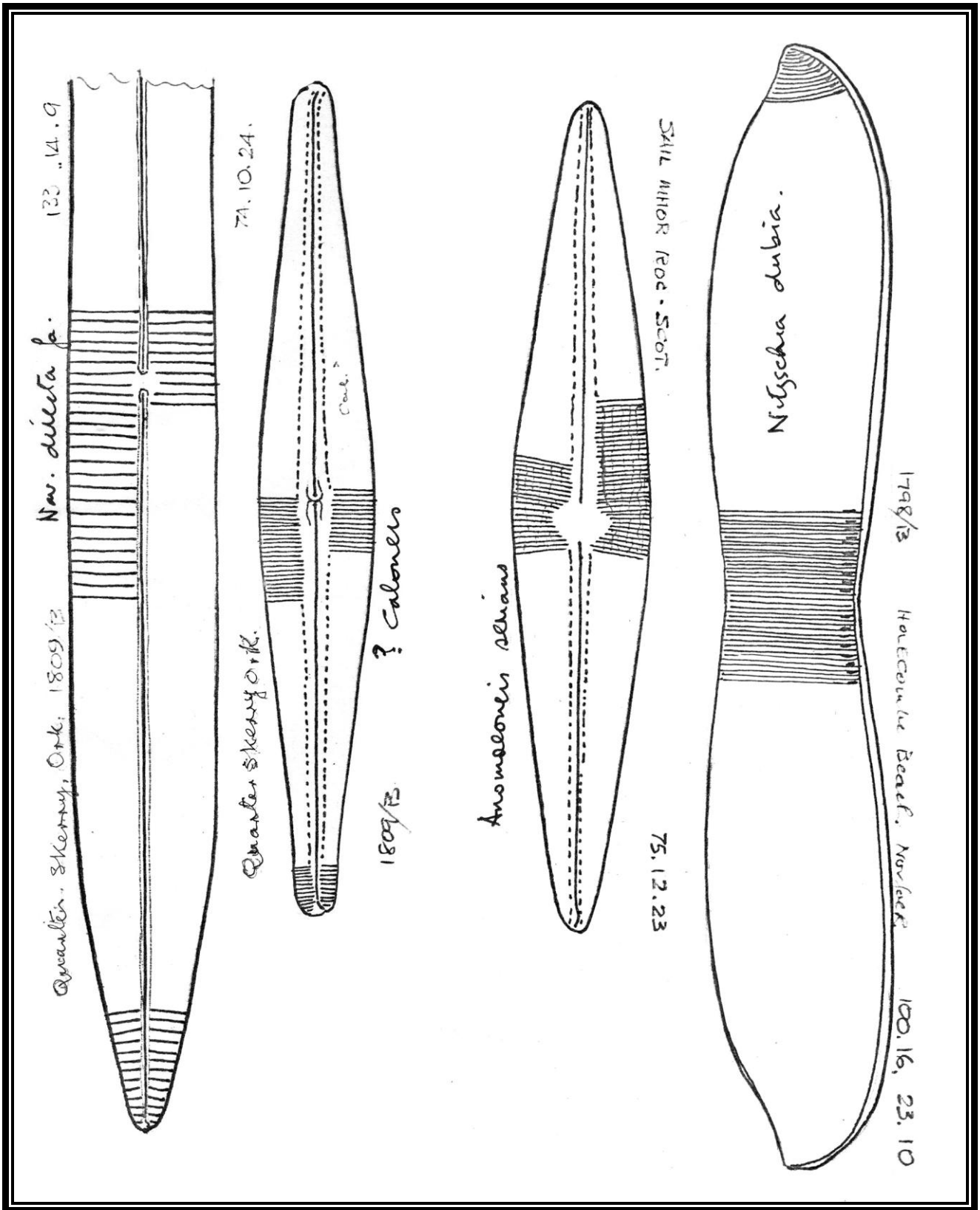


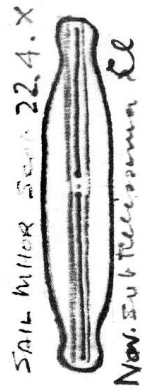
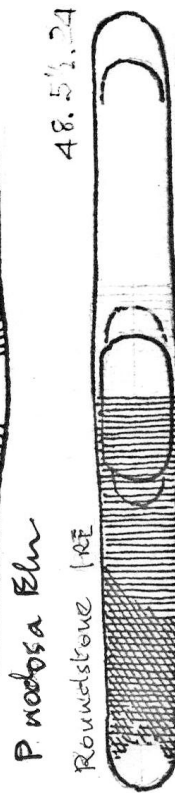
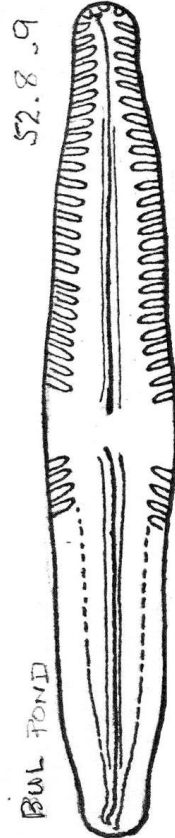
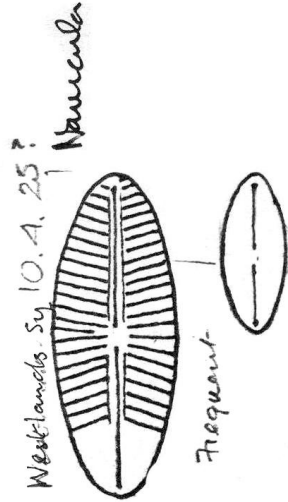
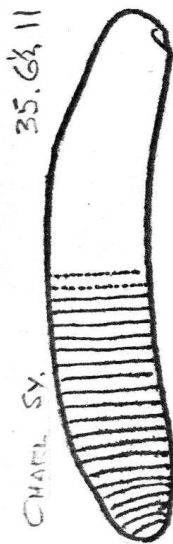
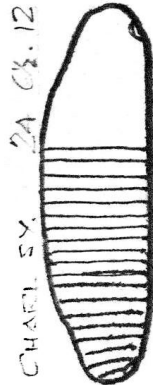
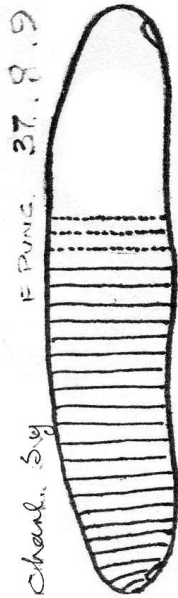
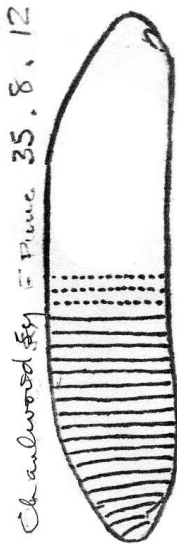
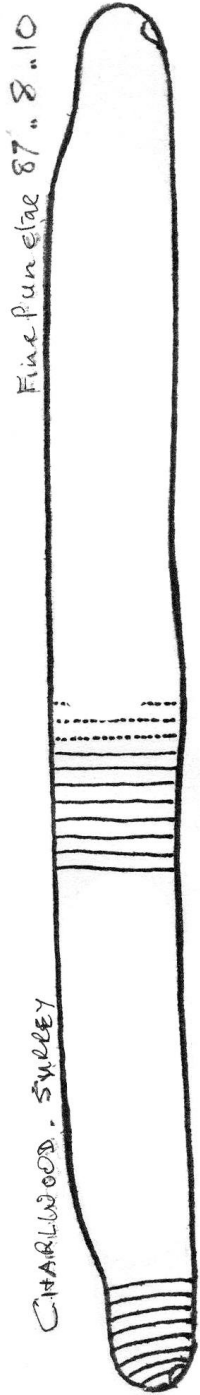
*Nav. subtilissima* Cl.

Sail Nov Roc Scot.  
28.4 X. X2

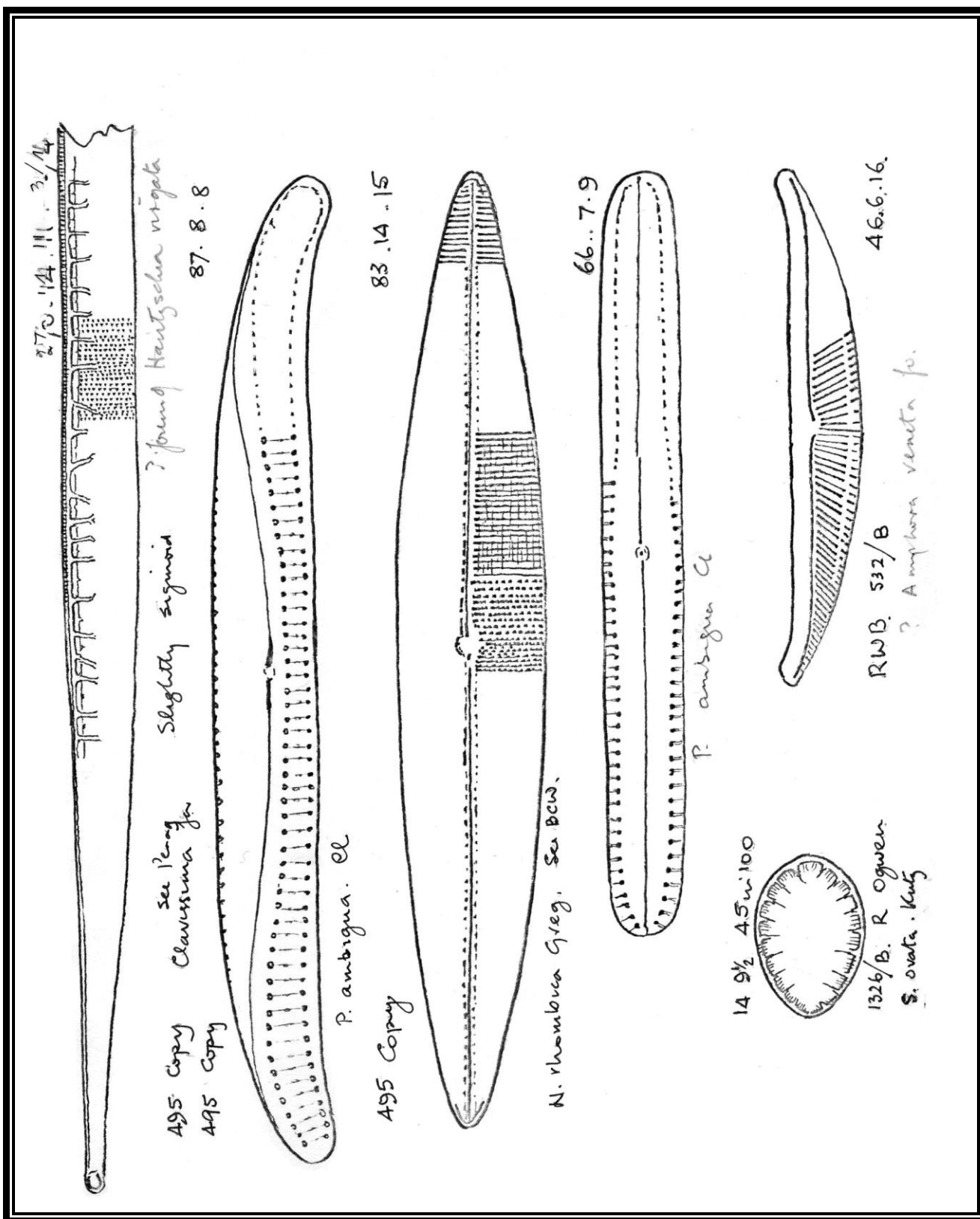


Miscellaneous Plate 79





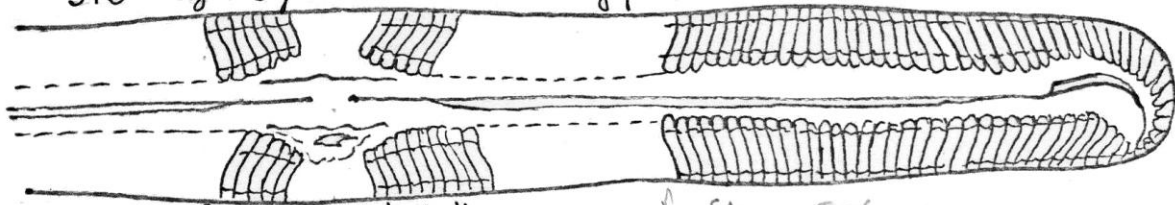
Miscellaneous Plate 82



516 *Llyn Ogwen*

L B's very faint.

106.12.12.

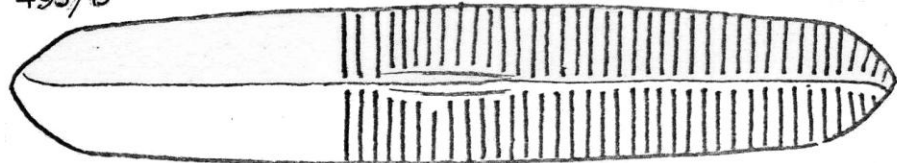


note Raphe ends both the same

P. Stromatopora

495/B

55.10.12

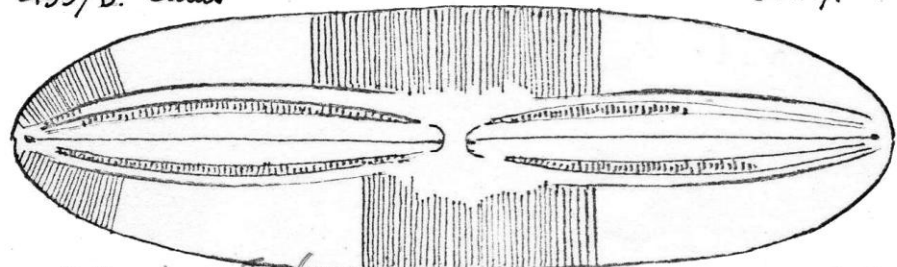


*Cerrig Cynlass Beaches Anglesey.*

495/B. ditto

55.17.24

See B.W. 27/6  
495 B/Copy.  
24.6.9.  
8/24



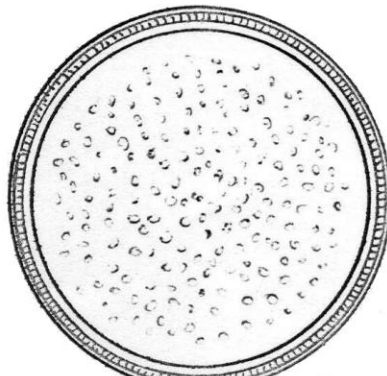
? *N. abrupta* (Grev) Donk.

23.6.6 1/2

495 Copy



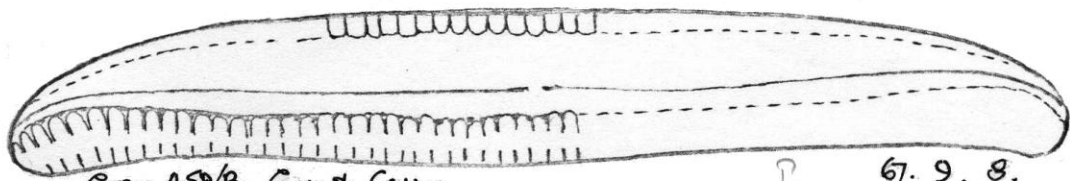
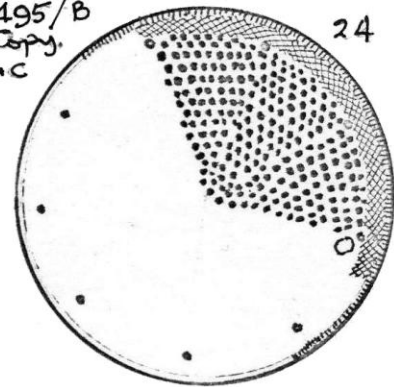
? *Operon pacifica* Su B.W.



*M. moniliformis* See B.W

495/B  
Copy.  
C+C

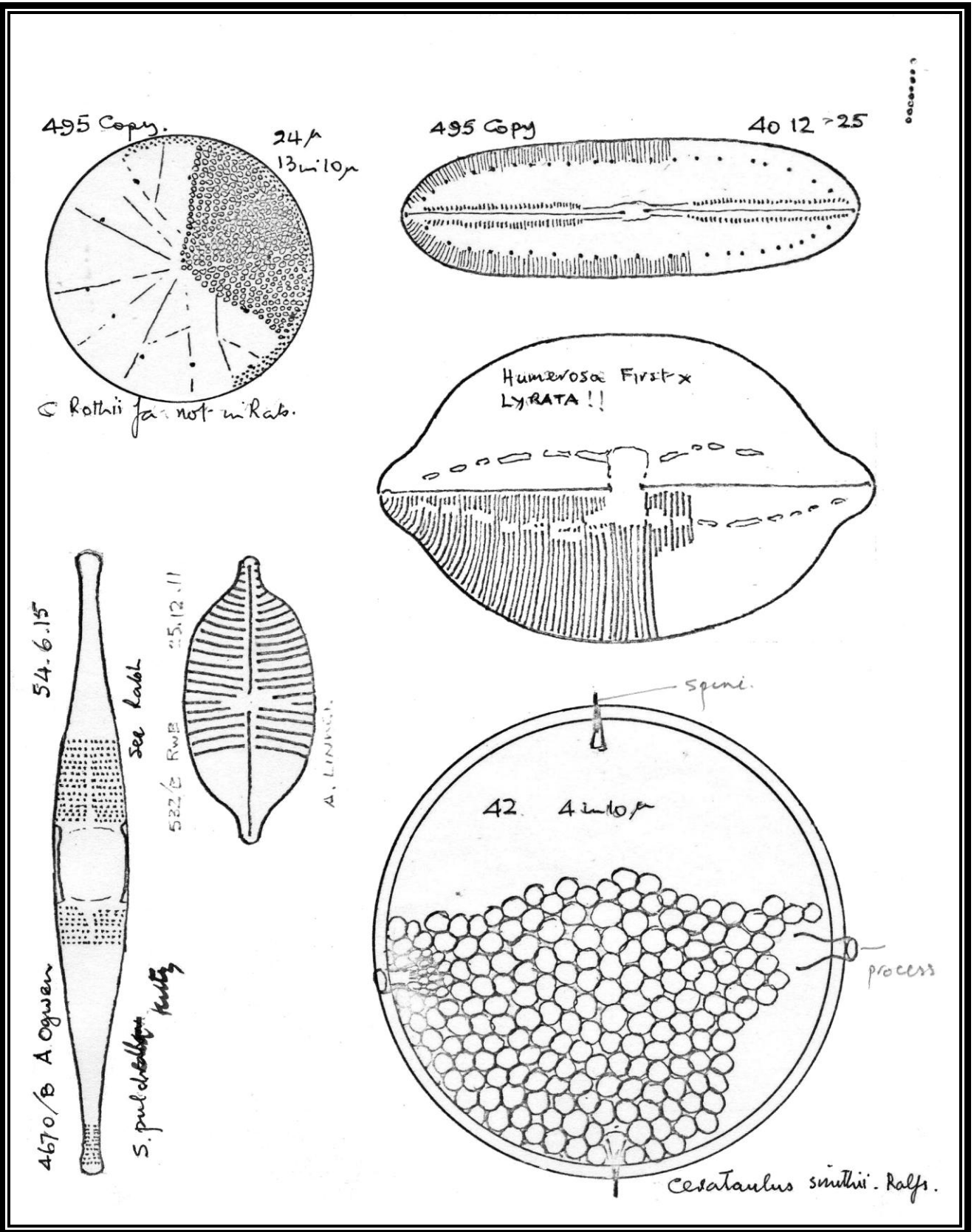
24



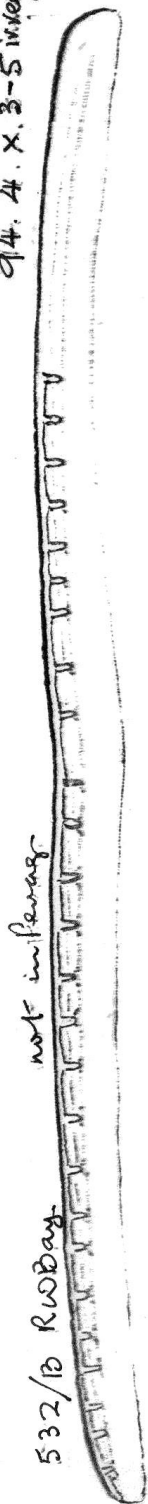
Copy 495/B. *Cyn & Cerrig*

*P. ambigua* 67.9.8.

Miscellaneous Plate 84



94. 4. X. 3-5 irreg.

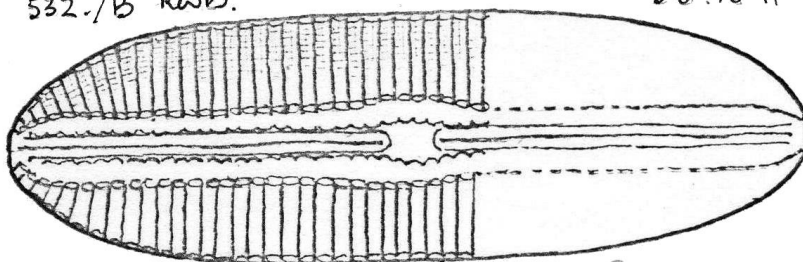


532/B R.W. Day

not in figure

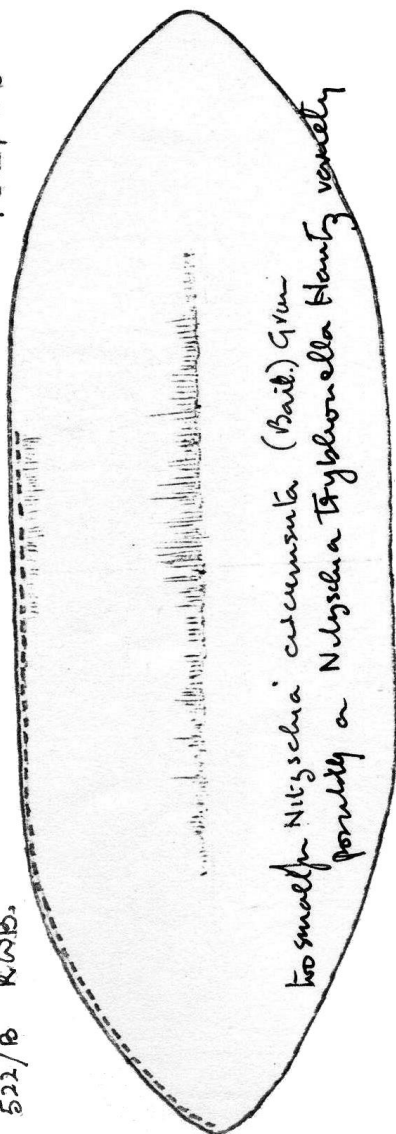
532./B R.W.B.

50.16 11



*D. littoralis* v. *clathrata* (Øst.) Cl ?

70.24 x 8



too small for *Nitzschia circumscuta* (Baird) Grun  
possibly a *Nitzschia tryblionella* Hantz variety

522/B R.W.B.

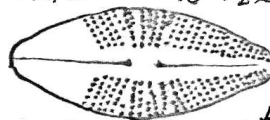
No striae

27.5. MIL

*Amphora*

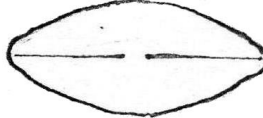


562/B Newborough Waven  
1717 B 16 7 1/2 20



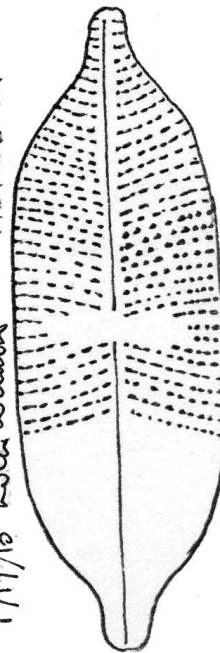
Watton Loch

*Achnanthes*

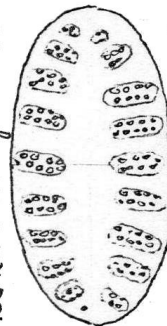


1717/B Loch Watton

40. 12 1/2 12.



*Nitzschia fuscula* (Ehr.) Grun  
but ? *N. menziesii* Hender  
H.G.B. says *N. pseudofuscula* Kirk. *Orkney* 20.10.6



1800/B

*Cocconeis* ~~*E.*~~ *pinnata* Grun.

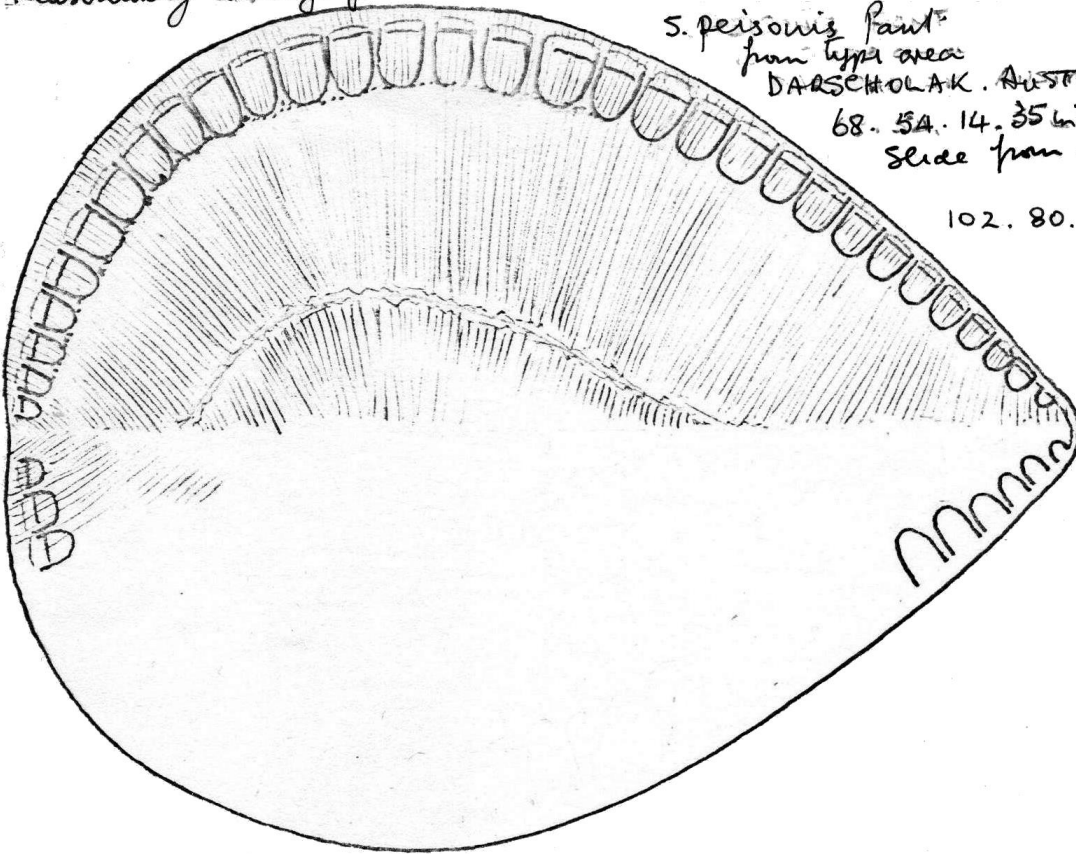
See *Levoj* Pl. 2/4 11-14

Miscellaneous Plate 86

Reasonably average form

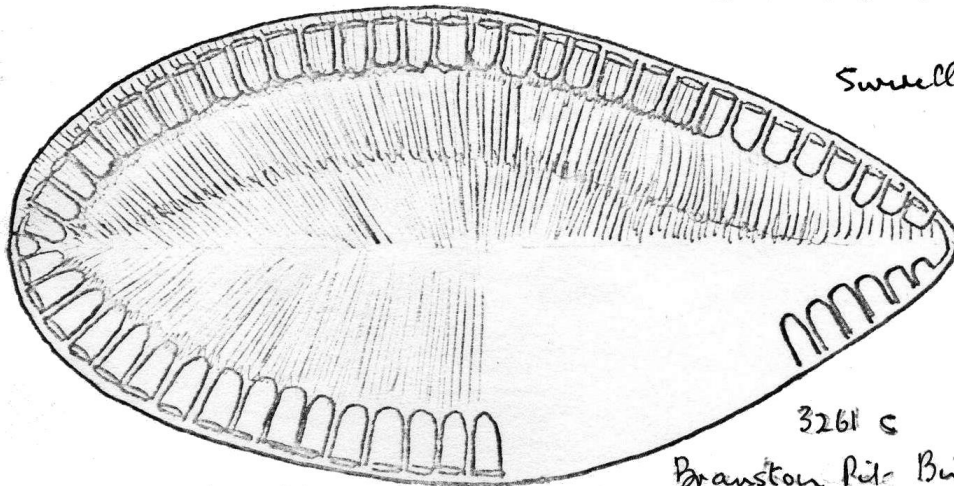
*S. peisonis* Pant.  
from type area  
DARSCHOLAK, AUSTRIA  
68. 54. 14. 35  $\mu$  100  $\mu$   
Slide from J.R. Costin

102. 80. 14. 35  $\mu$  100  $\mu$



60. 30. 18 . 45  $\mu$  100  $\mu$

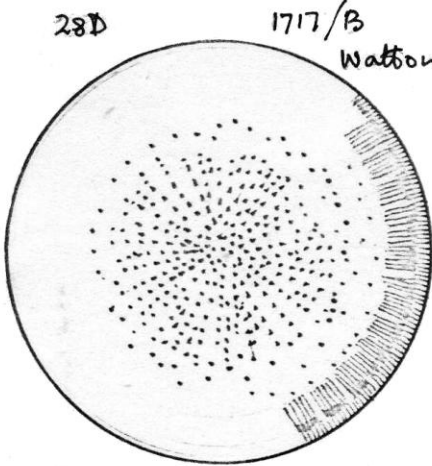
*Sirella peisonis* Pant.



3261 c

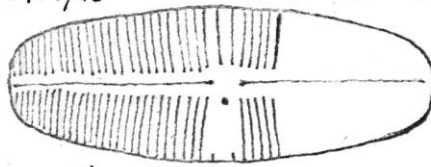
Branston Pit, Bing Pool





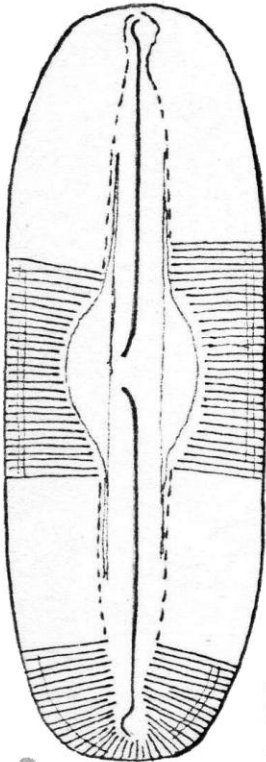
28D 1717/B  
Watton L

*C. Compta* Ehr.



1717/B 27-10-18 Wic.

Watton Loch  
2 spots top R.H.  
*Gomphonema*



3159, Loch-u-n. Caille.

48. 16. 14

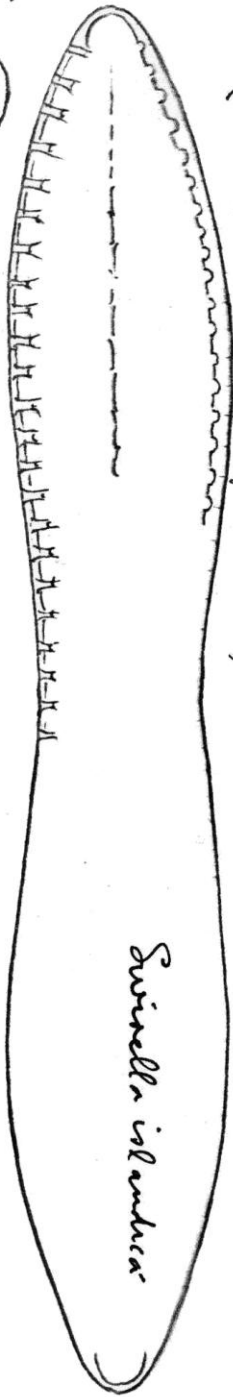
?  
with two spots above  
*Cal. obtusum*



3159/cc. Loch-u-n. Caille.

60. 9. 11.

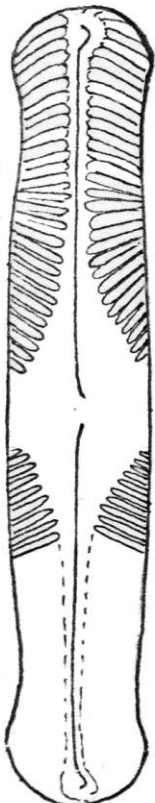
*Pinnulata  
divergentissima*



*S. variabilis* var. *constricta* AC.  
(*S. islandica* - 1 major. for *constricta*) Loch-u-n. Caille.

87. 14. 30 in 100  $\mu$ m

*Sirella islandica*

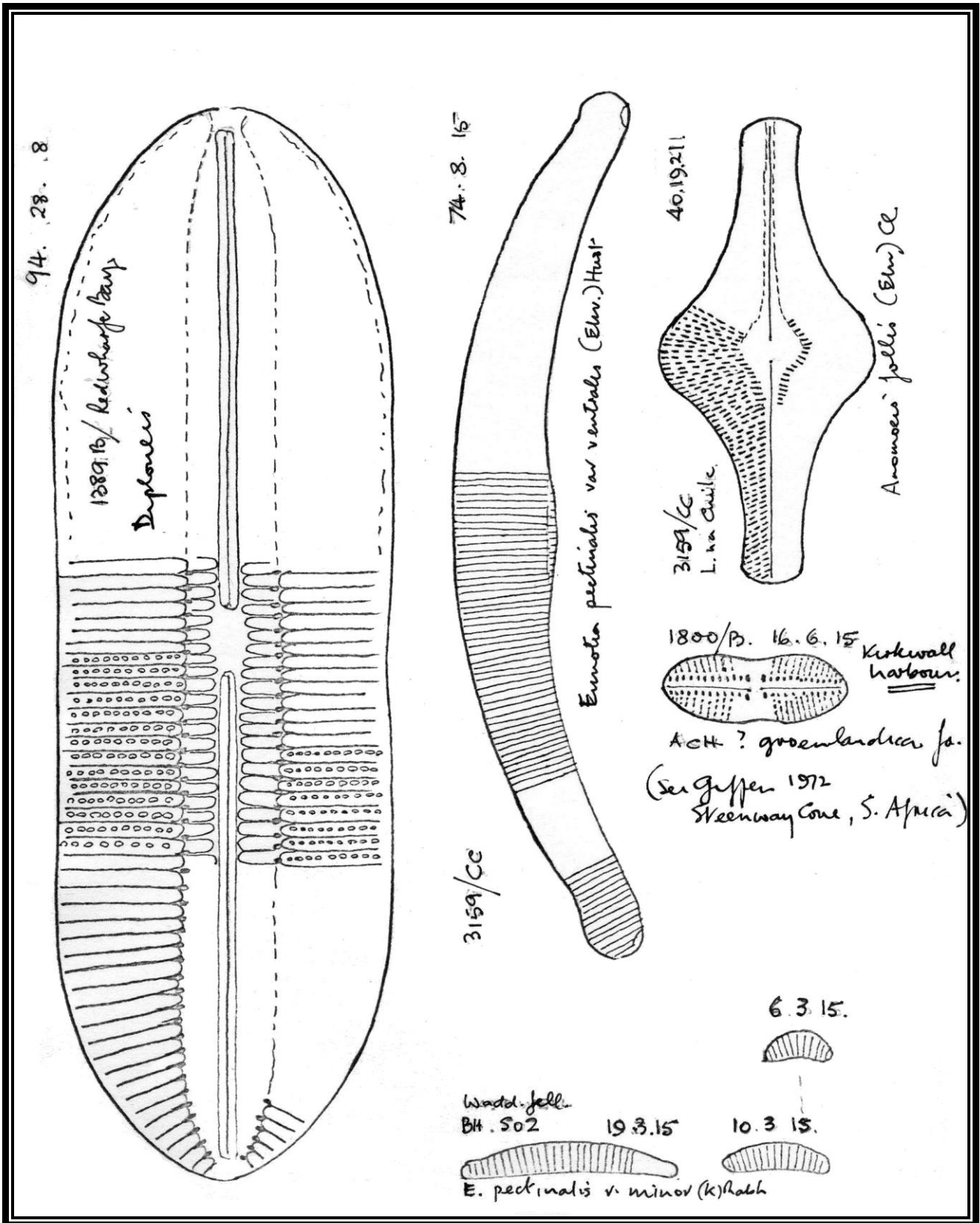


3159/cc. Loch-u-n. Caille.

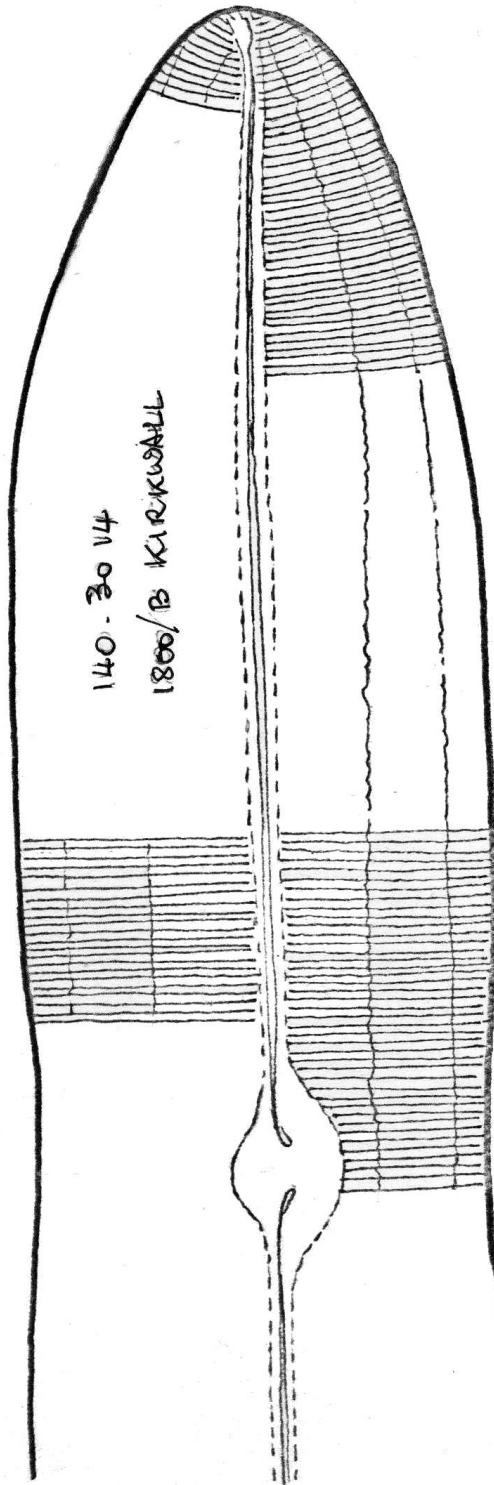
50. 8 1/2. 11.

? *P. microstoma* var. *bimaculata* O. Müller  
498 says ? *P. gelidocaps*

Miscellaneous Plate 88



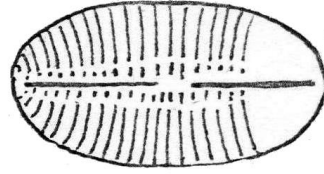
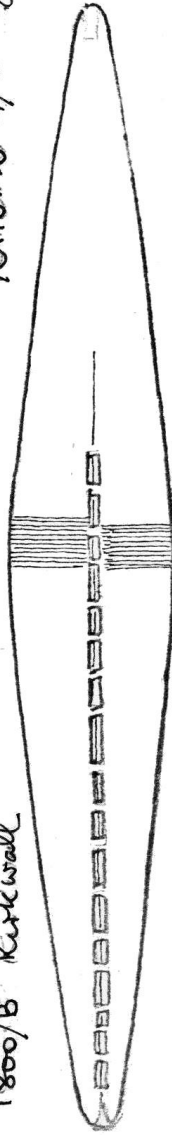
All marine from  
Kirkwall harbour



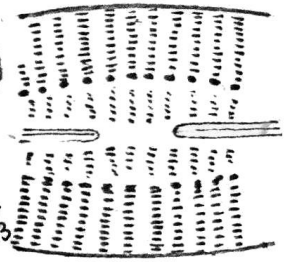
140. 30 14  
1800/B KIRKWALL

? 70.10.30 4/5 irregular

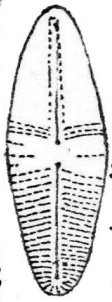
1800/B Kirkwall



20 10 11  
Kirkwall: 1809/p

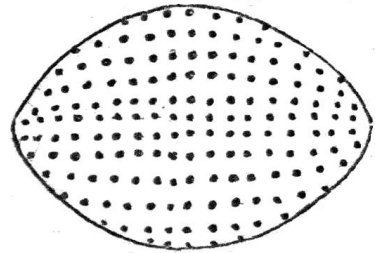


1800 18.6.9. 61C

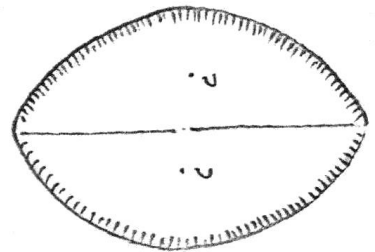


Kirkwall  
Pseudocostoides

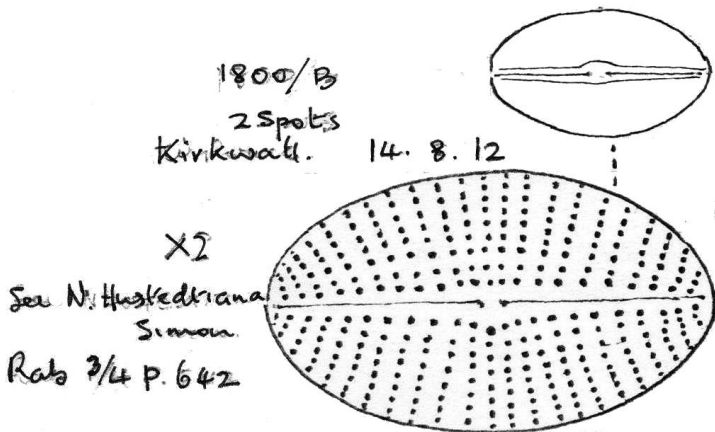
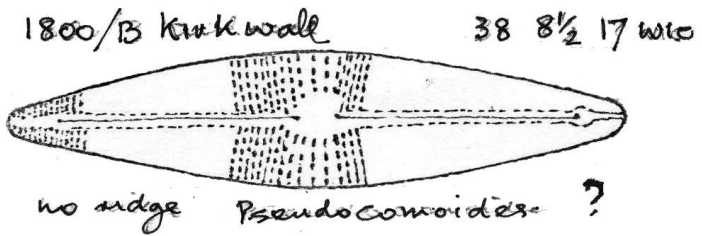
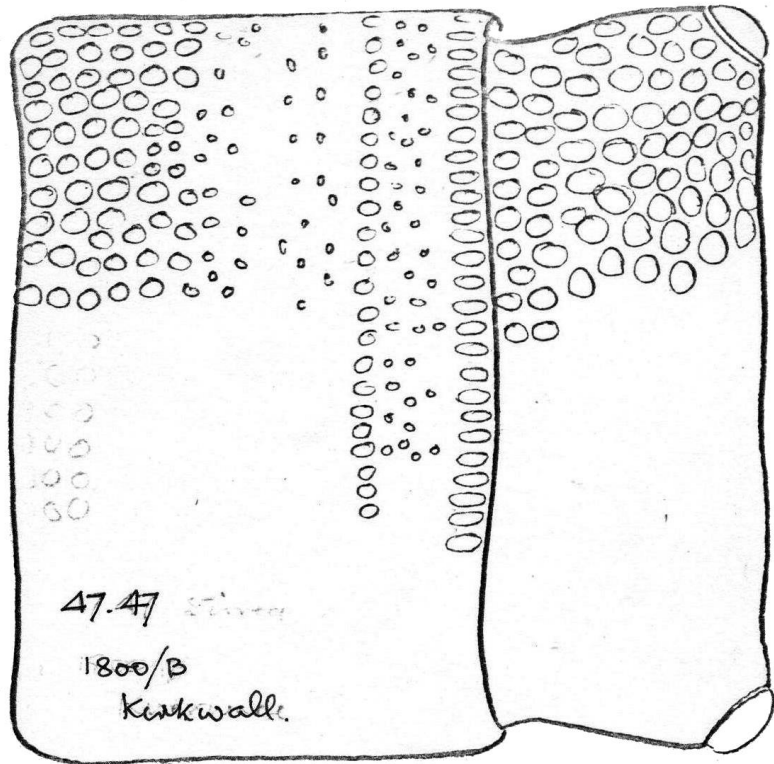
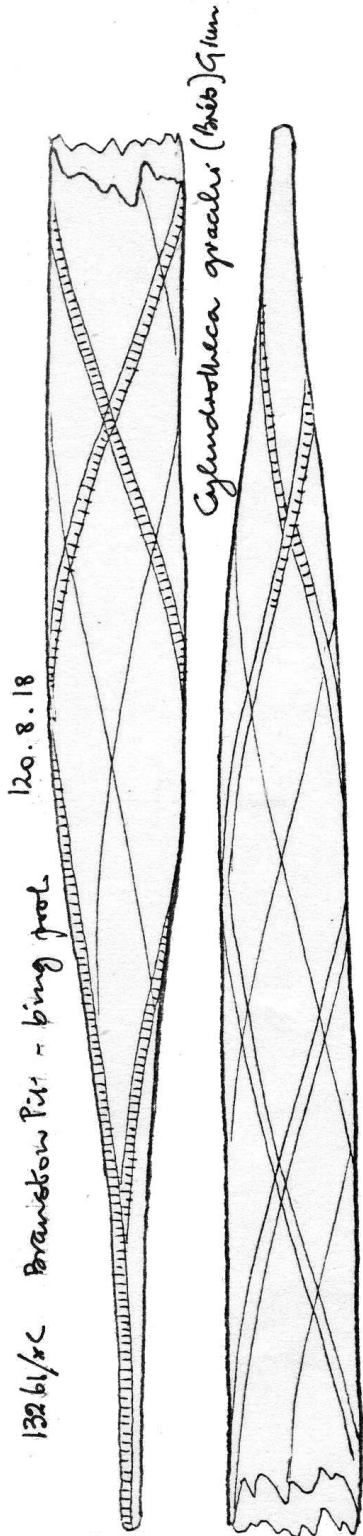
C. debesi 22.16.6

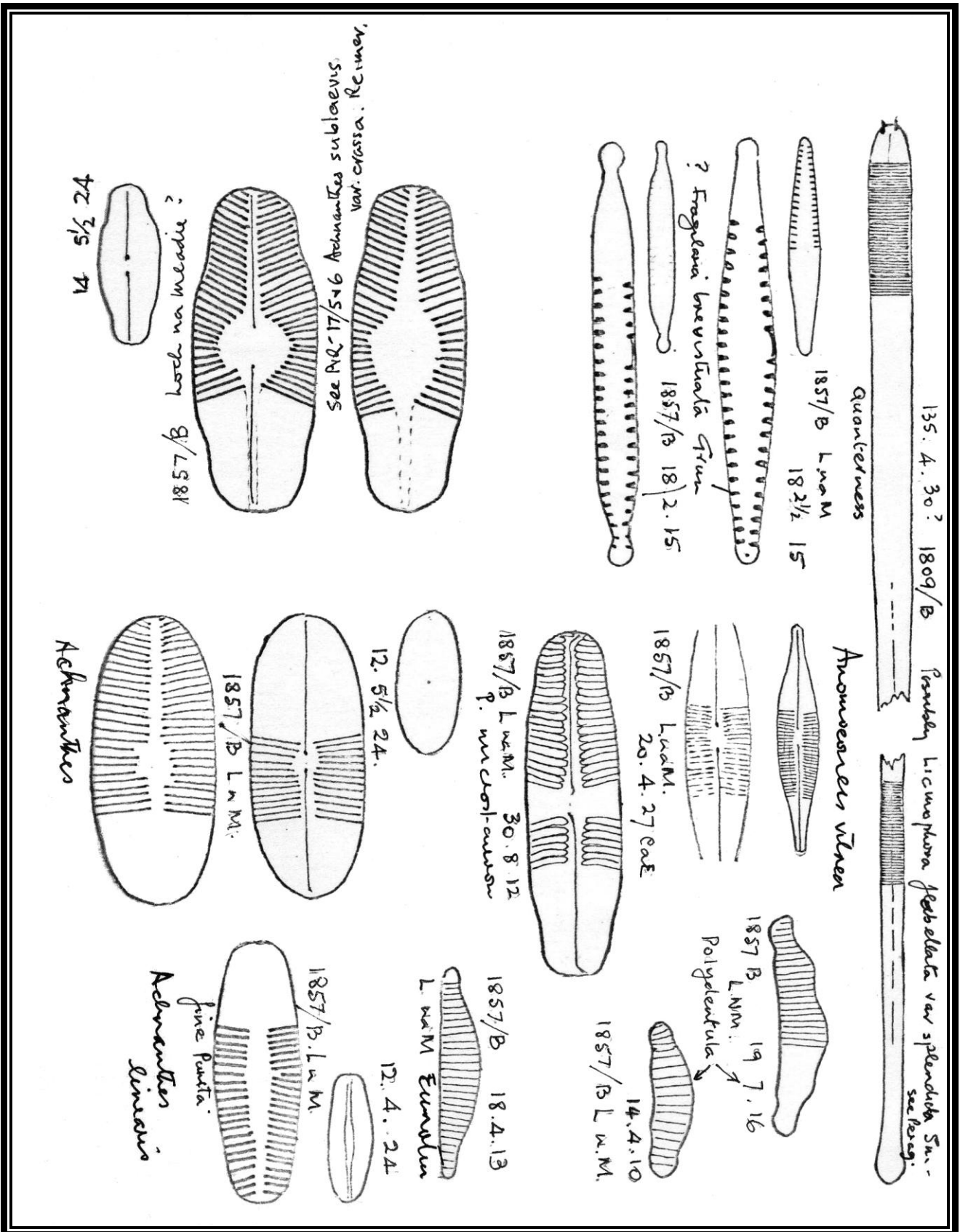


1800/B Kirkwall



Miscellaneous Plate 90

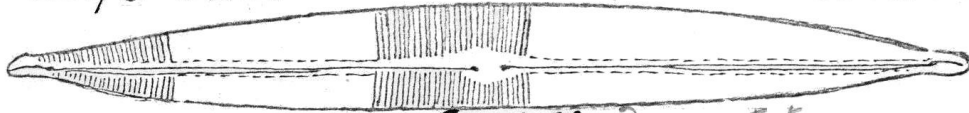




Miscellaneous Plate 92

1857/B LNM.

60. 6 $\frac{1}{2}$ . 22



*Cymbella ? angustata*

1857/B LNM.

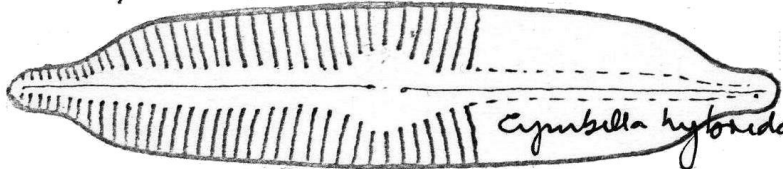
44. 6. 14



*Cymbella gracilis*

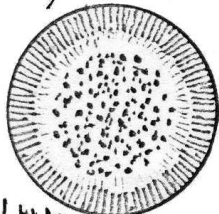
1857/B LNM

48. 10. 10



*Cymbella hyalina*

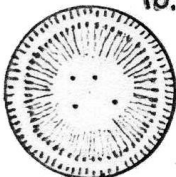
1857/B 14D



LNM.

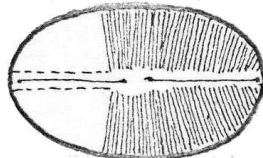
*Cyclotella Comta.*

10.20



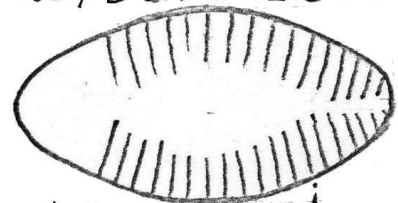
1858/B LNM.

a Nav. 16. 9. 30+ CaE 1857 B LNM. 12. 6. 16

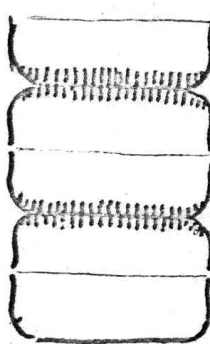
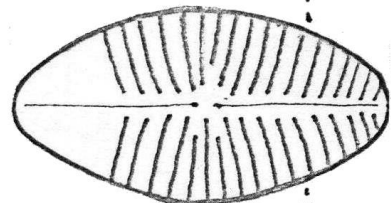


1857/B LNM

Not *Cocconeiformis*

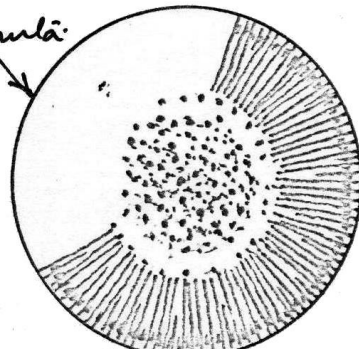


*Achnanthes*



*C. comta.*

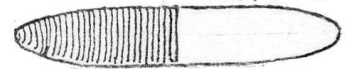
12. 15



1858/B LNM. 22. 15

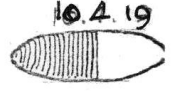


20. 4. 19



1857/B

LNM



10. 4. 19

*Fragilaria*

*virescens* Ralfs

6. 3. 19.

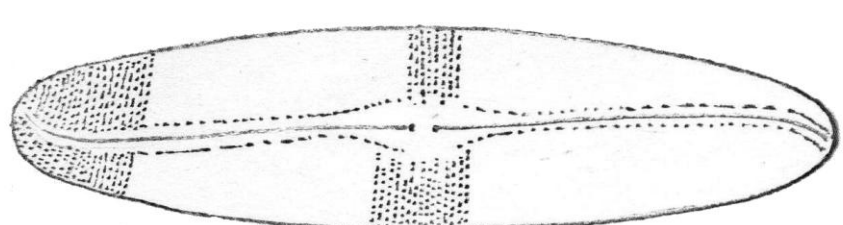
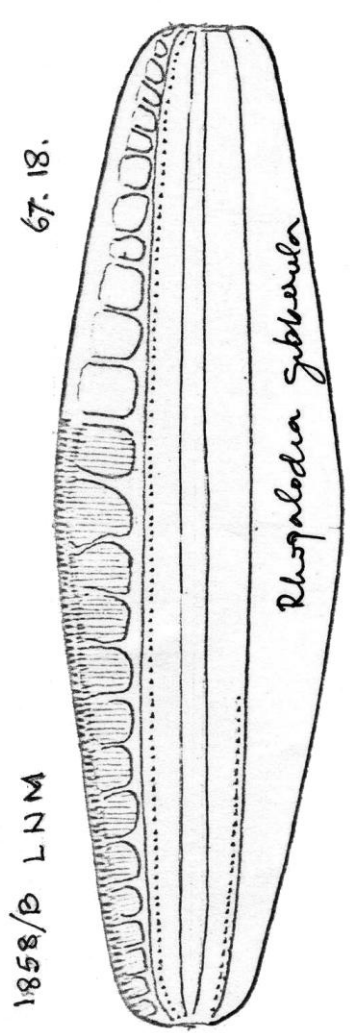
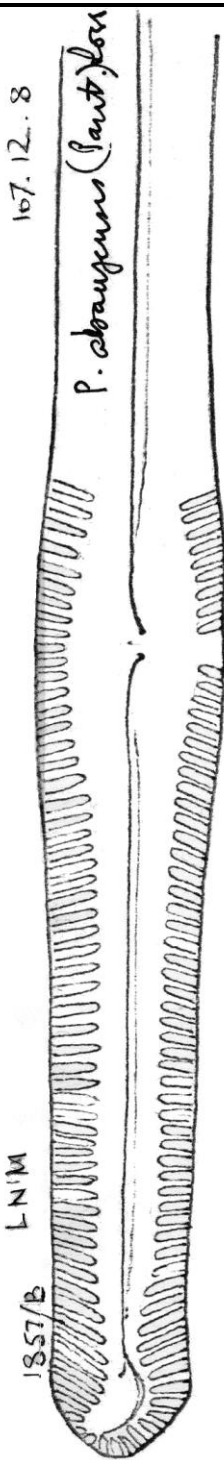


1859/B

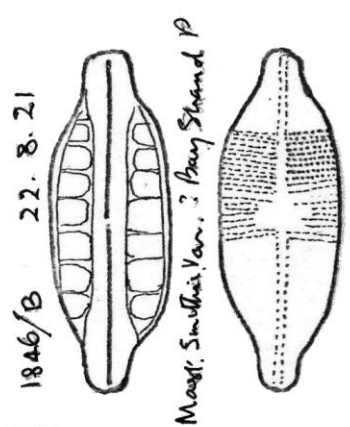
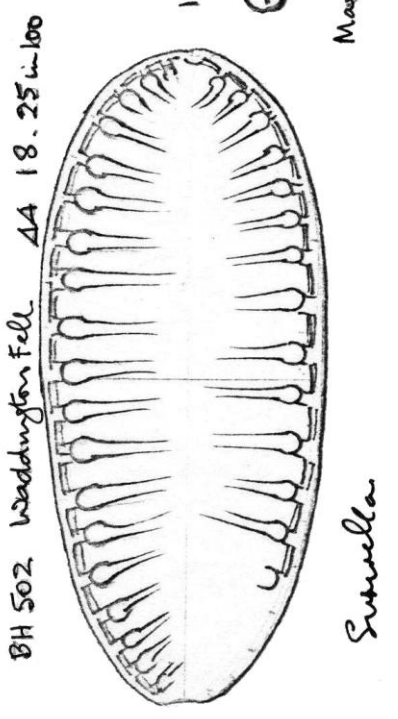
Bodmin Moor

*Melosira fennoscandia* ACL

(See ACL Ent I/12.)

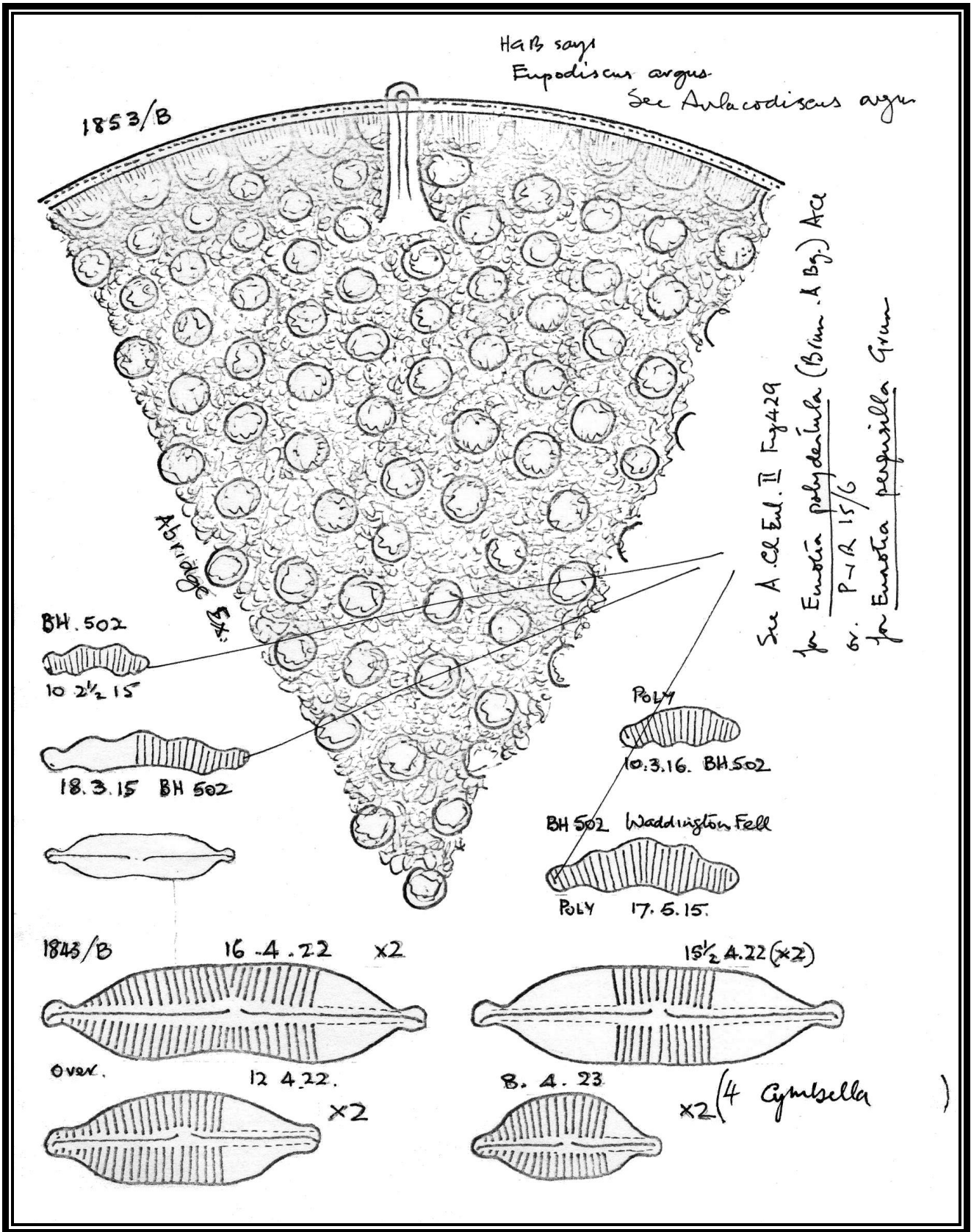


1859/B Bodmin 54.14.14  
*Scolioptera tumida* (Grés) Rabh

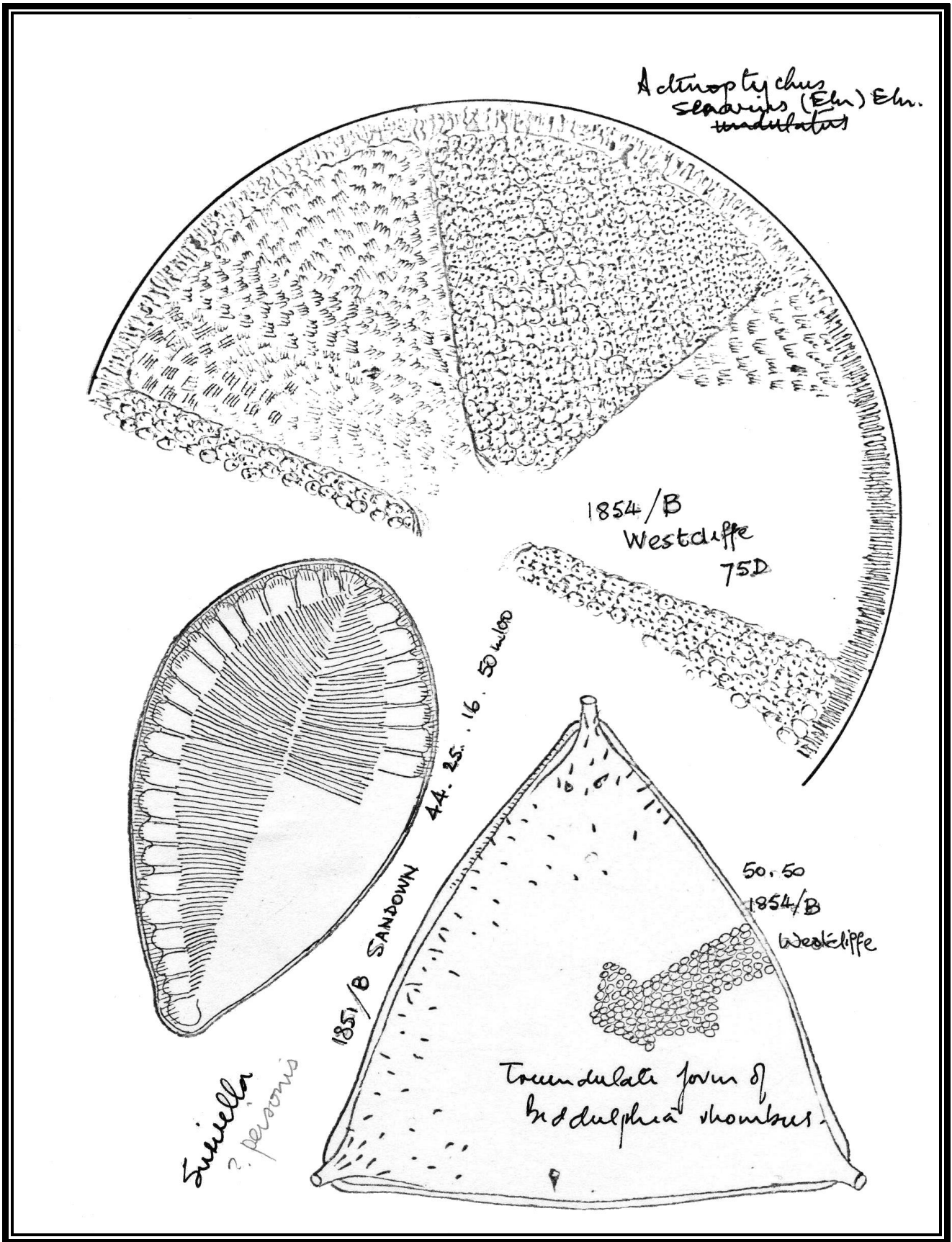


Probably var. *lacustris*  
or more likely var. *amphicephala* Kriem

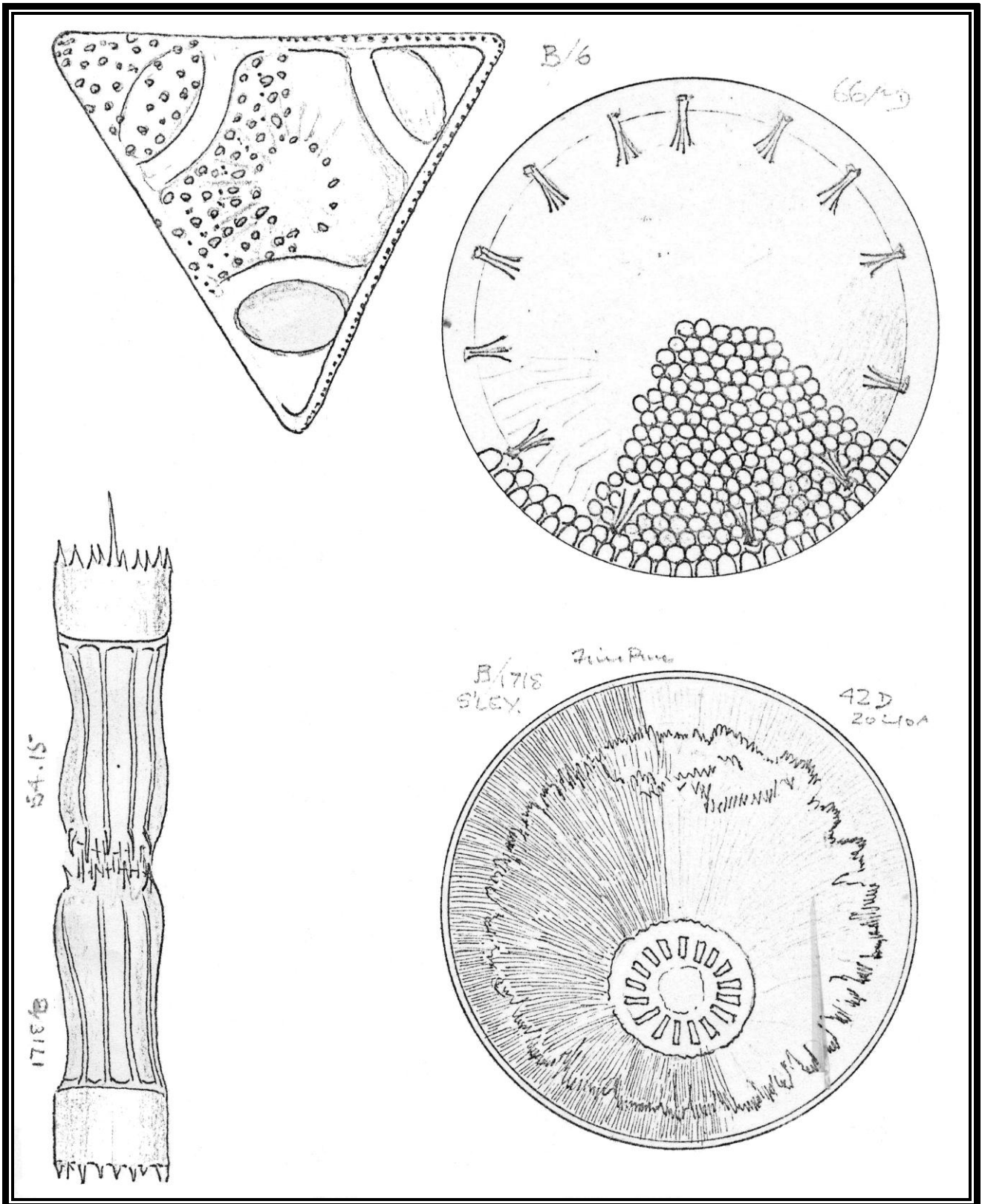
Miscellaneous Plate 94

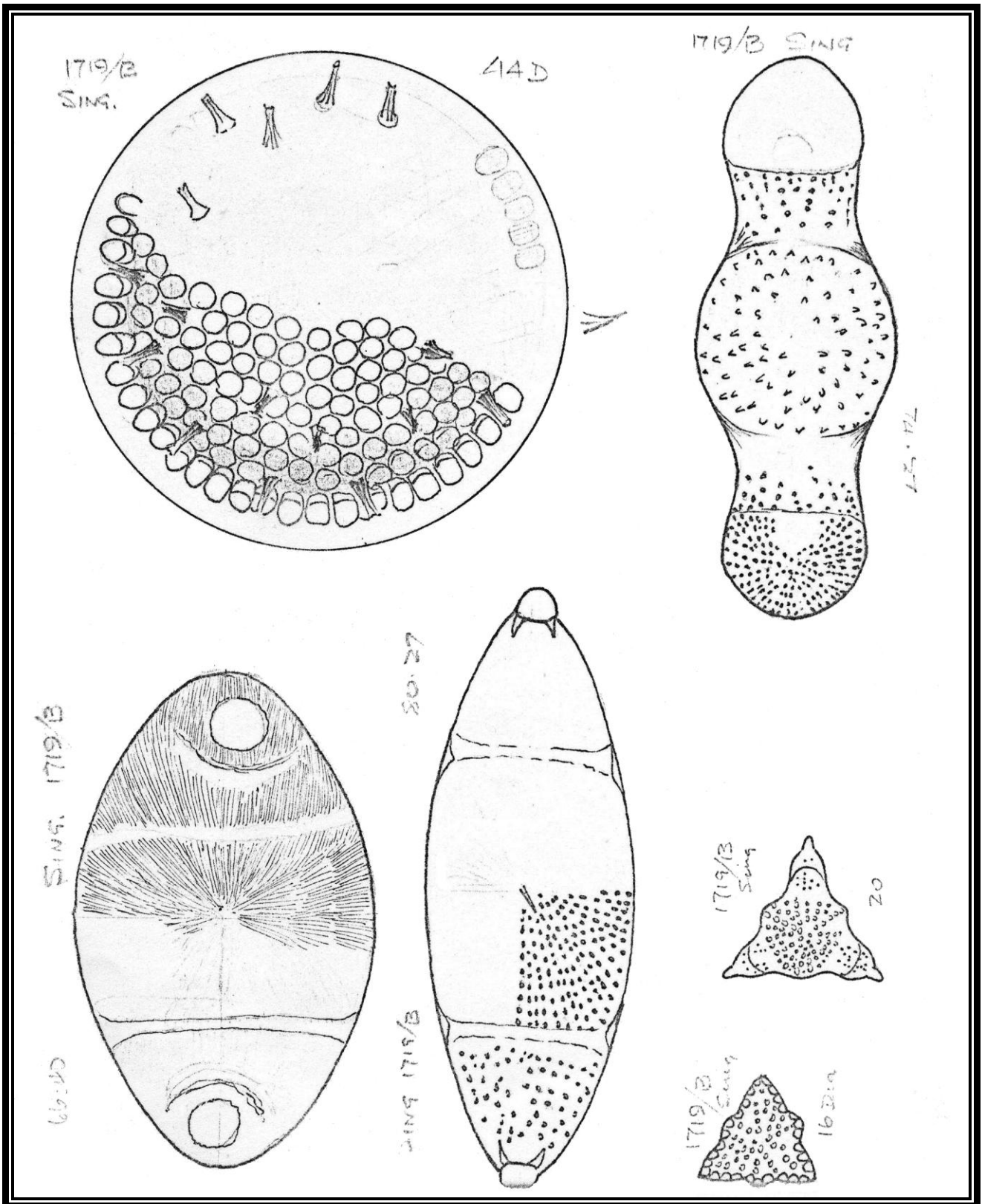




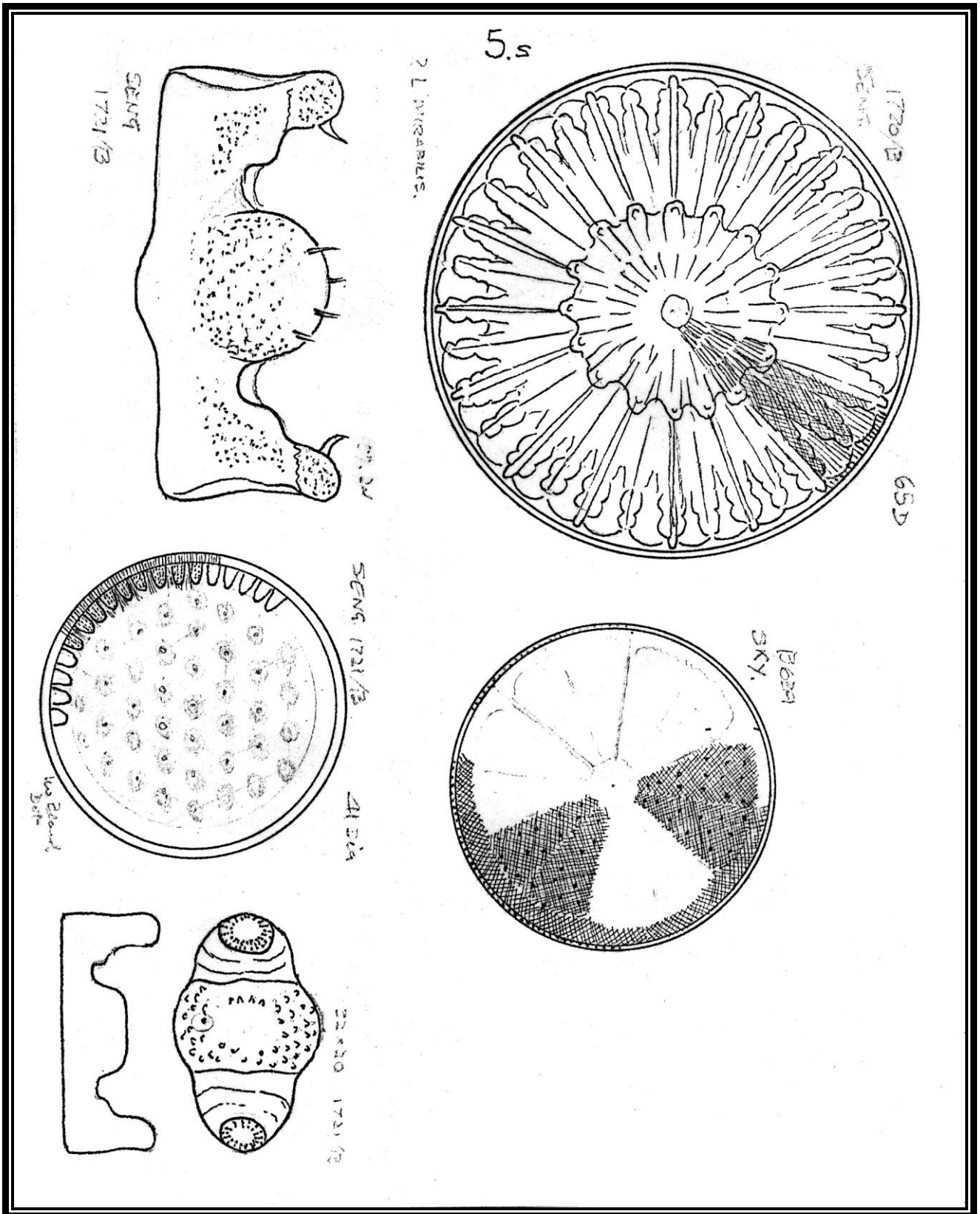


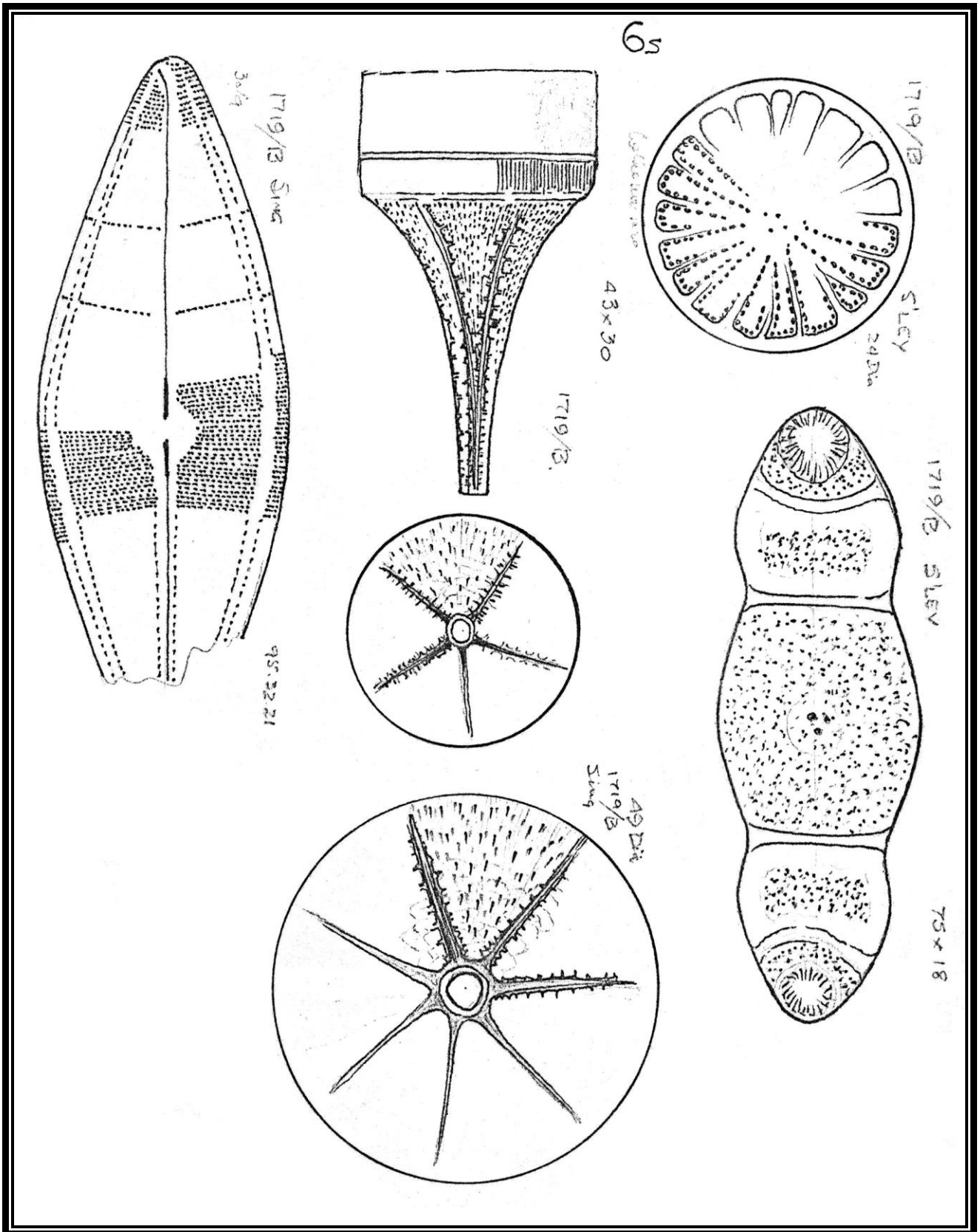
Miscellaneous Plate 96





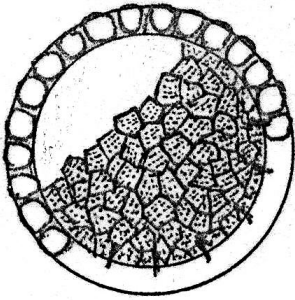
Miscellaneous Plate 98



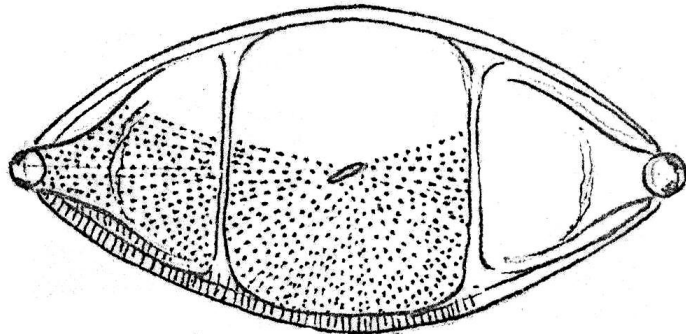


Miscellaneous Plate 100

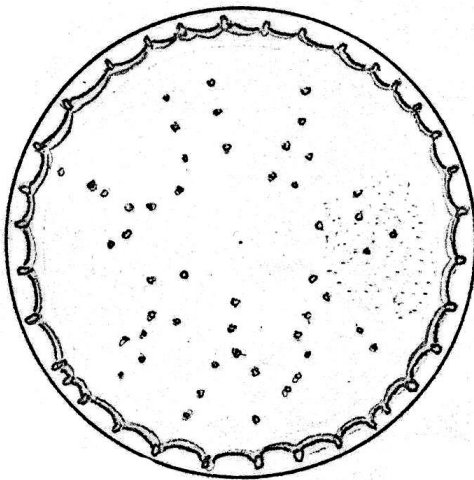
115



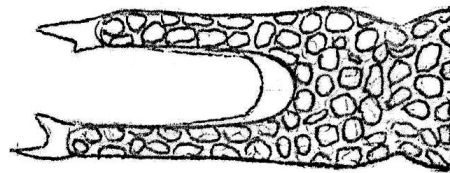
26 Dia 1746/B



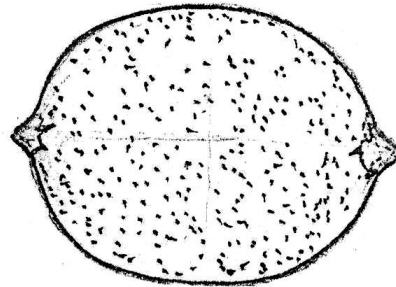
60.30 1746/B



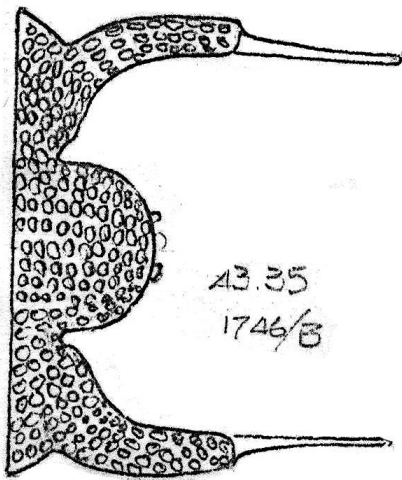
44 Dia 1746/B



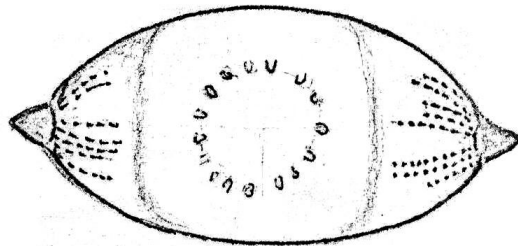
40.15 1746/B



36.26 1746/B

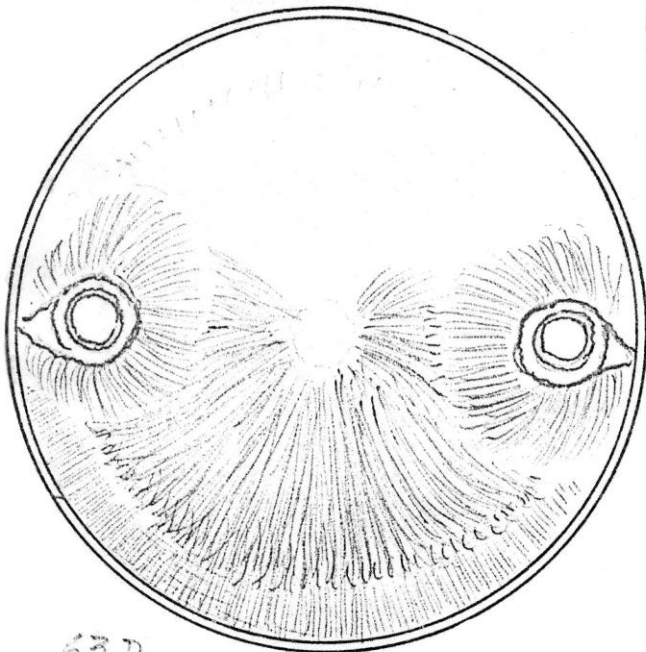


43.35  
1746/B

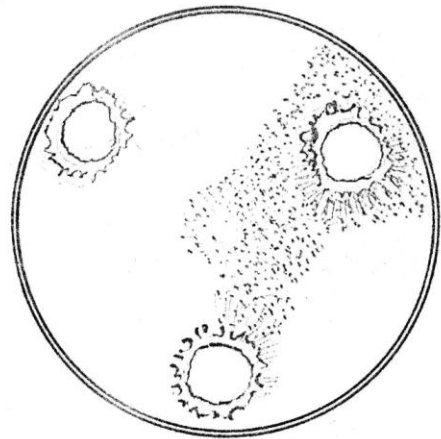


47.22 1746/B

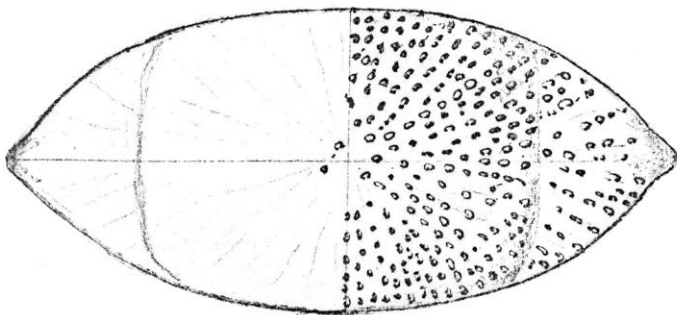
125



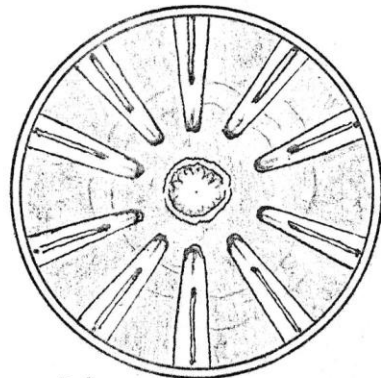
63.D  
1748/B SKY Pine v 7. 1748/B SKY Pine v 7. 1748/B SKY Pine v 7.



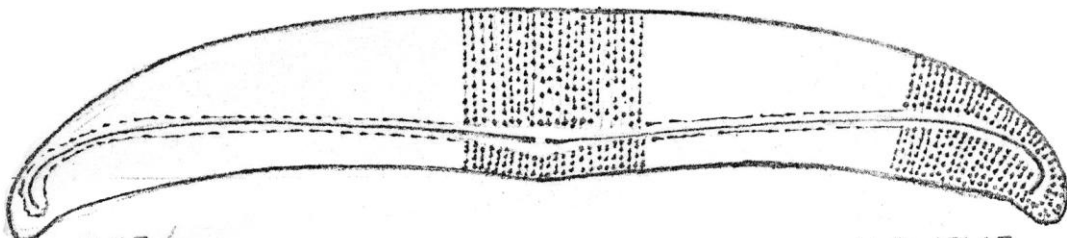
42.D. 1748/2 SKY  
v 7 Piney  
Some = 40d. Row.



66.30 1148/B



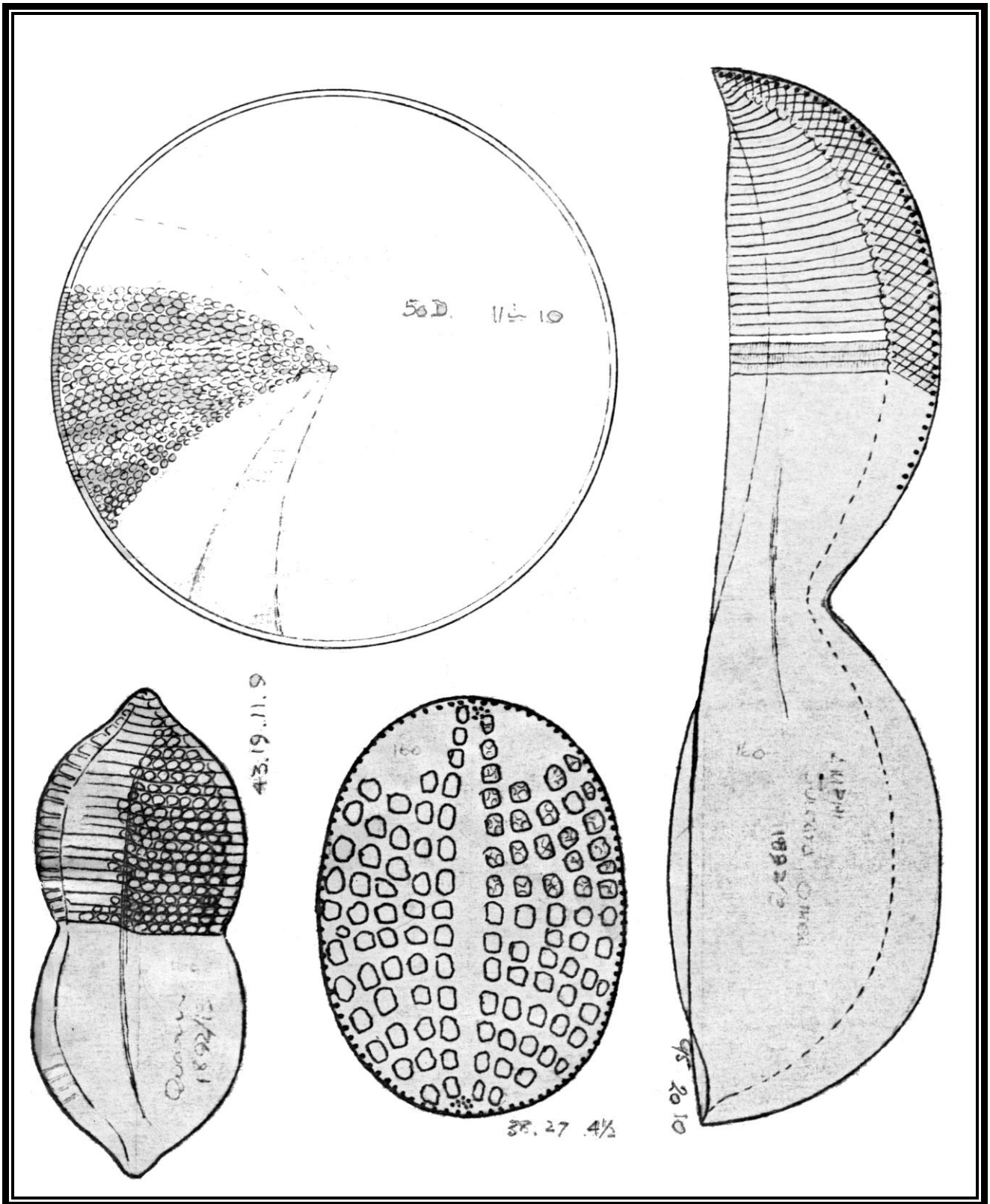
36.D. 1748/B SKY  
Wanted 2 spec



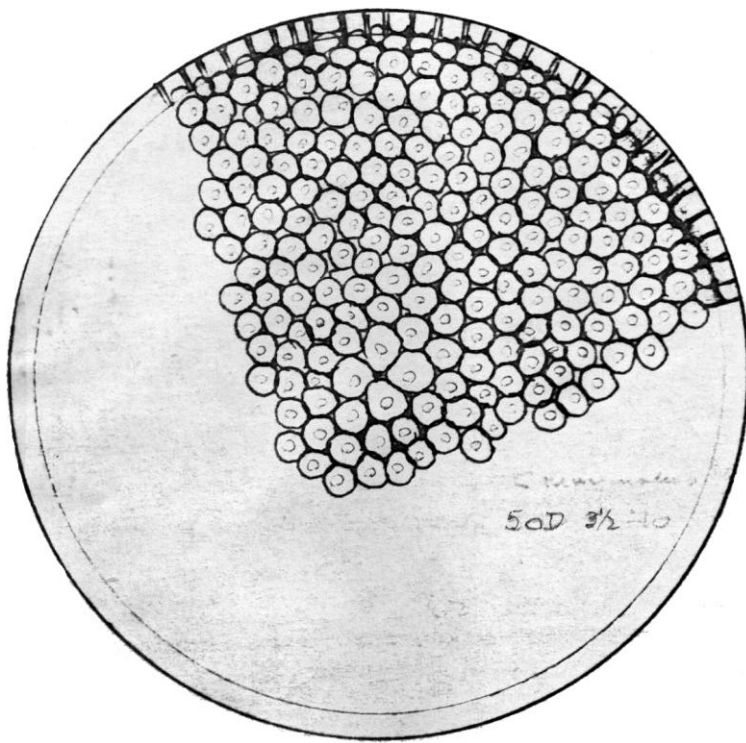
1148/B

103. 17. 15

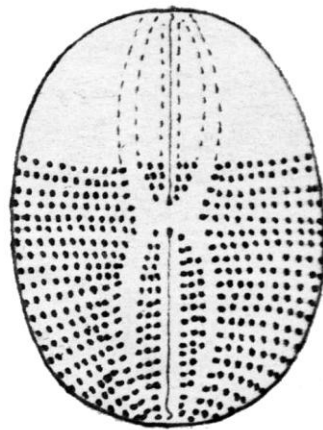
Miscellaneous Plate 160





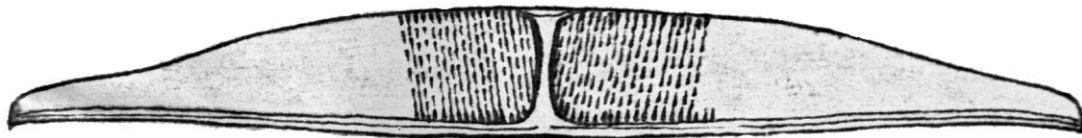


50D 3/2 10



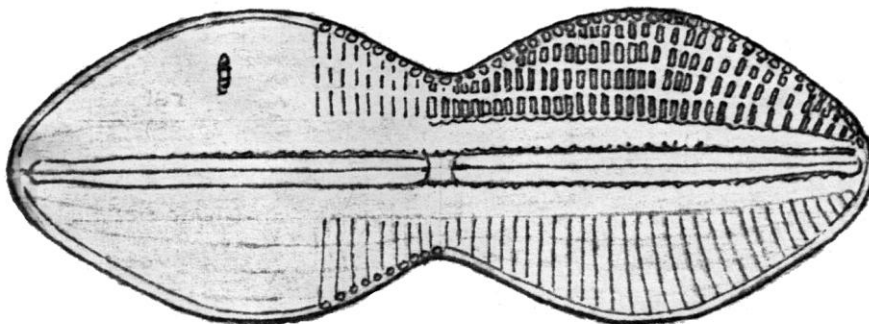
1892/13  
QUANT

37.30.10



1892/13 Quantulus

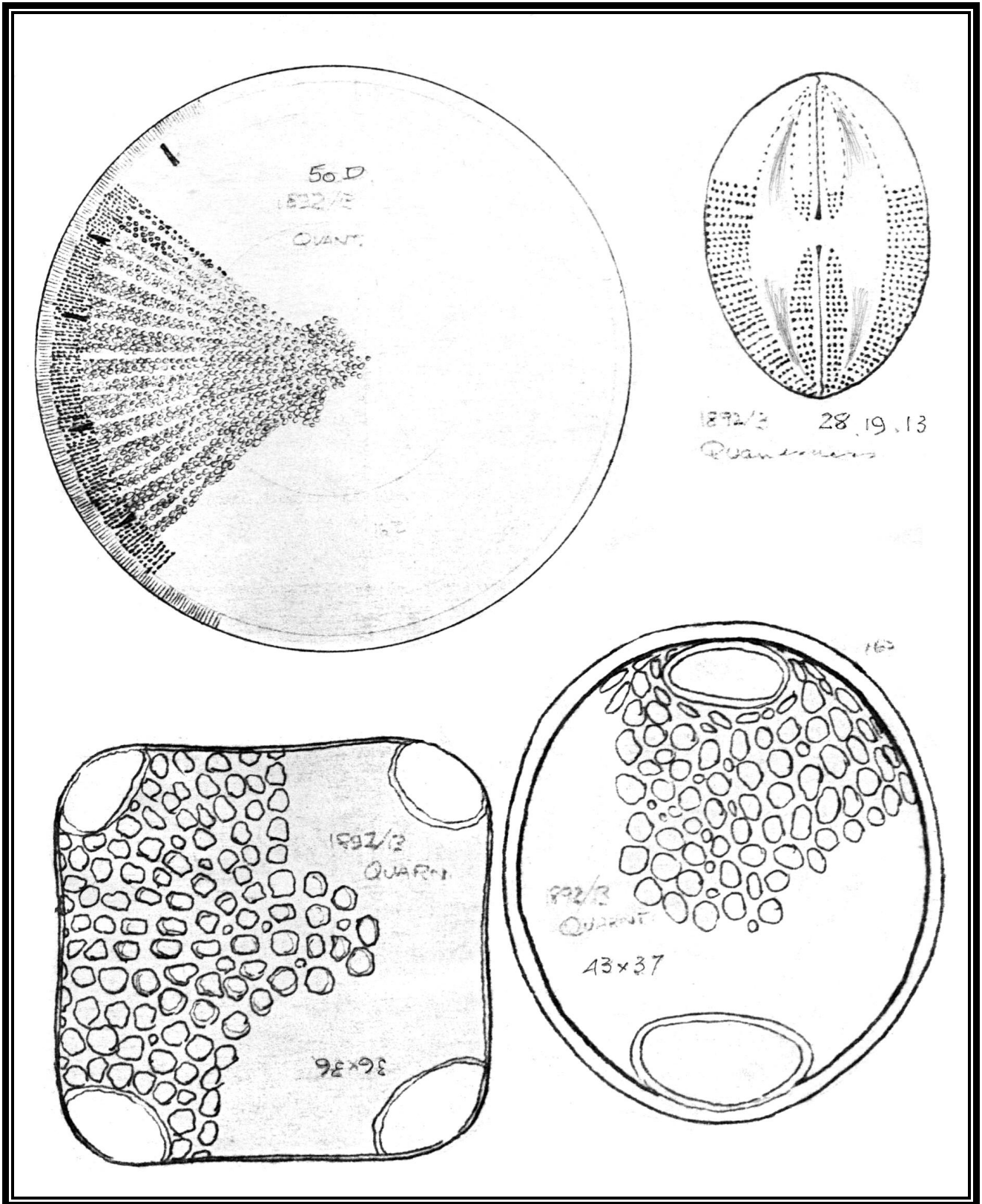
70.8.18c

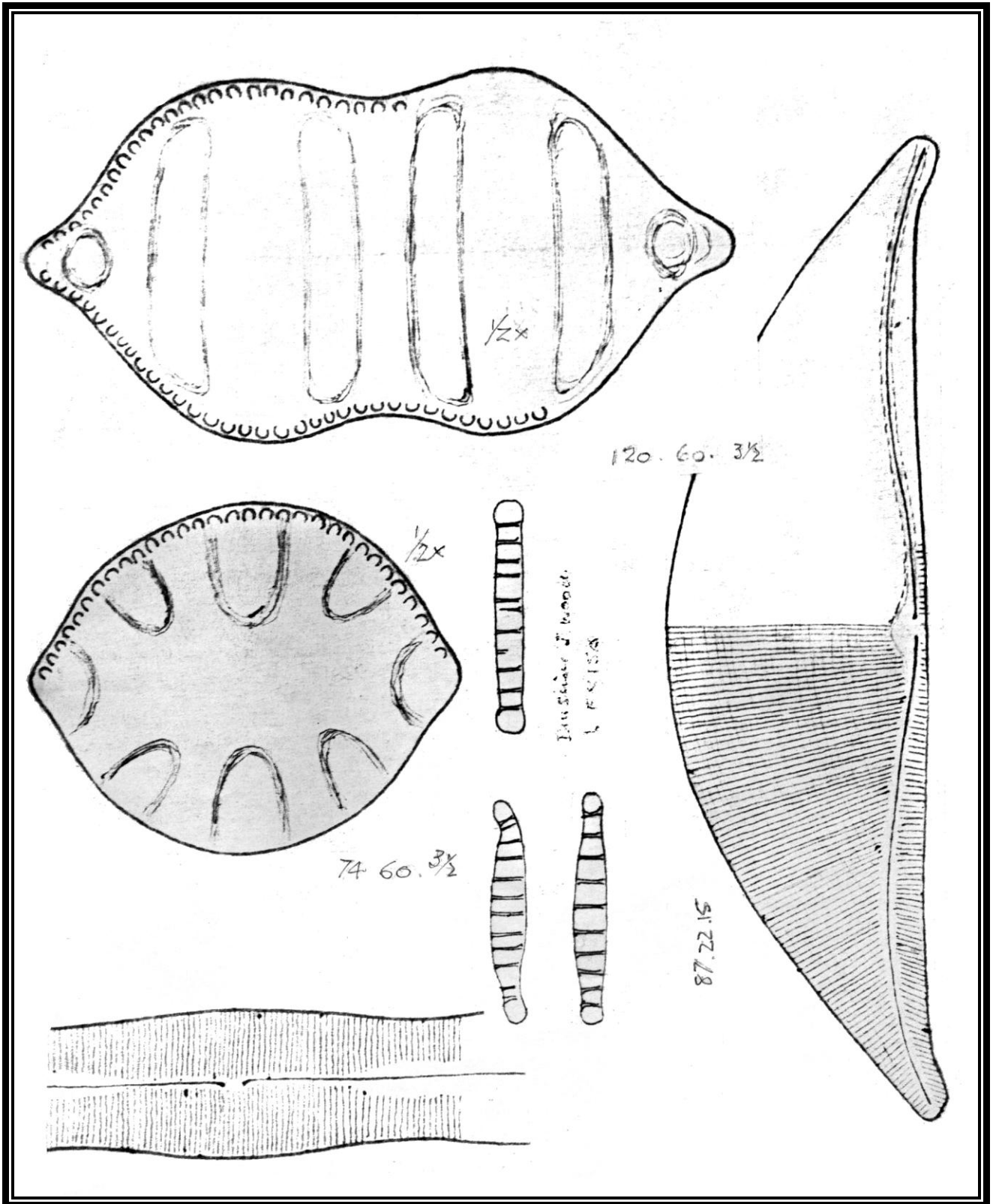


1892/13 Quantulus  
Good Chersonesus

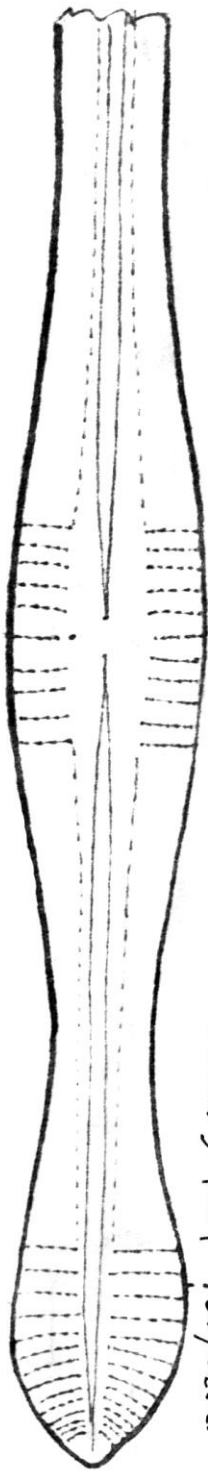
56.21.10 1/2

Miscellaneous Plate 163





Miscellaneous Plate 170

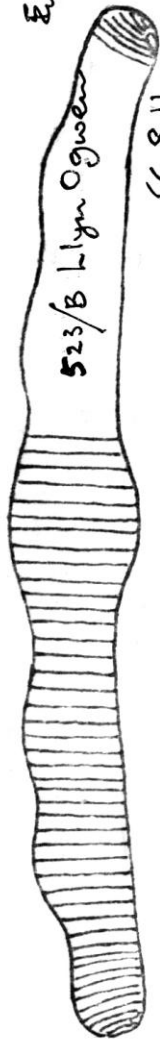
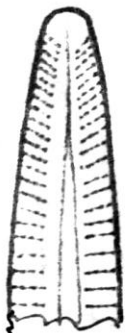


13430/XC: Loch Cranaig.

112.12 7½



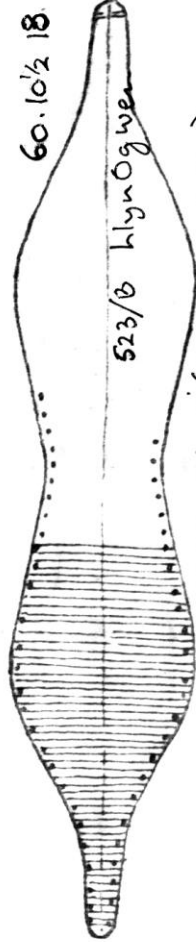
? a form of Gomphonema acuminatum probably var. brevissonii (Kütz.) Cleve



523/B Llyn Ogwen

66.8.11

*Emotia pectinialis* var. *undulata* Ralfs.

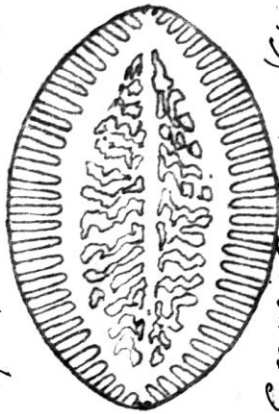


60.10½ 18

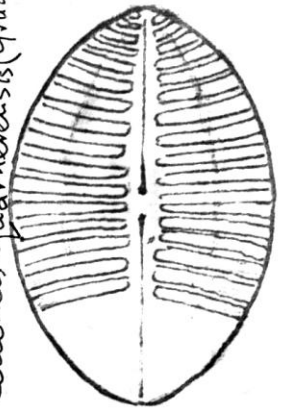
1897/B Quantenness 26.17.7

*Fragularia constricta* Ehr. (= *F. undata* W. Sm.)

523/B Llyn Ogwen



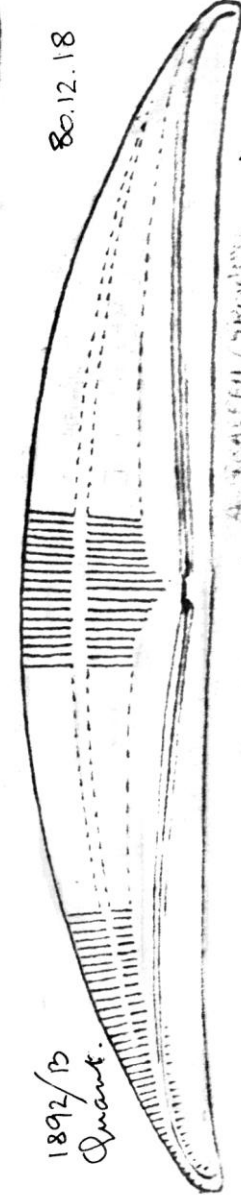
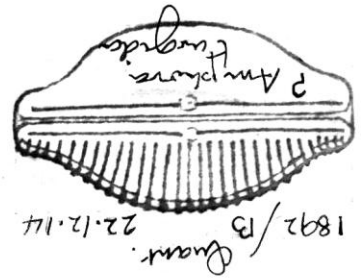
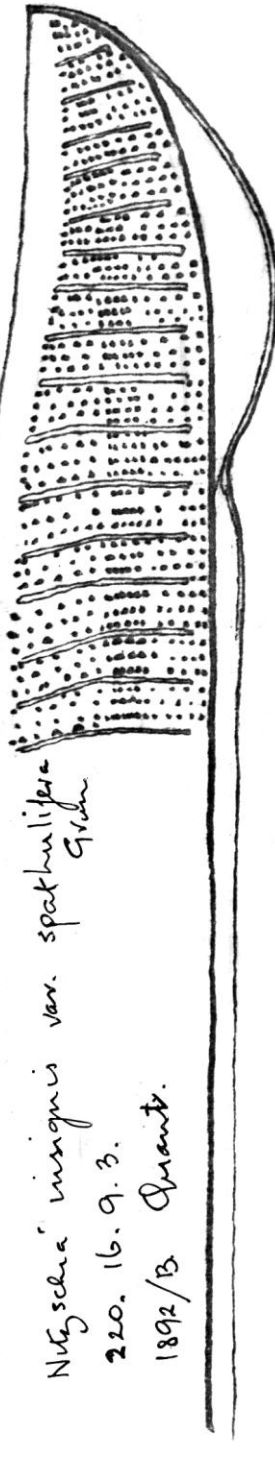
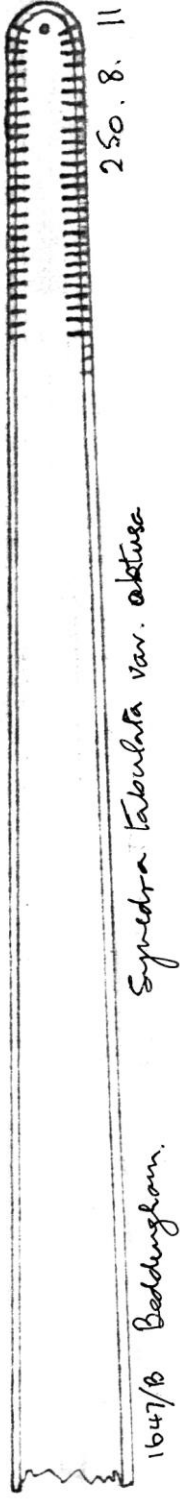
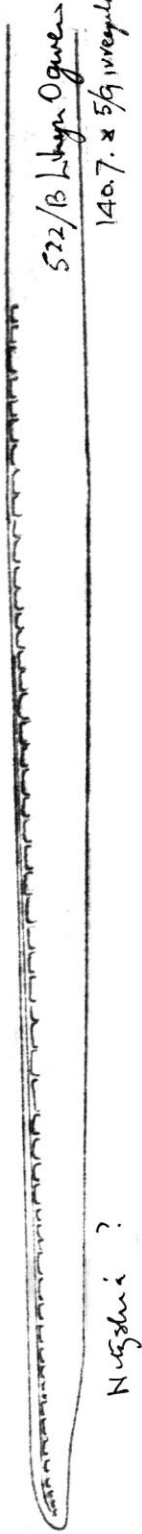
*Cocconeis guerneensis* (Grün) Schindler



523/B Llyn Ogwen

608½.14

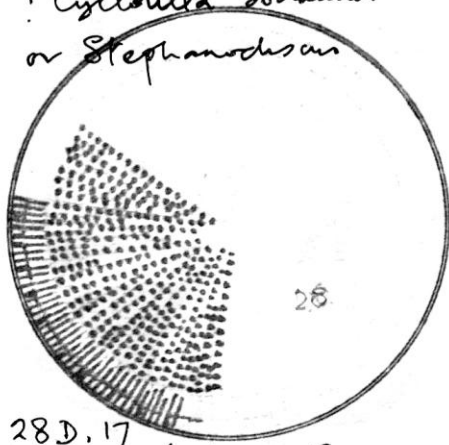
*Emotia denticulata* var. *Jennica* Hust. (= *Emotia* in Hust. 757.)



Amphora graeffii (? var minor Perag)  
NOTE var minor has curved raphe See Perag 46/14  
whereas the type has straight raphe See Perag 46/20.

Miscellaneous Plate 173

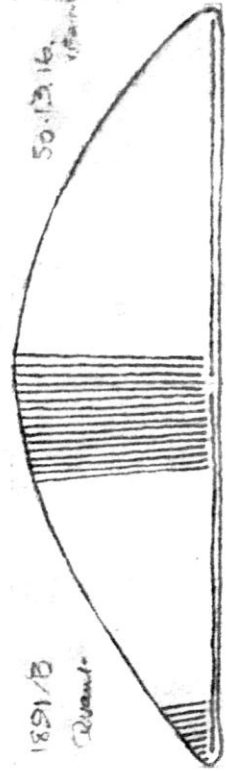
? *Cyclotella bodanica*  
or *Stephanodiscus*



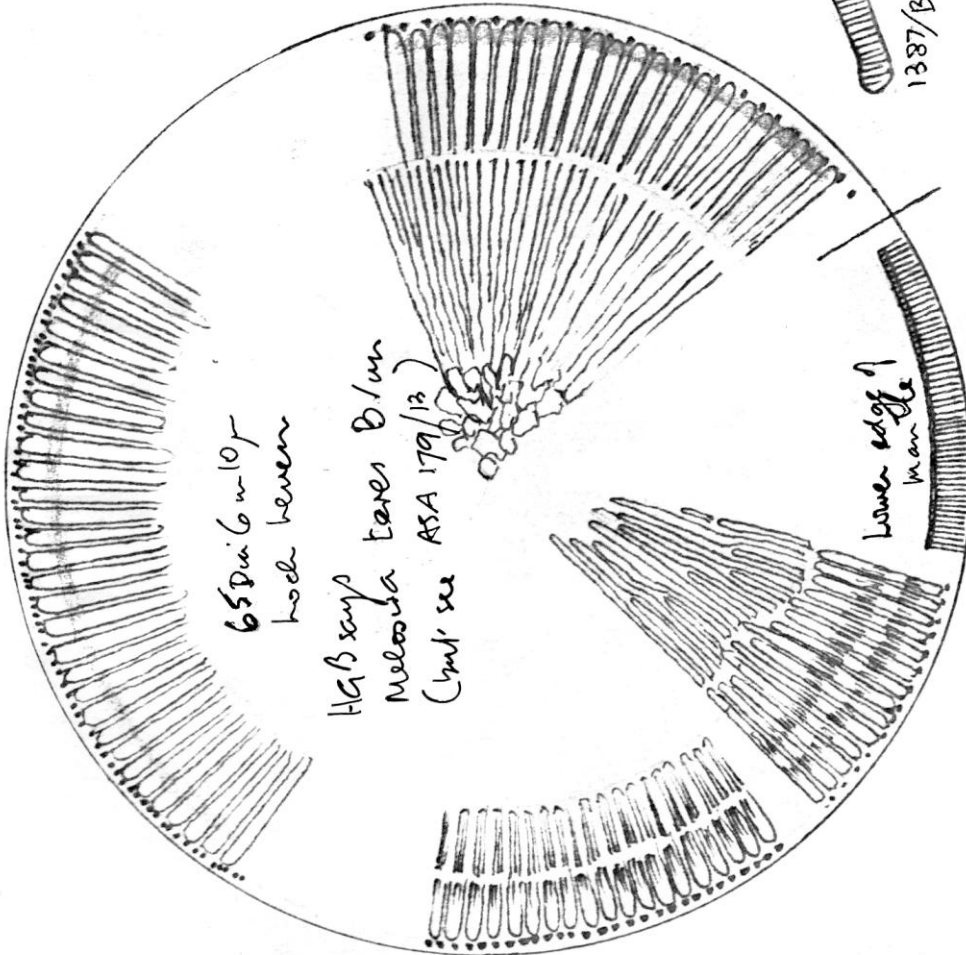
28D.17  
1597/B Loch Crocain



*En. paludosa* Grun  
43.2 1/2 18  
1387/B Nant Francon



50.12.16  
1891/B  
Nant Francon



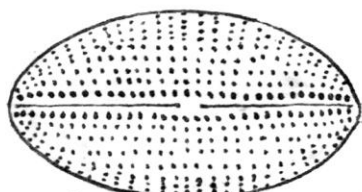
65 dia. 6 in 107  
Loch Beven

HG says  
*Nelocosa* Laves B. in  
ASA 179/13  
(but see)

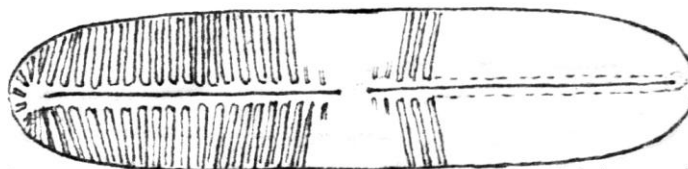
lower edge of  
mantle



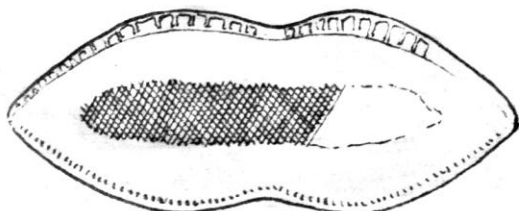
1387/B. Nant. Francon 32.6.16  
*Pinnularia divergentissima* (Grun) Cl.  
(near to *P. sustolosa* Carter)



1892/B Quant. 23.12.11



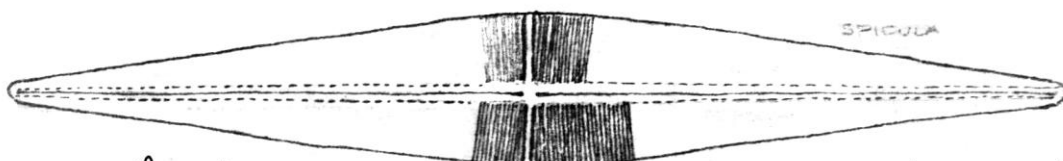
1892/B Quant. 44.10.16  
(marked) *Prinulonia quadrata* (AS) CC  
var *Soderlundii* CC



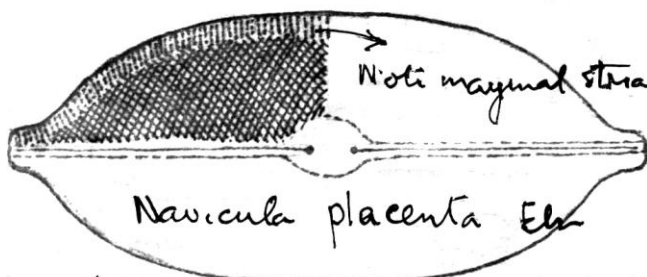
1892/B Quant. 34.14.21.10



1892/B Quant. 36.6.13 1/2  
HGB says *Caloneis clementis*



1392/B Quant. 68.10.28?  
*Stauroneis spicula* Griseb  
HGB says NIH now registered to Griseb.



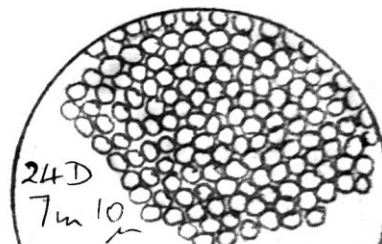
Navicula placenta Ehr  
3485/cc hoch Duick  
41.18.23



3459/cc. 17.5.16.  
Squir Na Squir  
? *Eu. bactriana* Ehr.

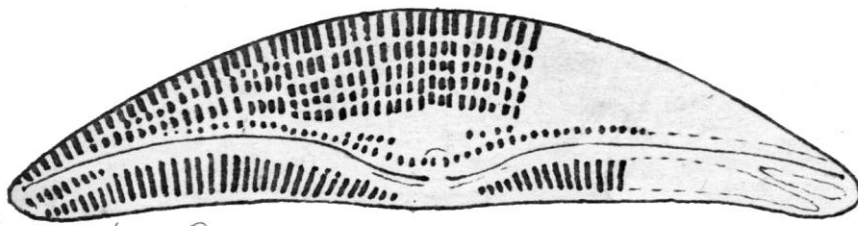


L. FRIZA MULL  
3461/cc x BM. in fruga.  
? *Cymbella aequalis* Wm  
.38 6 1/2 15  
scae  
wic



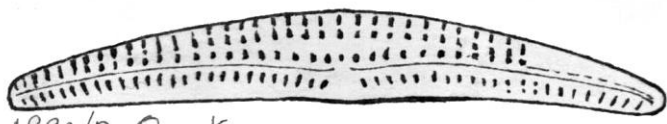
24D  
7 in 10  
HGB says *Melobesia distans*  
3459/cc Squir-na-Squir

Miscellaneous Plate 181



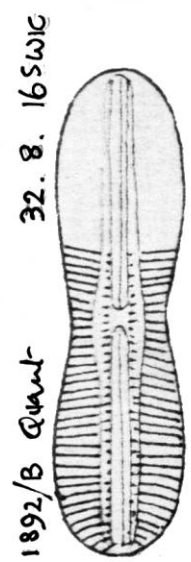
1892/B Quant.

56 12½ 12



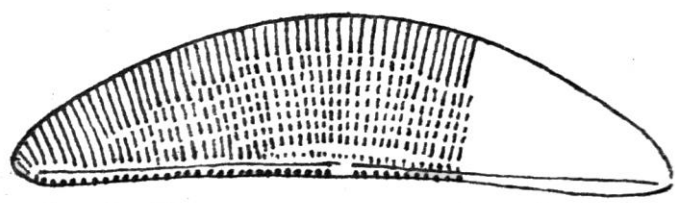
1892/B Quant.

46. 6. 8½. 10



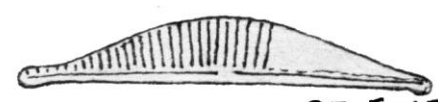
32. 8. 16. 5. 16

1892/B Quant.

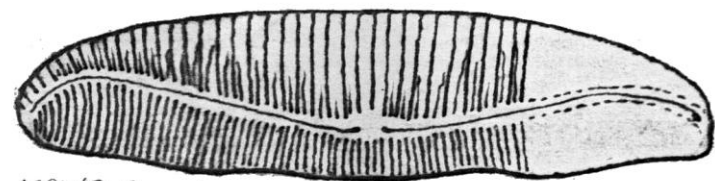


1892/B Quant

43 10½ 14

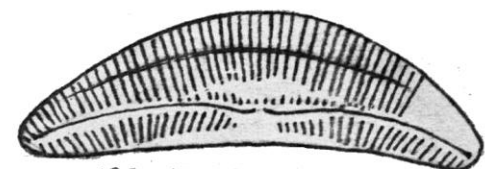


27. 5. 15.



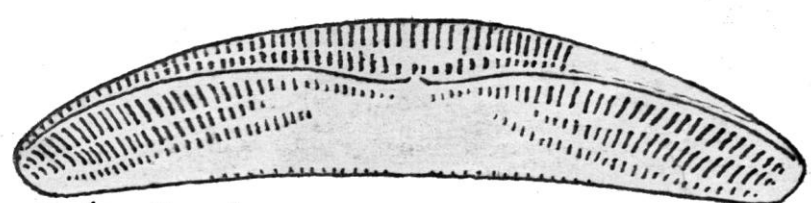
1892/B Quant

46 11. 10-15



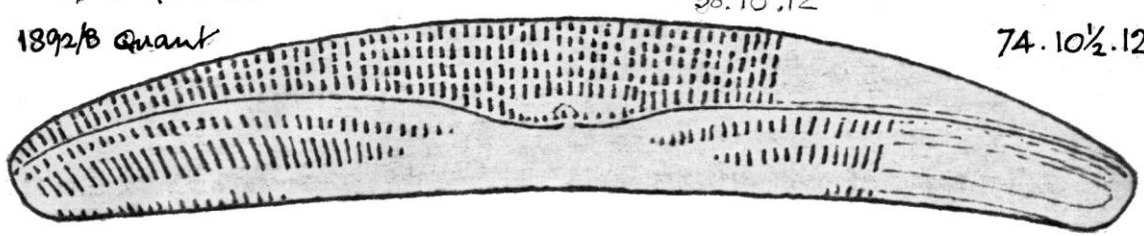
1892/B Quant  
MEXICANA vq.

31. 8½. 15



1892/B Quant.

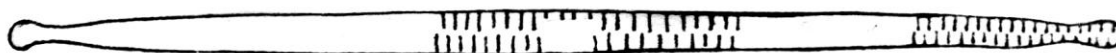
58. 10. 12



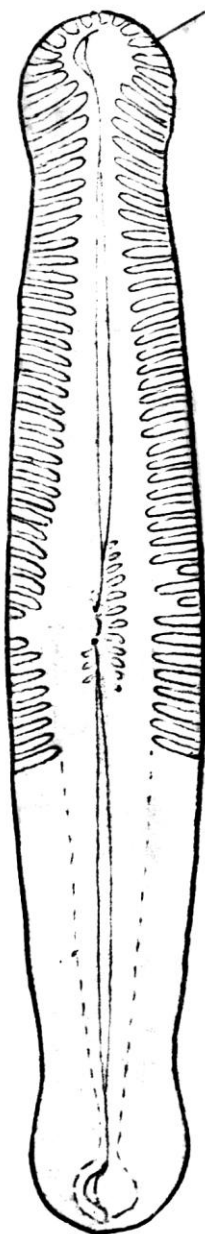
1892/B Quant

74. 10½. 12.

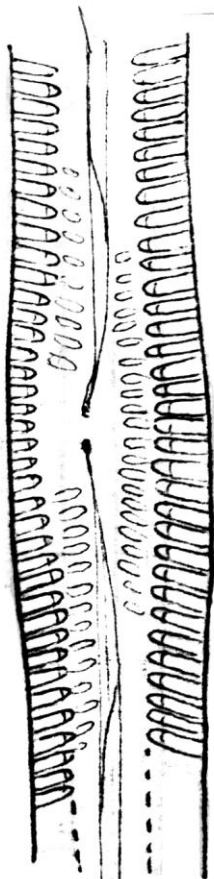




*P. muricatus* Thur



82.12.9.



70.12.10

J. WOODS MICRONS 163 Loch Frisa, Mull.  
24.1.72. BM Slide.

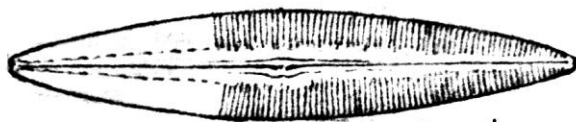


BM Slide  
Guthrie V.  
Vancouver

8D.195C



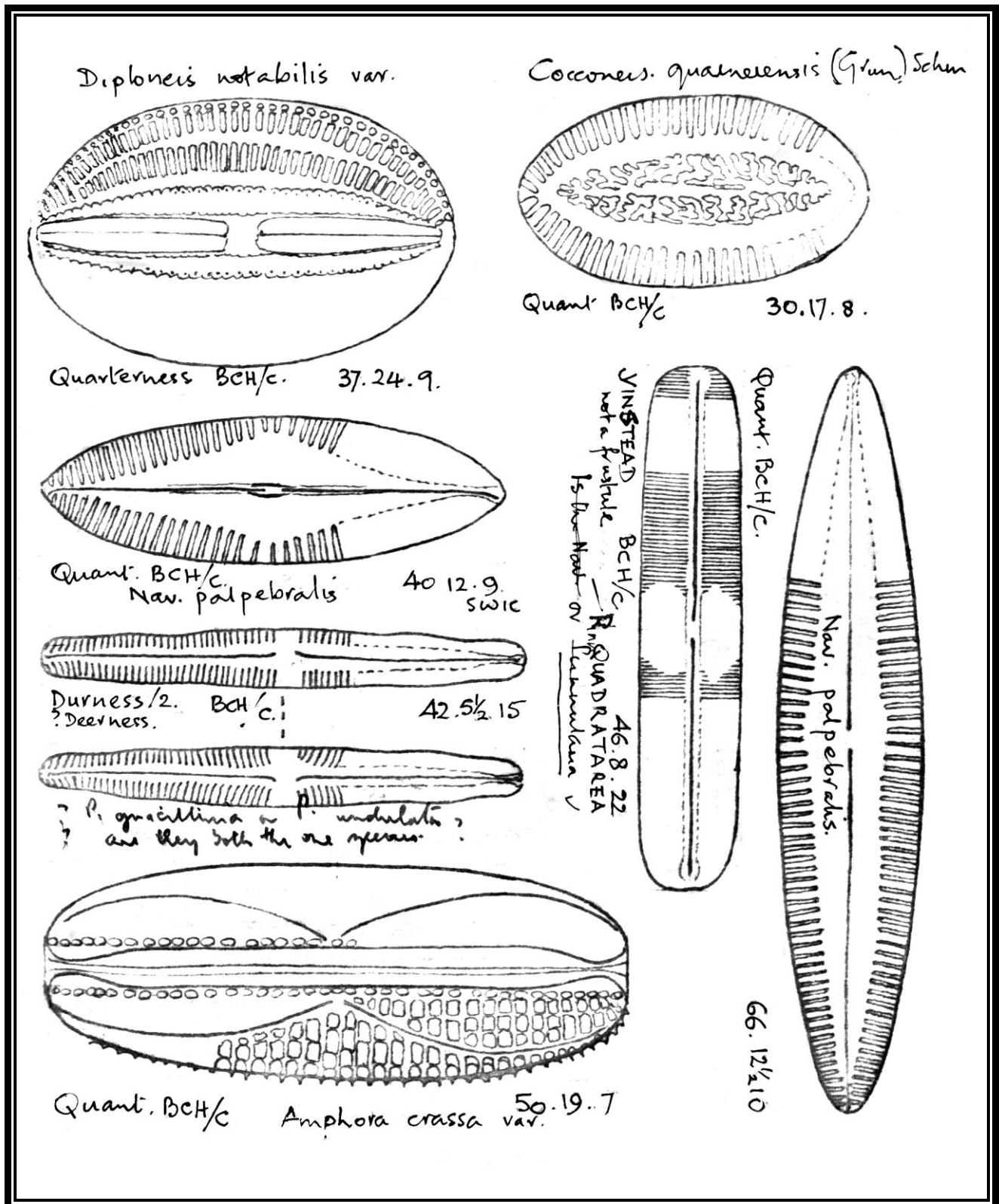
YINISTEAD BCH/c A. crassa Greg. says HGB  
but ? Amphora crassa var elongata Clem 68.8.6  
see Waagbø 46/1.



fusiodes.

38.7.22  
S.A.R.

Miscellaneous Plate 184



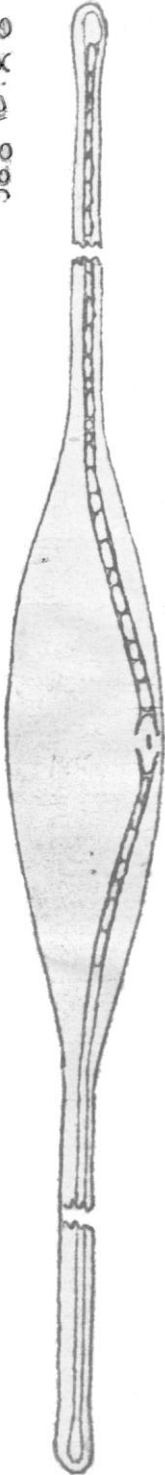
30.17.8

H.G.B. says he had 15 illustrations of:

- Cocconeis quarnerensis*
- Cocconeis pinnata*
- Cocconeis ornata*

...and he seems uncertain where one starts and the others finish.

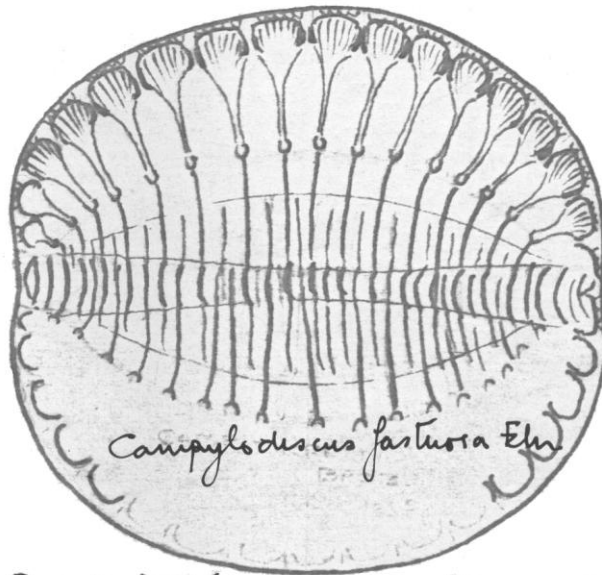
30.0 10. X 6



Quant. BCH/c 30.18.8



Quant BCH/c 20.6.24 13kp

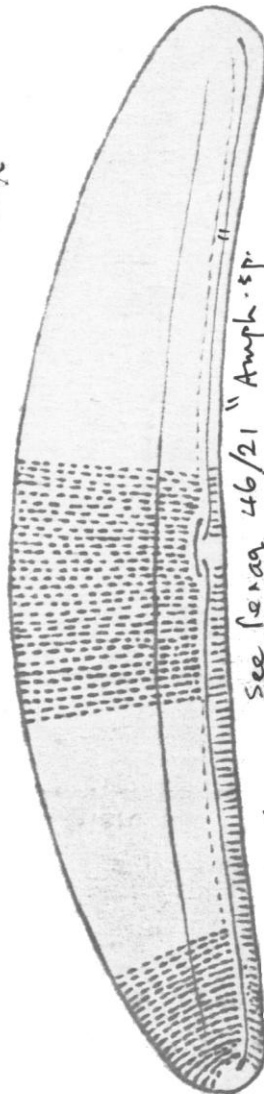
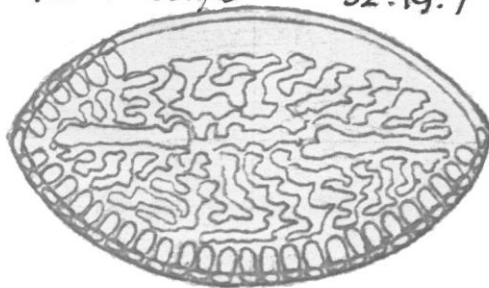


Quant BCH/c

39 38.25 on 100.

Quant BCH/c

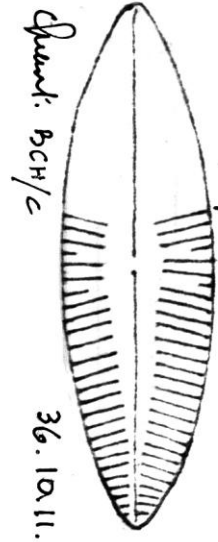
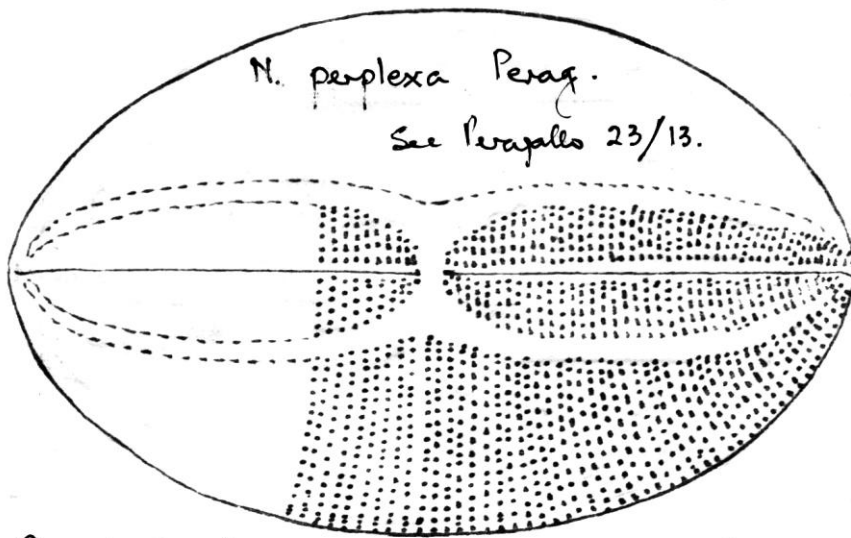
32.19.7



75.14.15.

Quant. BCH/c

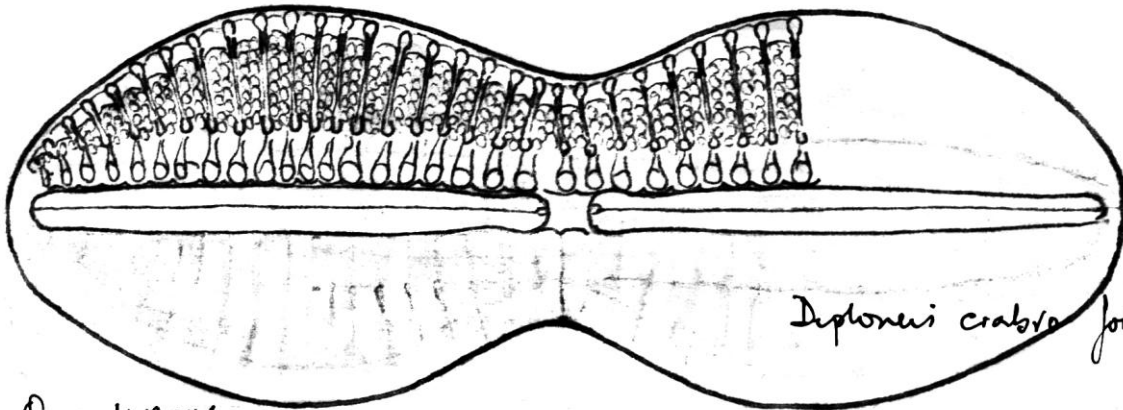
Miscellaneous Plate 186



It differs well with the range of  
*N. perplexa*.

Quant BCH/c

57.36.10

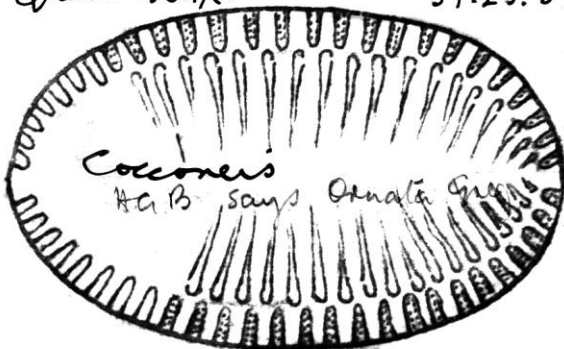


Quant: BEH/c

75.27.5

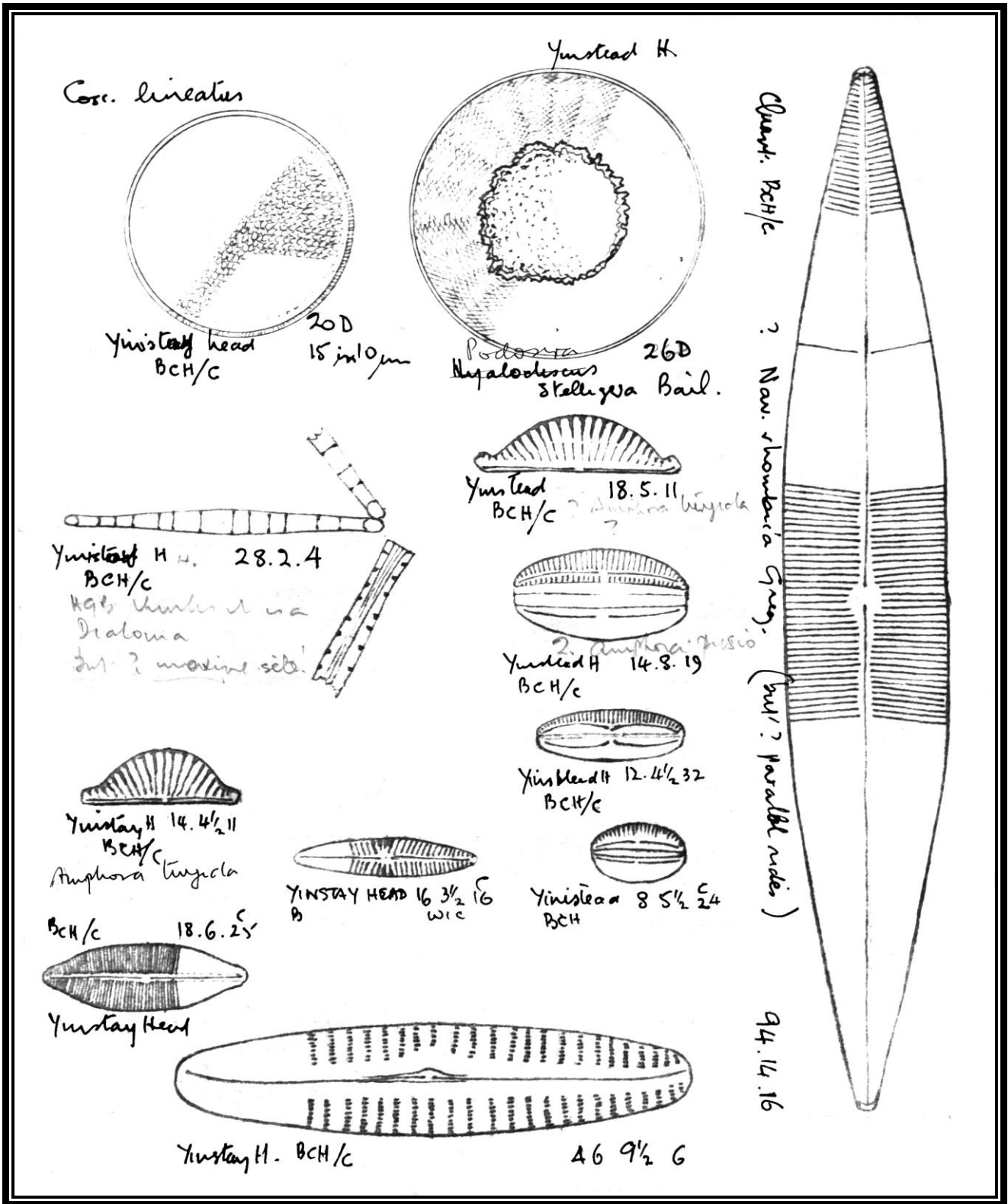
Quant: BCH/c

37.23.5



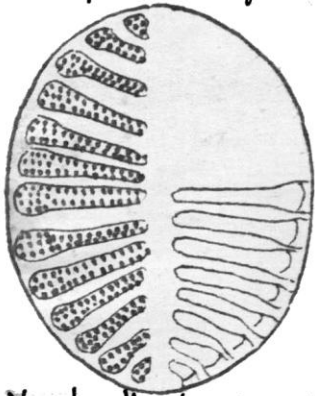
Quant BCH/c

30.18.4½



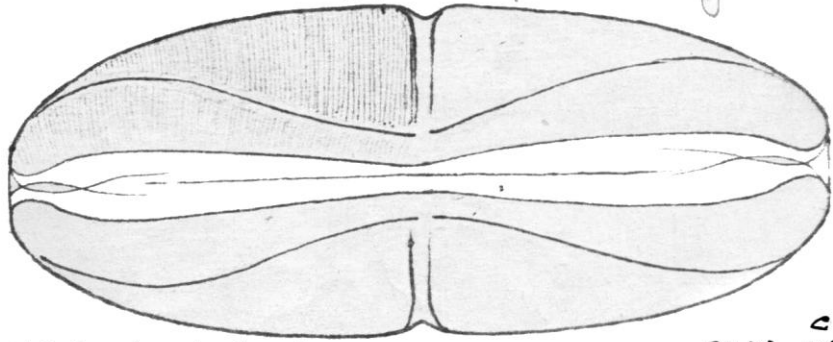
Miscellaneous Plate 188

*Coc. pinnata* fo.



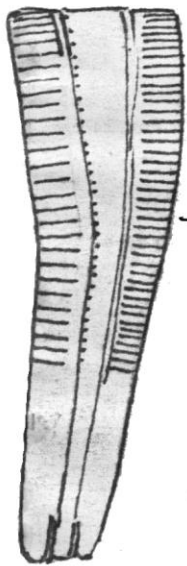
Yinstay head 26.20 4 1/2  
PCH/c

Holt says Amph ostreana  
but ? Amph ocellata fo. r var



Yinstay head. PCH/c

54.23.25<sup>c</sup>

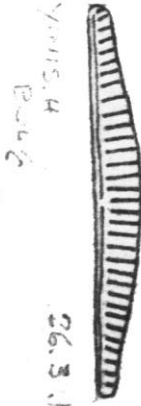


*Phaeosiphonia curvata* (K) Grun

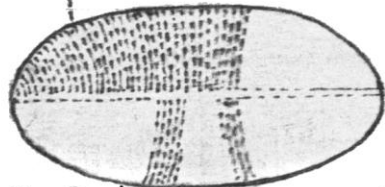
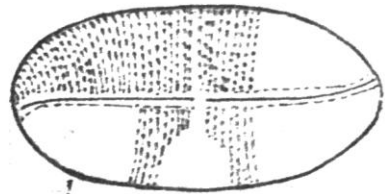
*Phaeosiphonia curvata* (K) Grun



YIN H PCH/c 22.3.12

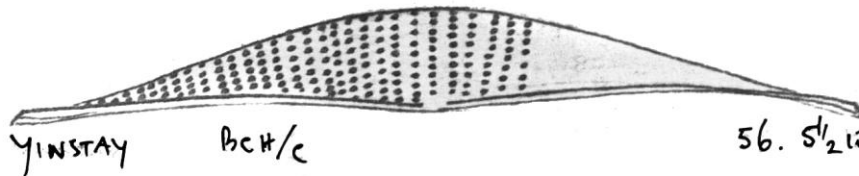


YIN H PCH/c 26.3.11



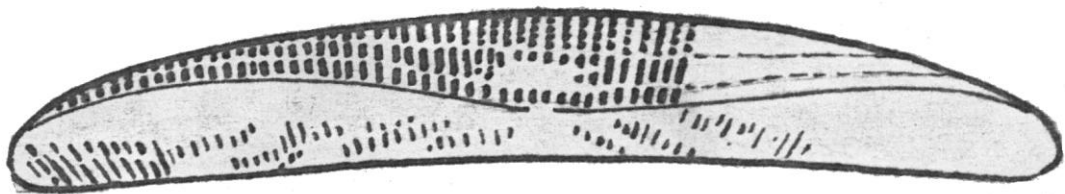
Yinstay head  
PCH/c

24.12.19.



YINSTAY PCH/c

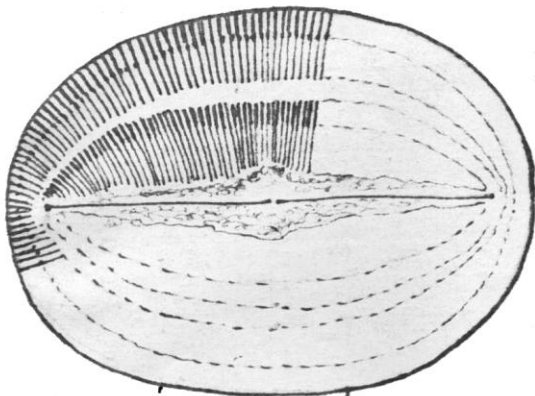
56.5 1/2 10



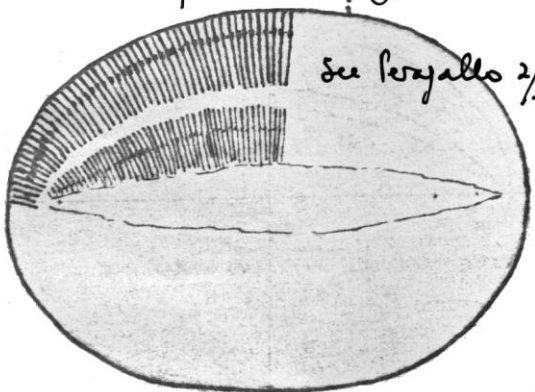
YINSTAY PCH/10

70.10.10

? *Amphora gigantea* van Jusca Cleve.



*Cocconeis pseudo-marginata* Gray



See Perzallo 2/21-24

YIMSTAY H. BCH/c

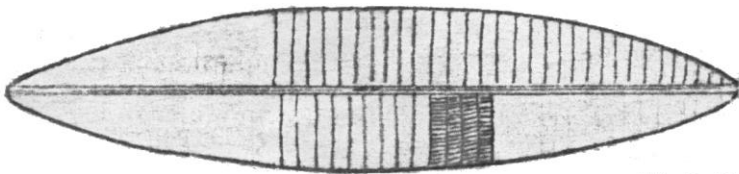
YIMSTAY Head BCH/c 35. 26. 16.



*Grammatophora*  
? *oceanica* n  
? *macrea* var.

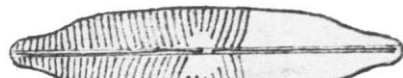
43. 13 13

YIMSTAY H. 22. 10. 22

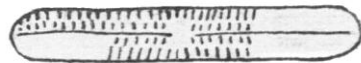


48. 11. 9

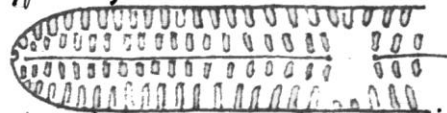
YINE H. BCH  
This gently curved around center



YIMSTAY H. 26. 6. 18  
SWIC



YIMSTAY H. 23. 3 1/2 16.



? *N. blanda* var. ? *N. etgadensis*

YIMSTAY H. BCH/c

*Nitzschia durileans* Gray

YIMSTAY H. BCH/c

HERBARY N.Y. Herbarium Gray

49. 6. 8 1/2

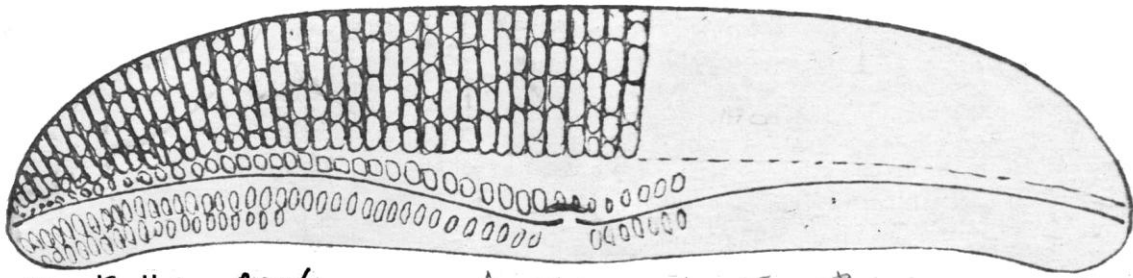


? *Nitzschia cancellata* Grun. H. 1915 obs. n. 1

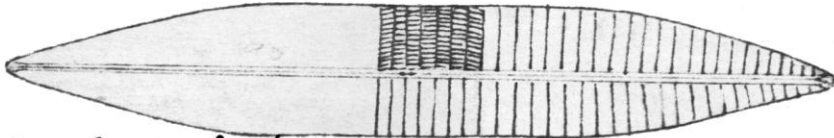
H. B. Sarg. Amphioxus exiguus Gray  
small - in *capitata* form

68. 5 1/2 x 3-4

Miscellaneous Plate 190

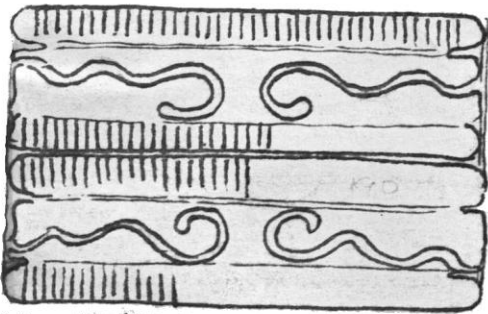


Yunstyng Hd. BCH/c *Amphora robusta* Greg 74.18.8

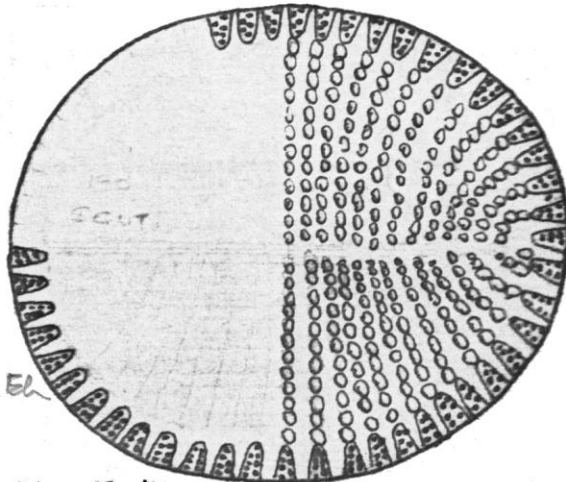


Nav. sp

Yunstyng Hd. BCH/c very "widely" lineate. 54.8 1/2 9 See also Plate 189. 48.11.9.



Yunstyng Hd. BCH/c 32.20.13  
*Trammatophora angulosa* var  
*istandica* Eh



Yunstyng Hd. BCH/c 34.4.x

Yunstyng Hd. BCH/c 37. 32. 5 1/2

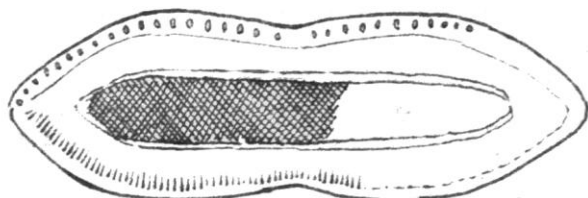
*Amphora binodis* Ehn  
a? *bigibba*





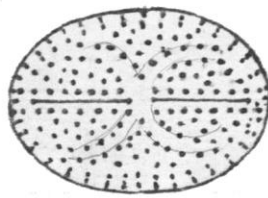
1988/B

52.6.25

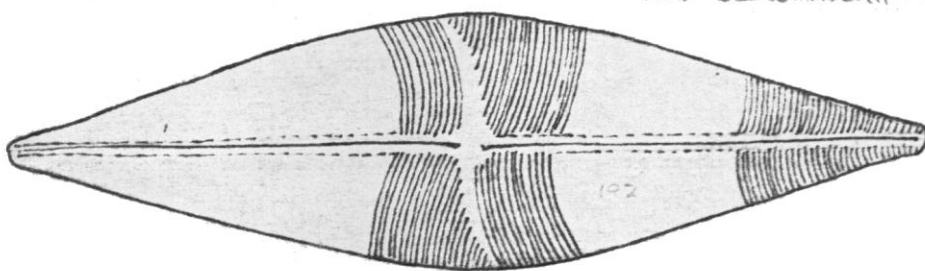


Yinstay Hd.

38.13.25 9

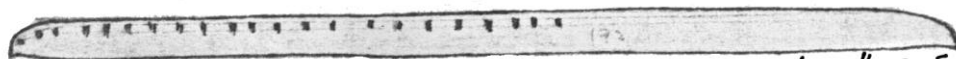


2015/B Quant 17.12.8  
Nav. Scho. Akenii Hustl



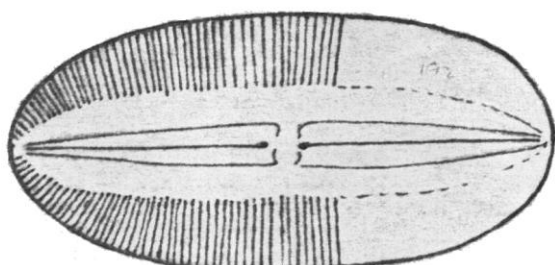
Yinstay Hd. 1991/B

60.17.22

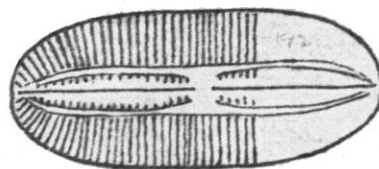


Yinstay Hd 1991/B

62.2 1/2 8.5.



Yinstay Hd. 1991/B ? REICHARDTII 36 17 15



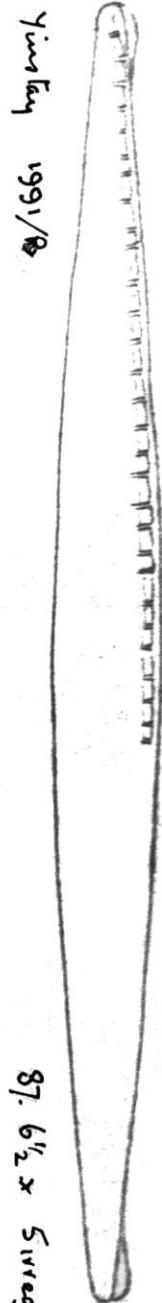
Yinstay Hd. 1991/B

25 10 15



Yinstay Hd. 1991/B.

60.3. x 8



Yinstay 1991/B

87. 6 1/2 x 5 instag

Miscellaneous Plate 193

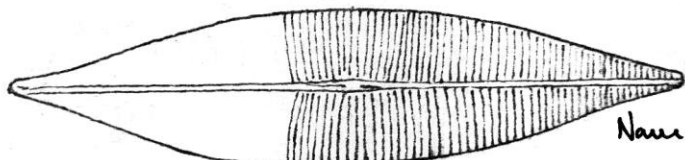
? *Navicula schäferi*



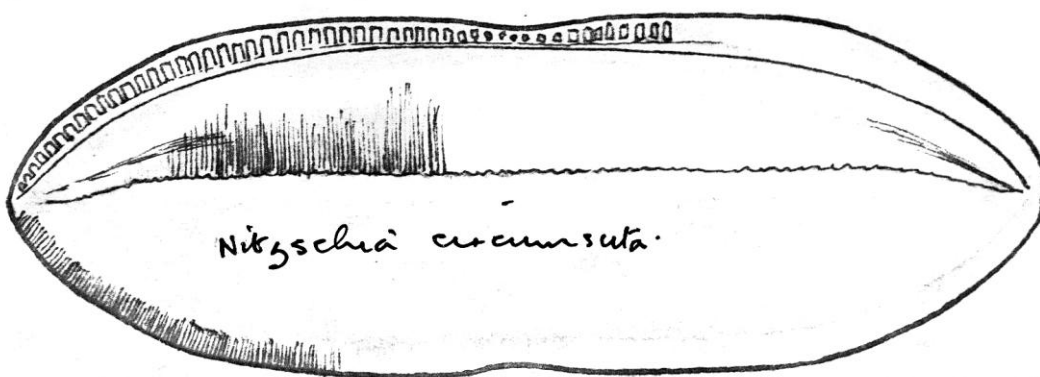
Yurtaf Hdt. 199/B. Reconstructed 60.14.15



Quant: 2007/B. 20.5.13 1/2

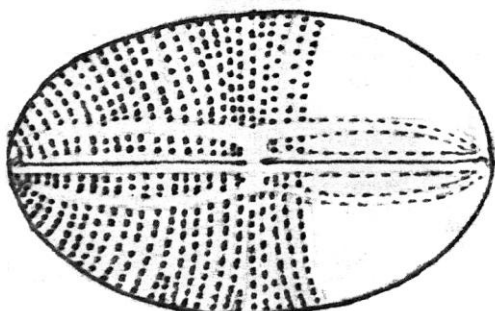


Kirkwall Houtonv. 2016/B *Navicula* 44.10.15

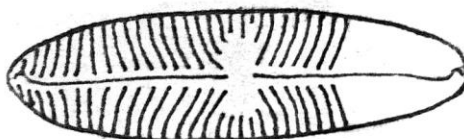


*Nitzschia circumscuta*

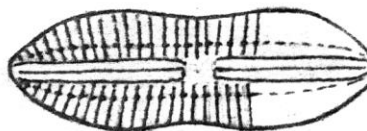
Kirkwall 2016/B 68.24 ? .9



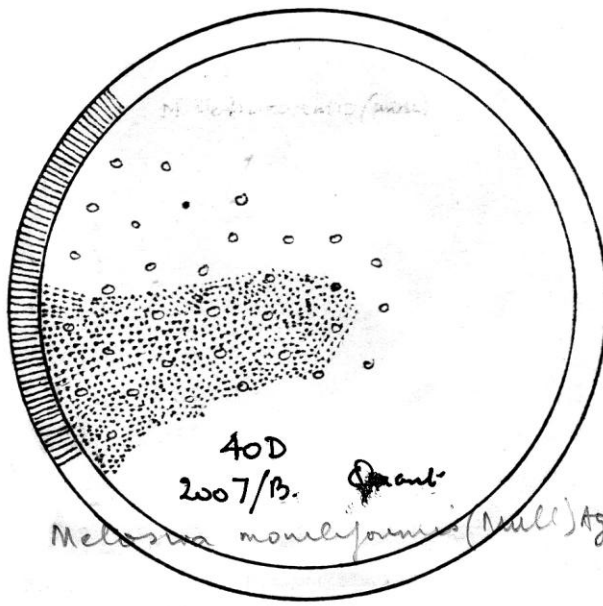
Quantness skony 28.20.11  
2007/B *Navicula rudiiformis* Hust



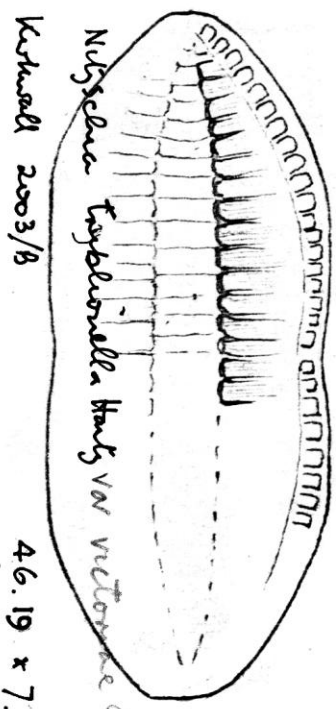
Sand Side Bay 2007/B 30.9.15  
~~skony~~  
*Nav. digito-radiata* v. *elliptica* DES.



2015/B Quant 24.8.12  
*Diploneis subadvena* Hust



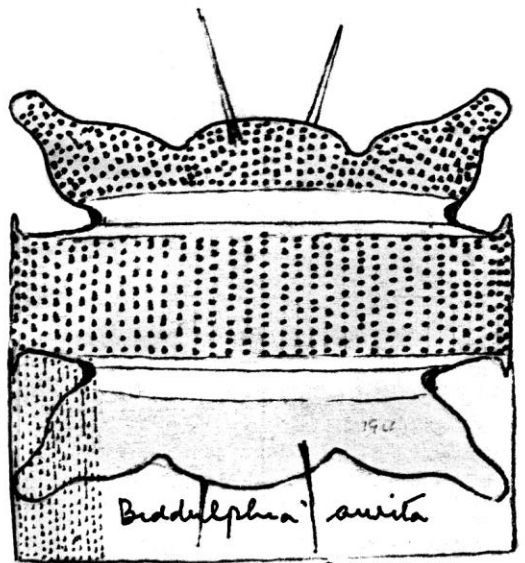
40D  
2007/B. Quant  
*Melosira moniliformis* (Mull) Agl



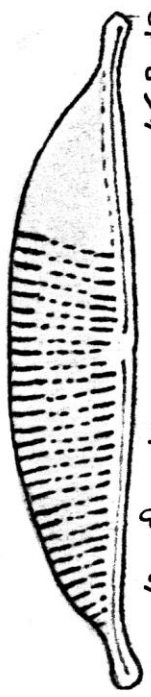
Kirkwood 2003/B  
*Nitzschia kirkwoodii* Hartig var *retrocurva* Grun  
46.19 x 7.



Small Lake Bay, Orkney  
*Hantzschia amphioxys*.  
87.8.14.6



*Biddulphia aurita*  
2003/B Kirkwood 34.28.8.



10.8.54  
2005/B Quant. Amphora

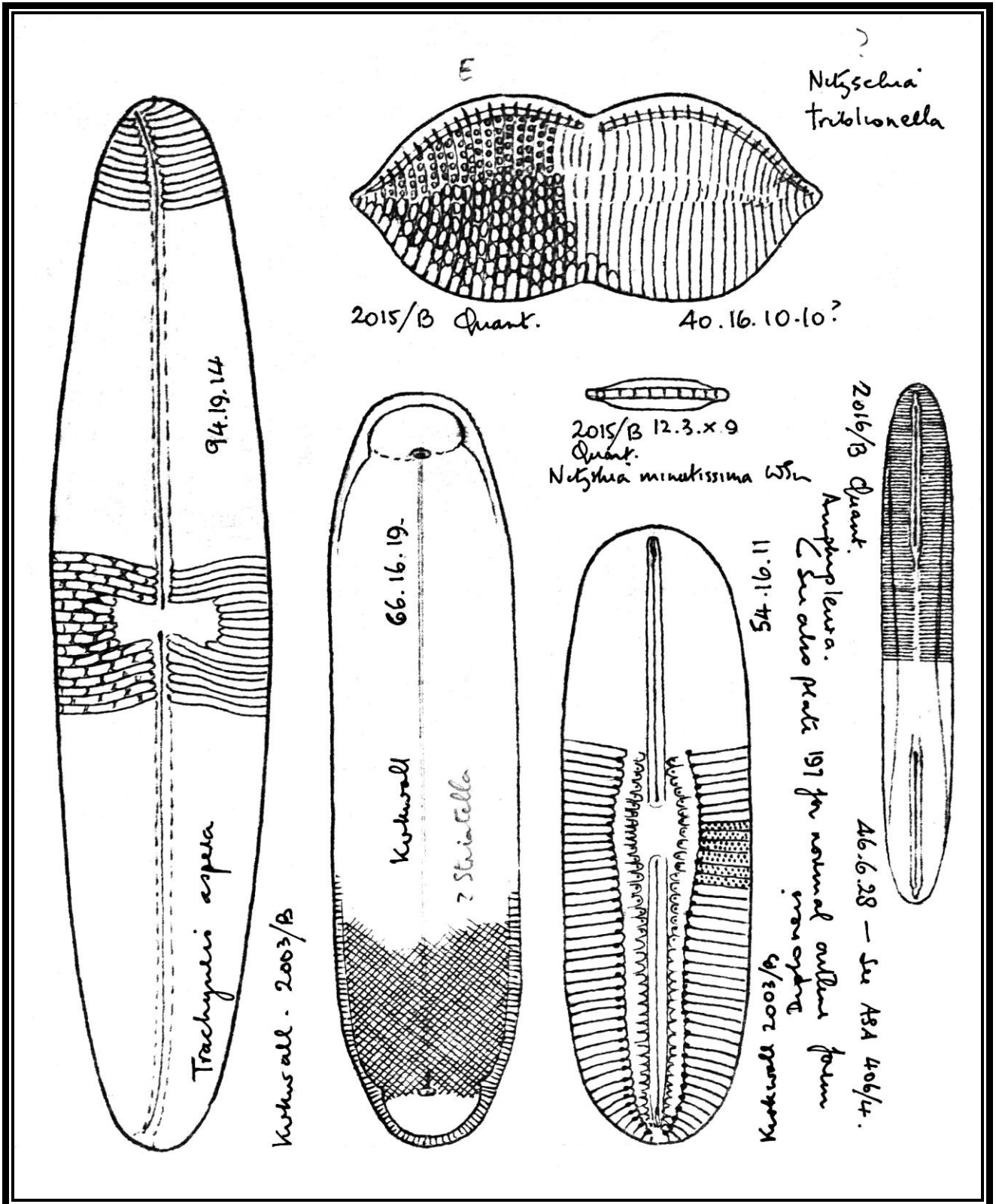


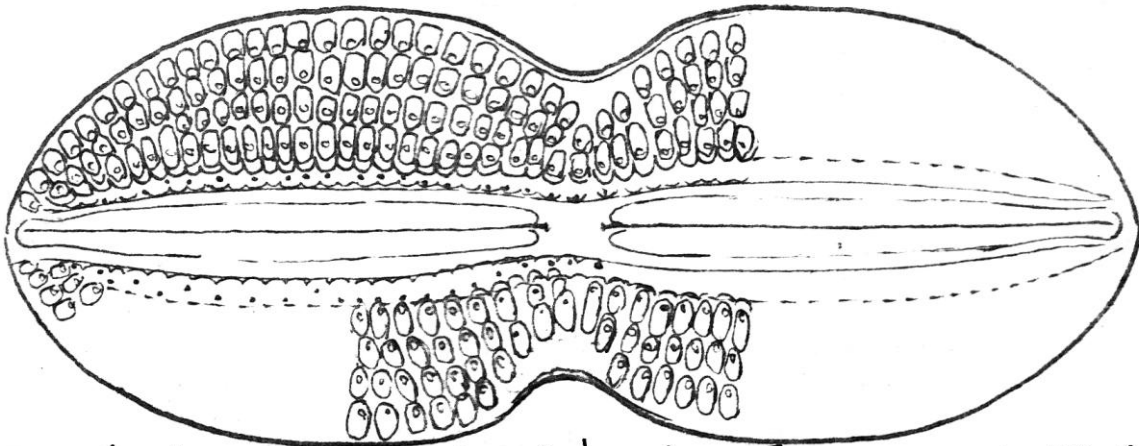
35.54.27.  
2018/Quant.  
? Cal or Navic  
Hitzschke nav. on no long band



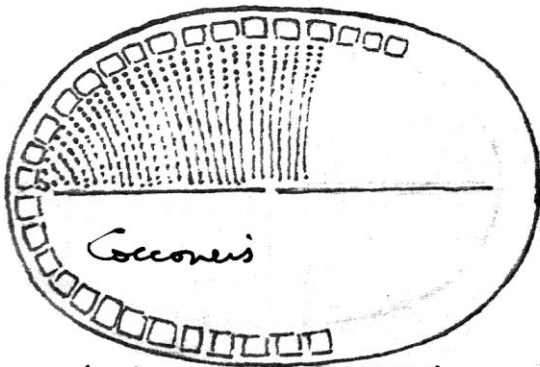
2015/B Quant 187 1/2 10  
*Achnanthes lilliborgii* Grun

Miscellaneous Plate 195

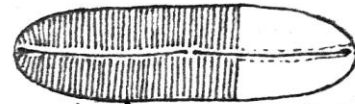




2015/B Quant. Diploneis bombus. Ehr 74.28.6

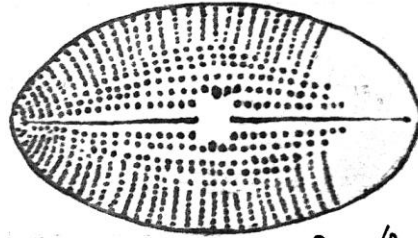


2015/B Quant. 35.23.12



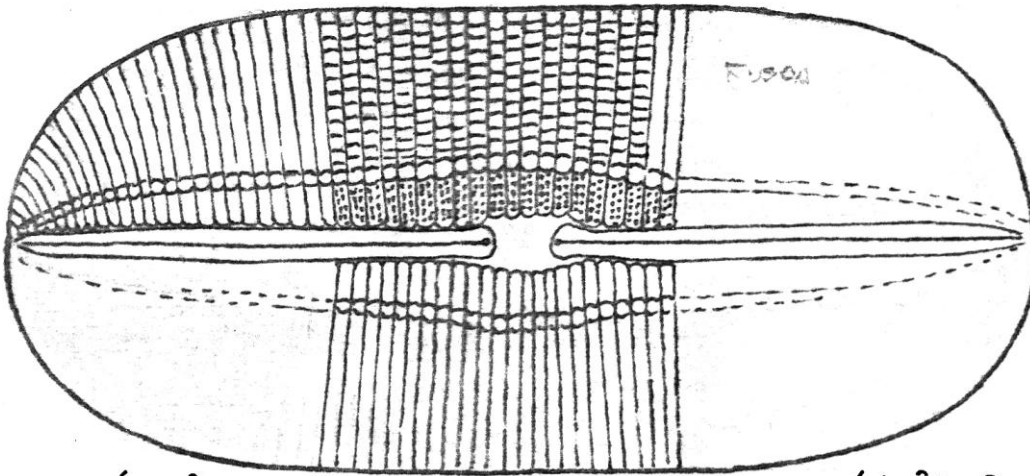
2015/B Quant 22.6.21

Navicula



26.14/282.  
Nav.  
fraudentula  
As.  
See A14 70/60

2015/B Quant

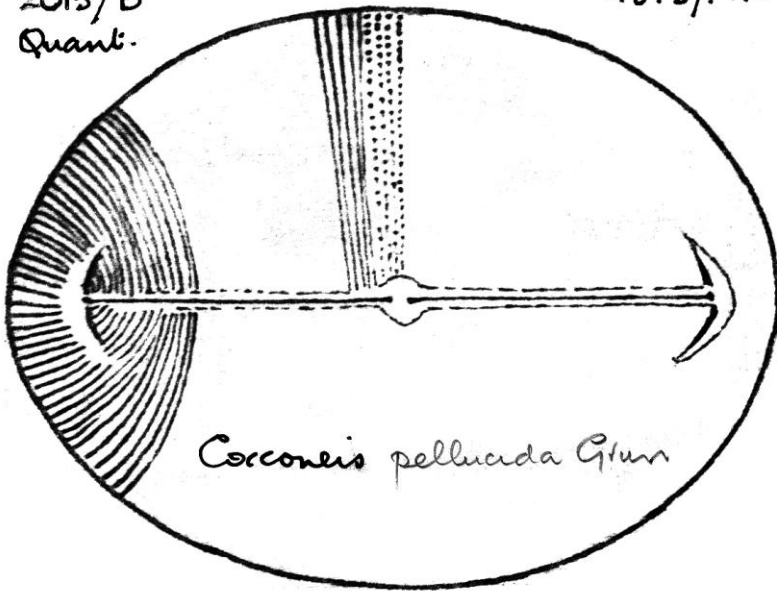


2015/B Quant 66.31.8  
Diploneis fusca

Miscellaneous Plate 197

2015/B  
Quant.

48.37.15



*Cocconeis pellucida* Grun

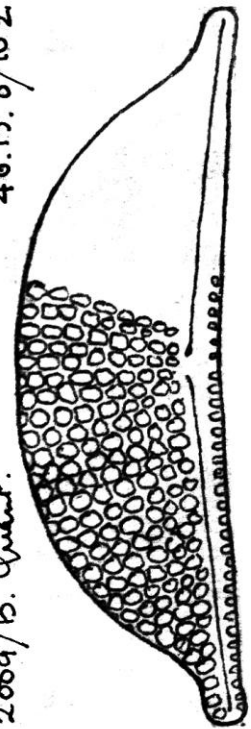


2009/B Quant. Amphora

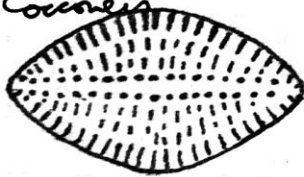
54.5.14.

46.13.8/10 1/2

2009/B. Quant.

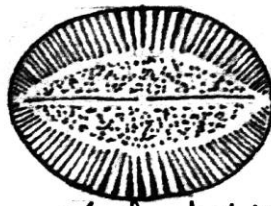


*Cocconeis*

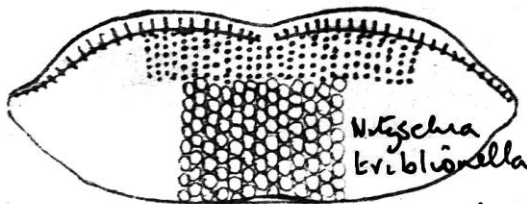


2015/B  
Quant.

18.10.12

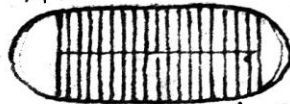


2010/B Quant. 16.12.15 wic  
*Cocconeis peltata* CAE  
As.

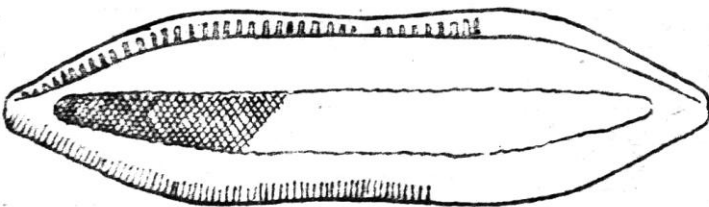


*Nitzschia  
kr. blichnerella*

2009/B. Quant. 32.12.12/15.12.



2009/13 18.6.12  
Quant.  
*Grammatophora*



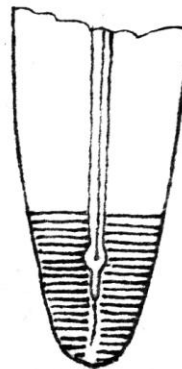
2009/B Quant.

44.12.18.12.

*Nitzschia panduriformis*  
var. *abrupta* Perag.

2009/13. Quant.

*Amphipleura*



45.6.25

x 1/4



*Nitzschia maculenta* Greg.

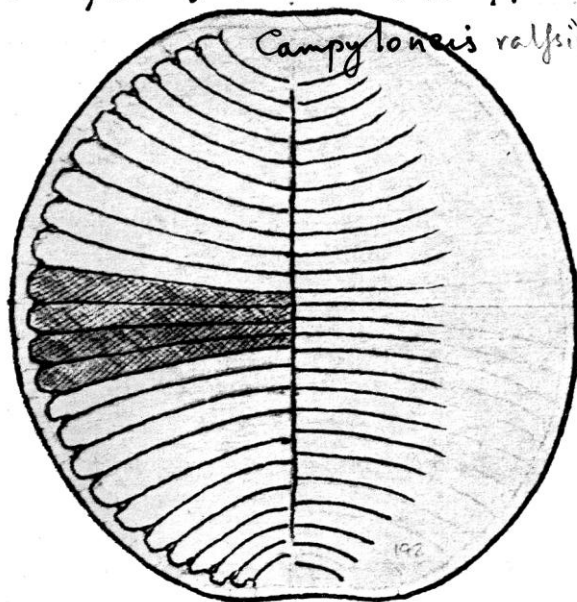


280.8 x 3-3 1/2



2009/B. Quant.

2009/B. Quant. 34. 37.



*Campyloneis valisii* Wilm.

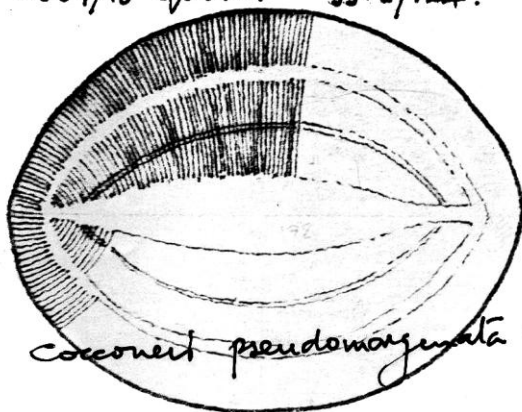
2009/B Quant.



*Nitzschia longissima* Griseb.

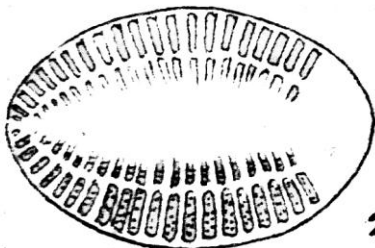
200.8. x 12

2009/B Quant. 35. 27. 24.



*Cocconeis pseudomarginata* Greg.

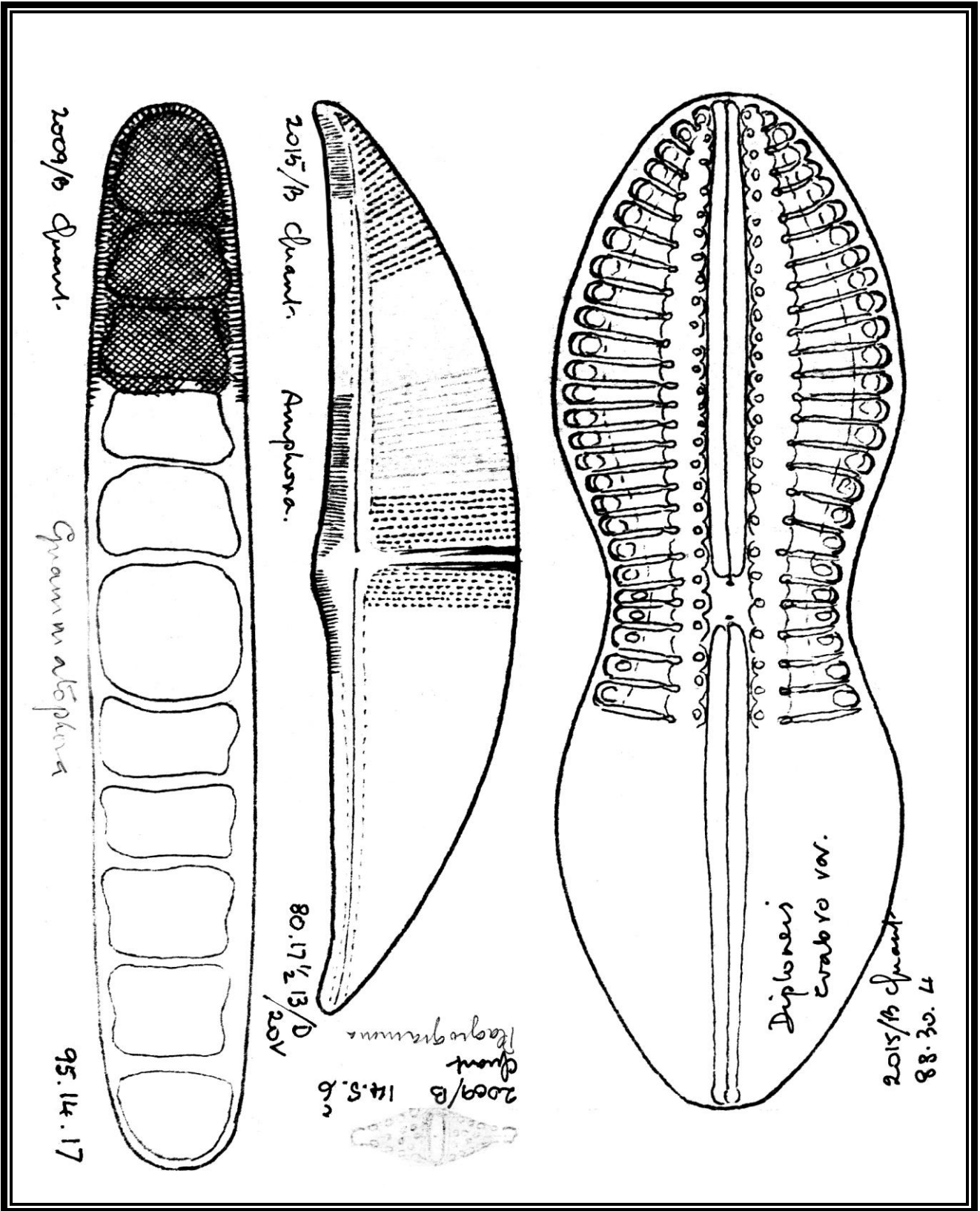
2009/B Quant.



23.16.8.

*Cocconeis*.

Miscellaneous Plate 199



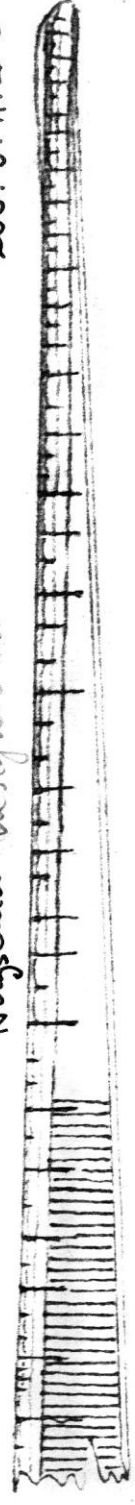


2013/B. Quant.

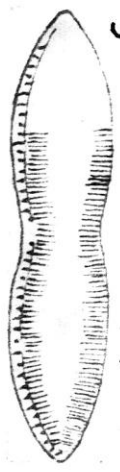


*Nitzschia insignis* var.

200. 8. 11. 4-5

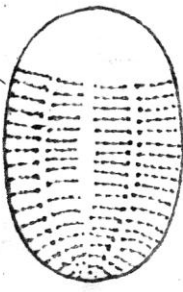


2013/B Quant. *Amphora costalis* var. 60.12.8.



2013/B. *Nitzschia* 30.6.5613.

*Nitzschia littoralis* or *stagnorum*



2013/B Quant. 18 11 1/2 10 1/2

*Cocconeis peltoides* Hunt

2013/B Quant. *Amphora lineolata* Ehr 45. 6. 56



*Nannula* ? *hypochrysalis*

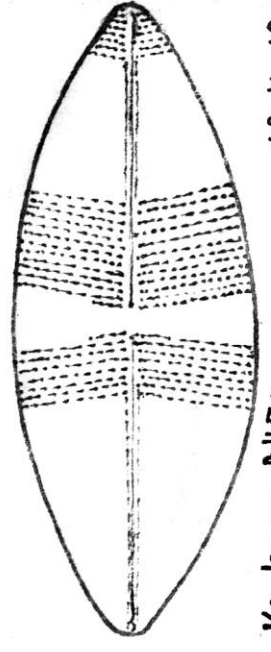


Kentmere BH 270 44. 8 1/2 10

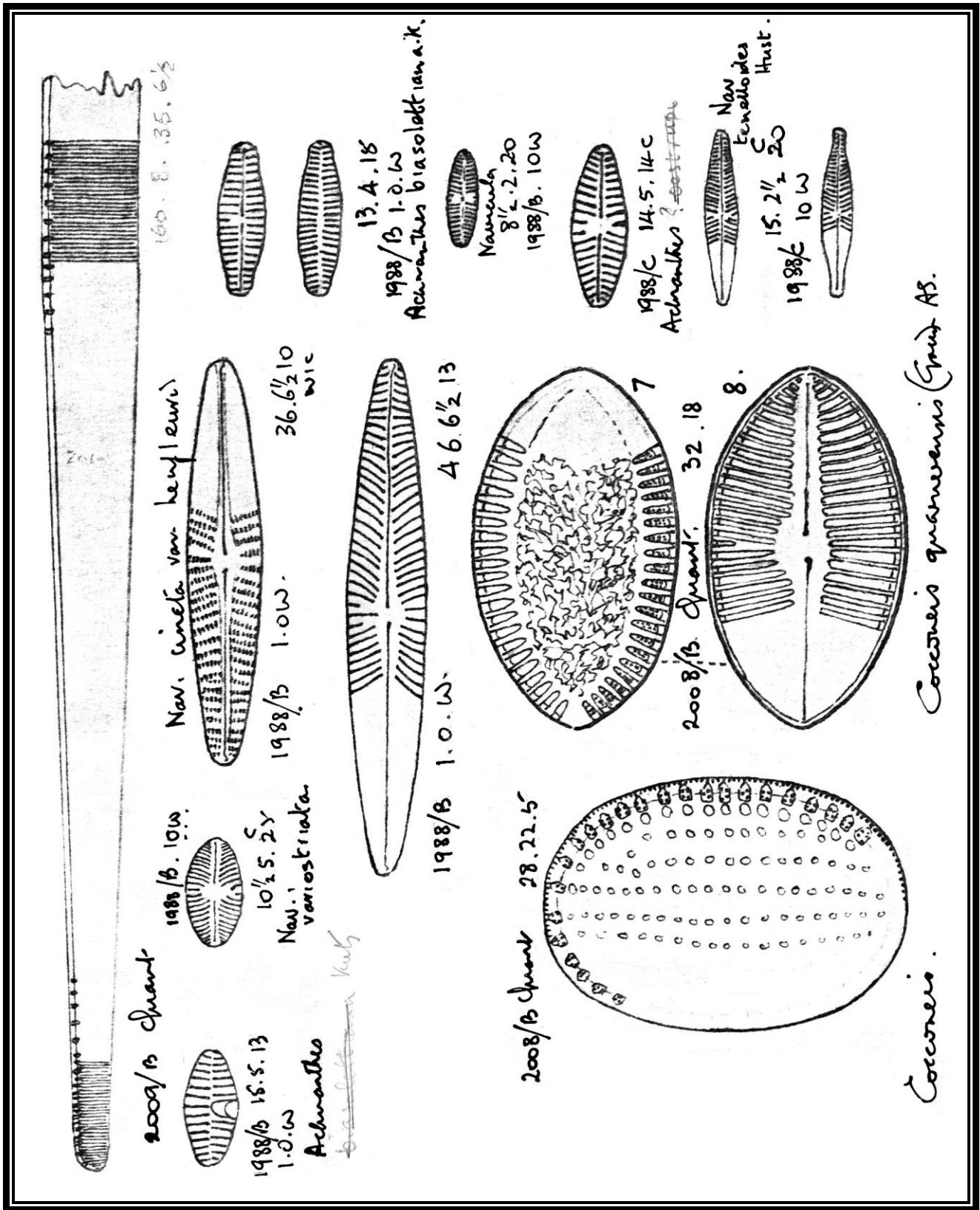
2013/B Quant. 38. 6. 13

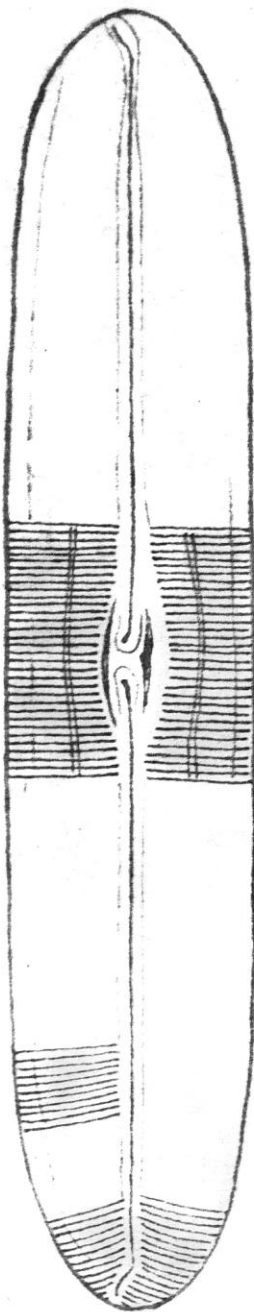


Kentmere BH 270. *Pachnanthus obliqua* (Gru.) Hunt 42. 16. 19



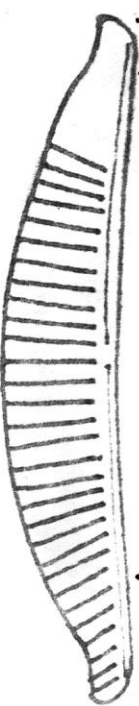
Miscellaneous Plate 200A



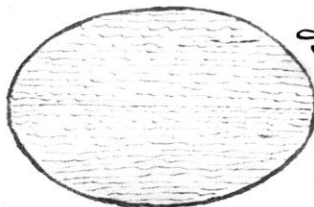


66.16.16

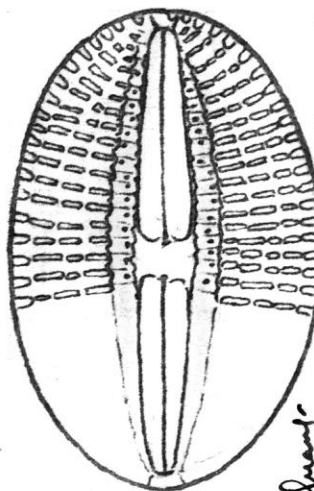
*Caloneis liber* var.



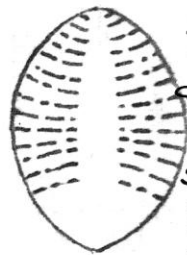
2013/13 Quant. Amphora argentalis Greg 46. 7 1/2 8 1/2



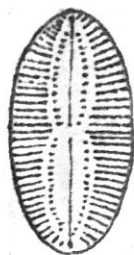
2013/13 Quant. 20.15.7  
*Cocconeis mulesta* var *crucifera*



Quant. 32.20.8  
2013/13  
*Diploneis notabilis*

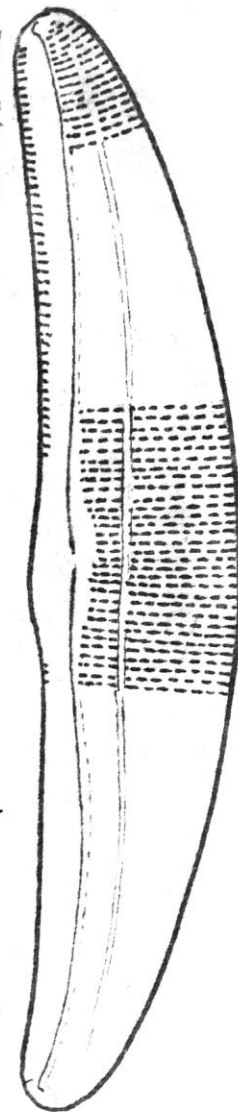


2008/13 Quant. 16.11.8  
*Cocconeis disculoides* Hust



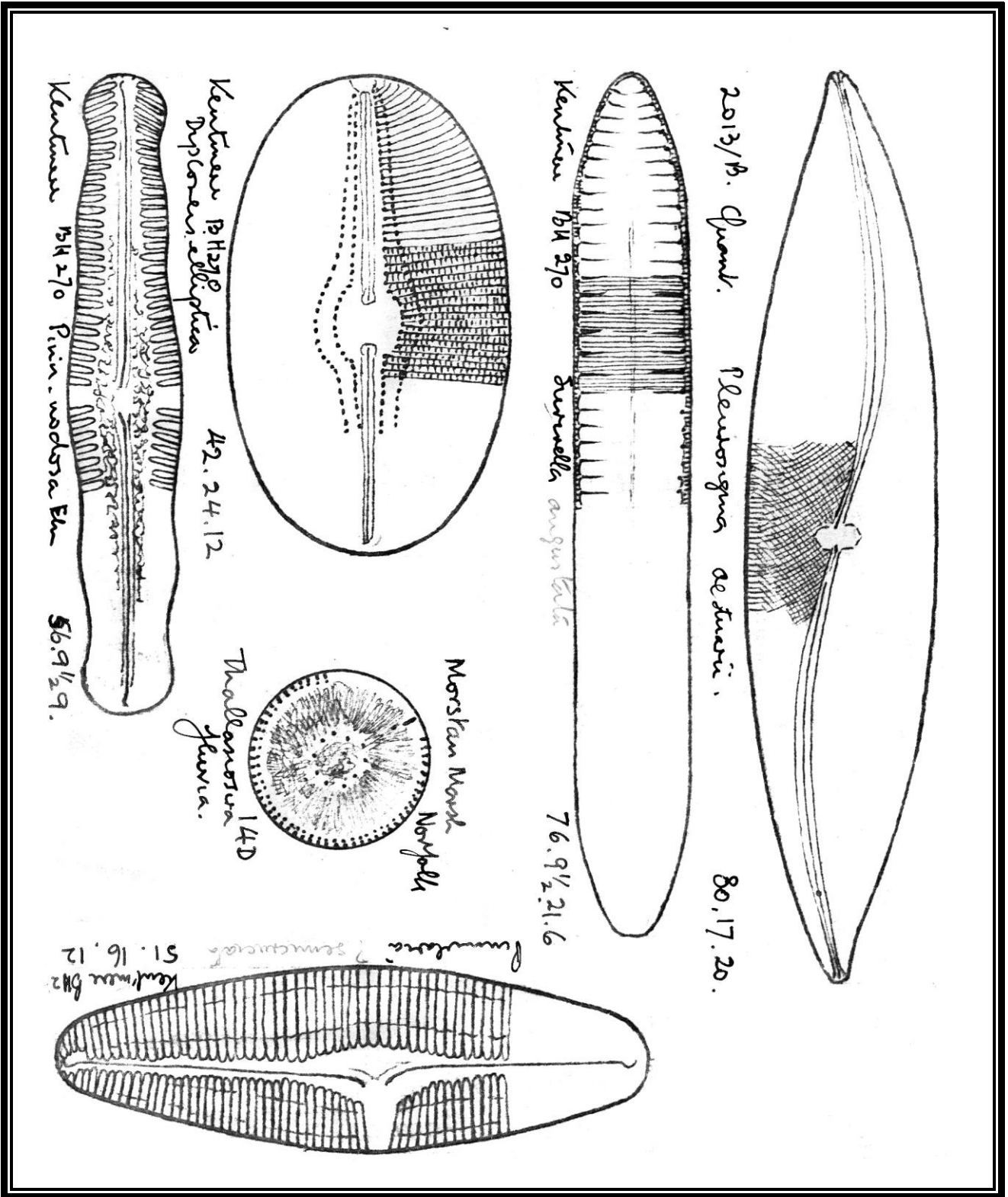
2008/13 16.8.15 Quant.  
*Navicula*

11000 2/3002



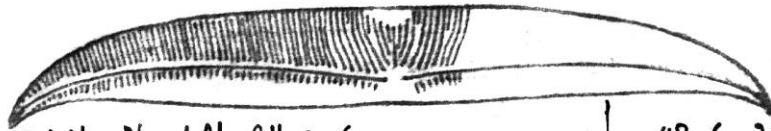
74.14.14 Quant.  
2008/13 Amphora

Miscellaneous Plate 203





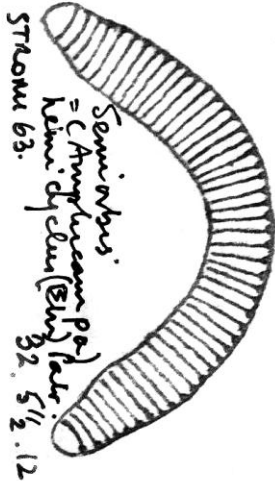
Wells 11.4.15  
Norfolk  
*Pinnularia*



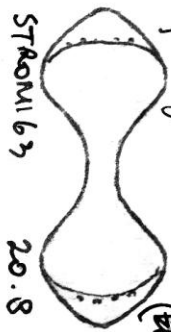
Wells. Norfolk BH 206 48.6.23  
*Amphora luviedata* (Eh) Grun Fine punctate



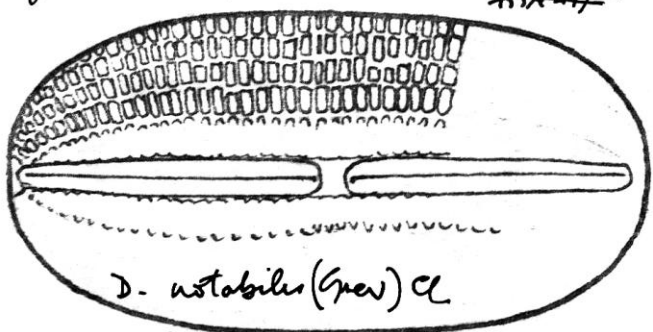
Wells, Norfolk 206 38.6.22  
like *Amphora striata* for *A. ostreata*



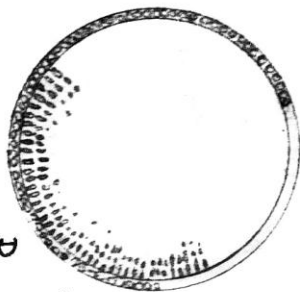
Stromi 63.  
*Semiorthis*  
= *C. Amphiscum* (P. Grun)  
known by *Stromi* 63.  
32. 5 1/2. 12



Stromi 63 20.8  
Septa of *Taellaria binalis*  
(Eh) Grun.



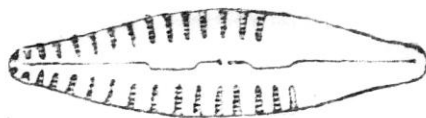
*D. notabilis* (Grun) Cl  
Wells Norfolk 40.20.10



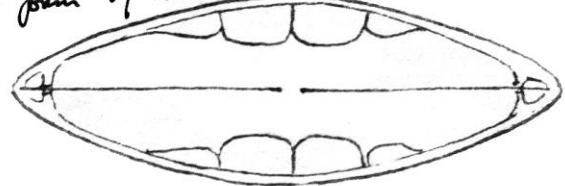
18  
*Malosira*.



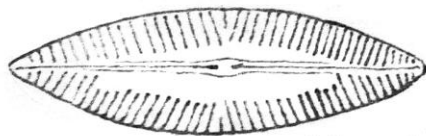
Wells Norfolk 47.8.13/12  
? *Amphora attenuata* or a small fine form of *A. robusta*.



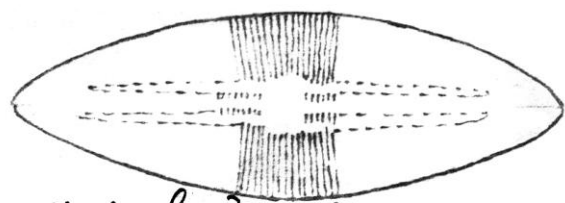
Stromi 63 26.6 1/2 9.  
? *Achnanthes*.



Stromi 63 34.12.23.

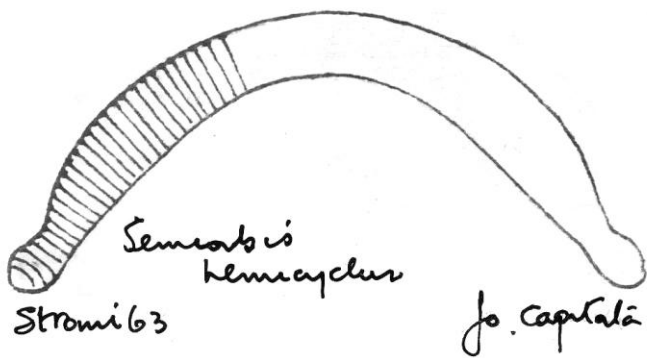


Stromi 63 26.8.15  
*N. palpestris* group

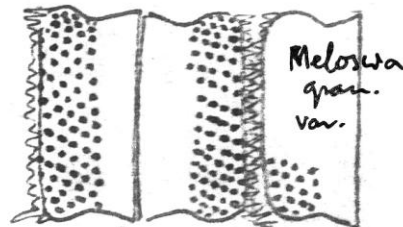
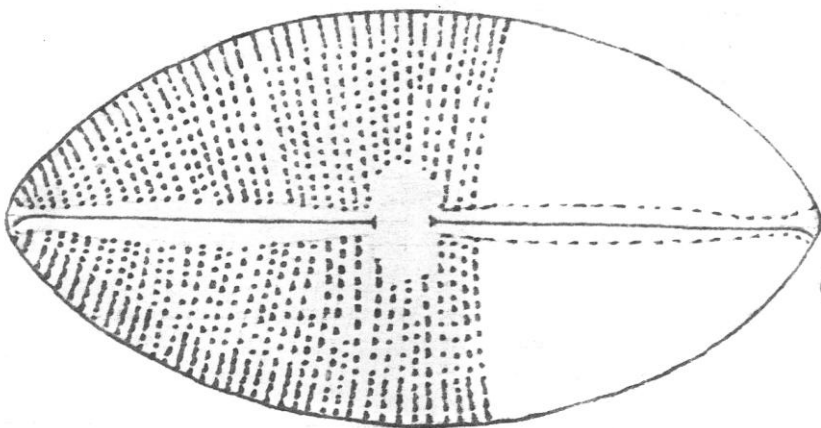
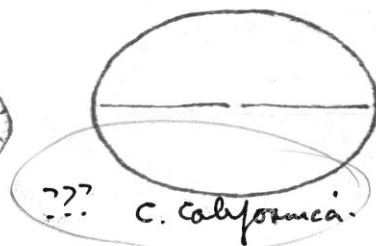
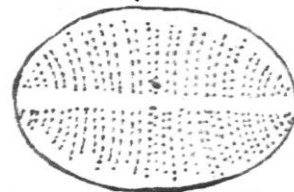


*Mastogloia pusilla* Grun.  
*pusilla* (Grun) Cl

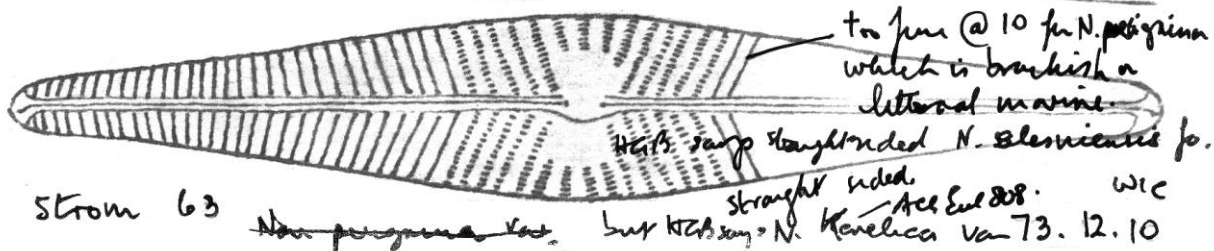
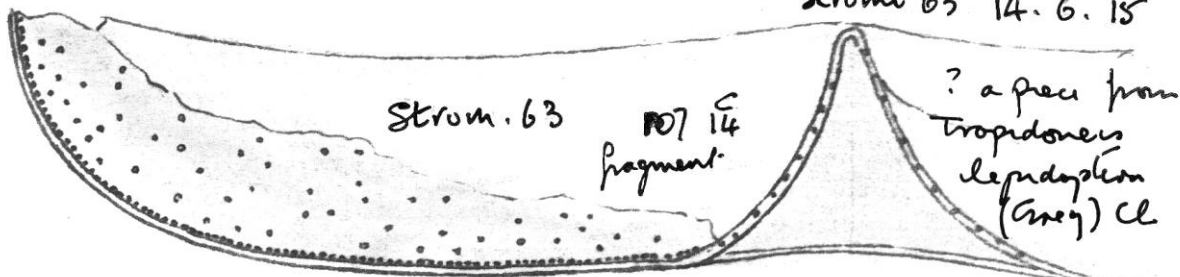
Miscellaneous Plate 207

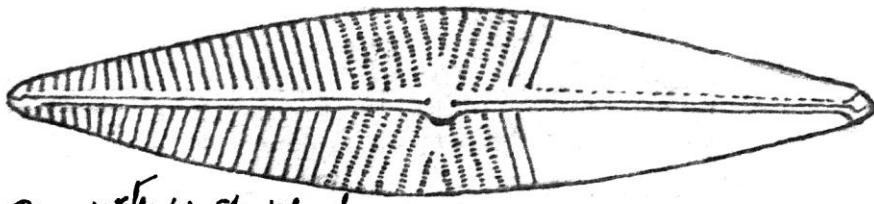


Stromi 63 28-7. 10  
See also Plate 206 / 26. 6 1/2 9.



Stromi 63 14. 6. 15



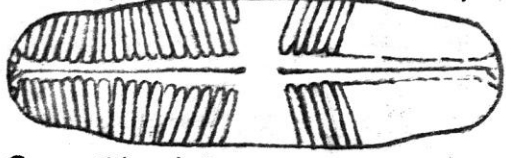


Cross with 43 Ske. land

55. 12. 11

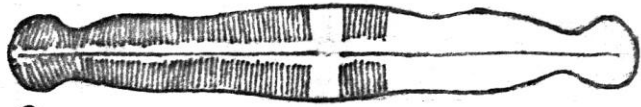
*the other lanceolate? line has a notch the other 2 will*

*Pinn uncostatum (Em) cl*

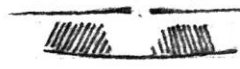


Cross with 43 Ske.

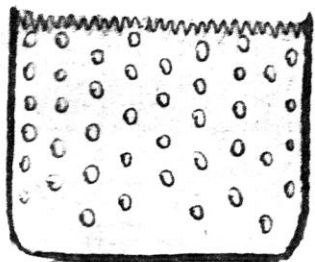
32. 9 1/2 . 14



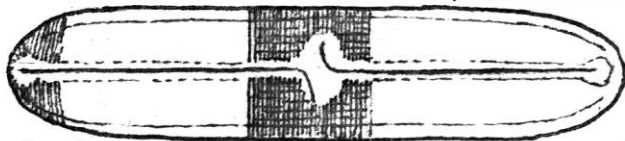
Cross with 43 Ske. *undulata* 40. 6. 25  
P. *undulata* Gray



*Nerium bisulcatum*



19 D.



Quellen 46

40. 8. 30

P. *intermedia* Hay.



Quellen 46

39. 6 1/2 7

*Cyrtosira belgica* ? var.



*Melonis granulata*

*Plagiogramma vanheurnii* Grun



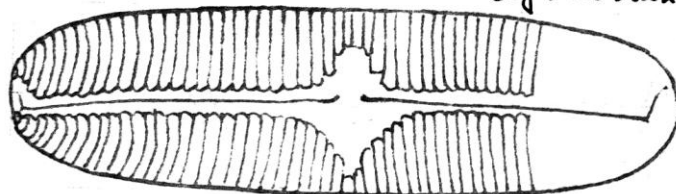
420/B. *Cylindrus*

30. 3 1/2 10

P. *cuciformis* Durh ✓??



Quellen 46.



44. 12. 14

Miscellaneous Plate 209

? *Caloneis pulchra* Messikommer.

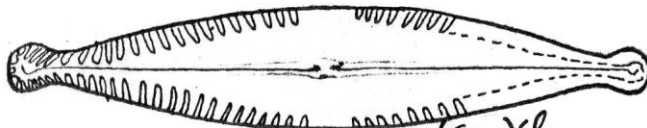


1021/B Aberdeen

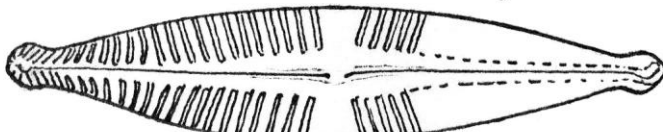
42.5 1/2 .22



848/B Sp. Wood NTON 40.6 1/2 .21.9 in  
1 Reed



605/B L. Cororion. P. braunii (Grun) Cl. 44.8.11



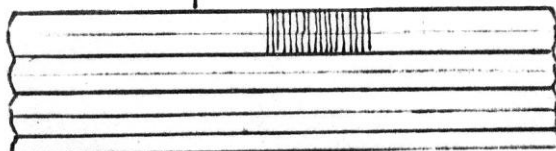
605/B P. braunii (Grun) Cl. 46.8 1/2 .11



Loch @ Broken Brough, Shetland 37.6 1/2 .13.  
P. hebbisonii (K) Rabh



1003/B Tewkes. 31.7.23.9  
near to Hantzschia amphioxys



1003/B Tewkes

38.6.20.

? *Fragilaria virescens* Lalp

615/B TAI NEU

SPENOB 615 TAI NEU

57.6 1/2 .30.6.

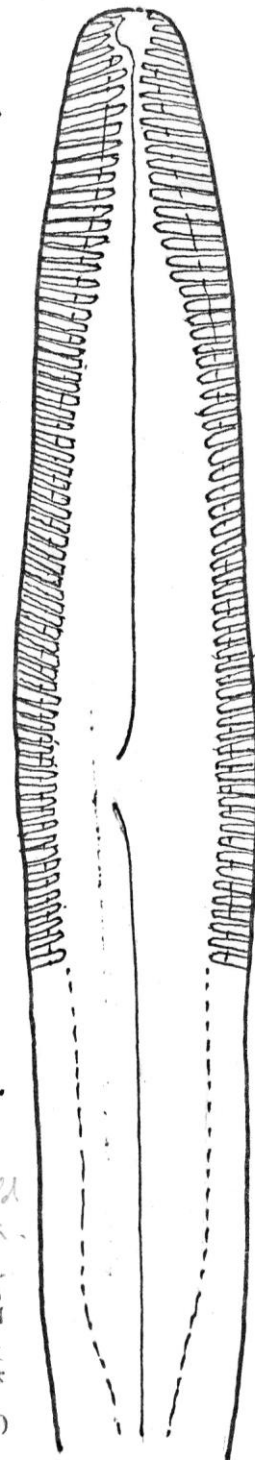
? *S. delicatissima*  
HAB still  
thinks this should  
be a *Stenopterobia*.

1021/B Aberdeen

C1 Braucrosta

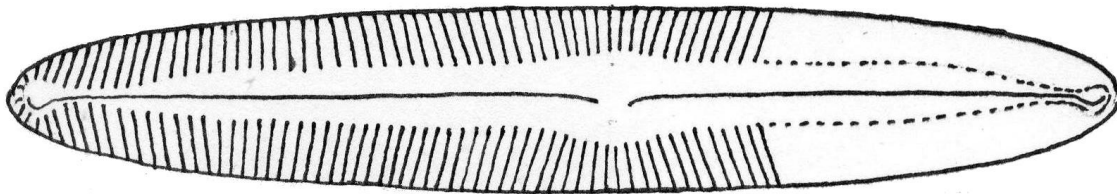
274 UNIVASTA

1021/B Aberdeen

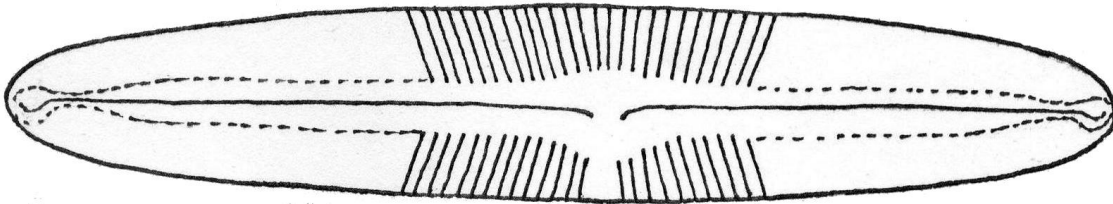


Note HAB lumps Hantzschia with Nitzschia and does not accept separation

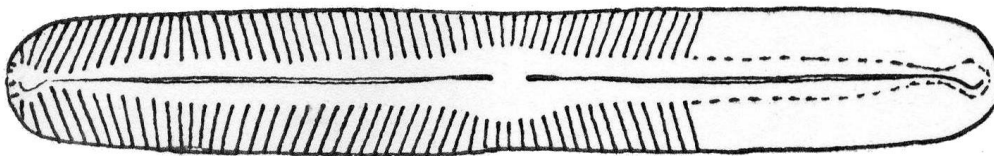




TYPE *Pinn. sudetica* - Hise. 69. 11. 12



*Sema INTERRUPTA*! 69. 12. 12.



*Pinn. rupestris* Hantzsch Bréb Type I.V.V. 62. 8½ 12

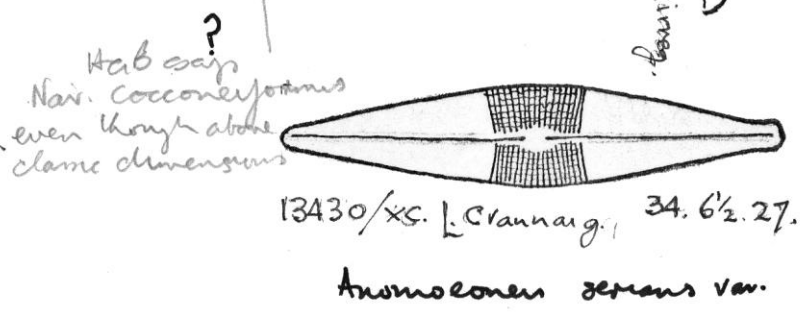
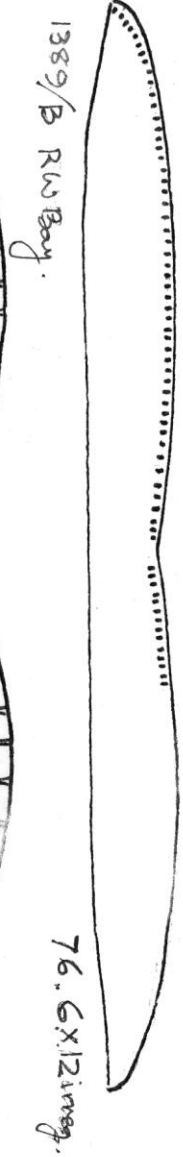
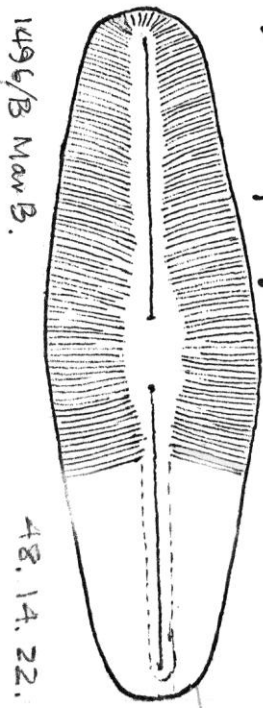
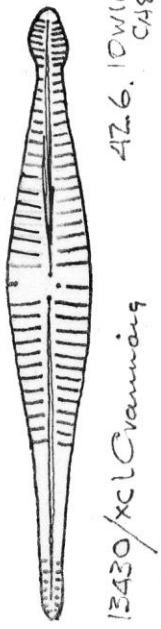
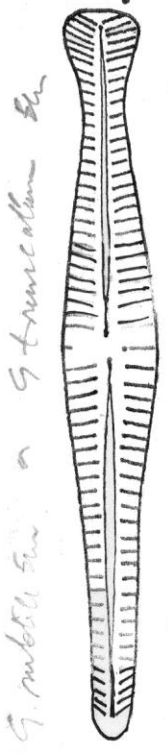
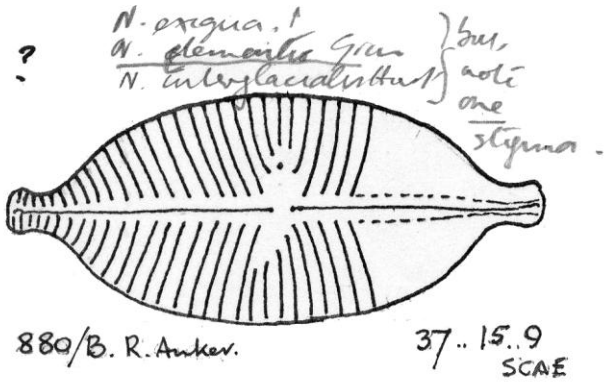
Mounted by R. Ross 6 X 147

Rabenhorst algen europas No 1203

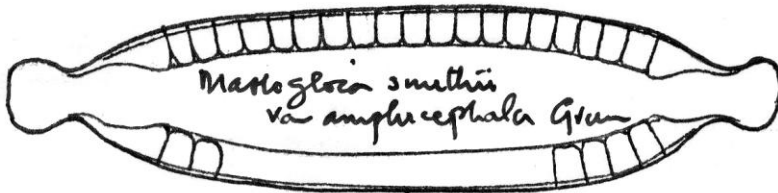
C.N. Resin - Krippengrund Switzerland Sep. 1861. BM. 36065.

but - see Acl Eul Sw & Finland IV pp. 5  
 in which she makes rupestris a  
var of P. sudetica



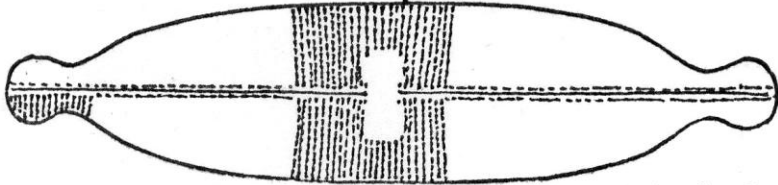


Miscellaneous Plate 212



13430/xc. L. Crannaig.

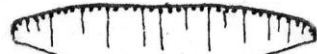
51.12.18.



H&B say *Nitzschia disputata* Grun. <sup>See Devils Hole Cave.</sup> <sup>but check</sup> <sup>apart with</sup> <sup>*N. denticulata* Grun</sup>



Padstow. 26. 2 1/2 x 15 irreg.



Padstow. 20.3. x 15 irreg.

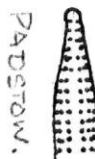
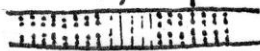
? *Synedra amphicephala* K



Padstow.

Syn

42.3.15

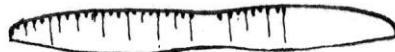


PADSTOW.

22.2.15

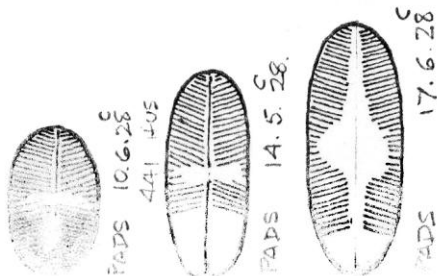


Padstow. no. puncta 24. 7 1/2 15.  
*gemistriata*



Padstow.

26.3 x 15



PADS 10.6.28

441 405

PADS 14.5.28.

17.6.28

PADS

PADS

PADS



521/B 12 1/2 3.16

LLYN 09.

*Eunotia mentenii*

*E. septentrionalis*

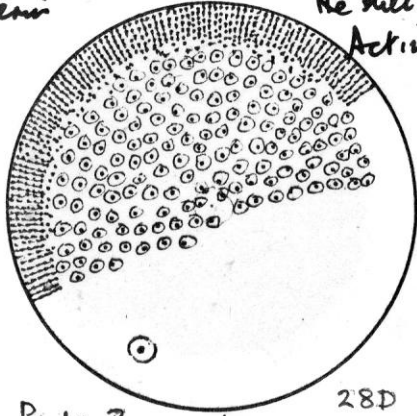
13430/xc. L. Crannaig

106.16.12

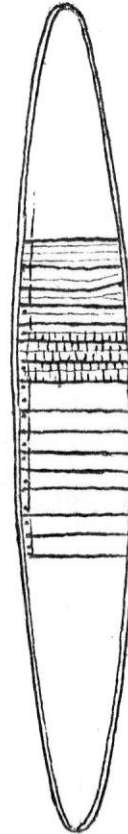
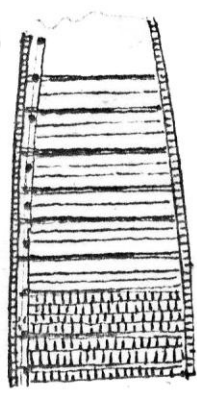
*P. divergens*

*Achnanthes*? *marginulata* Hust

*Actinocyclus octonarius* var *crassus* (Wilm) Hendey  
~~*Rosetta tessellata* (Loren) Grun~~ ? var *spanum*  
 HGB says No. *Primitivus striatipes* var  
 Rosen  
 He still says  
*Actinocyclus*

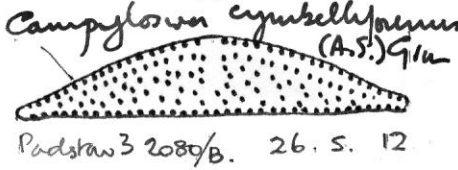


Pads. 3 2080/B. 28D

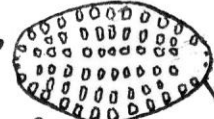


57.8.13.6xp7.c  
 1039/B SHILLANOSG, N.I. WILSON

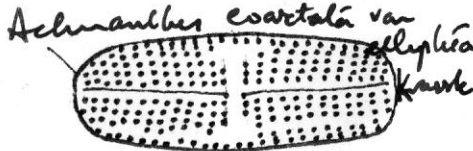
*D. tenuis* v. *clavata*  
 but ? *costae* etc



*Campyloneis cymselliformis* (A.S.) Grun  
 Pads 3 2080/B. 26.5.12



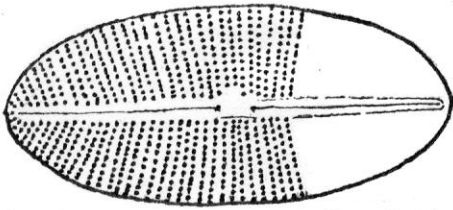
Pads. 3 13 1/2 .8.9  
 2080/B Grun



*Achnanthes coarctata* var *clavata* Grun  
 Pads. 2080/B No 22.8.13



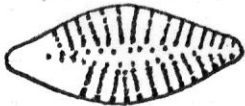
*Rhynchospora nitida* (Grun) Grun  
 N. Hellenoride  
 Pad 3 8 1/2 .4.20  
 2080/B



*Achnanthes cluthensis*  
 Pads 3. 2080/B Clutha 30.13.16  
 HGB says Nav. *cluthensis*



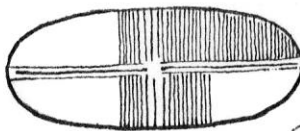
*Achnanthes*  
 8 1/2 7 1/2 10  
 2080/B Pad 3



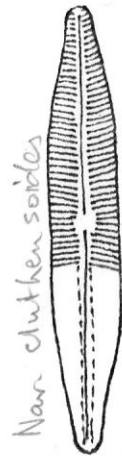
*Achnanthes lilljeborgii* Grun  
 Pads 3 16.6 1/2 10 1/2  
 / 2080/B WIC marked.



*Nar cluthensis*  
 2080/B 8.4 1/2 .35  
 Pads 3.



*N. biemeri* Hust.  
 2080/B 20.8.30  
 marked. See Hust-Dollner in *Preaurii*



1039/B SWICE C. ZOELE. 30.5.20



*Nav. pentagona*  
*jeitzschii* Grun

1664/3 24.10 1/2 .10 1/2 CAE  
 WILC  
 WILSON, N.I. GRUN

Miscellaneous Plate 214

" Length 45 max "

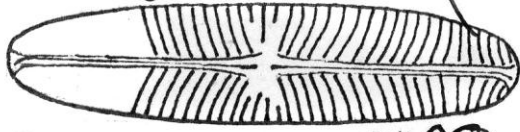
Nav. digitiradiata (Gray)

End striae always convergent

Halper's var elliptica

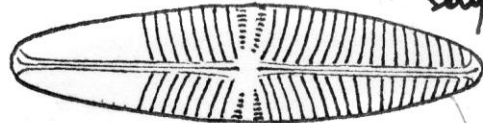
" which should be a distinct species - Freshwater? says HGB "

not N. digitiradiata

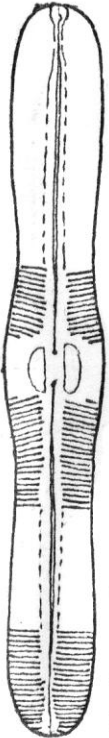


CRUS. W. 43A TOP

34 1/2 (8) 12

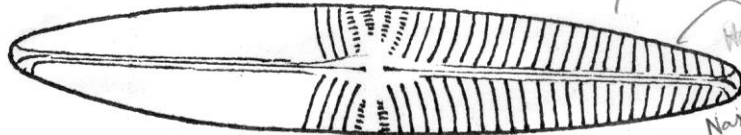


CRUS. W. 43A Middle 32. 8. 12  
undescribed species



50. 6 1/2 . 21

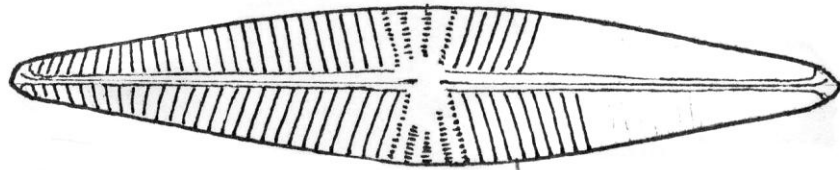
N.W. 21854



CRUS WATER, Shetlands

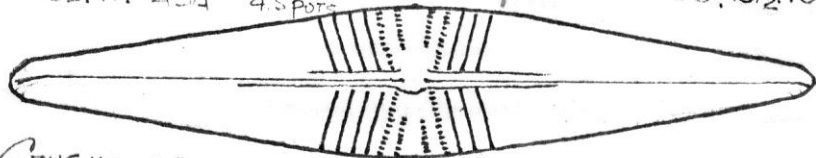
50. 8 1/2 . 11

HGB says not Nav. cincta PE 237



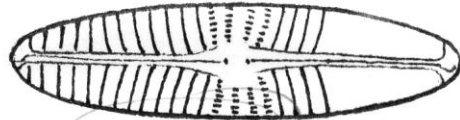
CRUS. W. 43A 4 spots

56. 10 1/2 . 10



CRUS. W. 43A HGB straight-sided Navicula slesvicensis call it

54. 10. 10

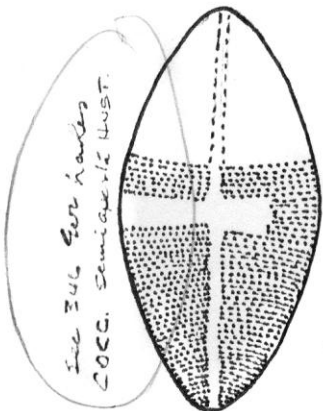


801 B. SUTTON PARK. 30 1/2 . 7 1/2 . 11

CINCTA V. HEDRE.

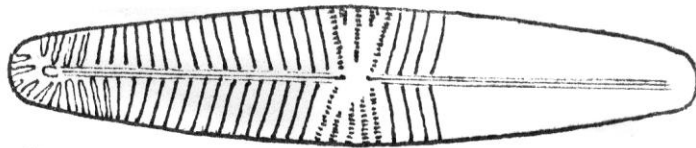
Nav. cincta v. keyflessen

? - this bracket



See 306 for scales COCC. SEMIAPERTA HUST.

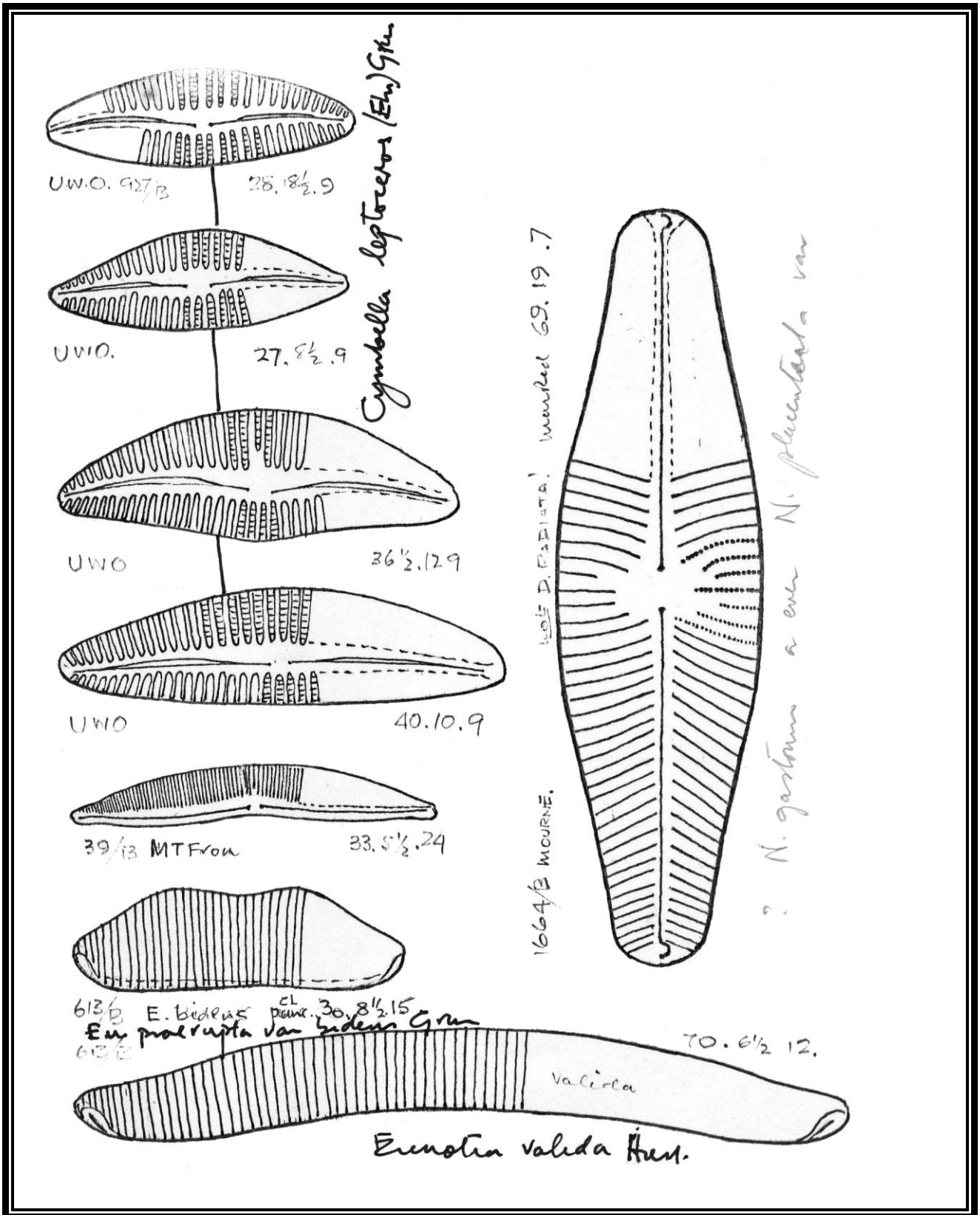
TOOME BR. Achmannites 7. 14. 18 HGB says COCC. SEMIAPERTA HUST



CRUS WATER 43A BOTTOM.

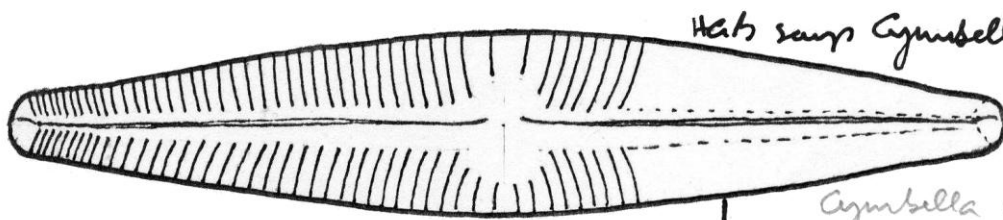
46. 9 . 10

HGB says a deformed Navicula









H.G.B. says *Aymbella dougallii*

Co. Down N.I.

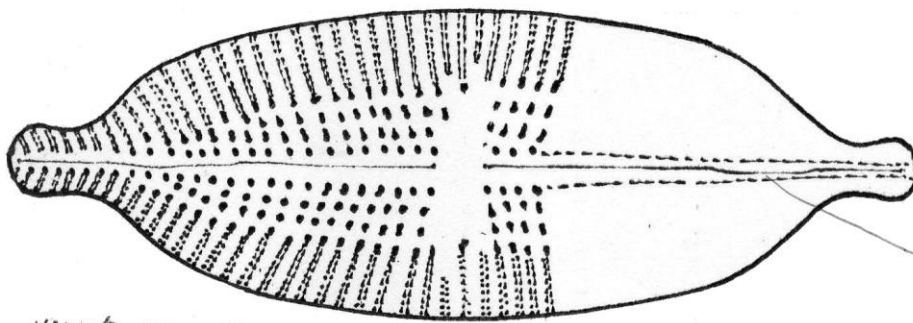
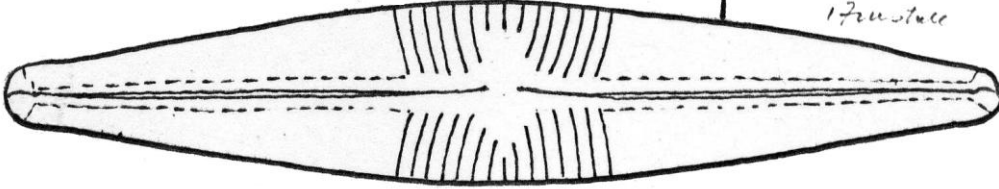
*limpunda*

*Aymbella aequalis* W.

66.12.10

WIC CAE

17 frustule



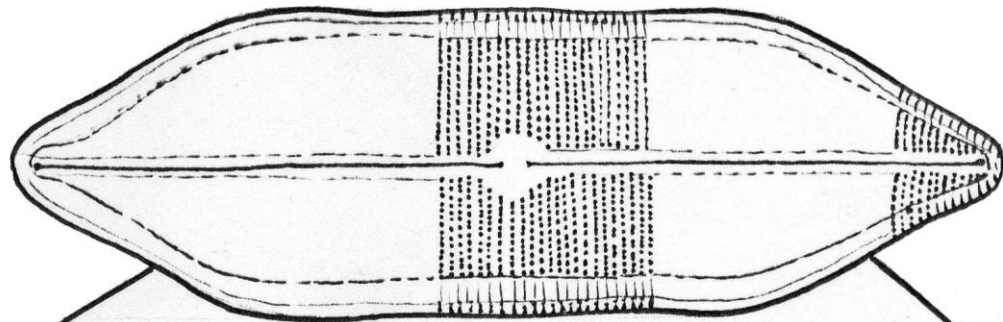
*Nav. triscula*  
(Ehr.) Grun

H.G.B. says raphe  
wave not always  
present

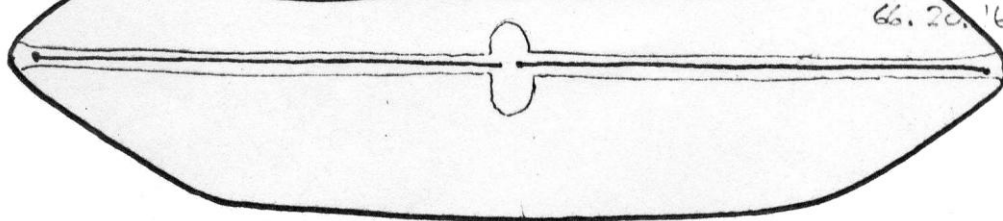
1845/B 70011 E

V.G. double puncta

60.20.9



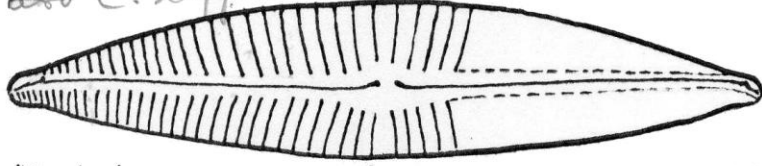
66.20.16



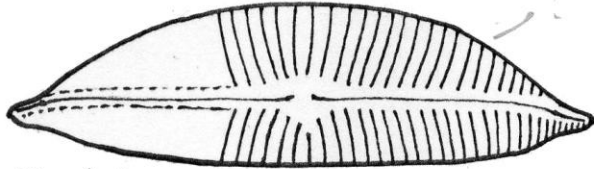
*Neidium wicki* v. *amphigomphus*  
(Ehr.) V.H.

Miscellaneous Plate 233

Actis sayi  
*Cymbella hillyardii* Butsch  
 also *C. lapponica* Grun

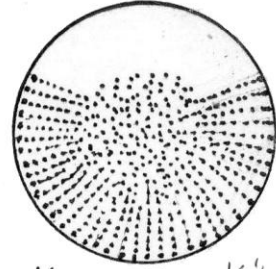


Moshela No 51 Sketh-d (HILLIARDII). 48. 10.9/12

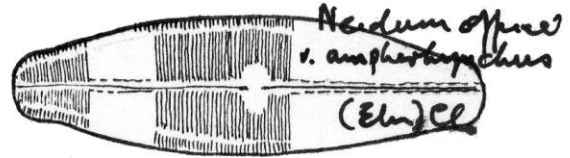


Moshela No 51 Sketh. 38. 10 10/12

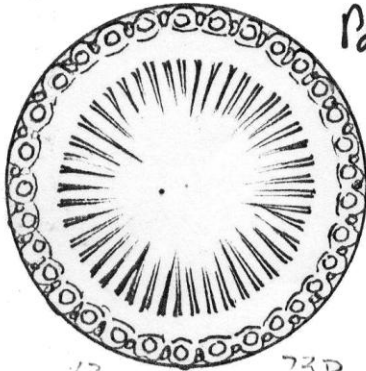
? *Stephanodiscus*  
 ? *Cyclotella*.



Mos. 51. Sketh. 16 1/2 D 12.

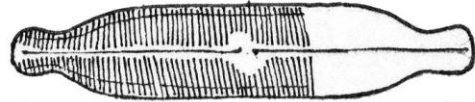


MOS. 51 Sketh. 30. 9. 20

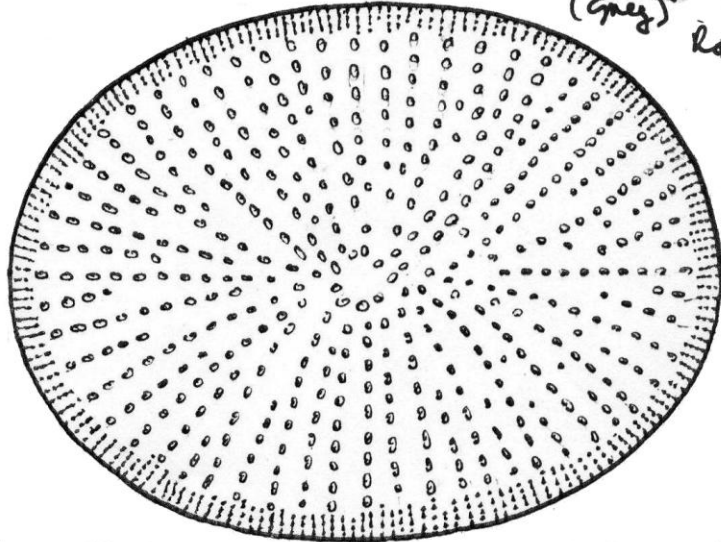


*Paraleia sulcata*  
 (Ehr) Cl.

13 PADS 3. 23 D



MOSHELA NO 51. ? 30 6 1/2 . 27  
 Nerdium  
 longiceps (Greg) Ross



PADS. KROOKII 21. 3. 16



PADS. KROOKII 20. 3. 16 N.F.

HGP. sayi *P. krookii*

but ?  
*P. hilseana* Janssch

= (*P. subcapitata* v *hilseana* (Janssch) O. Muller)

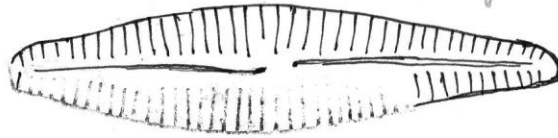
— 1/3 PADS 3 See ASA 58/24. 812 46. 34. 12/5<sup>c</sup>  
*C. cocconeiformis* H S or NF Nitida  
*Cosc. nitidus* Greg var? no axial areas

*Cymbella belgica* Grun

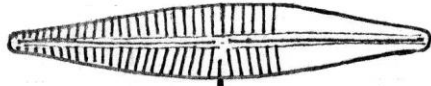


2080/B  
Pads 3, 20.4.9

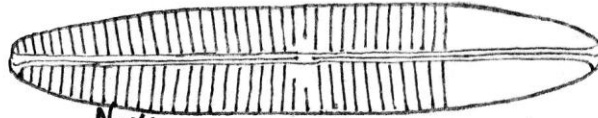
Agb says? *Gomphocymbella anchi*



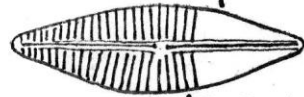
2080/B Pad 3 37.8.13/11



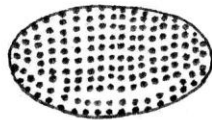
2080/B  
PAD 3 N *Gregaria* 28.5 1/2 .15



Nav.  
2080/B RAMOSSIMA. (Ag) C 40.7 1/2 .12-13



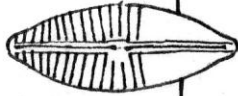
2080/B  
PAD 3 N *Gregaria* 20.9.16



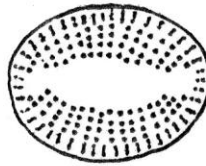
2080/B 14.7 1/2 .11



2080/B 24 5 1/2 .13  
*Achnanthes coarctata*



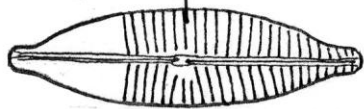
2080/B N 18.9.16  
PAD 3



2080/B 14.10 1/2 .15



*Biddulphia reticulata*  
(Ehr) Boyer



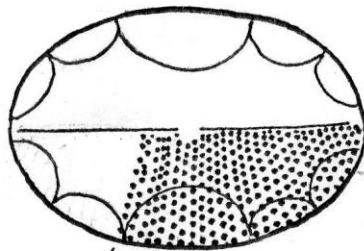
2080/B N 19.5 1/2 .16  
PAD 3 N. *gregaria*



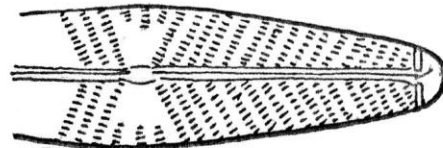
2080/B 8.2 1/2 .20



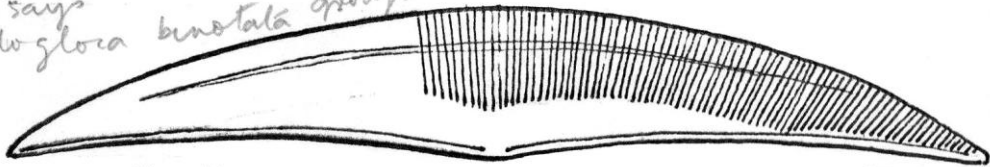
*Biddulphia reticulata*  
(Ehr) Boyer =  
*T. sculptum*  
Shad  
See ASA 76/9.  
24.24  
2080/B



/B  
Pads 3, 24.18.12  
Agb says  
*Mastogloia birstata* group



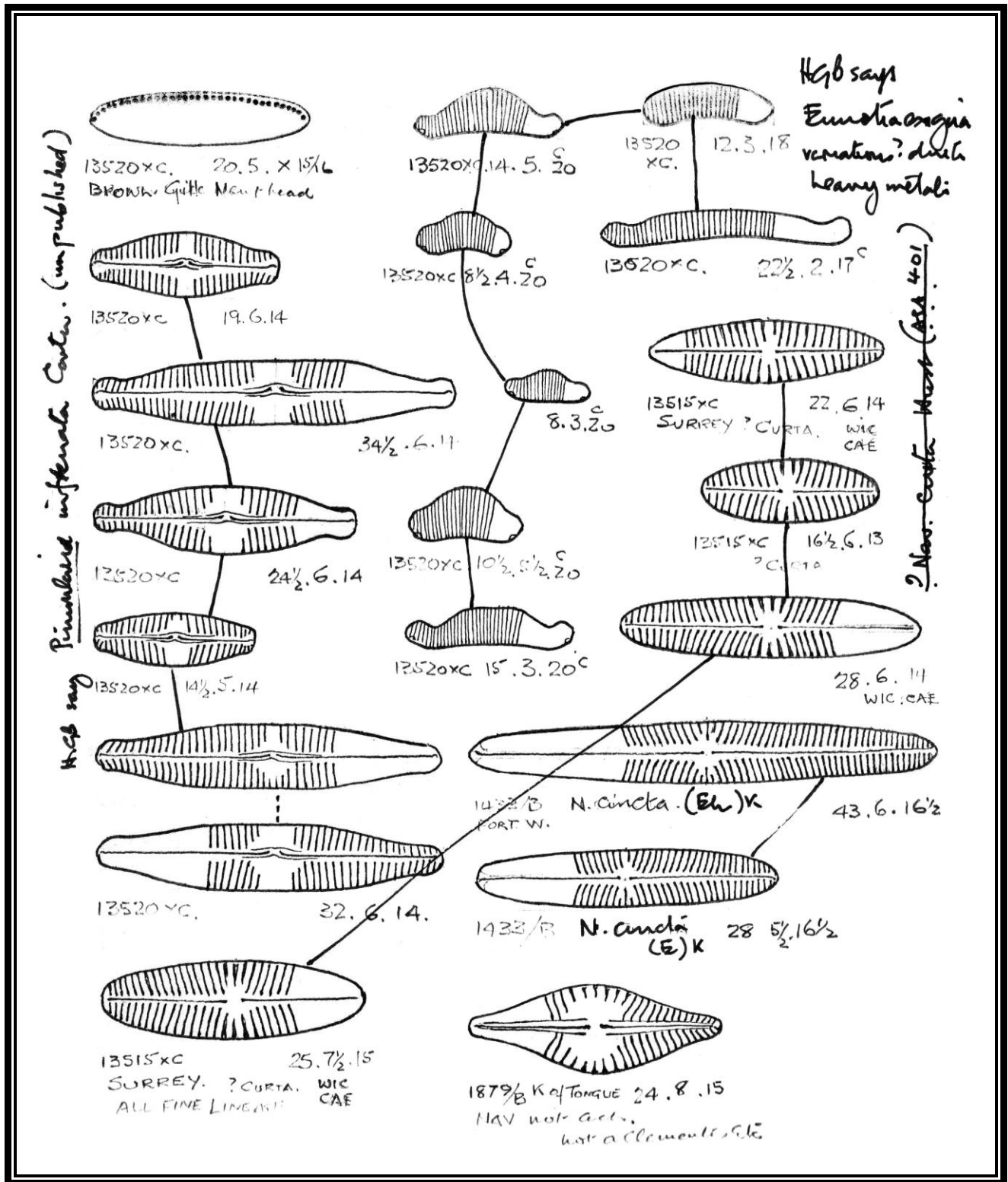
x2

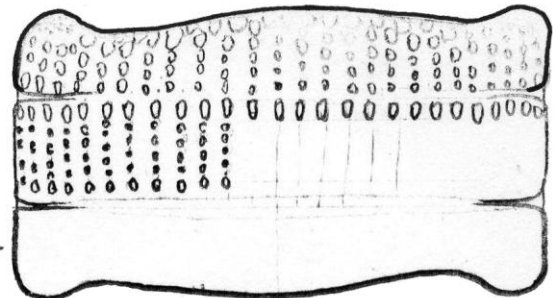
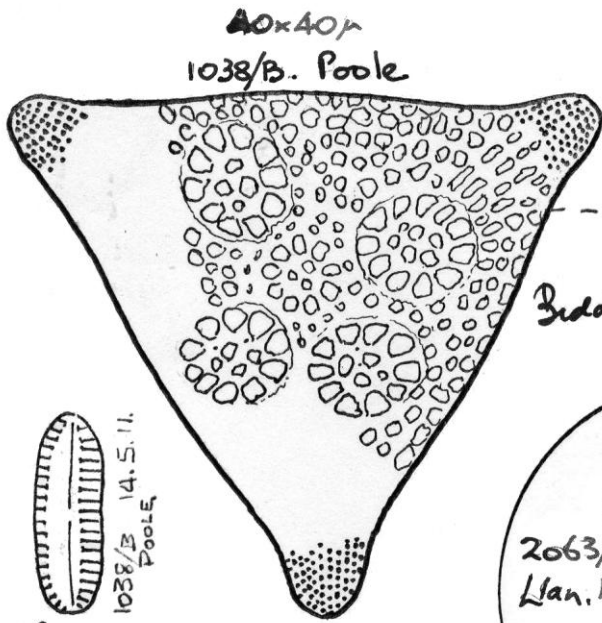


PAD 3 67.10.17

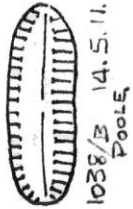
*Amphora graeffi* v. *minor* Perag.  
See Kunder 37/8 and Perag 46/14.

Miscellaneous Plate 237



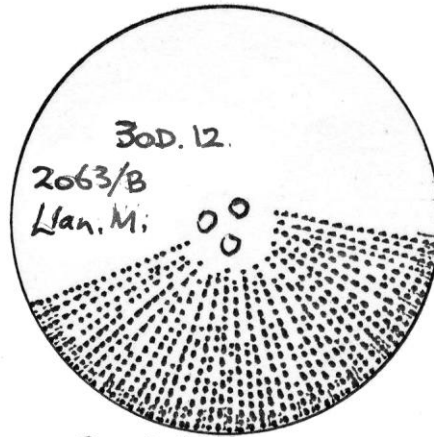


*Biddulphia reticulata* (Ehr) Boyer



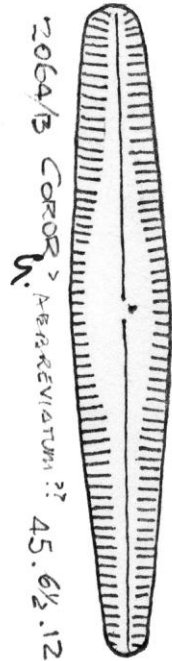
1038/B 14.5.11. Poole

HGB say  
*lin. ambigua* Cleve  
but Hensley says they are  
larger than this.

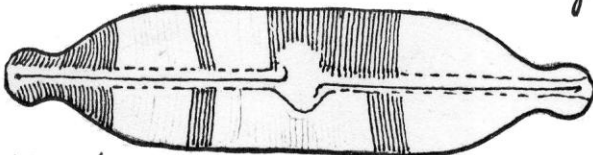


300.12.  
2063/B  
Llan. M.

*Cyclotella*

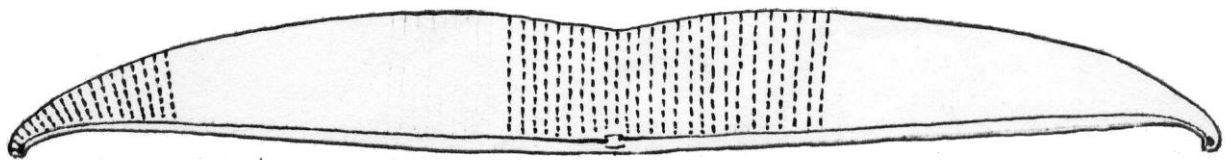


2064/B COROR  
v. *PERREVIATUM*?  
45.6.12



1908/B Afon. Poch. ? *amphiox* 40.9.27

*Neidium amphioxydus* (Ehr) Pfitzer  
= (*N. affine* v. *amphioxydus* (Ehr) Cleve)



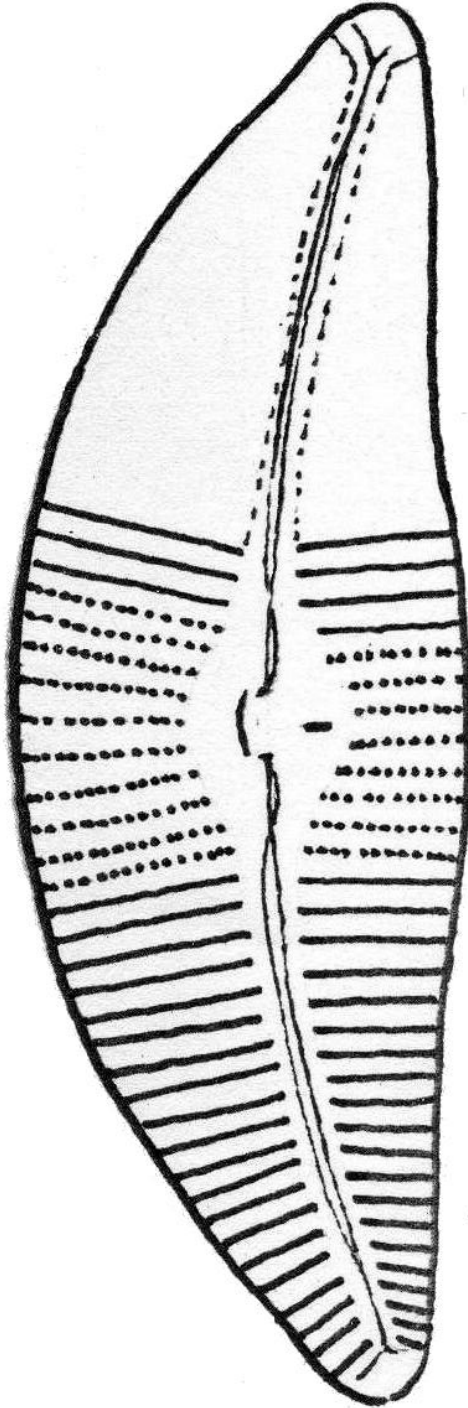
1035/B Poole *virgatiformis*

83.10.10

? *Perag* XLIII/14. *A. peragalli* v. *baleauici* Cl.

Miscellaneous Plate 244a

44 6 1/2 .14



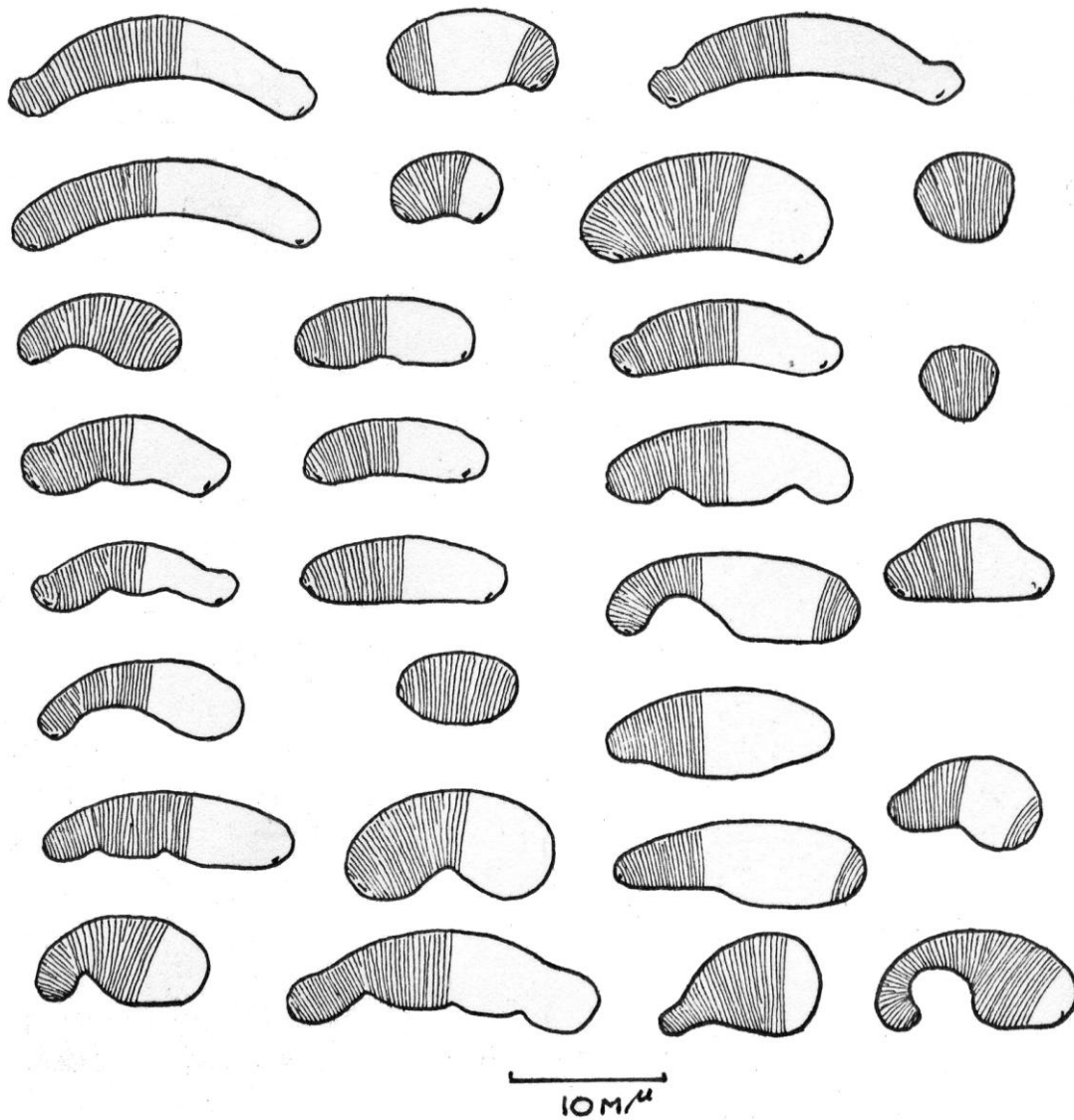
3547/6C R.TEVIOT.

50.16.10<sup>wie</sup>/<sub>10</sub>

Cymbella tumida (Pres) V.H.

or this could be a variation on

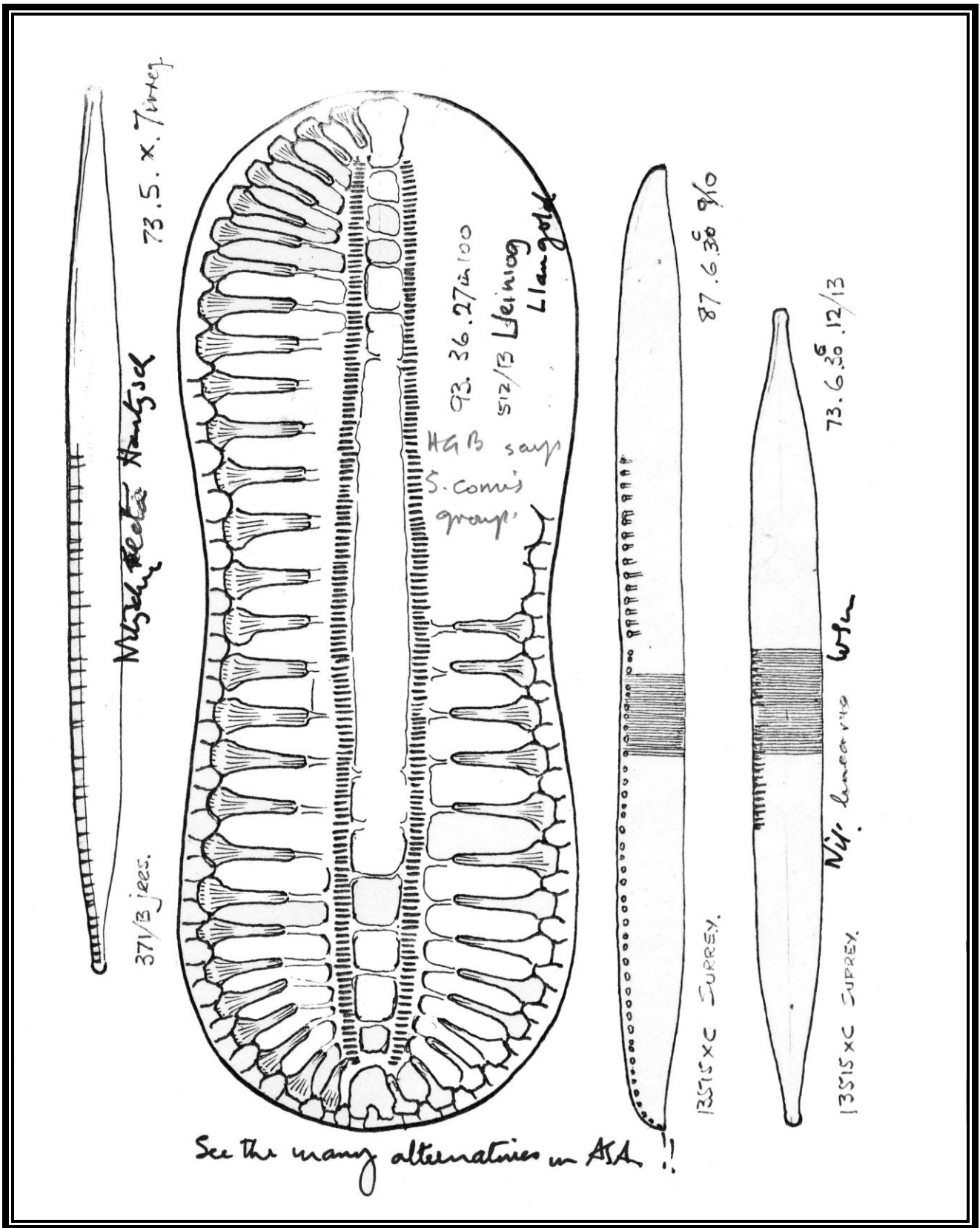
Cy. costula



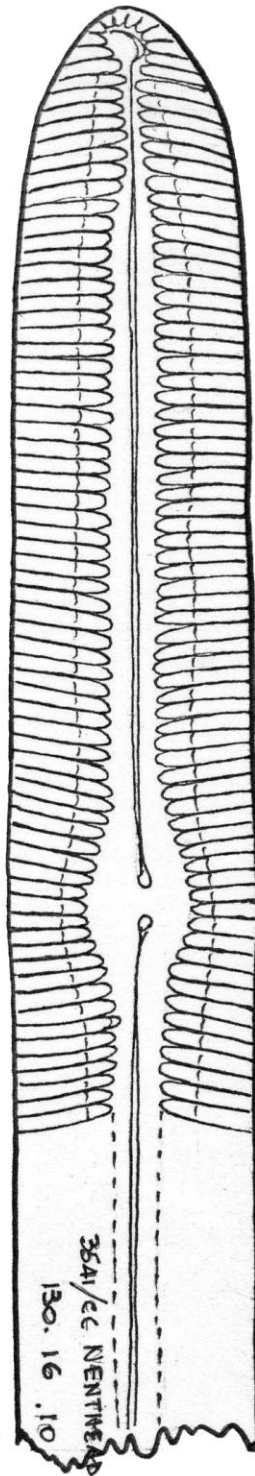
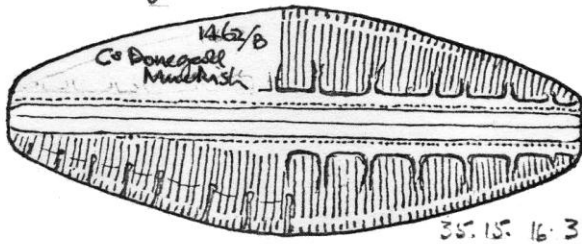
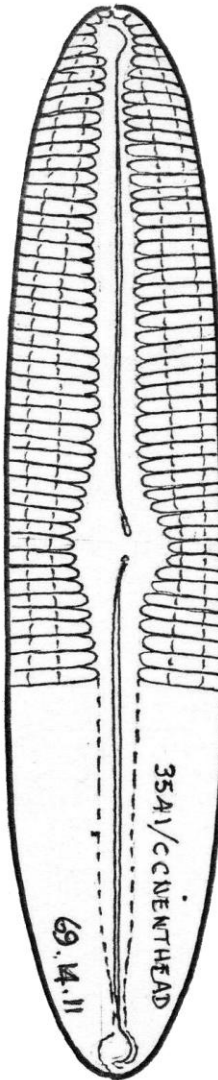
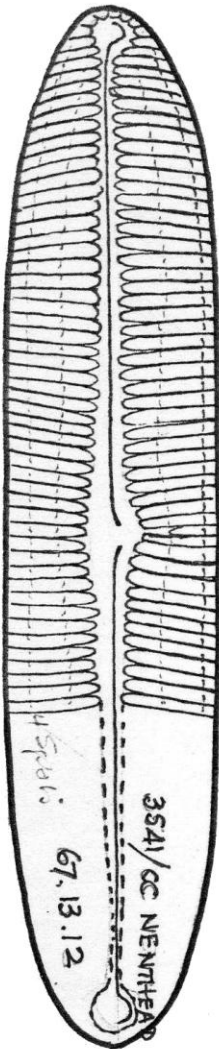
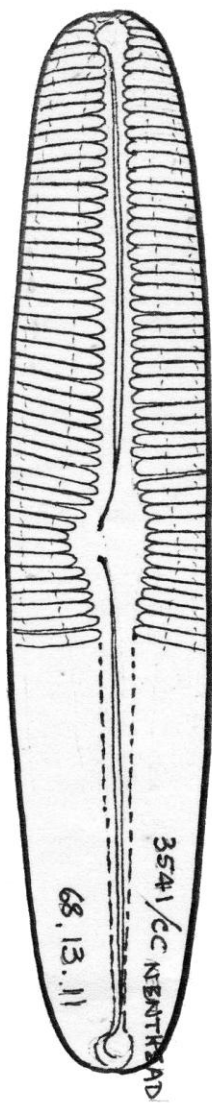
H.G.B. says all are variations of *Eunotia oxigua*  
 from an Irish copper mine.  
 They are possibly toxic deformities

Whelot Nos 1 & 3 look like *E. oxigua*, many of  
 the others look nearer to *Eunotia tenella* (Ehr) Hust.

Miscellaneous Plate 247





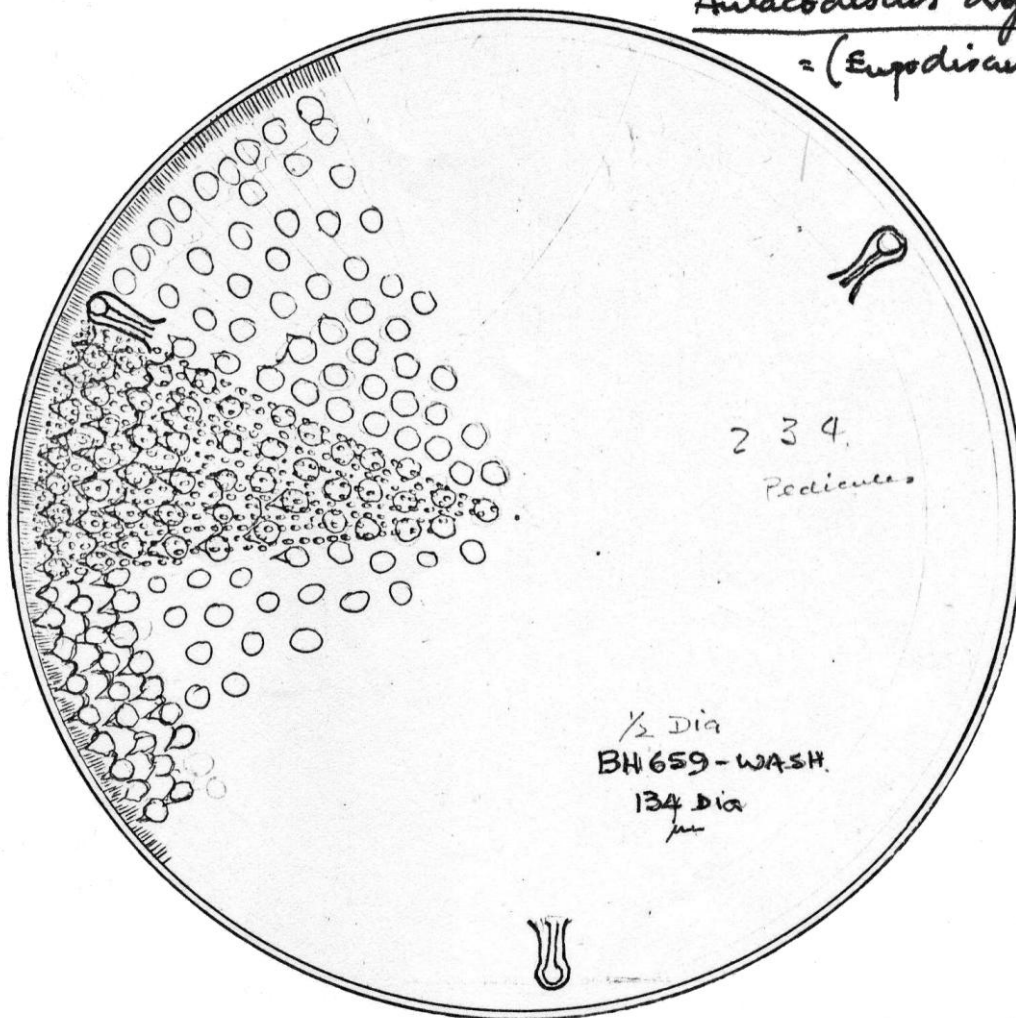


HGB says (Kütz) O. Muller  
Rhopalodia musculus, var  
but Hendey uses  
Epithemia musculus Kütz  
However see ASA 255/13-18  
= Rhopalodia gibberula v. Van Houtte  
O. Muller

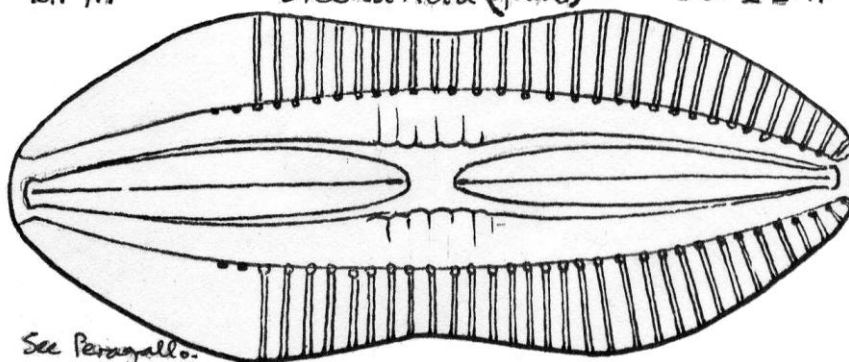
Narrow type raphe Probably *P. lateristata* Cl or ditto of *mediocinctata* Fout  
See A.C. Emf. 1101 a-c  
But: P.V. says *P. superstitiosus* has a simple raphe according to P. & P. 631.

Miscellaneous Plate 254

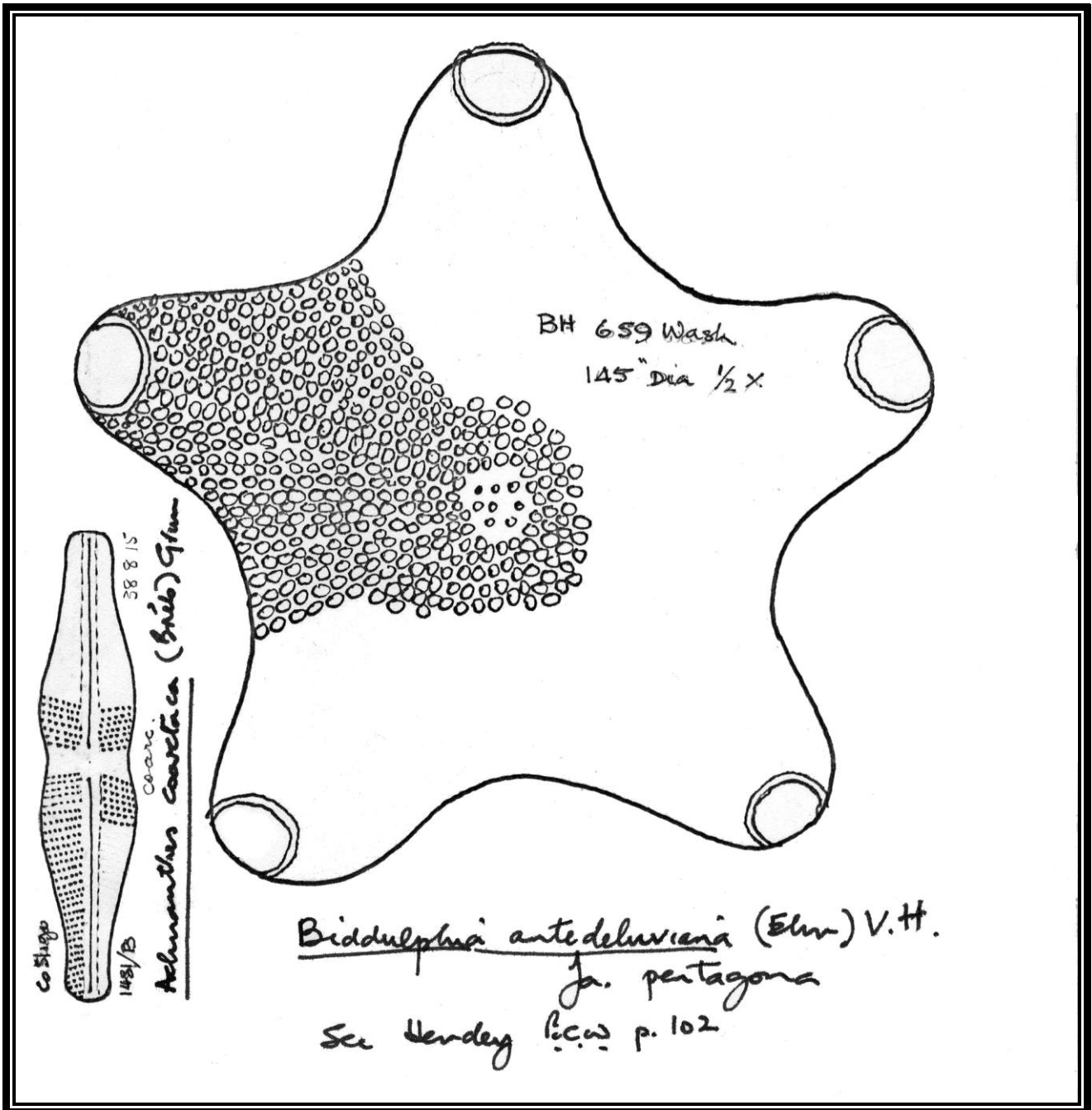
*Aulacodiscus argus* (Ehr) A.S.  
= (*Eupodiscus argus* Ehr)



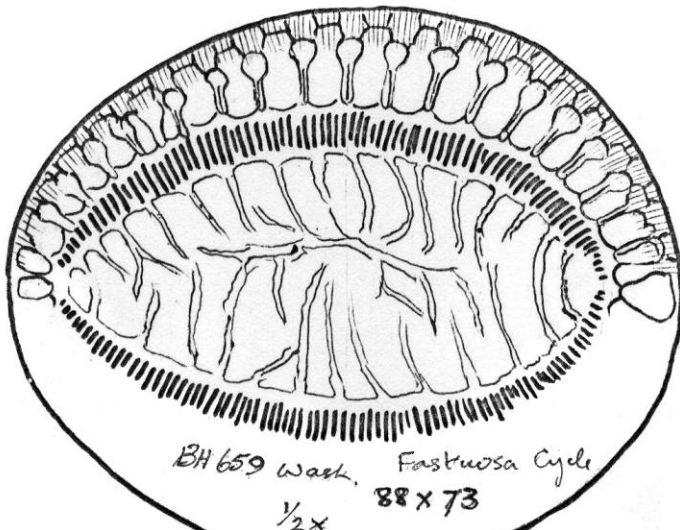
BH 711  
= (*N. donkinii* A.S.)  
*D. constricta* (Grun.) Cleve 55. 22. 7



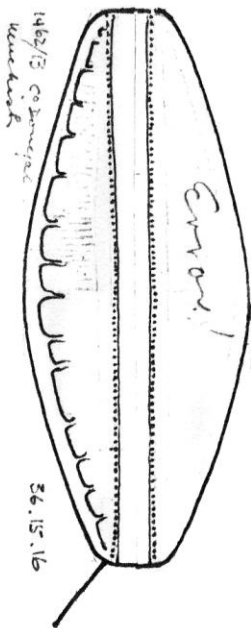
See Peragallo.  
xvii/11  
See also Hendey Gen and ASA 12/63-64.



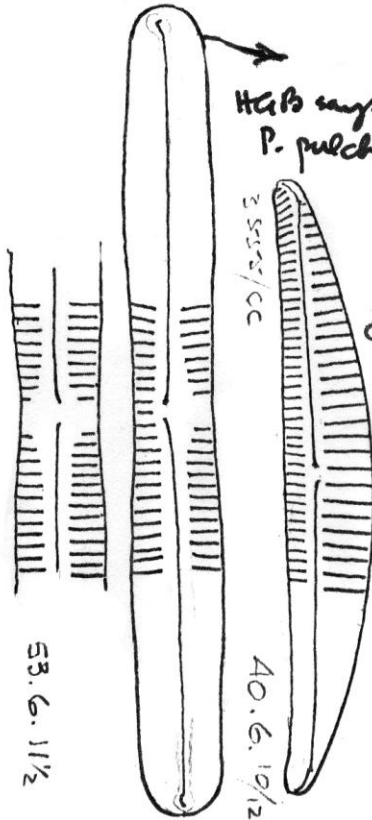
Miscellaneous Plate 256



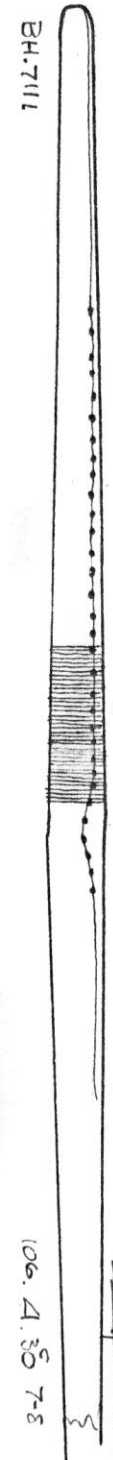
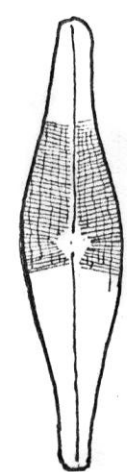
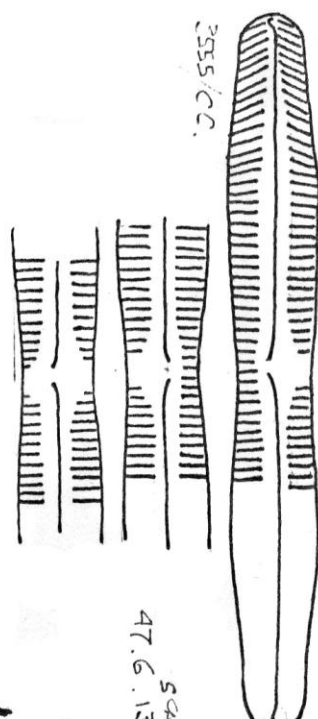
*Saxwella fastuosa* (Ehr) Kutz.



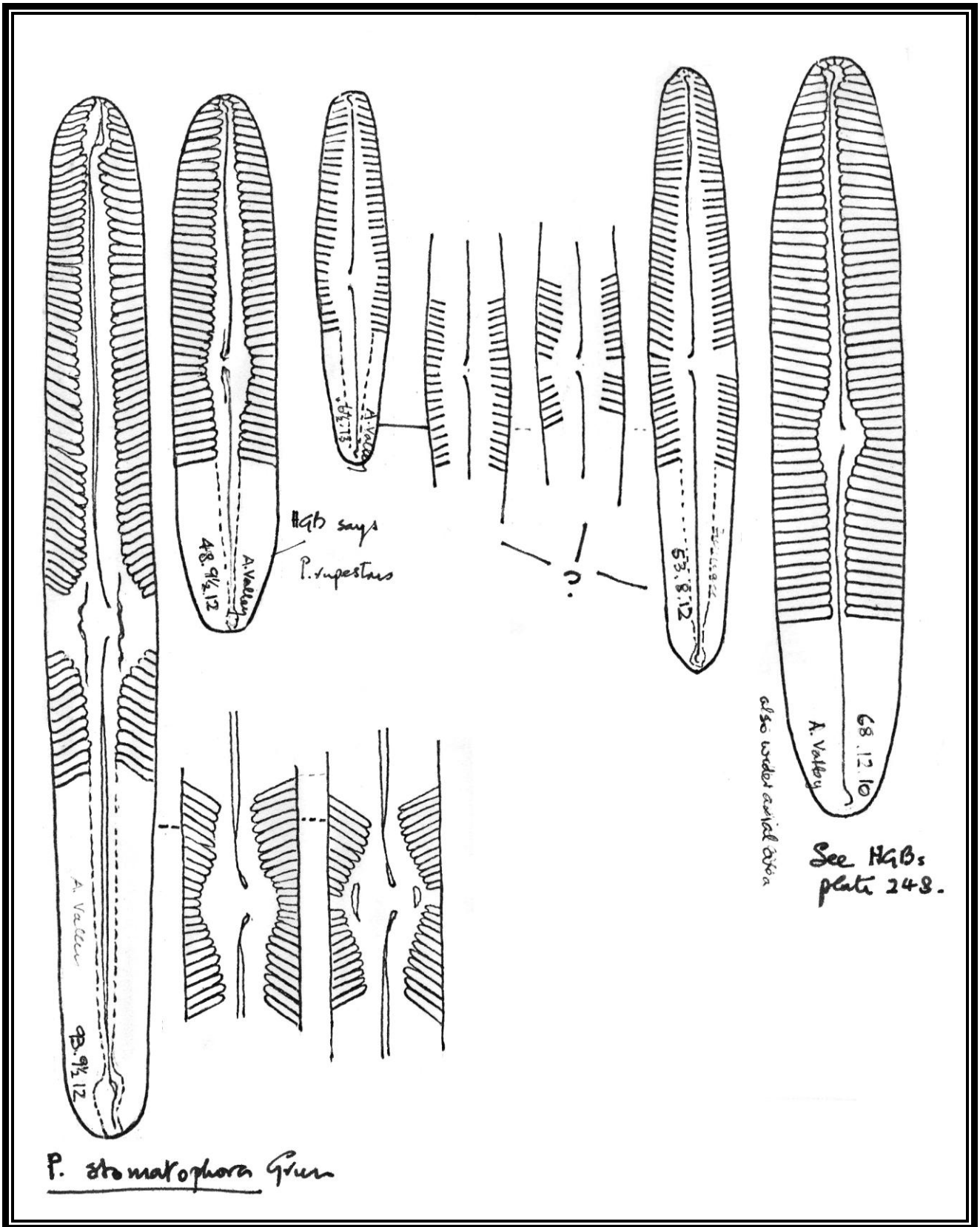
See earlier plate 248  
*Rhopalodia musculus*



*Cymbella gracilis* (Rabenh) Cleve

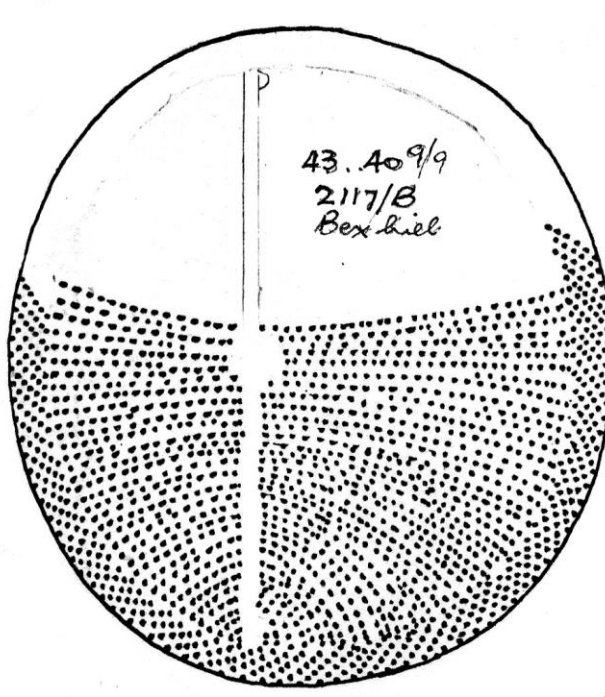
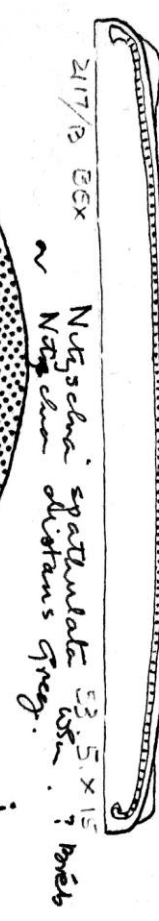
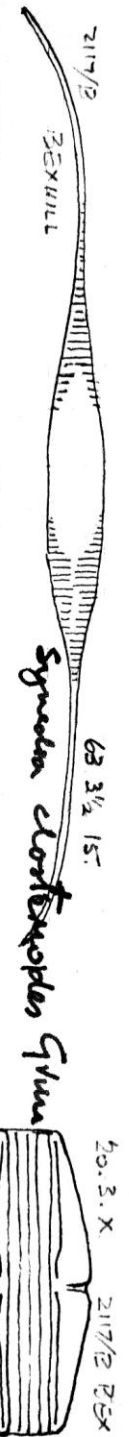
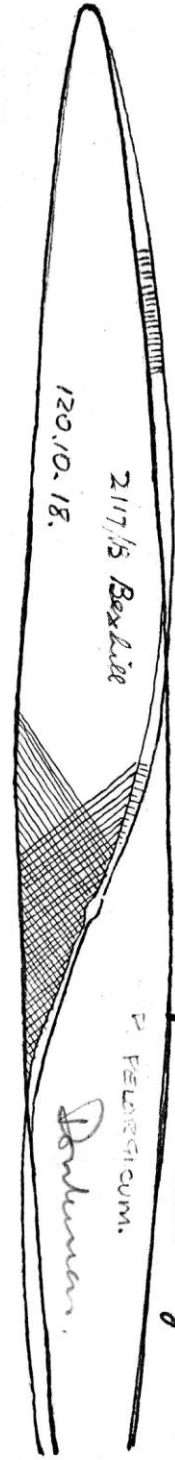


*Nitzschia obtusa* (Griseb) Hibberd & Griseb

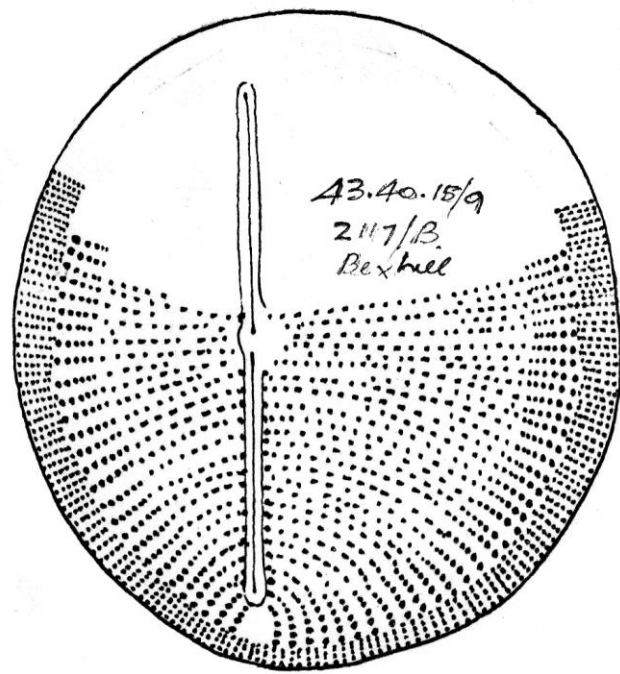


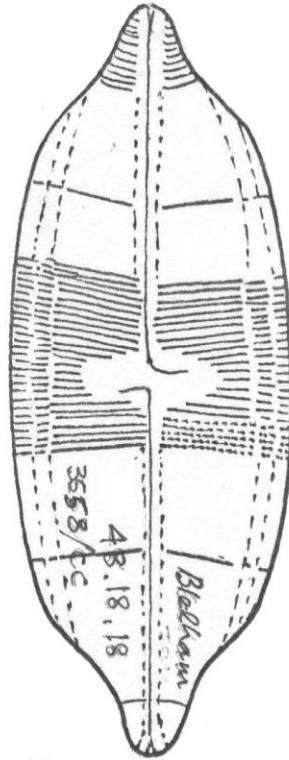
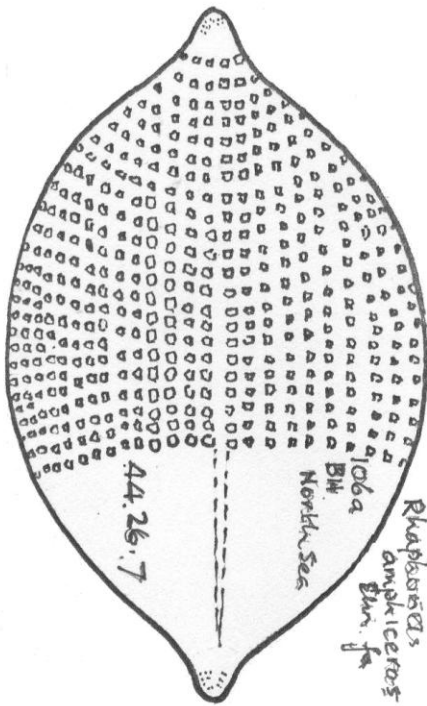
Miscellaneous Plate 258

*Pleurosigma pelagicum* is referred to in *Synonymy* work on S. Africa  
 in *littoral diatoms of Saldanha Bay, S.A.* p. 93. 1919

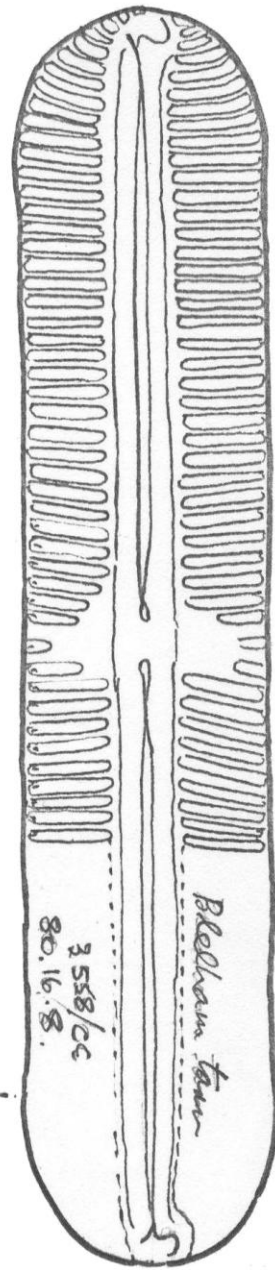


*Amathoneis excentrica* (Dank) Grun.

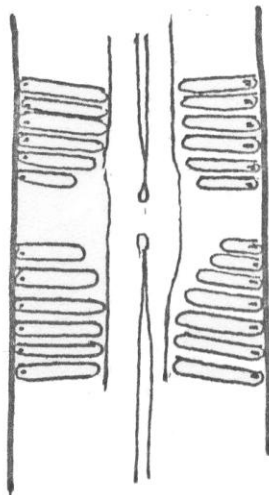




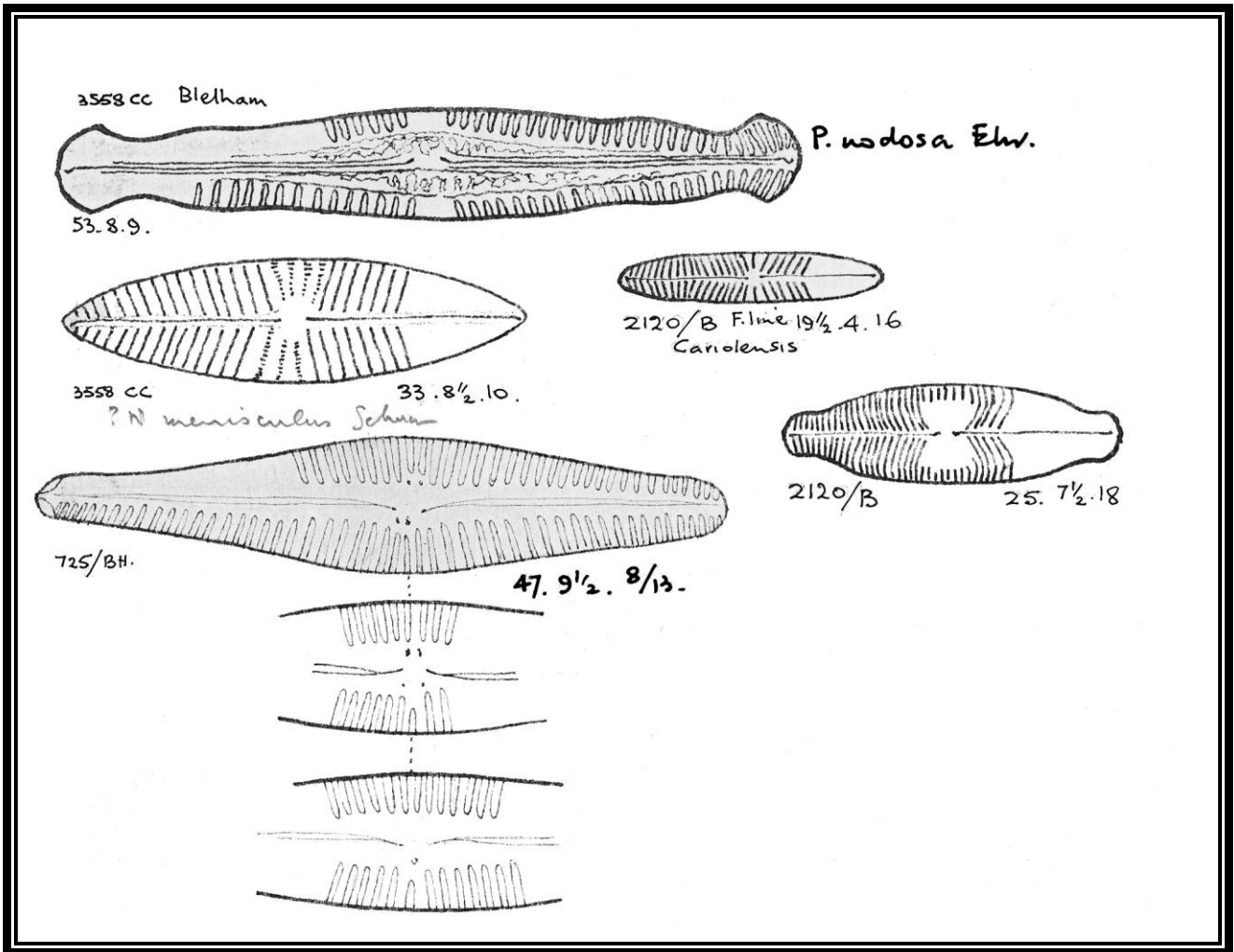
*Neidhim apiculatum*  
Reimer.



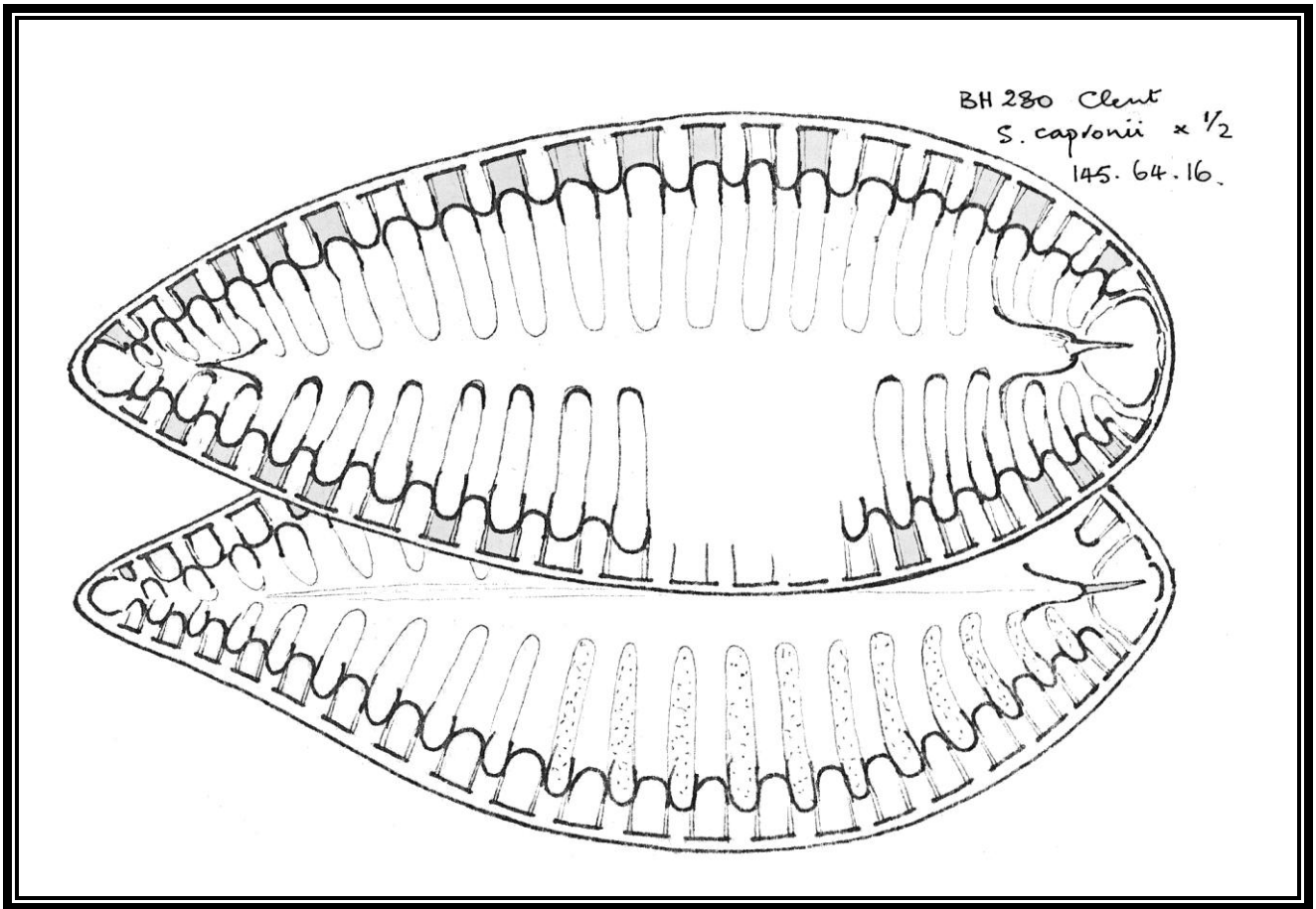
? P. macilenta (Ehr) Cleve



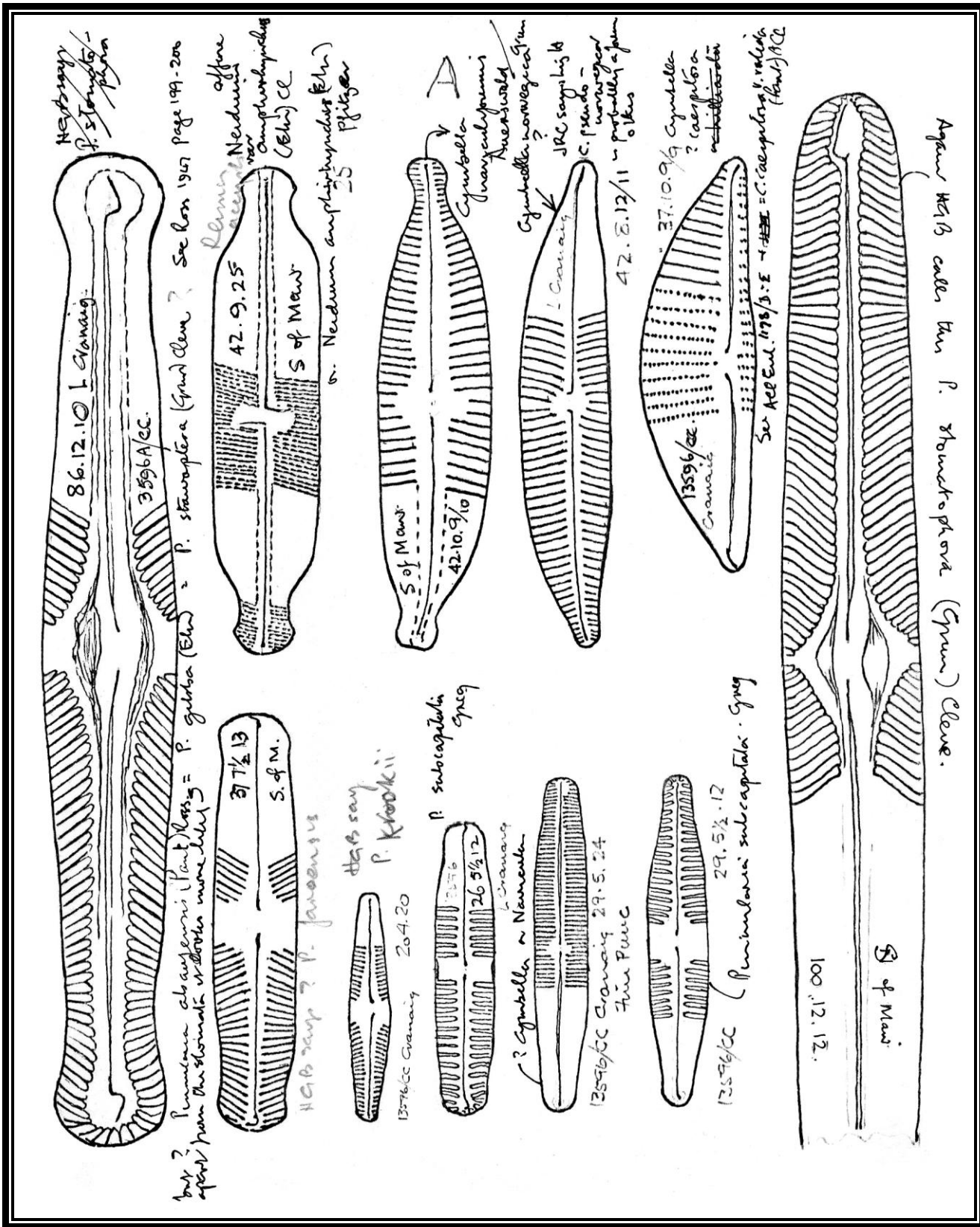
Miscellaneous Plate 260







Miscellaneous Plate 262



See variant of *Thun* in  
13542a Brackish water  
19 1/2 . 4 . 26



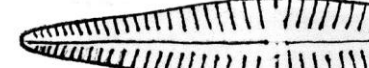
13546/CC Cranaia 18 1/2 . 4 . 28  
? JRC N. Bergen Krone  
in Dahl Hole close none parallel



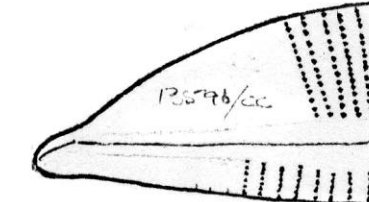
13596/ 10.3 x 14  
/CC Cranaia



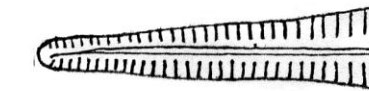
13596/CC Cranaia 24.5 1/2 . 19. Probably the same.



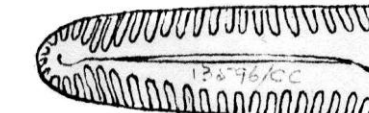
13596/CC Cranaia 36.6.10  
JRC. doesn't know it!  
Intensely ir fallacious G. intricatum



13596/CC Cranaia 48 13 9/16  
but more likely to be ? caespitosa  
with these coarser striae.



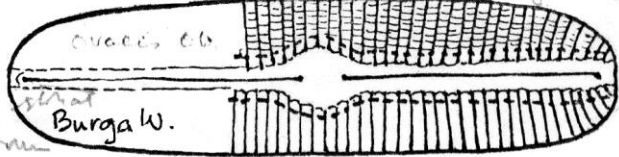
Cranaia 60.6 1/2 . 13  
Gomphonema lagerhemii ACE  
which seems to be  
only a special case of  
G. intricatum Kütz



13596/CC Cranaia 46.7 1/2 . 9  
Somewhere between  
P. brevicostata & P. acuminata.  
or ? narrow form of P. debiles (Pant) ACE



B HGB says *Dip. ovalis* v. *oblongella* (Naeg) CE  
which has 4 Perls in 1 Dip oblongella (Naegeli) Kütz (Horn)

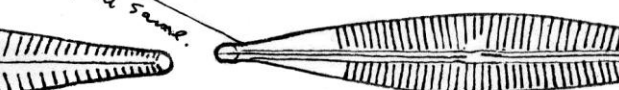


45.10.13

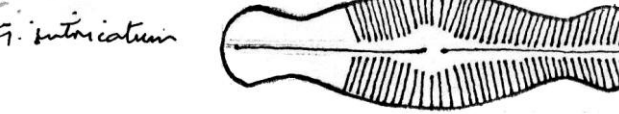
Nav. clementoides Hust.



36.12 15



13596/CC Cranaia 34.5 1/2 . 19  
JRC + HGB accept *Cymbella cesatii* (Kütz) Hust



28 8 . 22  
BURQA W. See ACE Eul 867 Cr 12

JRC. says  
*Cymbella hilliardii* Mangum  
which is fairly similar to  
*C. helandria* + *C. caespitosa*

but more likely to be ? caespitosa  
with these coarser striae.

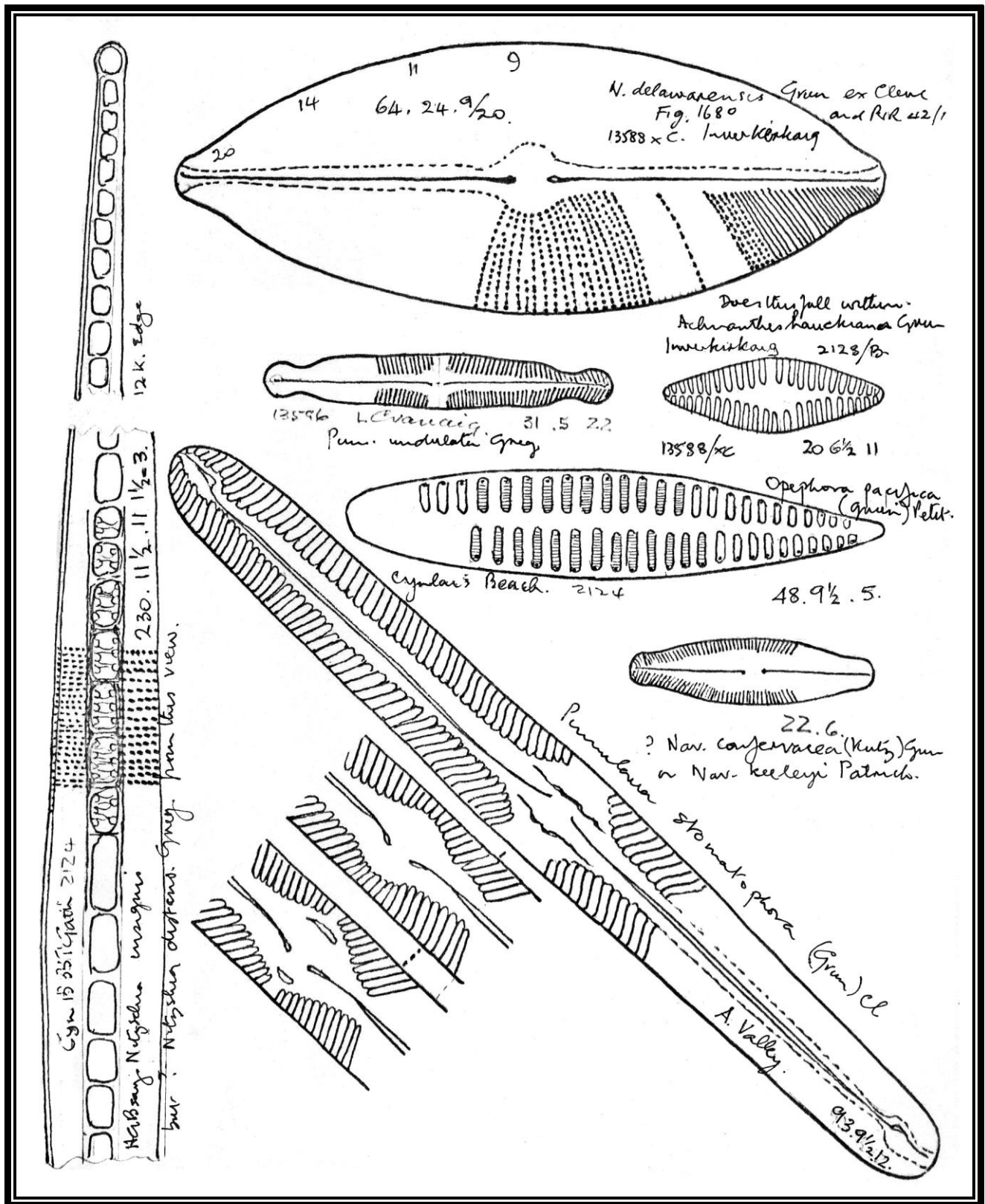
Cranaia 60.6 1/2 . 13  
Gomphonema lagerhemii ACE  
which seems to be  
only a special case of  
G. intricatum Kütz



Burqa 18D.  
but see  
ACE Eul. Part I  
Fig 69  
Stroph. dubius  
(Fricke) Hust.

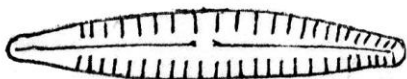
JRC thinks it falls  
within the *C. caesia*  
group.

Miscellaneous Plate 264



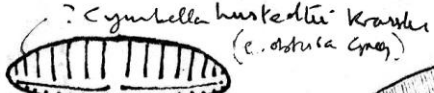
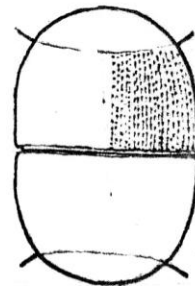
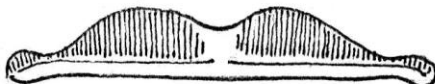
*Cymbella papunilla* A.Ce

HGB says *Amphora binodis* Greg  
D is also near to  
*Amphora bigloba* Grun

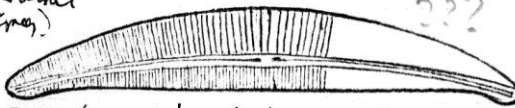


3580/CC

26.5 - 9 CAE 2137/B Dale Mud. 28.5.24



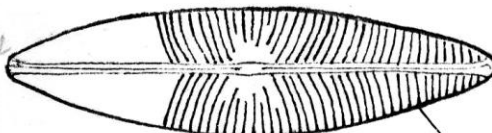
? *Cymbella hustedtii* Krasske  
(*C. ostrica* Grun)  
3580/CC 14 1/2 4 1/2 9 CAE  
10



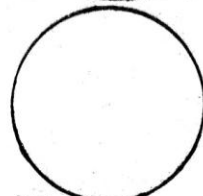
2134/B Tid. Lag. Dale. 28.6.20-30  
fine punctae



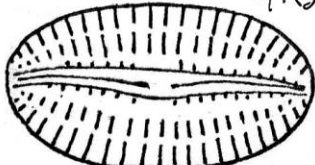
HGB says  
*Navicula auriculata* Hust  
but ??  
*Nav. auriculata* Hust see p 39/1



2134/B Dale. 32 8.16



27 x 18. 11/2  
*Melosira nummuloides*  
(Dallwitz) C. A. Agardh



2139/B 10.5 1/2. 17  
Tid. L. Dale.



2134/B Dale 22.5.15

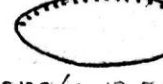
*N. antarctica*  
*Isostrucella* Grun  
*N. tenuis* (Ag) A.Ce  
*Nav. salinarum*  
var *tenuirostris* A.Ce



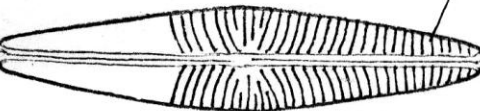
? *Nitzschia frustulum*  
var. *punctata* Grun  
6.4 x 17



2134/B Dale 22.5 1/2. 16.



or *Nitzschia ovalis*  
Arnott.  
2139/B. 12.5. x 15  
Dale.



2134/B Dale 32.5 1/2. 16



2139/B 16.3 1/2. 15



*Nav. cypoccephala* var. *subsalina* Hust  
2137/B 24 6 1/2 16



2103/B Cliff. Wat. Wick 27. 6 1/2. 18/19  
Bay

*Admanthos hungarica* Grun

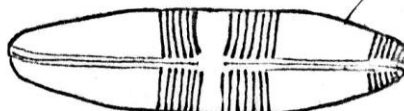
*Cymatosira belgica* Grun



2137/B 8 1/2. 4. 9.  
DALE. Mud.



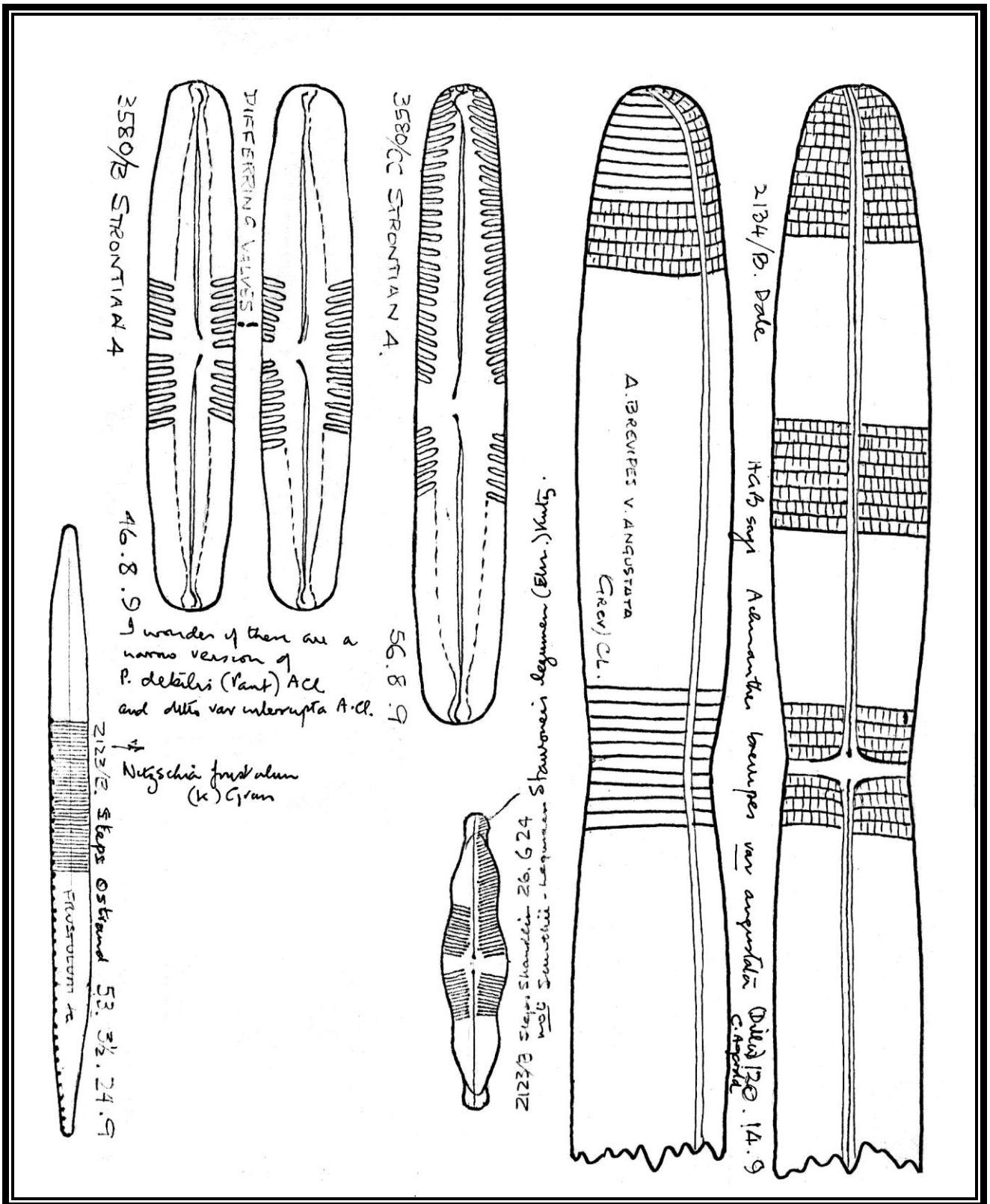
2137/B. 14.6 1/2. 17  
Dale MUD



2103/B 26. 6 1/2. 18

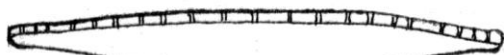
not clear from sketch whether this is  
*Nitzschia punctata* (Grun) Grun or  
*Nitzschia tuberculata* var *debilis* (Arnott) A. Mayer

Miscellaneous Plate 266



*Nitzschia socialis* Grun.

F



2123/B Ostrand, I.O.W. 32. 3 1/2 x 7-10



Burga Water Shetland Asp.

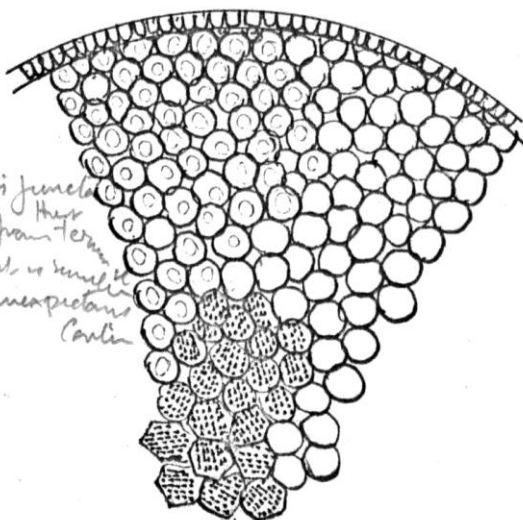
29. 6 1/2 . 23

Nov. disjuncta  
Hux  
apart from transverse  
grooves it is similar  
to *N. unispicata*  
Carlin



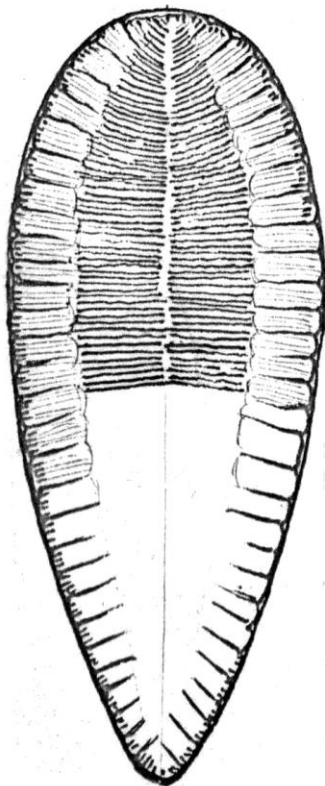
BURGA W. 14 1/2 8. 12  
Shet

Nov. *cyclica* Ralfs

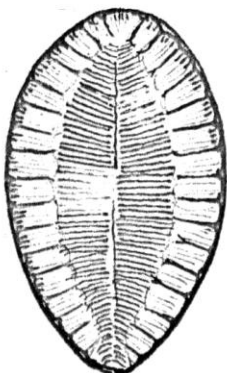


2124/B *Cyclais*  
Langold  
53 Dia  
3-4 into  $\mu$

*Coscinodiscus*  
*apiculatus* Ehr  
v. *ambigua* Grun  
v  
*c. nodulifer* Schmidt



50. 20. 16. 5



24. 14. 16. 5

3606/cc R. MOIDART.

*Suriella ovalis* Grun

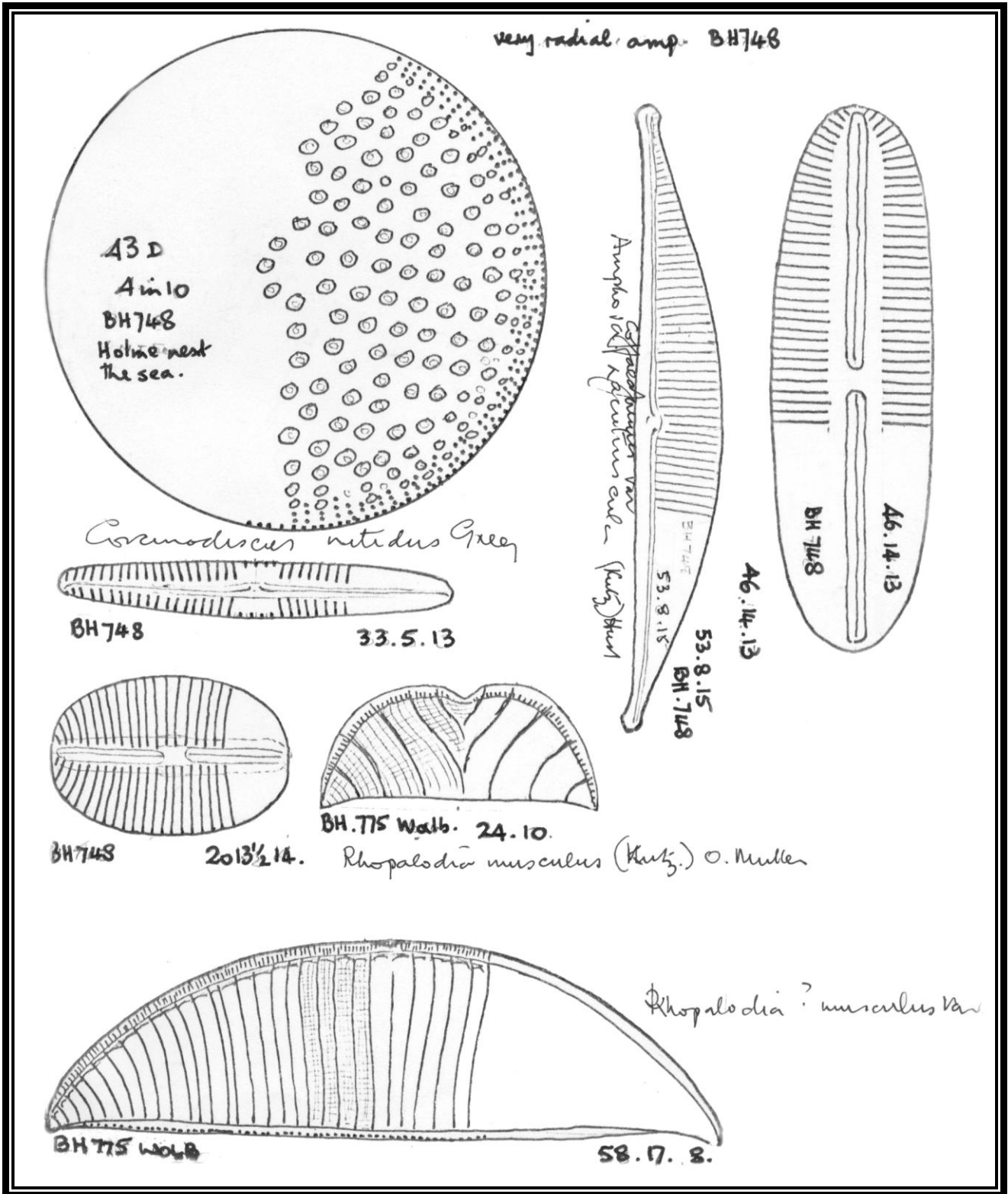
- must be brachisti

BURGA WATER.

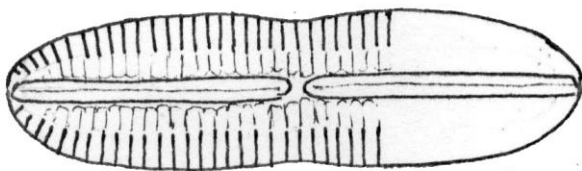
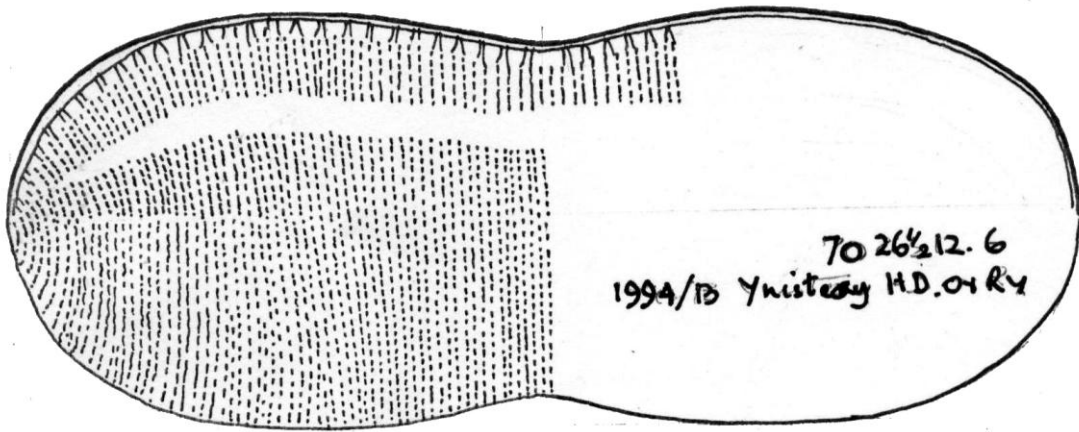
*Diatoma tenue* var. *oblongatum* Grun  
Lynch  
66. 2. 5. irregular



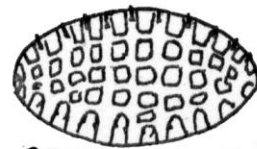
Miscellaneous Plate 268





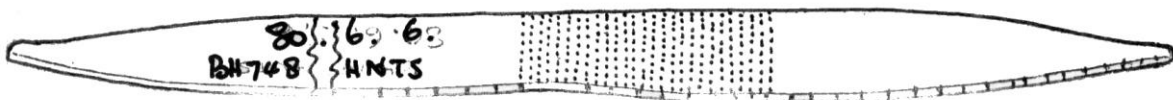
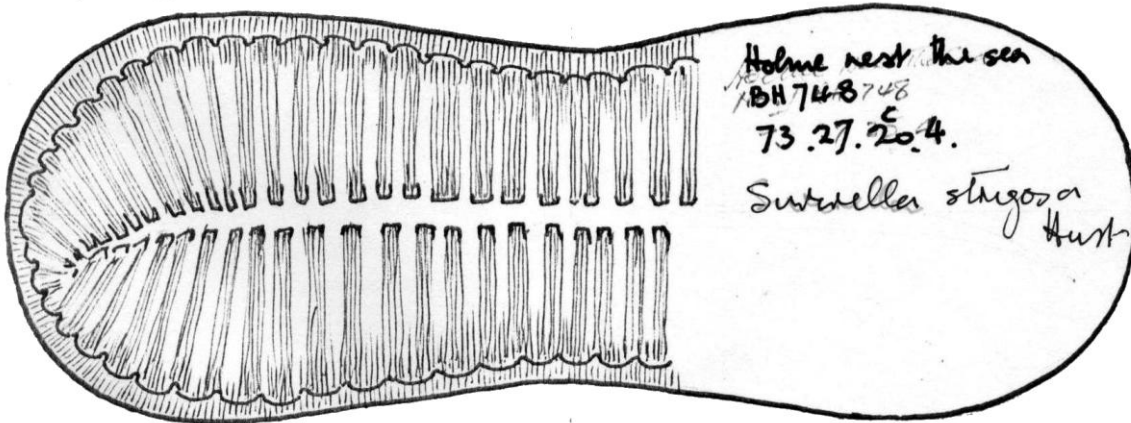


1994/13. Yunistay H.D. 38. 10. 12.

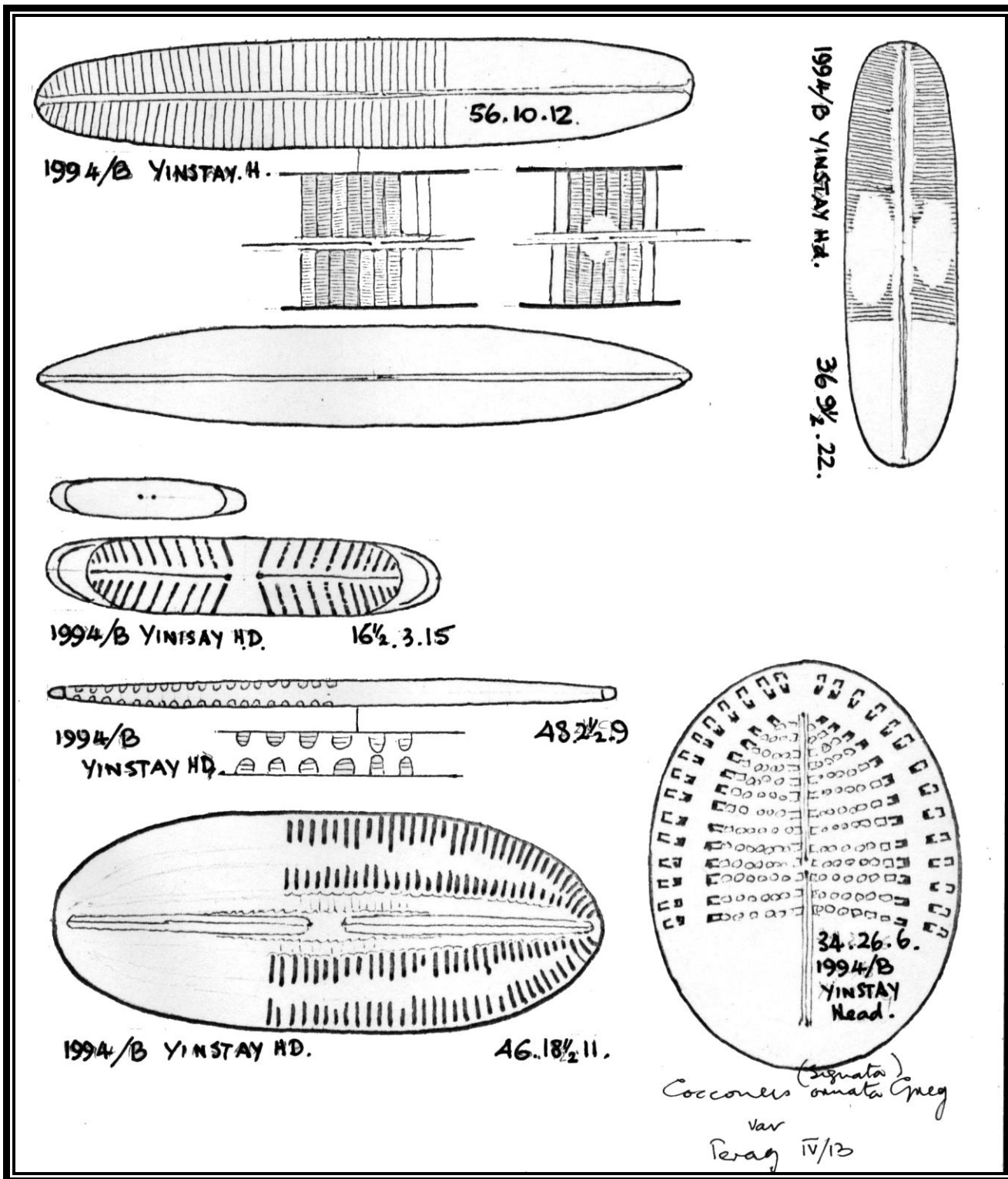


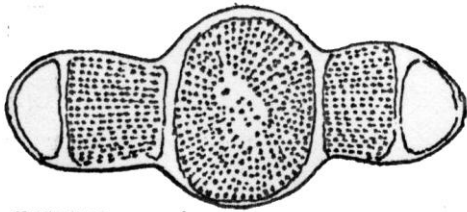
Cocconeis  
- disubtus  
Schum

BH 748 16 1/2 8 1/2 6  
HNTS.

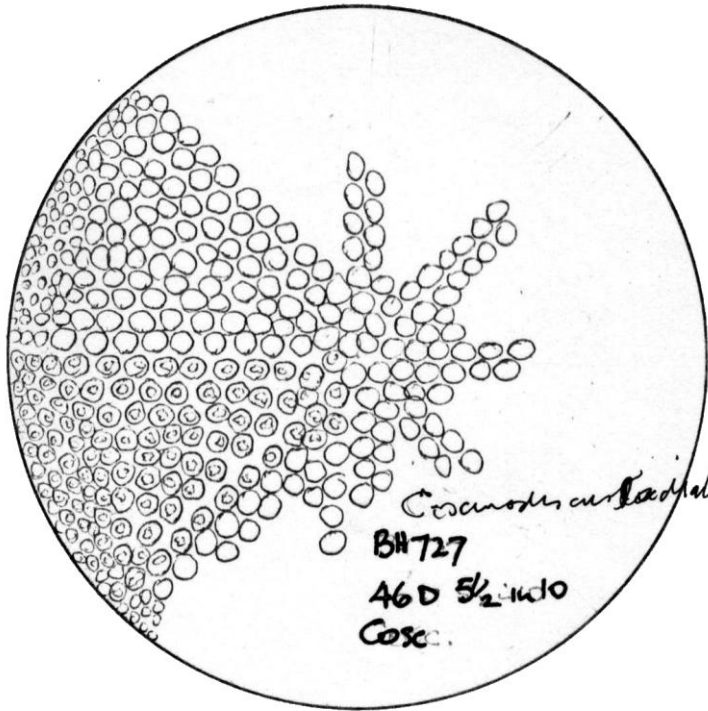
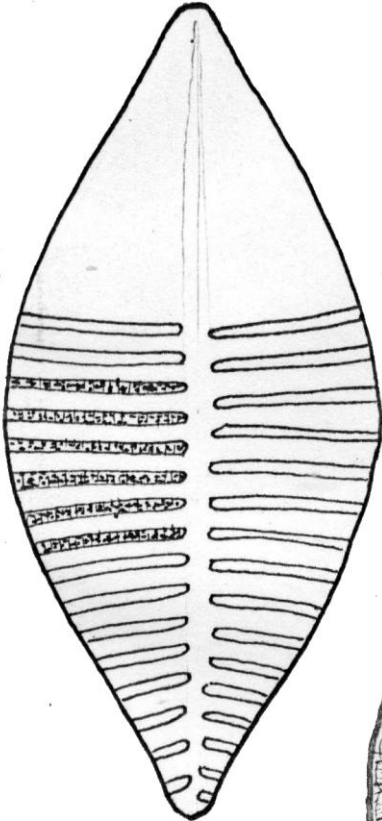


Miscellaneous Plate 270

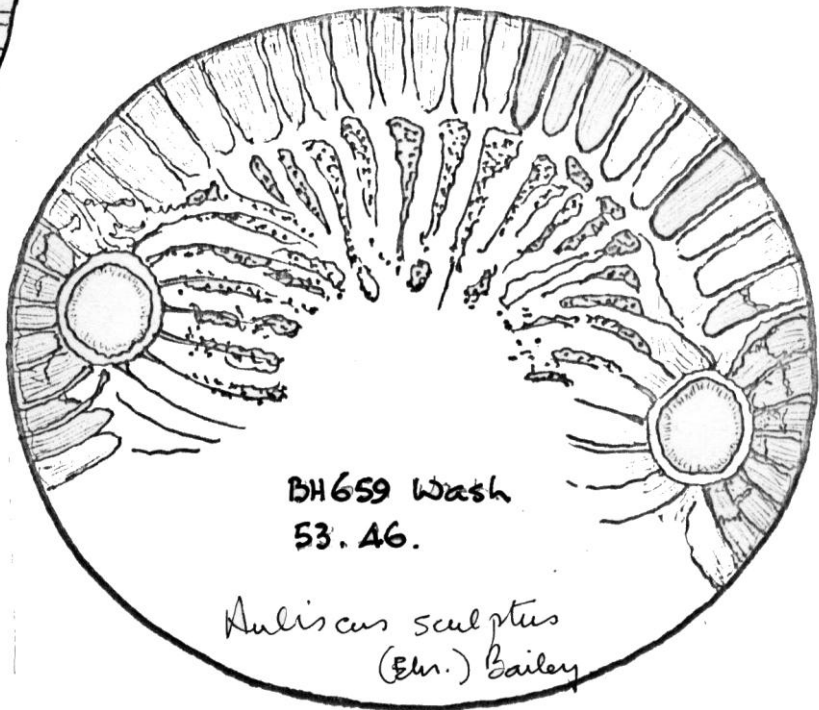




BH 727 Carbova 30x14



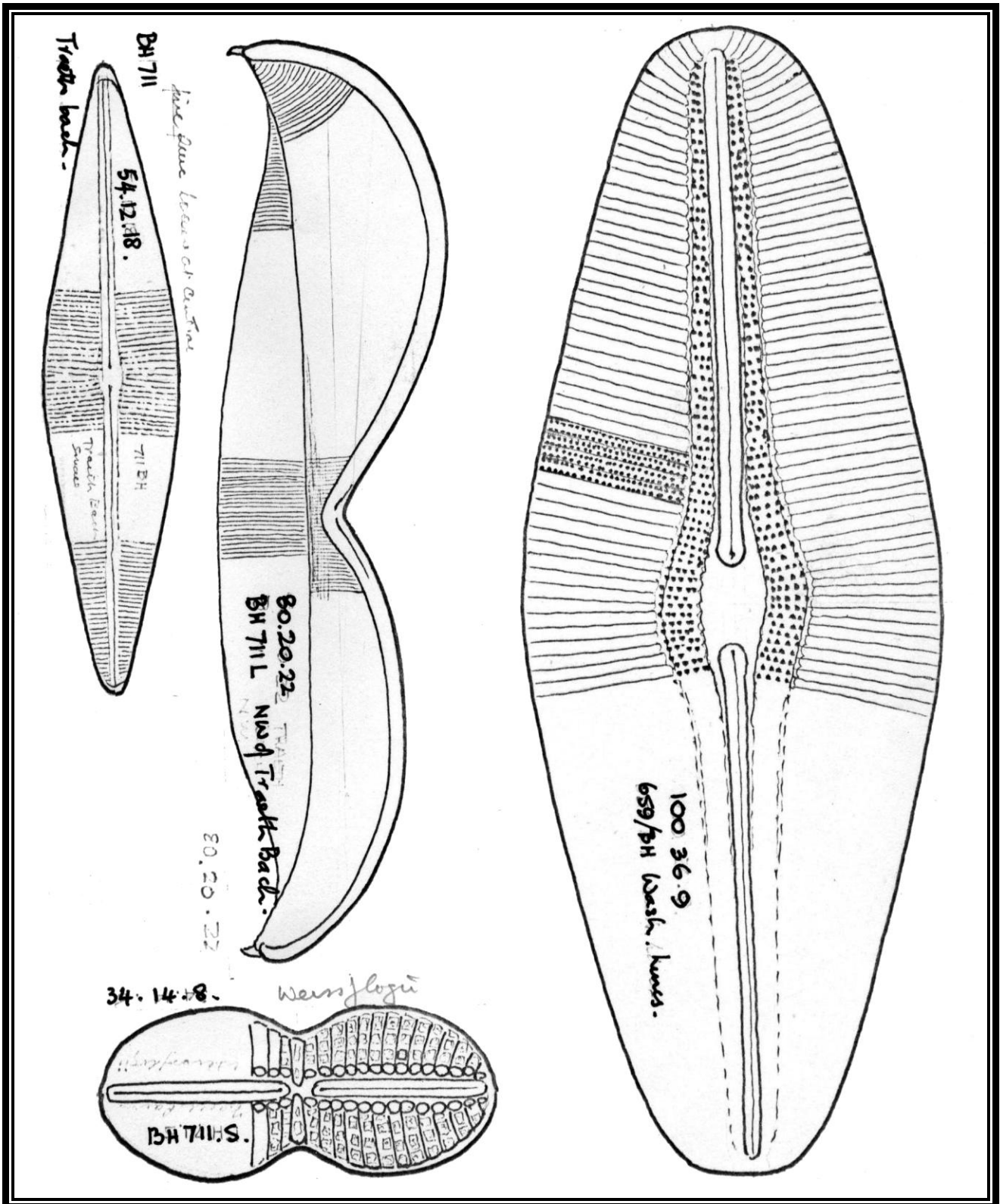
*Cocconeis carbovalis*  
BH 727  
460 5/2 into  
Coc.



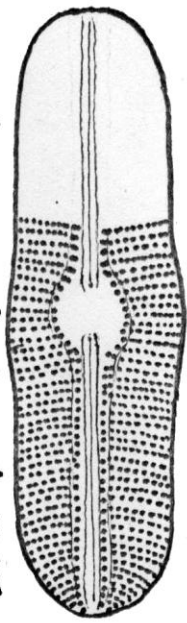
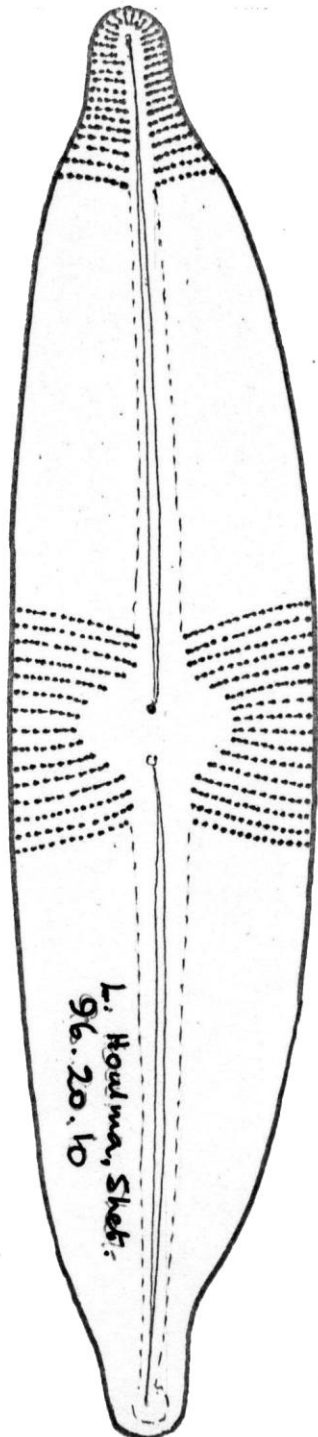
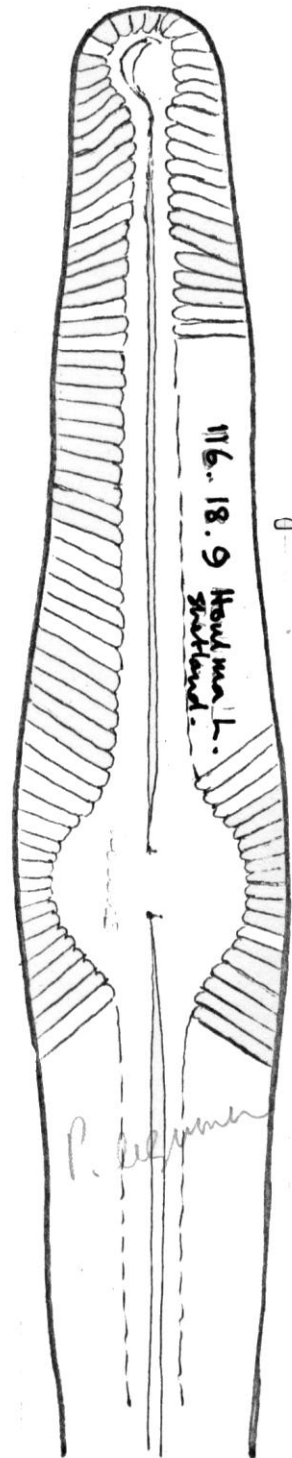
BH 659 Wash  
53. 46.

*Auliscus sculptus*  
(Ehr.) Bailey

Miscellaneous Plate 272



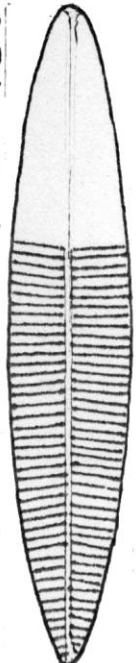
227 P. longum Ehr



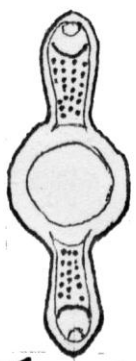
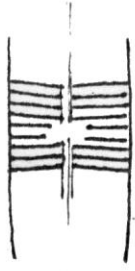
3580/CC. Strombain 4. 40.12.15



R. Fad Ex Wendy 2142/B. 41. 8. 12



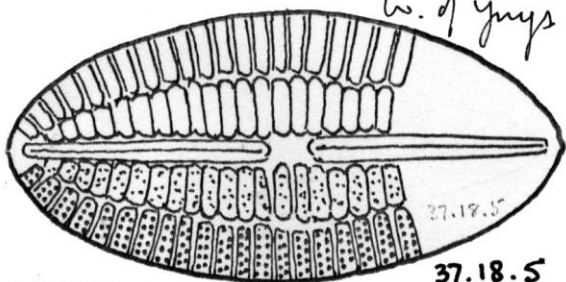
R. Fad. x Wendy 2142/B 42. 8. 12



Carbonate BH. 729 23. 8 Value from inside

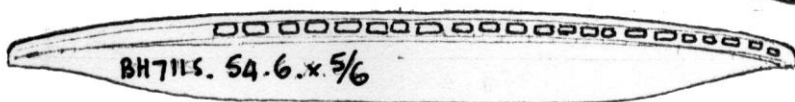
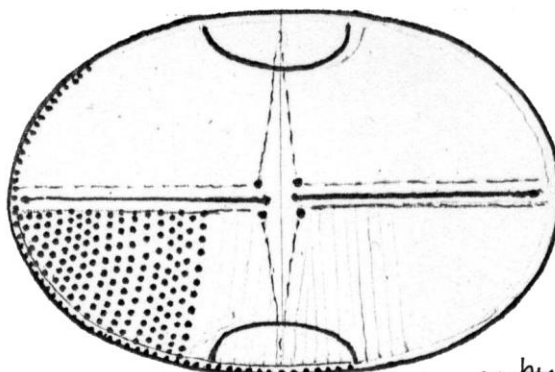
Miscellaneous Plate 274

Locating  
Saltmarsh Pool. Toweth back  
w. of gyps



BH 711 S.

37.18.5



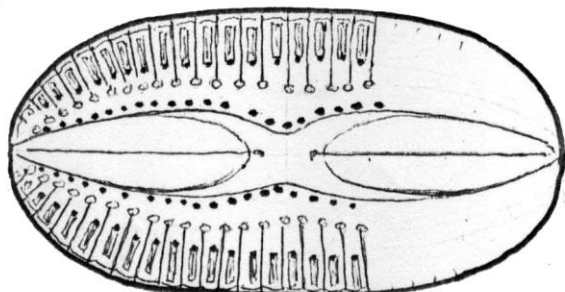
BH 711 S. 54.6 x 5/6

Mastogloia (orthoneis) <sup>brevistata</sup> ~~spendida~~  
(Grun) Cleve



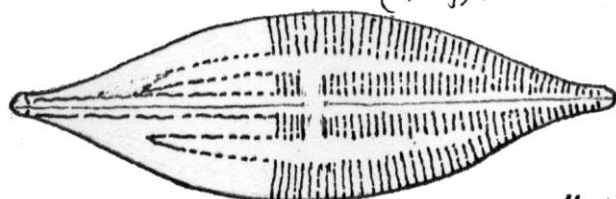
BH 711 S

40.6.12



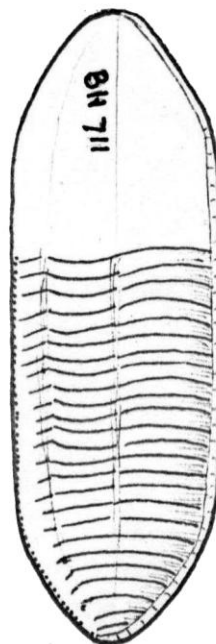
BH 711 S. Diptomen  
suborbicularis  
(Gray) Cleve

37.19.7



BH 711 S.

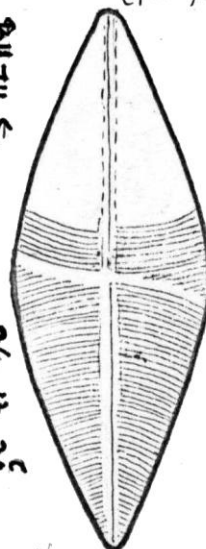
40.12 2/4.



BH 711

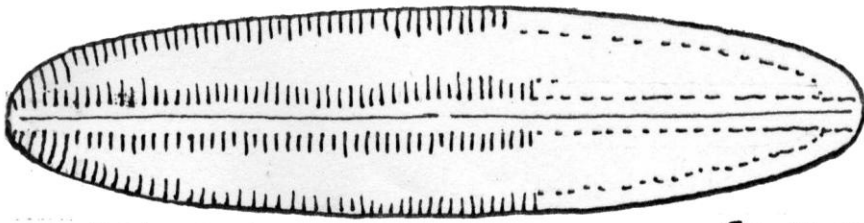
BH 711 S.

36.13.24.



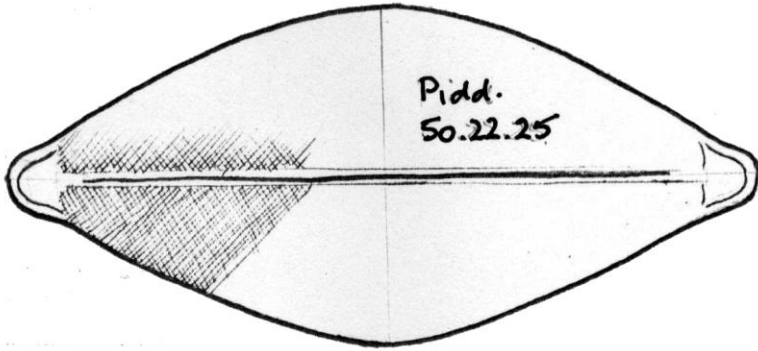
Neem to  
Aclanthes  
danica (Foyel).  
a com  
Acl  
stromi' thur

Nitzscha  
trubionella

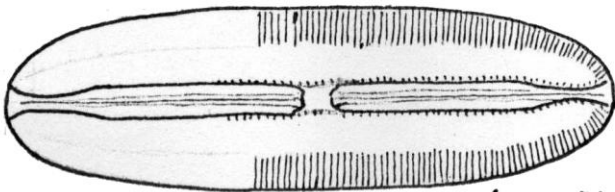


1991/B YINSTAY

57. 14. 14

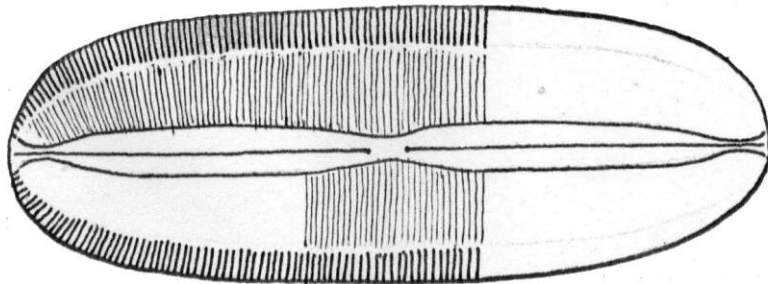


Pidd.  
50.22.25



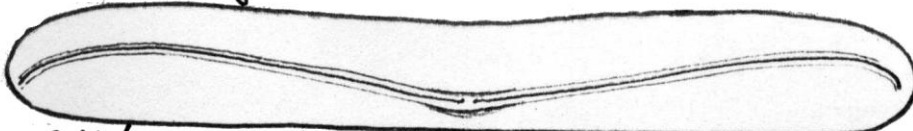
2144/B Norfolk

40.12.21



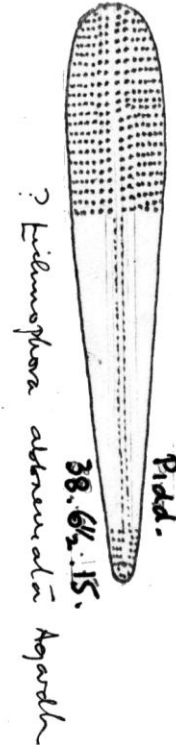
2144/B Norfolk.

50. 18. 18



2144/B Norfolk

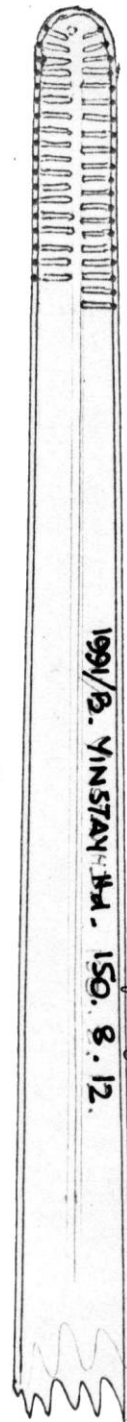
60. 8. X



? *Leimnophora attenuata* Agardh

38. 6. 15.

Pidd.



1991/B. YINSTAY. H. 150. 8. 12.

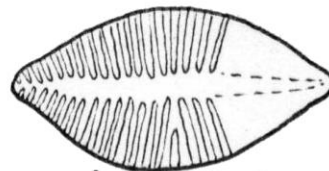
*Synedra angustellus* Grunert (Agardh) Hust

Miscellaneous Plate 276

*Nannula cincta*



11029/cc. 33.6.11  
lineations all fine 30C



2144/B Norfolk 20.10.12

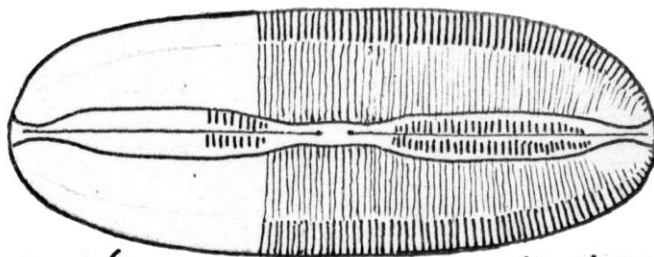


FRANZEN/BAD ? orig EHR 42.6 1/2 .11

*Achnanthes hauckiana* Grun

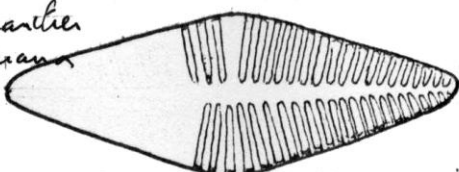


24.5 1/2 .11



2144/B Norfolk 41.16.21

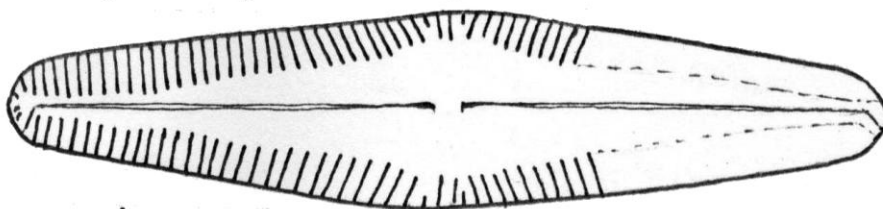
*Achnanthes hauckiana* Grun



2144/B Norfolk 29.10.11



2144/B Norfolk Kp difficult to detail 73.5 1/2 .11.11



2144/B Norfolk 56.12 1/2 .10

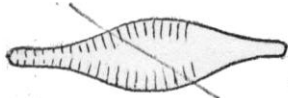


2144/B 14.7 1/2 .11



2144/B Norfolk 74.4.38.9





869/B Linc. Bog. 18.5.16  
?? *N. seminebulum*  
or *N. arcuata*

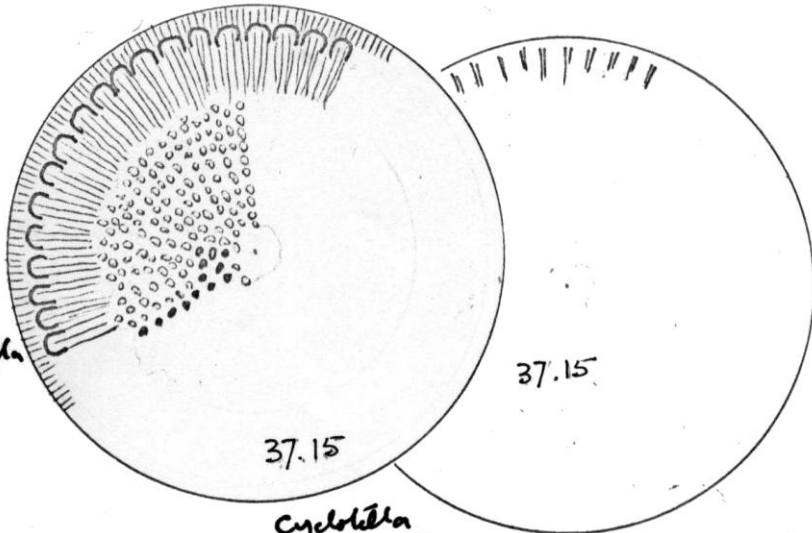


869/B L. Bog. 16.5.18 WIG

JHC says small *N. Canallata*



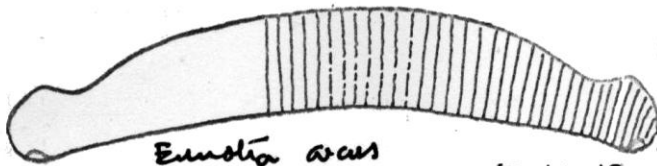
1128/B Tenby 16 1/2 . 7 1/2 11



37.15

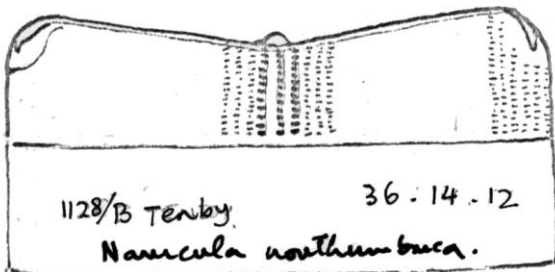
37.15

*Cyclotella*  
*Costata*



*Eunotia* *arcus*

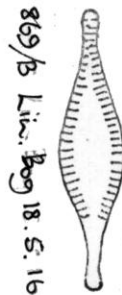
42, 10..12



1128/B Tenby

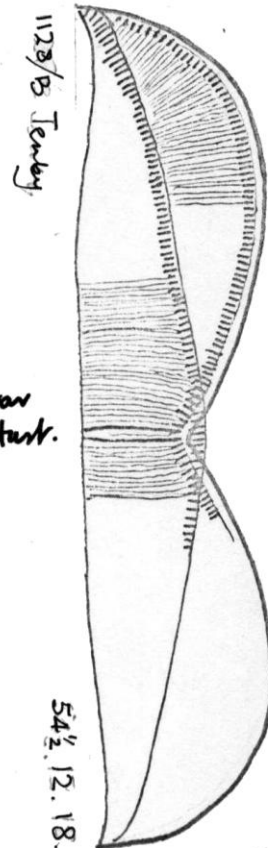
36 . 14 . 12

*Nannula* *northernbica*.



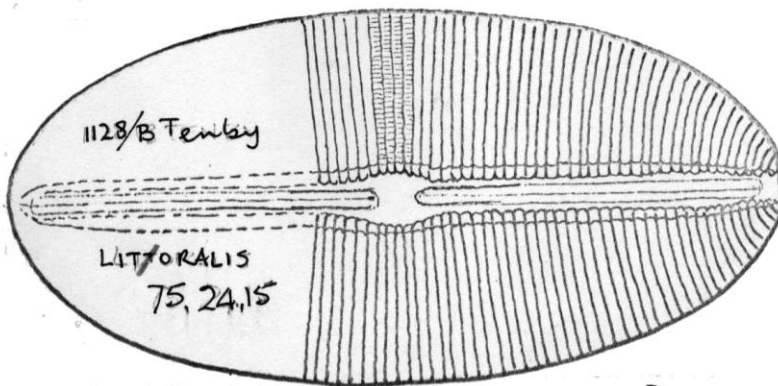
869/B Linc. Bog 18.5.16

*Fragilaria*  
*brevistriata* var  
*inflata* (Pant.) Hust.



1128/B Tenby

54 1/2 . 12 . 18.



1128/B Tenby

LITORALIS

75, 24, 15

*Diploneis* *litoralis* (Pant.) Clav

Miscellaneous Plate 278

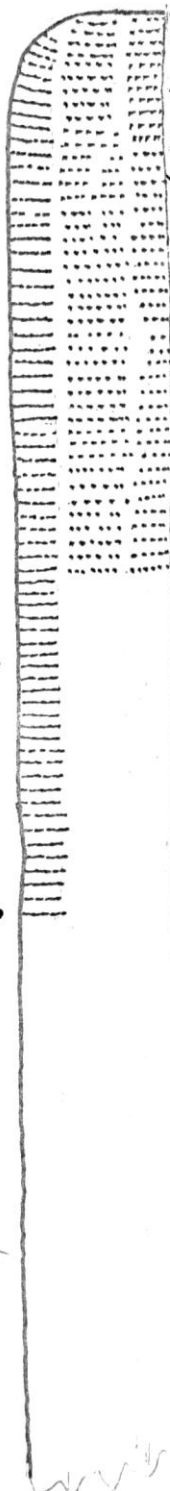


BH 725

87. 6. 389.

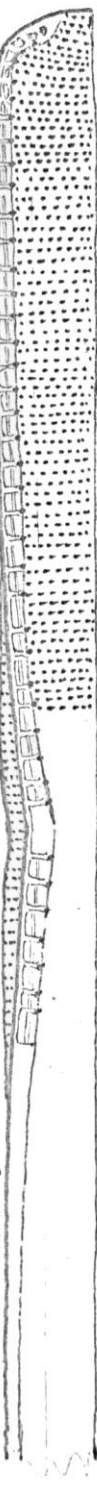


1126/B Tenby JRe. says tt. *wopla* v. *opaculus* Hustl. 20. 4. 12. 5.

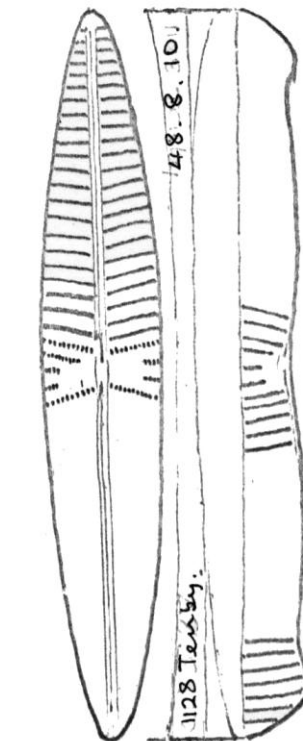


1126 Tenby

106 10. 11. 5-6

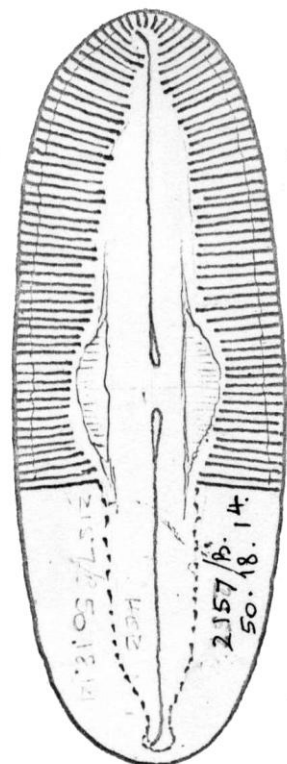


106. 6. 13. 5-6



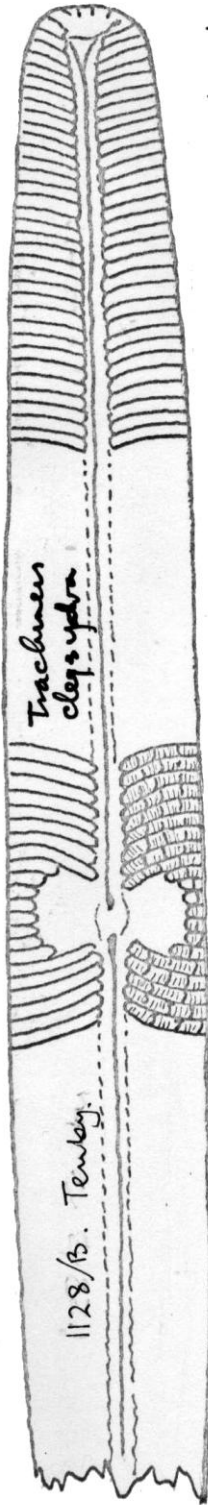
1128 Tenby

*Navicula arenaria*



106. 6. 13. 5-6  
= (*Caloneis obtusa* (Whitl.)  
*Cal. pubes* (Calk.) Hustl.)

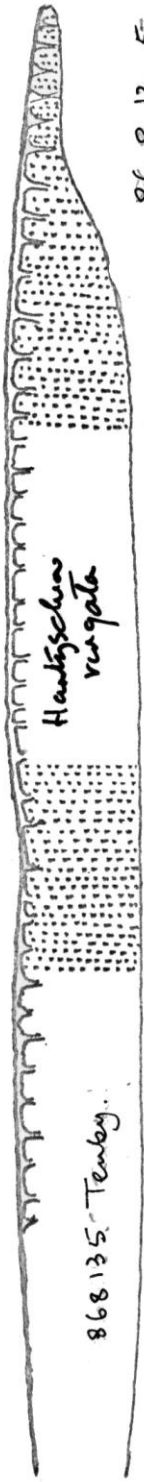
1121 05/12/12  
234  
2157/B. 14  
50. 18. 14



*Trachium clypeata*

1128/B. Tenby.

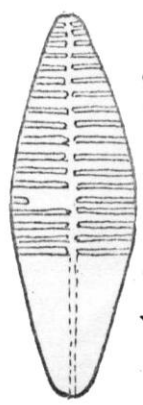
120. 12½..12½



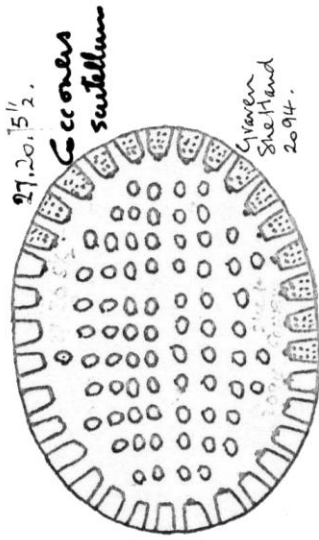
*Hantzschium virgata*

868135 Tenby.

86. 8. 13.. 5-



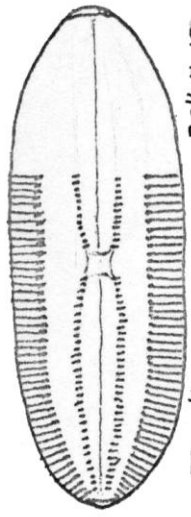
2008/B Quant. 26.8.13  
*Achnanthes hantzschiana*



*Cocconeis subtilum*

27.20.15 2.

Groven Sheppard 2094.



Tenby.  
*Diploneis marginistriata*

32½. 11. 18.

48. 8½. 12½

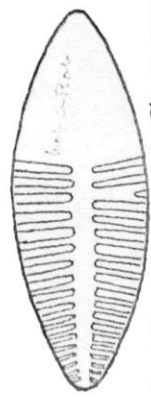


2094

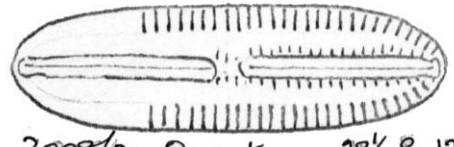
Groven, Sheppard  
J.R.C. says ? *N. laeviflora*



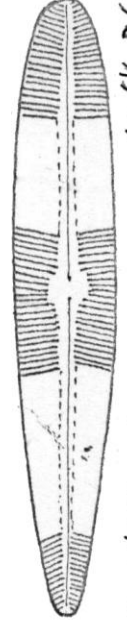
*Cal bacillum* 28. 6½. 2.1



2008/B Quant. 26.8½. 9. Cal  
*Achnanthes hantzschiana*



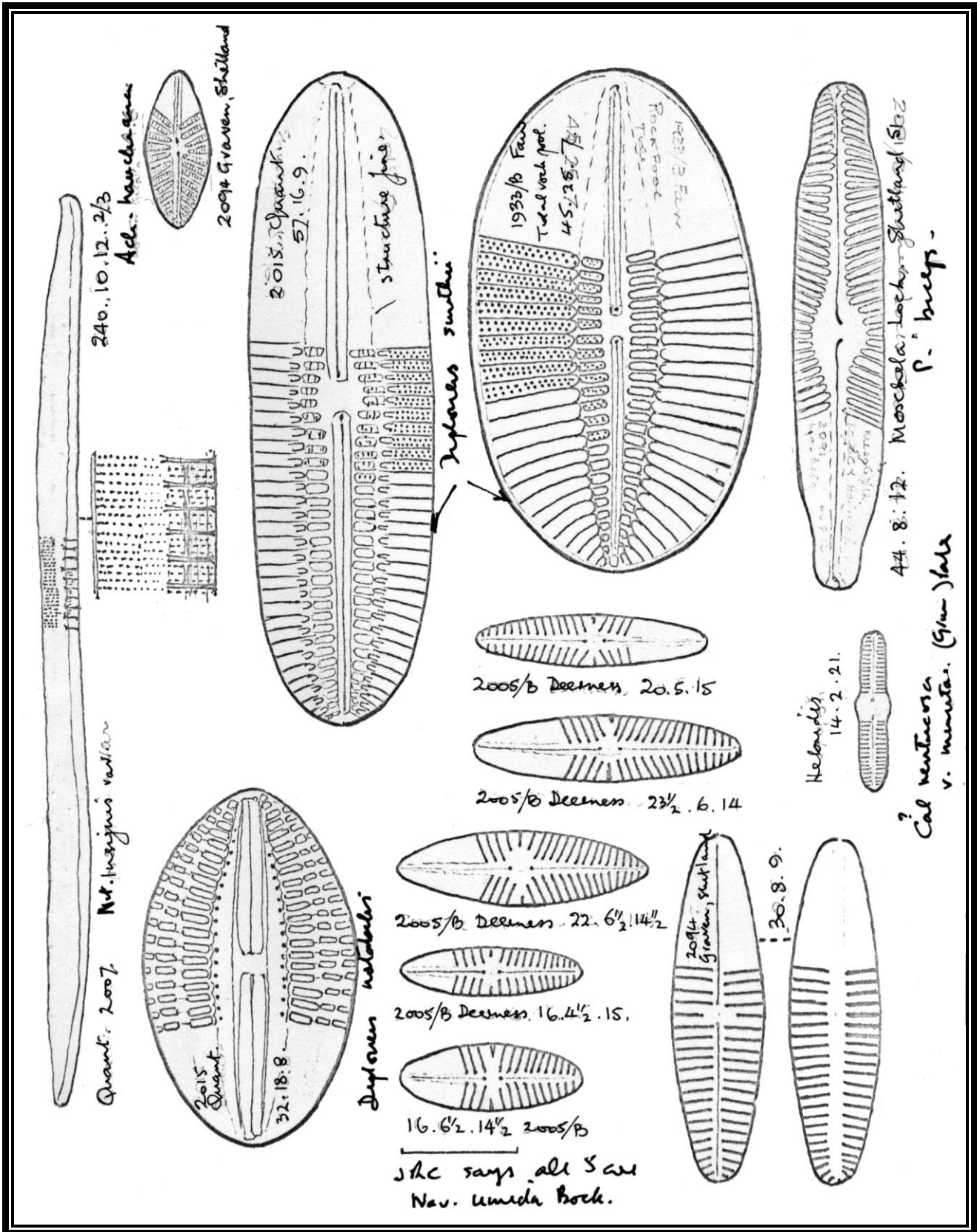
2008/B. Quant. 28½. 8. 12.  
*Diploneis marginistriata*



2014/B Quant.  
*Gomphonema Carlseui* Foged

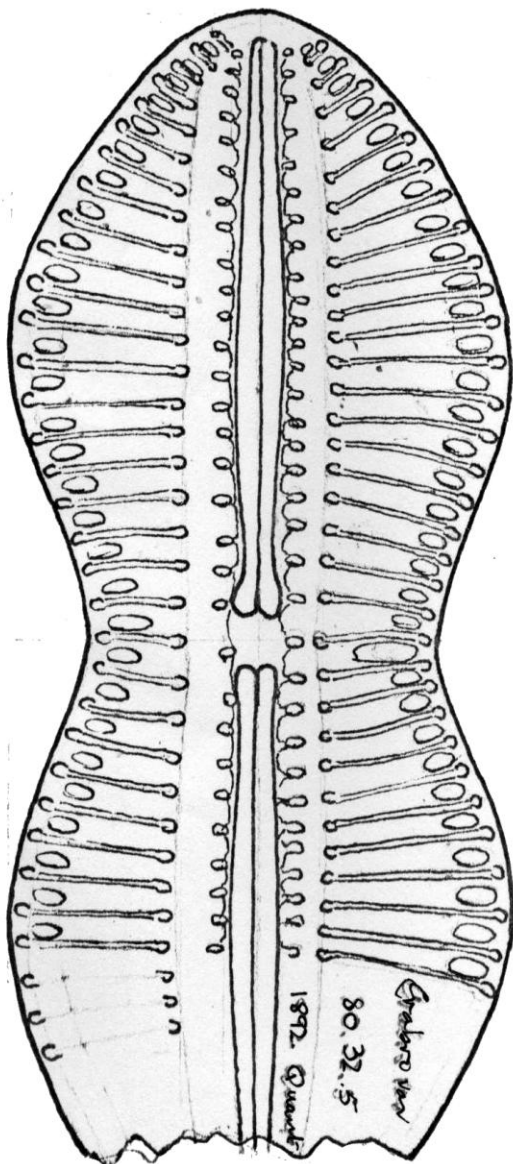
40. 6½. 2.6.

Miscellaneous Plate 280

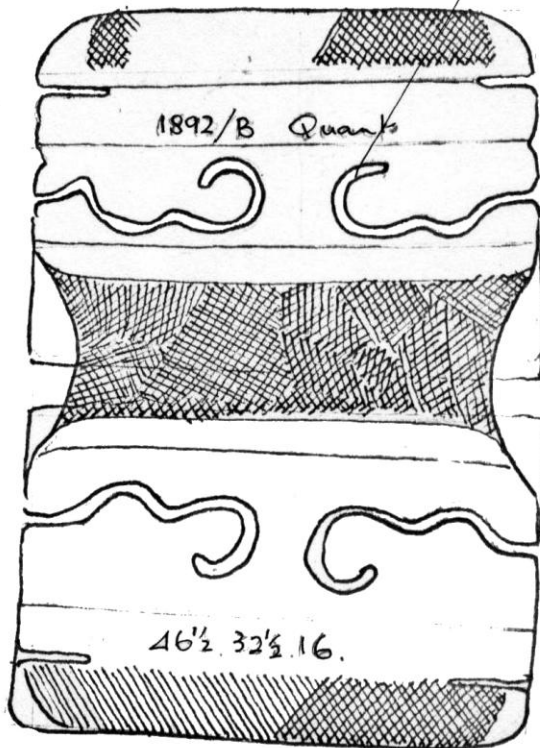


Quanterness Skerry, Orkneys.

*Diploneis crabro* Ehn. var.



unequal curving  
backwards towards  
the valve



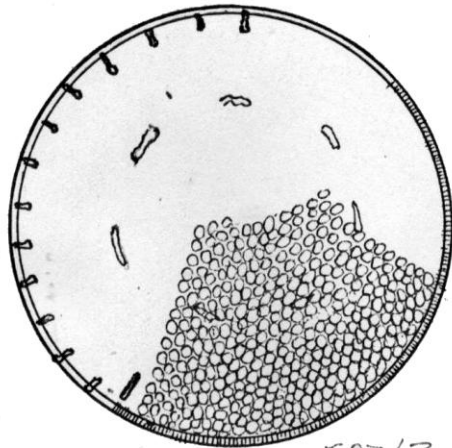
Diatom could be *Grammatophora angulata* Ehn  
QUANT. 1.

Miscellaneous Plate 281

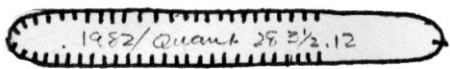
Quantness Skerry, Orkneys.

QUANT. 2

Agb does not cross



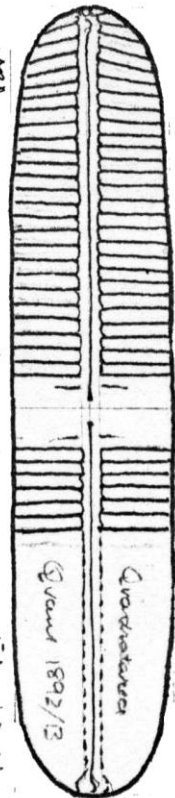
1892/13  
28 1/2 Dia  
alt 12-10  
Quant-



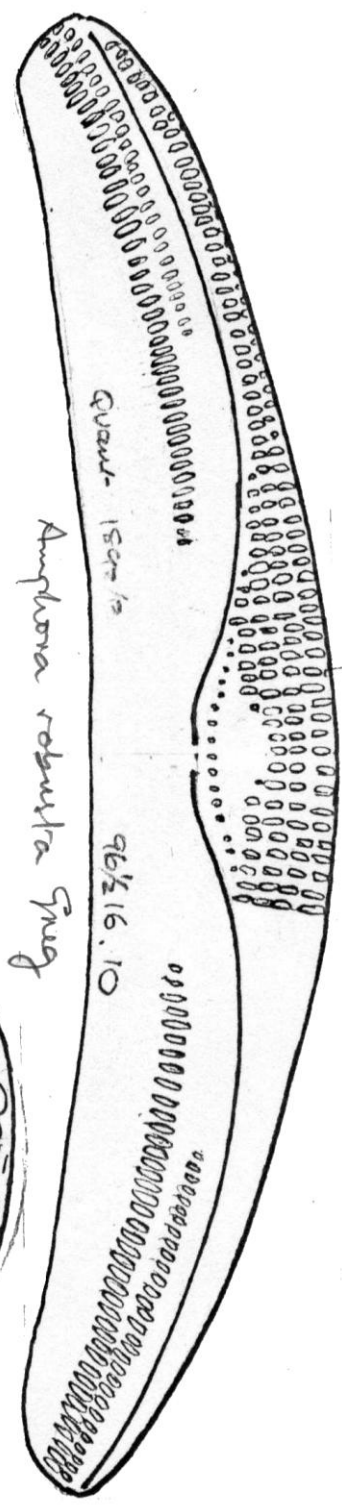
1982/Quant 28 3/2.12

28. 3/2.12.

See ACL Eul 982,  
Pinnularia quadrilatera (A.S.) CL  
Van  
11.0.11

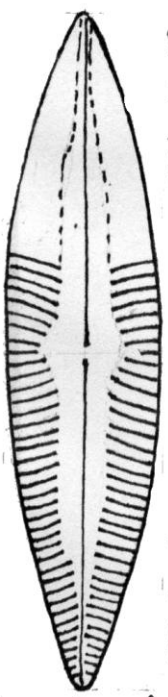


Quant 1892/13



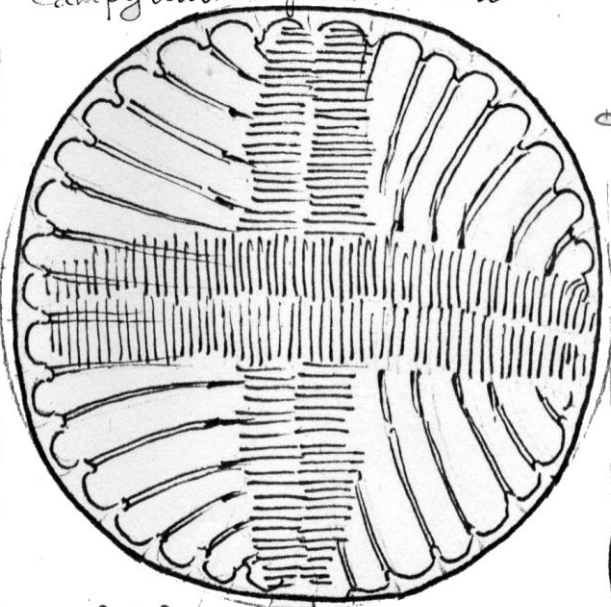
Amphora rebuska Srag  
Quant- 1892/13  
96 1/2. 10

Campylodiscus fastuosus Eln



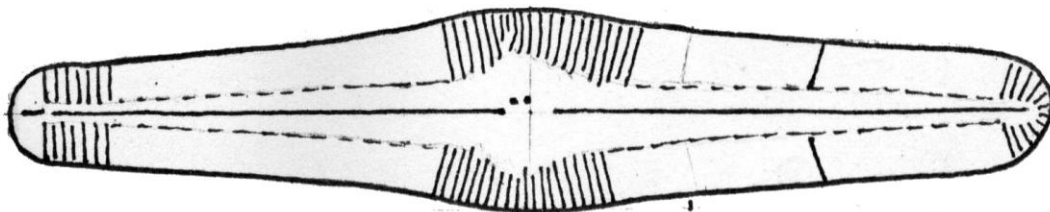
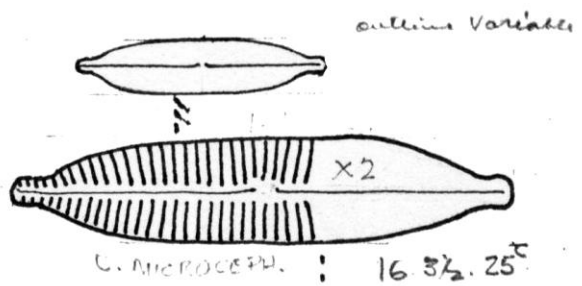
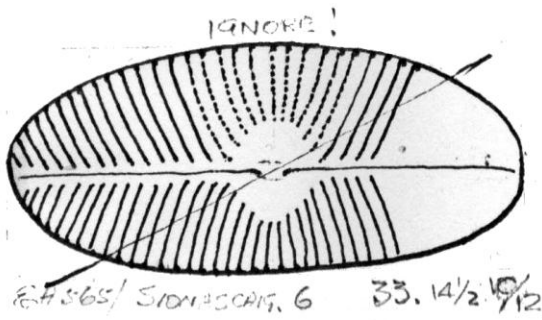
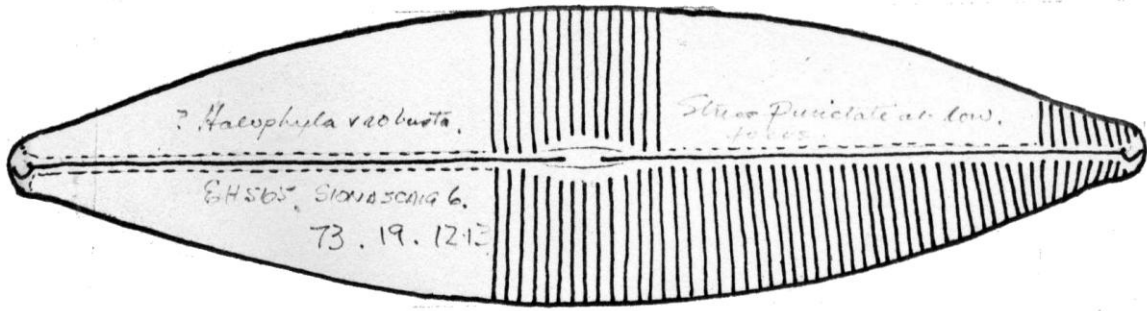
43 1/2 10 12

1892/3 Quant

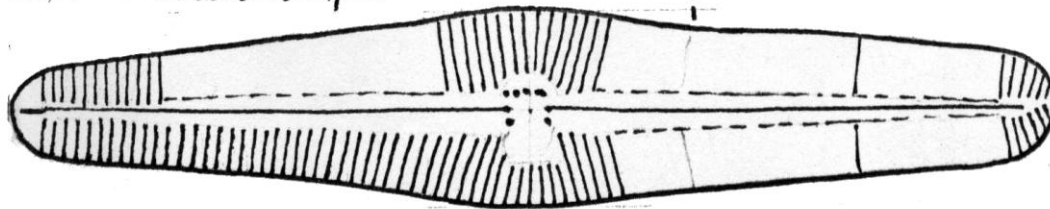


Nannula palpebralis (Pireb) ex W.S.

Loch Sioascarg. via E. Y. Haworth  
E.Y.H.

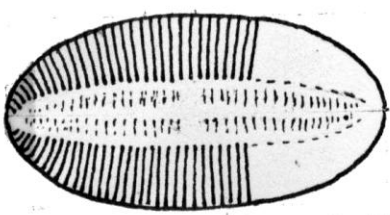


JACS/3410 *Inchna Damph?*

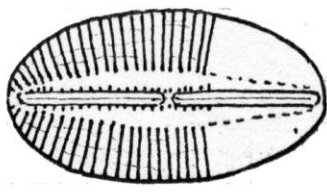


Miscellaneous Plate 283

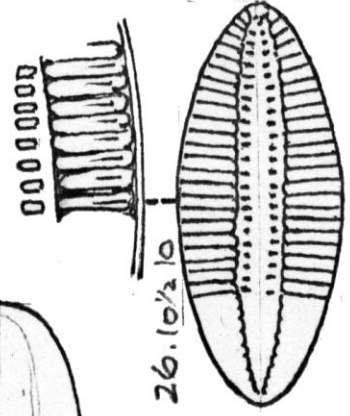
Trevone, Cornwall, TREY-1



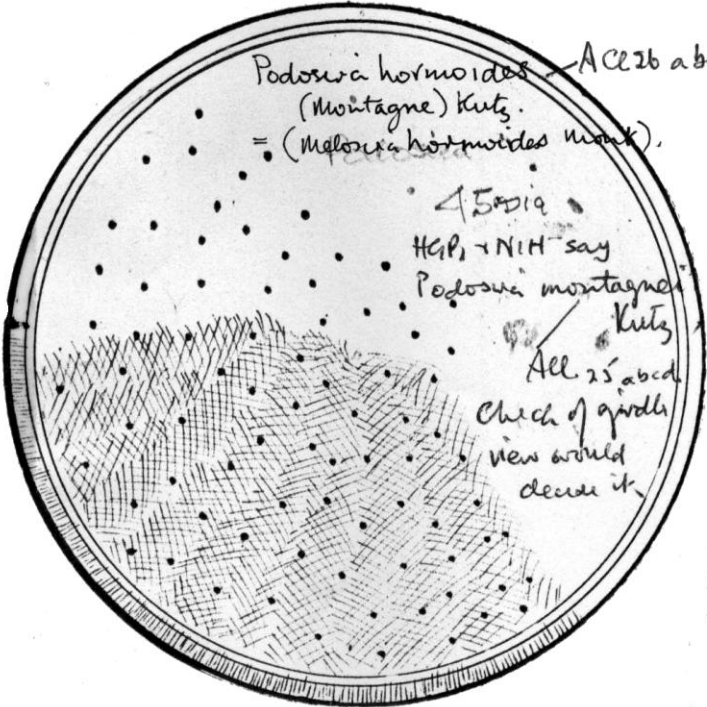
24.12.16



? Pajo but no break 20.11.15

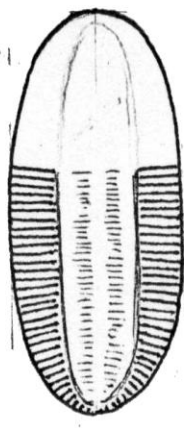


26.10.10

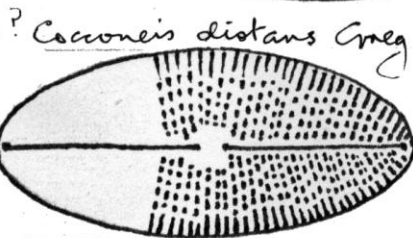


*Podocera hormoides* (Montagne) Kütz.  
= (*Melosira hormoides* Mont.)

45019  
HGIP, NIH say  
*Podocera montagnei* Kütz.  
All 25 abcd  
check of growth  
view would  
decide it.

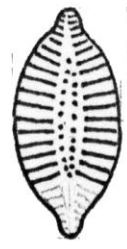


46.14.9.

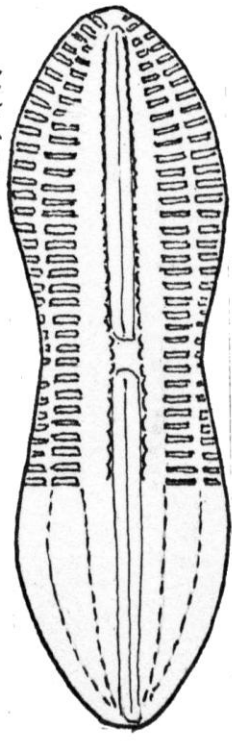


? *Cocconeis distans* Greg

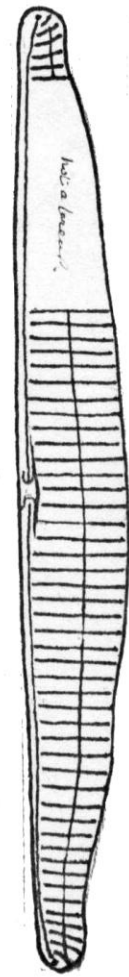
See 1649 Rev 27.12.14



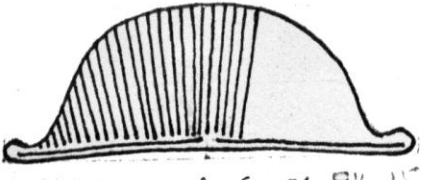
14.7.12



? *Dy. chersonensis* (Grim) Cleve



62.7.11

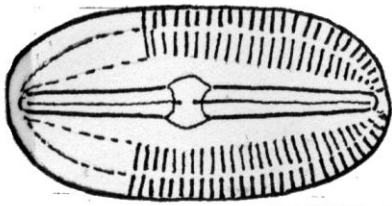


*Amphora salina* 26.9.15  
or ? *Amphora* <sup>W. Gray</sup> *twiggii* Green

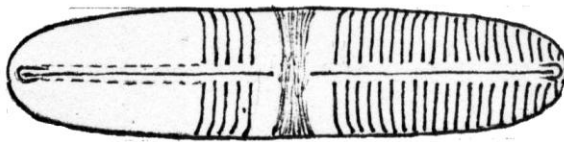


Trevone, Cornwall.

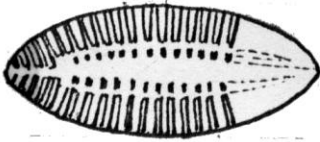
TREV. 2



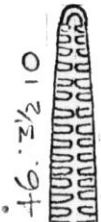
25.13.14



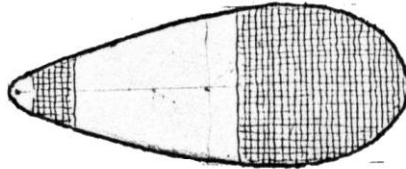
36 1/2 . 8 1/2 . 14



20 8 1/2 . 10



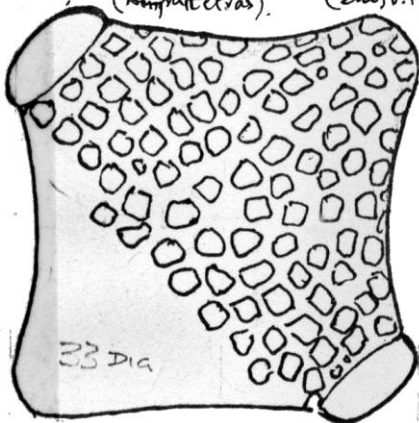
16 . 3 1/2 . 10



26.10.16

? Podocystis spp.  
or hemicphora sp

Biddulphia antedelluana  
(Amphitetrax) (Eh.) V.H

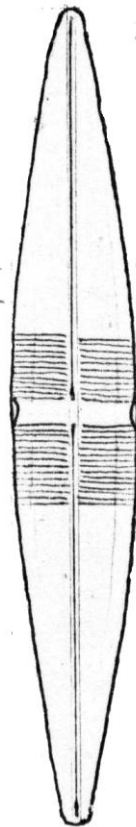


23 Dia

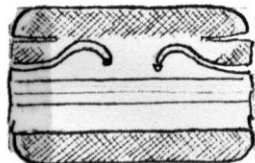
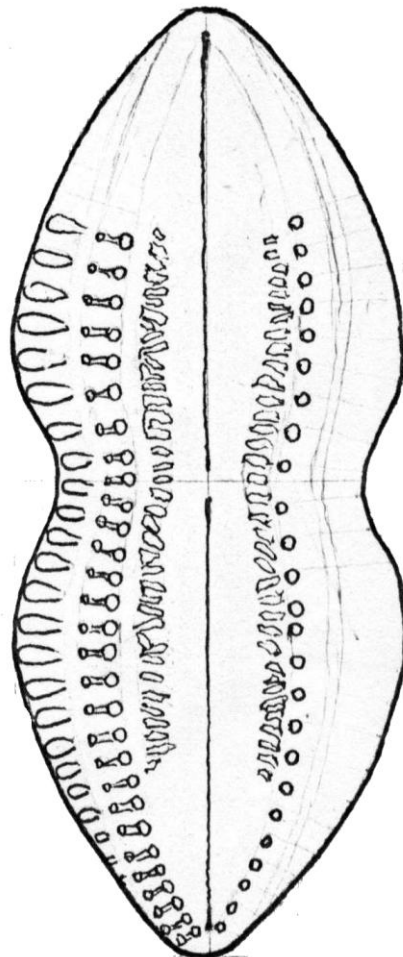
? Opephora keltomi A.Ce.



53 . 8 . 20



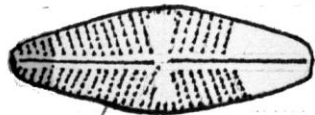
Striae very weak



Sept. 1 side 16 10.  
Grammatophora angulosa var.

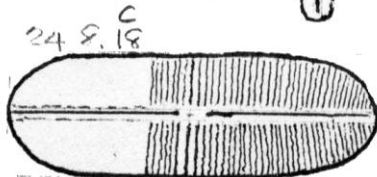


18 1/2 . 5 1/2 . 24.12



20 6 1/2 . 14

Looks like  
N. murica without  
the pectinon-

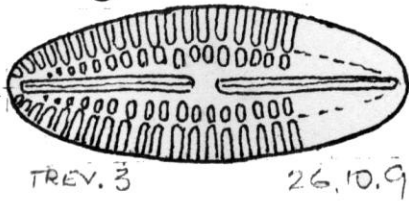


24 8 . 18

Striatum

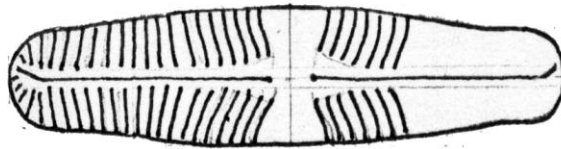
Miscellaneous Plate 285

Trevone, Cornwall. TREV. 3  
142 only.

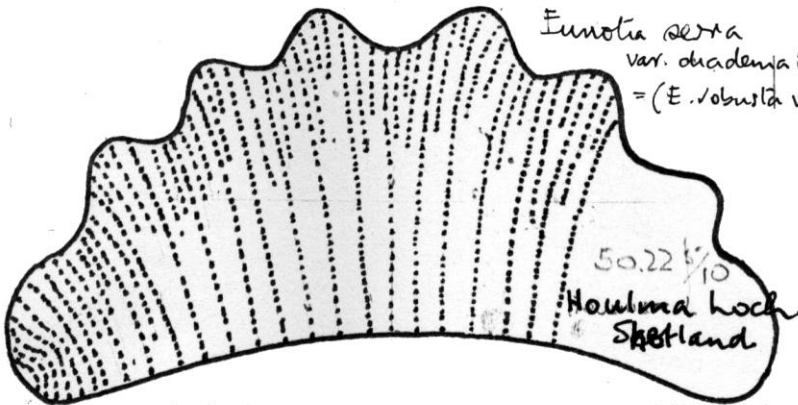


TREV. 3

26.10.9



36.9.12

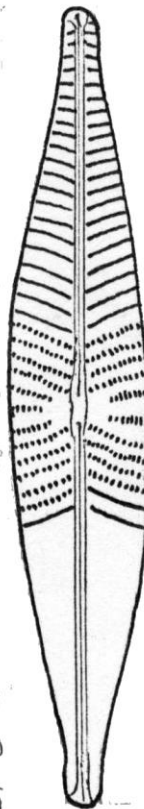


*Eunotia setta*  
var. *diademata* (Ehr) Pat.  
= (*E. robusta* v. *diademata*  
Ehr.)

50.22.10

Houlma hoch  
Shetland

2158 HOULMA Strait. 2. Scaevola - P. Houlma Strait. 52.9.10

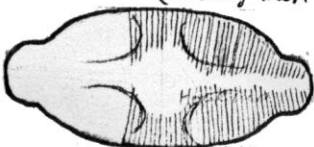


*Achnanthes depressa*  
(Cleve) Hust



2158 HOULMA

33.6.30

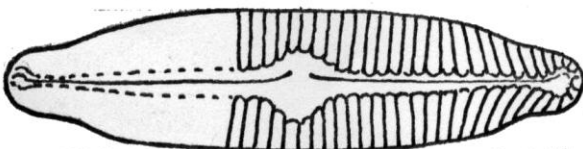


20.9.30



2161. PUNCAIF  
Larkhall

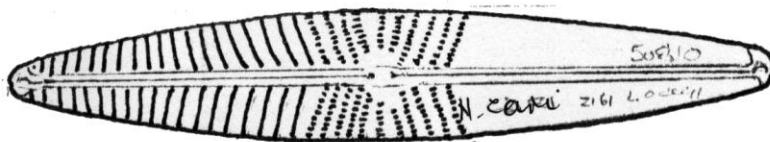
18.5.18



*P. microstylon*  
(Ehr) Cle

HOULMA 2158

31.9.12

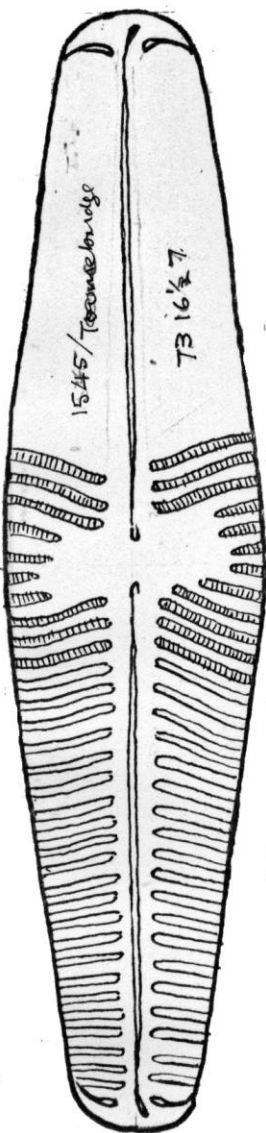


50.8.10

*N. caesi* 2161 Larkhall

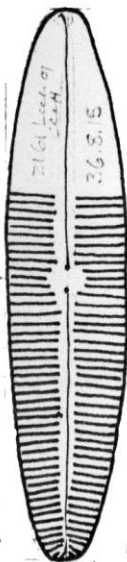
10

*Navicula seminudata* Grun

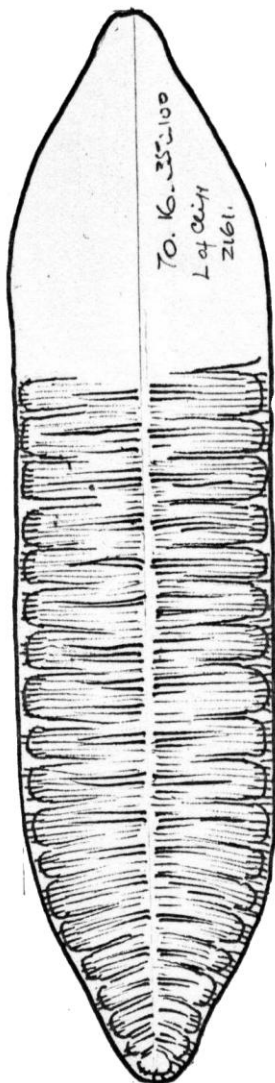


? *Carl. or Nav.*

4 of Puric.



*Surirella angustata* Kütz



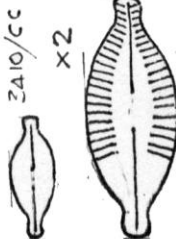
APPLECROSS  
360/CC

*N. Toxa curta*

16. 5. 17. C.A.E.



x2

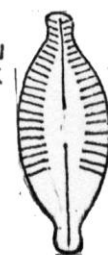


INCH NO. DANIPH?  
8.3. X.

*N. Schasmanii* Hust

3410/CC

x2



INCH NO. DANIPH?  
8.3. X.

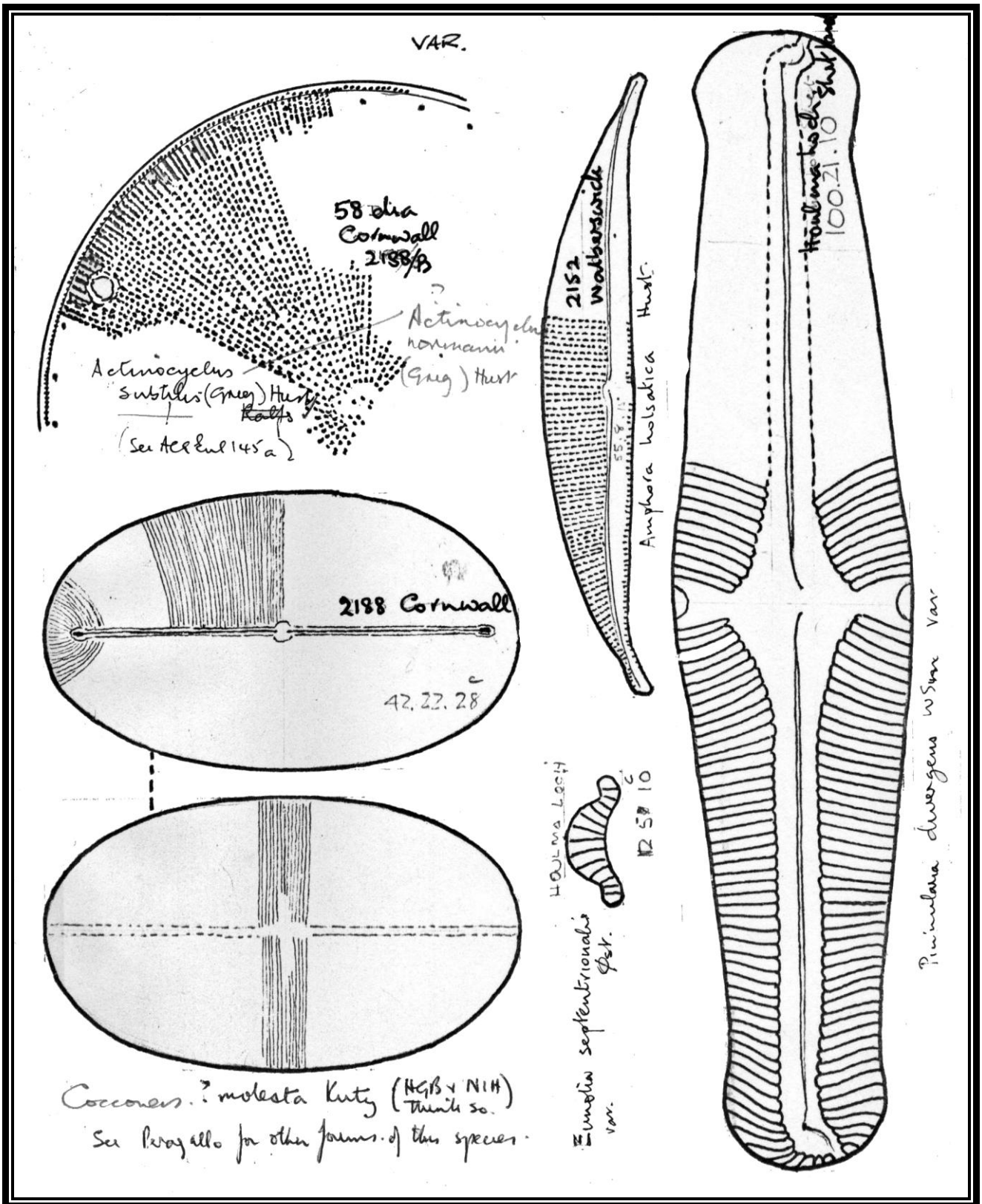
SIOWASCAIG - Scot P. Suicklowaldti  
33. 9. 13  
A.S.A. 388/9  
Su



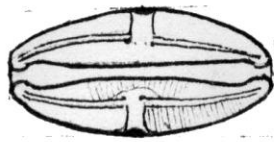
3660/CC  
25. 7 1/2. 16 - 20 x E  
appears *N. Gemistetractia*  
Hust.



Miscellaneous Plate 287

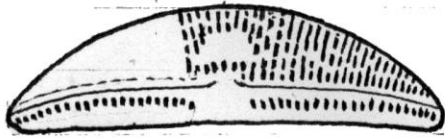


# LANCING + DITCH.

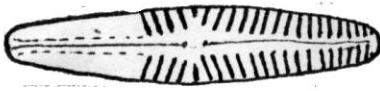


submontana

1365/60 16 1/2 . 8 . X 40uh  
Lancing



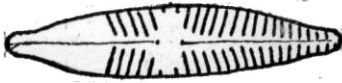
28.78.15



24.5.12



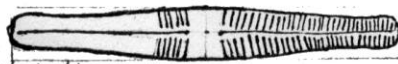
23.4 1/2 . 12



21.43.16



15.4 15/16



Subdisjuncta

24.3 1/2 . 18-22

104

Opercular Part.

End view according to picture & focus

78.4 X 14

53.5 X 9

25.4 . 18

86.5.9um

146.6. X 9-10 um

27.5 . 14



Miscellaneous Plate 289

**ARDIS.**

Herb says near *P. sutaria* a comb  
but *P. submarginata* var. *marginata*

Herb says near *P. sutaria* a comb  
but *P. submarginata* var. *marginata*

Nav. *levanderi* Thur

13665 and  
Herb thinks possibly  
*P. submarginata* var. *marginata*

30 1/2 . 5 1/2 . 14  
Ace Eul 1011a. 13665/c and

levanderi  
42 8 . 19

Cyclotella? *quadrum* of  
S. S. S. S.

13665 and  
20 20

37 1/2 . 12 . 20

2169/B BRYH.

42 . 9 . 16

2169/B BRY Herb says  
*P. amphibia* acuta

Herb says *Nitzschia adonissa*

30 . 3 . 13

13665/and

26 . 6 . 24 1/2 . 15

2169/B BRY.

Herb says *Achnanthes*  
or *Nitzschia* *lungauca*. *Grün* & *Mossm*

46 . 6 1/2 . 13

2169/B BRY Nav. *ramosissima*

Herb says *Achnanthes*  
*Haukeana* *Grün*

24 . 8 . 11

2169/B BRY.

Herb says  
*Chaetoceros*  
*cinctus* *Grün*

28 . 8 1/2 . 14

2169/B BRY.

25 1/2 . 5 . 26

2169/B BRY

22 . 15 1/2 . 5

2169/B BRY

Herb says  
*C. dentans* *Grün*.  
*C. granulifera* *Grün*

*Cocconeis speciosa*  
*C. stellatum* *Grün*  
var. *speciosa* *Grün* Ace  
but Herb says *C. stellatum* is so  
variable that it is doubtful whether  
var. *speciosa* is sound

16 1/2 . 11 . 6

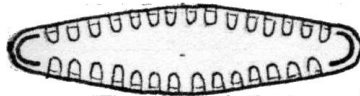
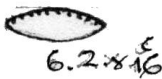
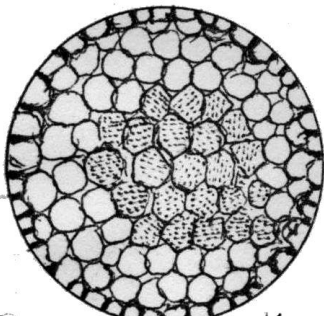
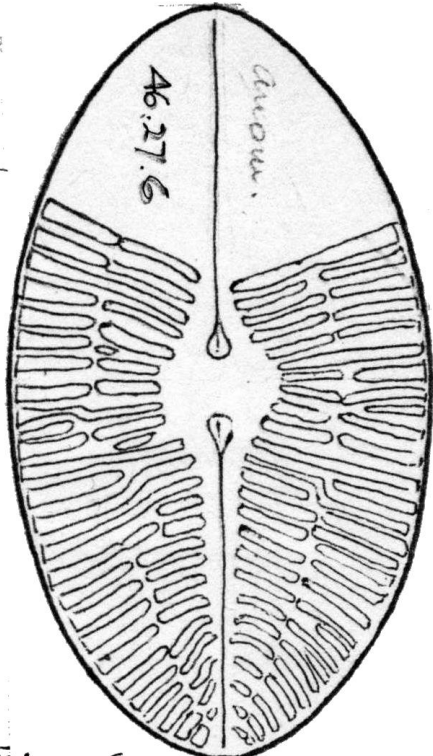
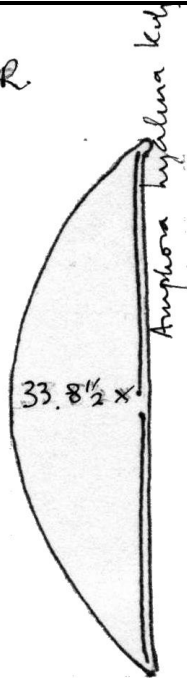
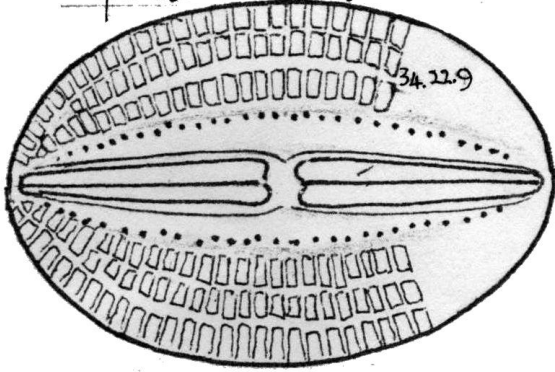
2169/B Bry

8 . 8 1/2

2169/B Bry

All BRYHER.

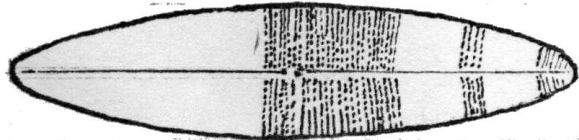
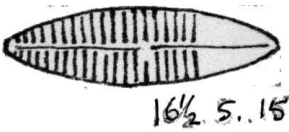
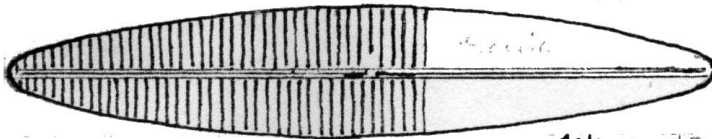
*Diploneis notata* (Grev) Cle



2170/B Bry. 21.5 1/2 . 8 1/2

*Fenestrata distans*  
*Glyptodictyon distans* (Grev) Grev

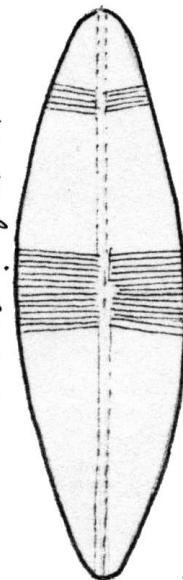
*Coccovus granulosus* Grev



N. Britannica

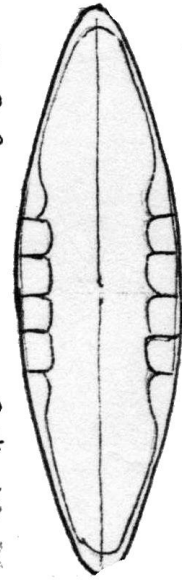
34 1/2 . 8 . 25

*Mastoglossia exigua*

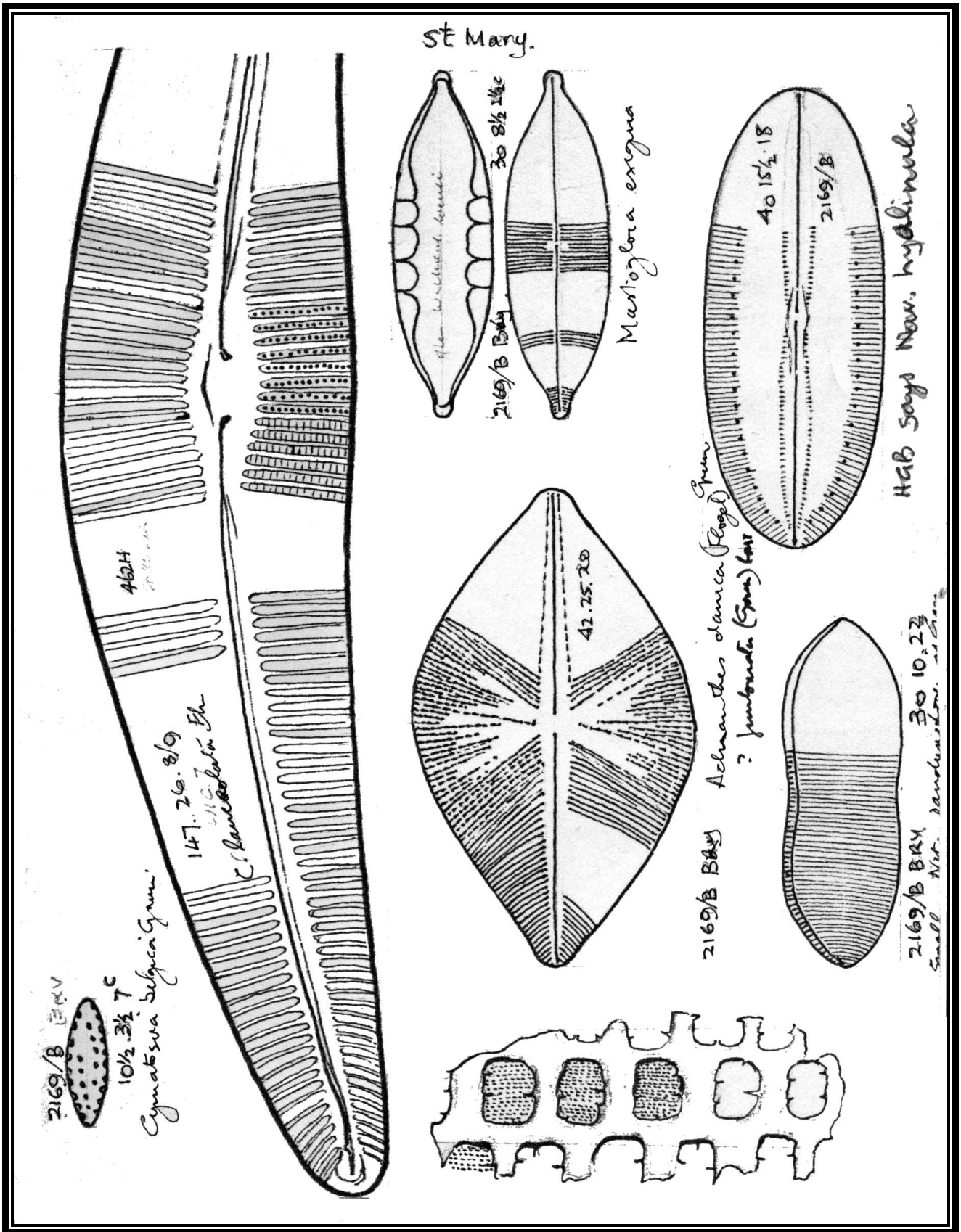


2170 B. Bry.

34 1/2 . 10 . 26



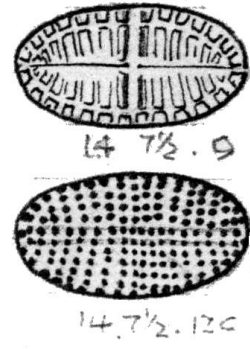
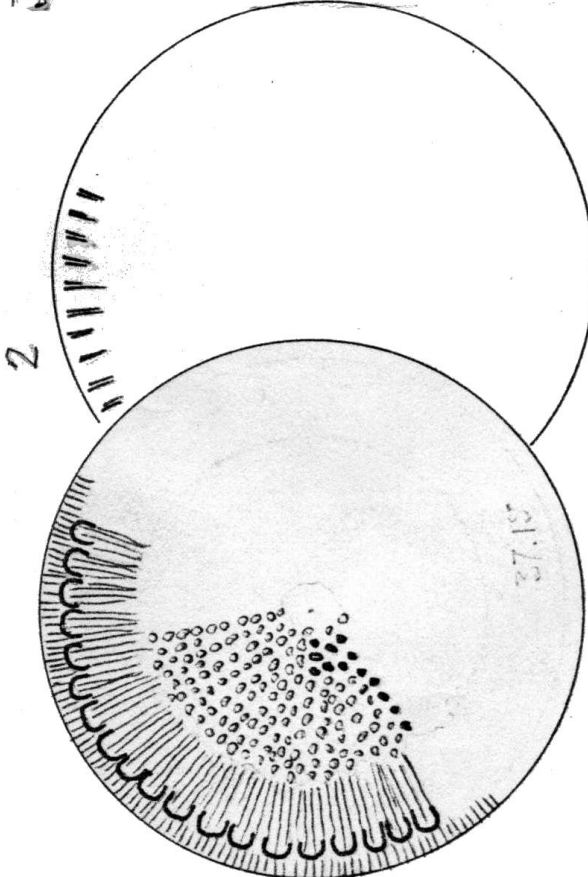
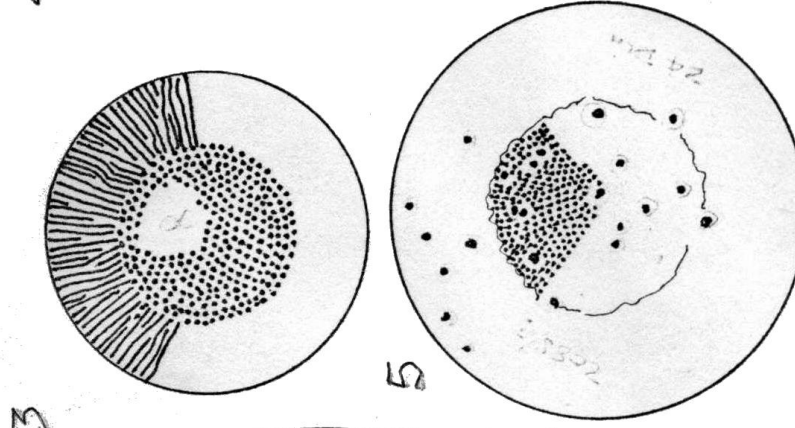
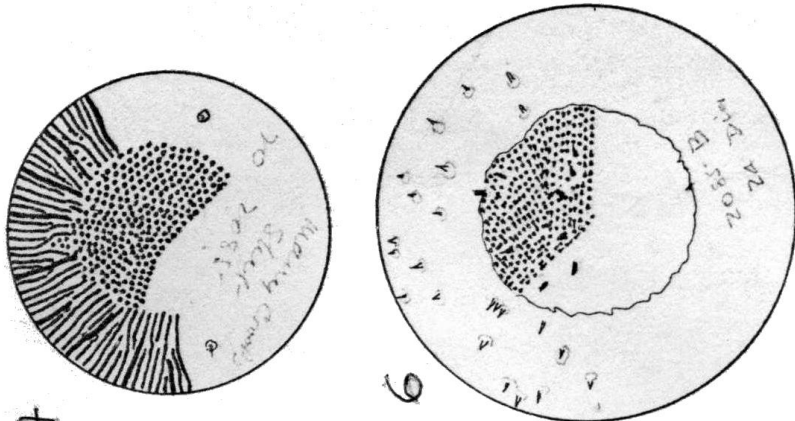
Miscellaneous Plate 291





*Sphaeroceros* (Pl. 218 of Florida.)

2B



## Miscellaneous Plate 293 Notes

(1) 120.18.6 *P. viridis* var. *minor* according to H.G.B. P.v.R.

B.H. - ? *streptoraphe* or *flexuosa*

J.R.C. - ? *nobilis*

E.Y.H. - P.&R. *sudetica* or *viridis* var. *minor*

According to key:

Hust. 1930 – *viridis*

A.Cl.Eu. – *viridis*

(2) 80.13½.10 *P. sudetica* according to H.G.B. a very close form except for the fine oblique raphe.

B.H. –

J.R.C. – probably fall into *viridis*

E.Y.H. – P.&R. *viridis* var. *minor*

Keys:

Hust. – *viridis*

A.Cl.Eu. – *sudetica*

(3) 83.15½.7½ *P. hemiptera*

B.H. –

J.R.C. –

E.Y.H. - P.&R. *viridis* var. *minor*

Keys:

Hust. – near *esox* or *sudetica*

A.Cl.Eu. – *sudetica* or *cuneata*

(4) 93.16.7½ acceptable as *P. viridis* (the type)

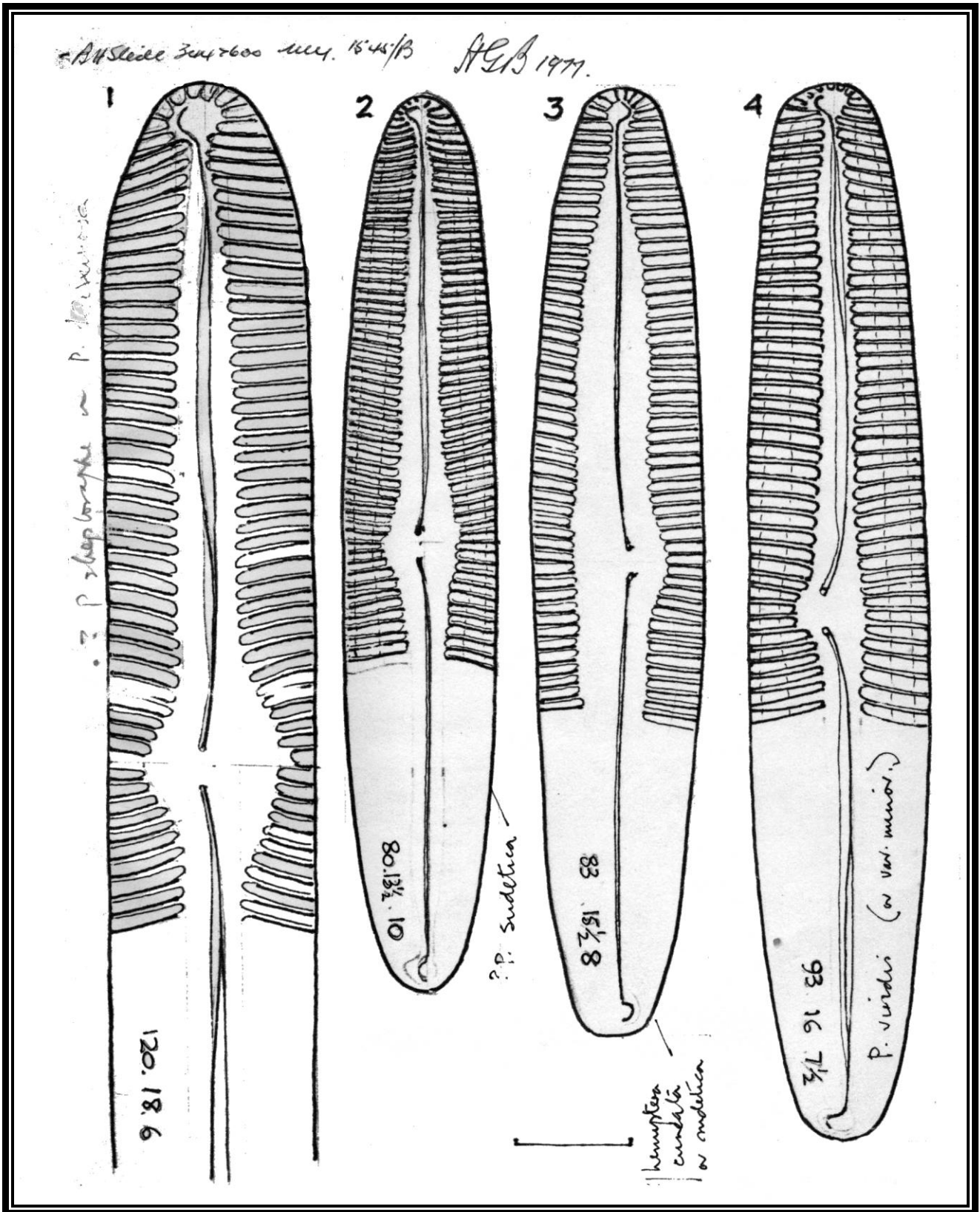
B.H. & J.R.C. –

E.Y.H. – P.&R. *viridis* var. *minor*

Keys:

Hust. – *viridis*

E.Cl.Eu. – *viridis*



## Miscellaneous Plate 294 Notes

(5) 126.20.8 *P. esox*

B.H. – could well be *P. esox*

J.R.C. –

E.Y.H. – P.&R. *viridis* var. *minor* or *gentilis*

Keys:

Hust. – *viridis*

A.Cl.Eu. – *viridis*

(6) 66.14½.10 *P. sudetica* var. *leptogonglya* (inflated central outline)

B.H. - ? cuneate but not *gonglya* raphe

J.R.C. – could fall in *bipectinalis*

E.Y.H. – *P. clevei* [*esox subsolaris*] [*sudetica* var. of *cuneata*]

(7) 97.16½.8 *P. viridis* var. *intermedia* (according to A.Cl.Eu!)

B.H. –

J.R.C. –

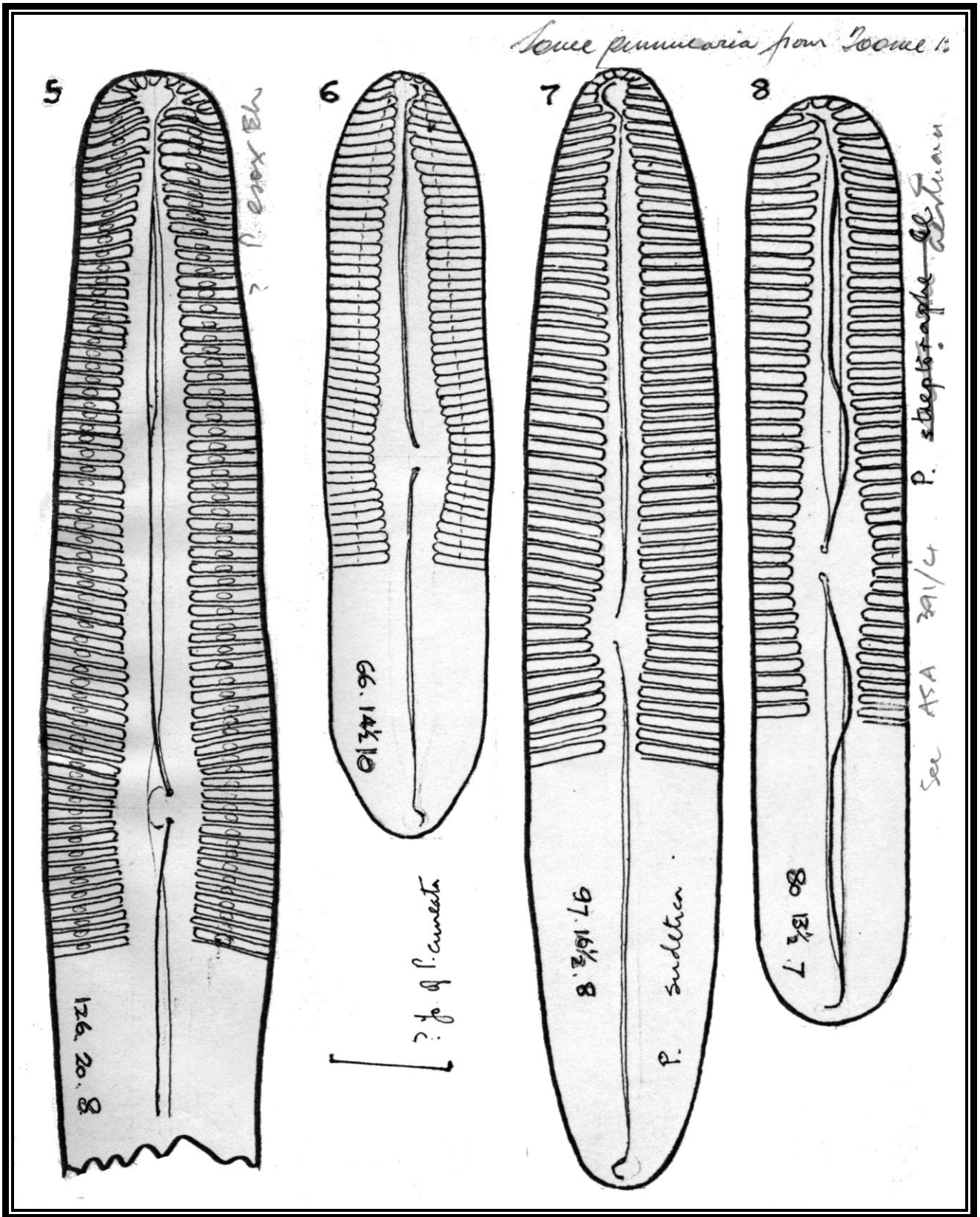
E.Y.H. – *sudetica*

(8) 80.13½.7 *P. aestuarii*

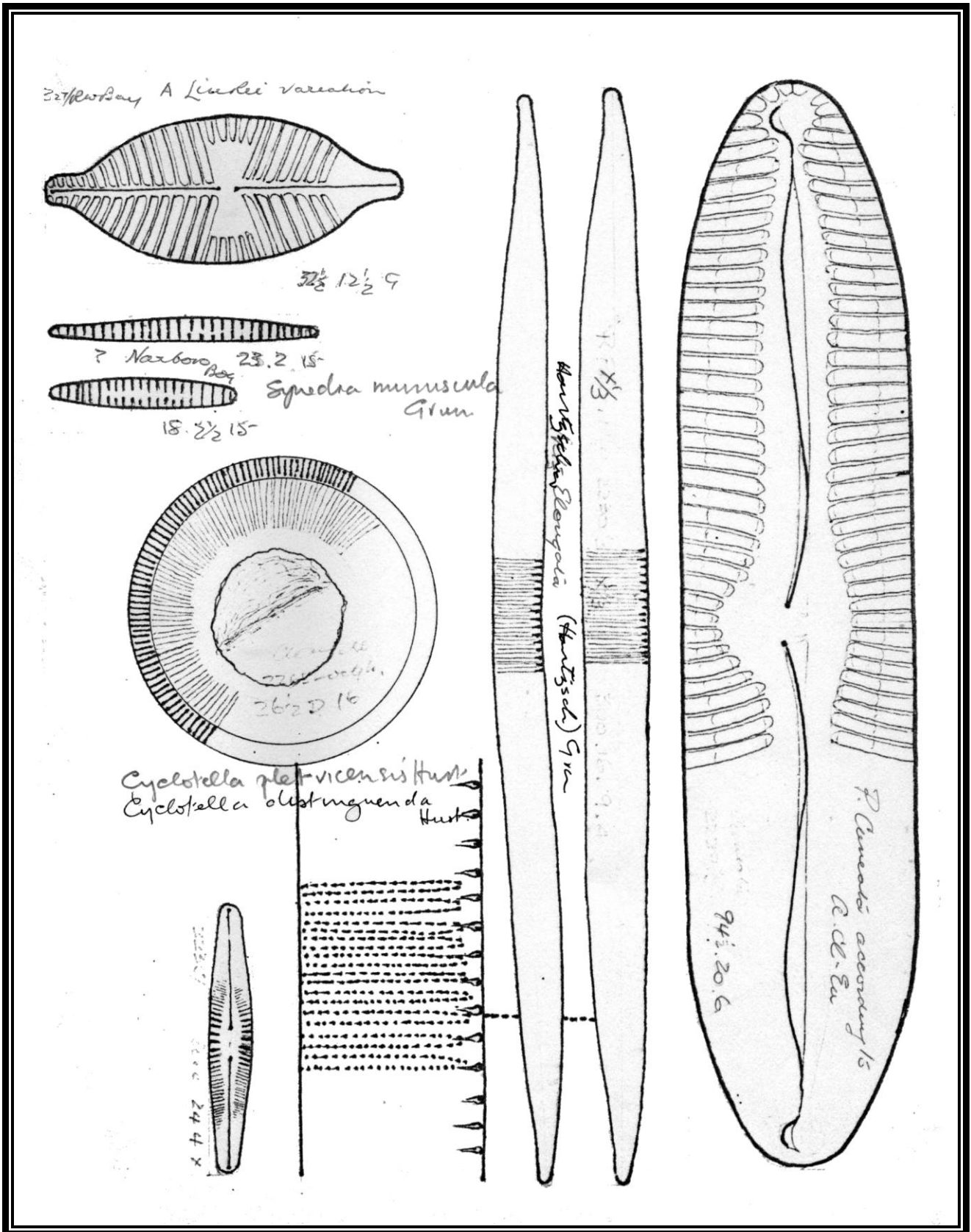
B.H. – *streptoraphe* (see ASA 391/4)

J.R.C. –

E.Y.H. – *viridis* var. *minor* (near *gentilis*, *P. viridis*) (As A.Cl.Eu. between *streptoraphe* and *gentilis*)



Miscellaneous Plate 294(2)



**Miscellaneous Plate 295 Notes**

**(9) 68.11.9** *P. rupestris*

B.H. –

J.R.C. –

E.Y.H. – *sudetica*, var. *sudetica*

**(10)** unfinished

**(11) 64.12.9** *Pinnularia*

B.H. –

J.R.C. – probably falls within *viridis*

E.Y.H. – *sudetica* – *P. viridis* var. *sudetica*

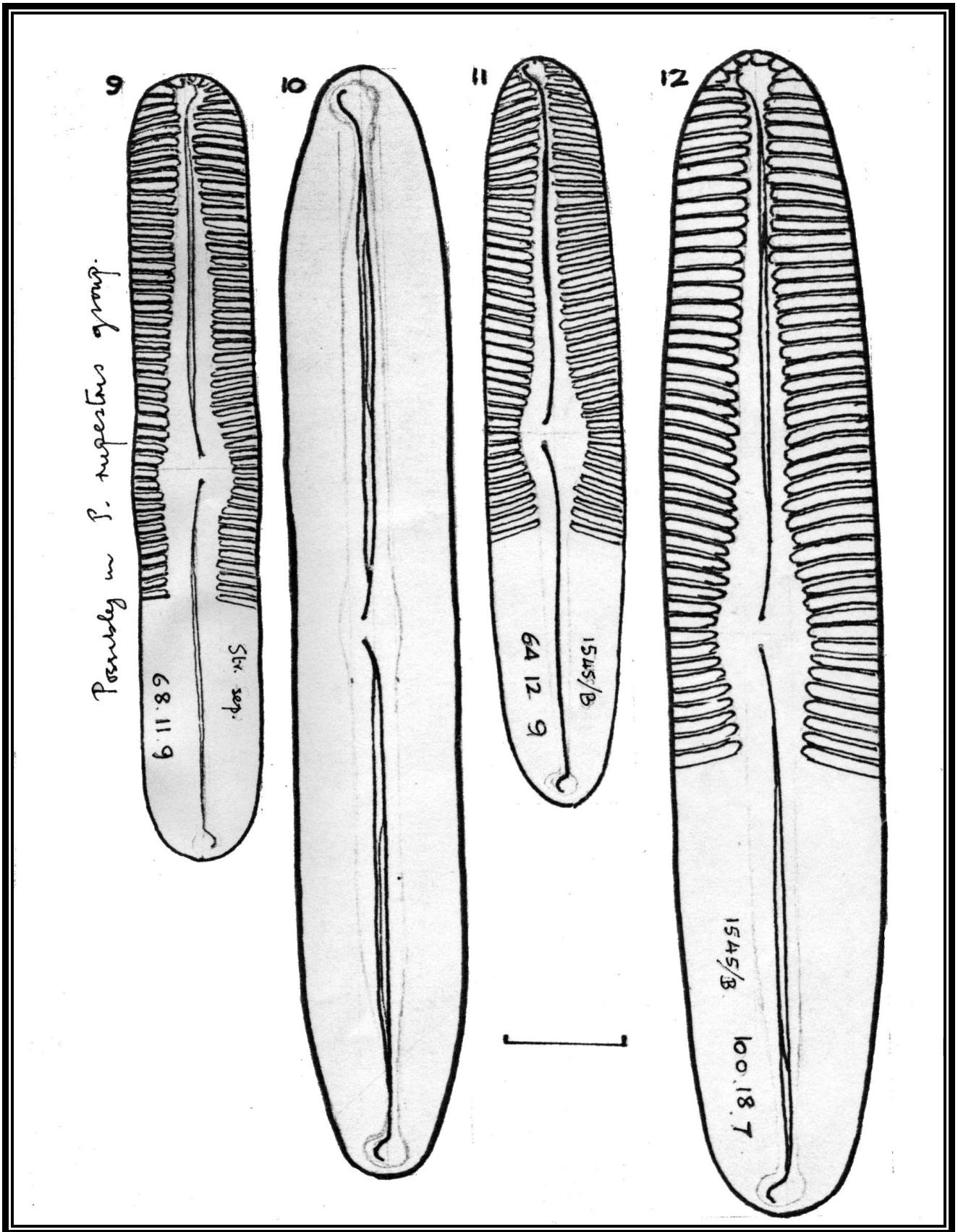
**(12) 106.18.7** *Pinnularia* ? *intermedia*

B.H. –

J.R.C. –

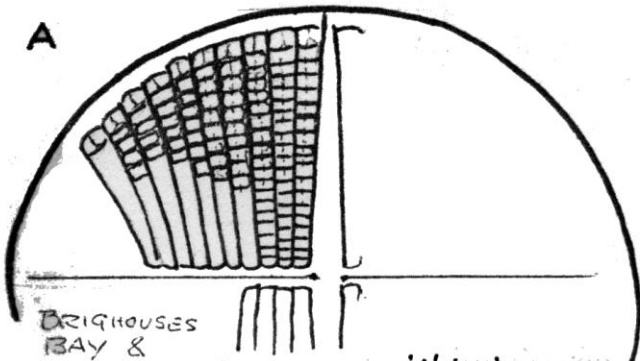
E.Y.H. – *P. sudetica*, *P. viridis*

Miscellaneous Plate 295



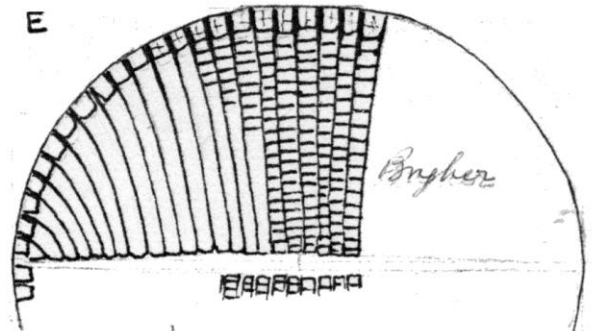


*No. Please return what do say if you want a copy*



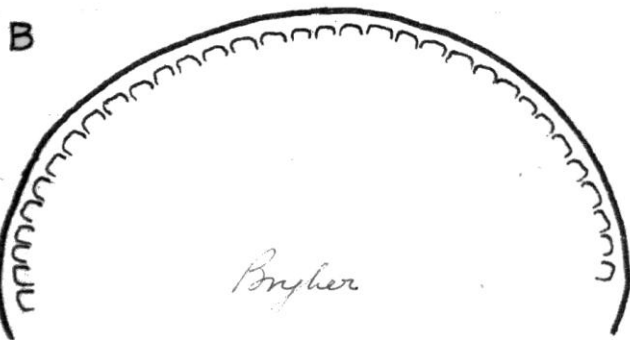
BRIGHOUSES  
BAY &  
BRYHER

HAB. Consider 'A' to be a n.sp.

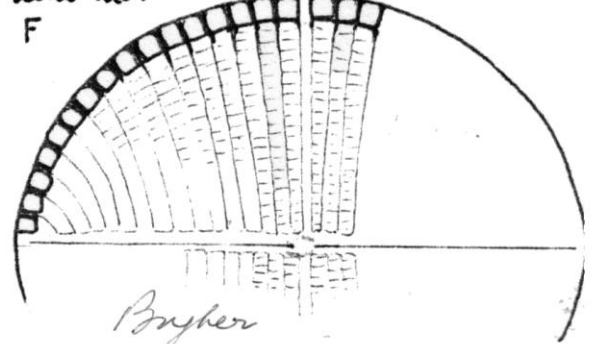


*Bryher*

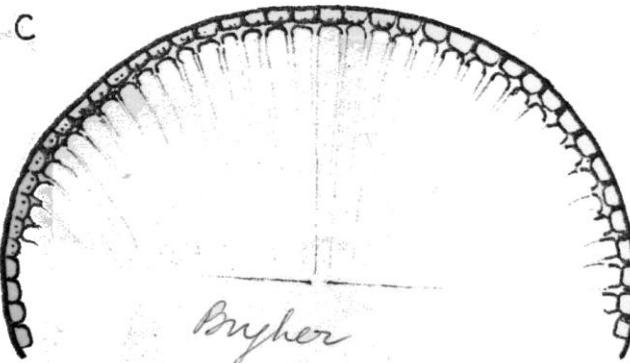
and that E is the same taxon.



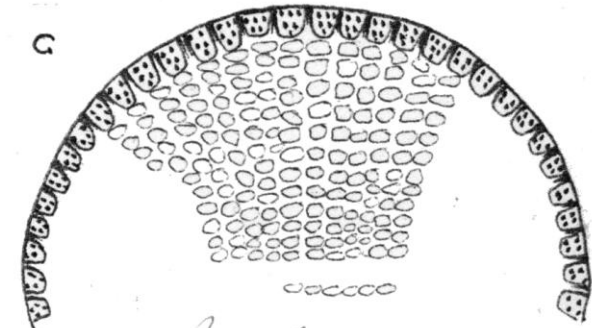
*Bryher*



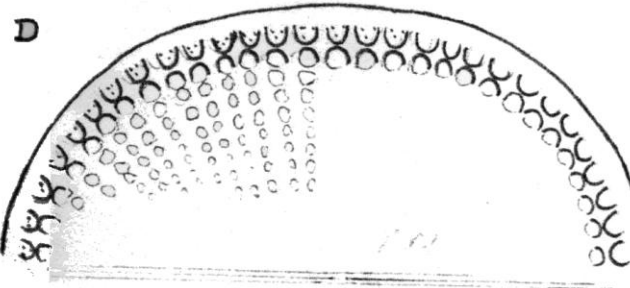
*Bryher*



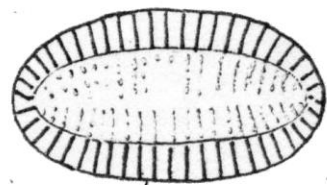
*Bryher*



*Bryher*



*Bryher.*



2169 B / 20 10 1/2 10

*Catellus.*

"B.C.D.F. & G." are Coc. scutellum  
or inner plates.

## Miscellaneous Plate 296 Notes

(13) 83.16.8 *P. intermedia* Cl.

B.H. –

J.R.C. –

E.Y.H. – *P. scrabro*, *P. viridis*, *P. sudetica*

(14) 113.19.6 *P. distinguenda* Cleve

B.H. – *streptoraphe*

J.R.C. –

E.Y.H. – *sudetica viridis*

(15) 86.14.10 *P. ? rupestris*

B.H. – could be *kraskei* (see ASA 391/7-8)

J.R.C. –

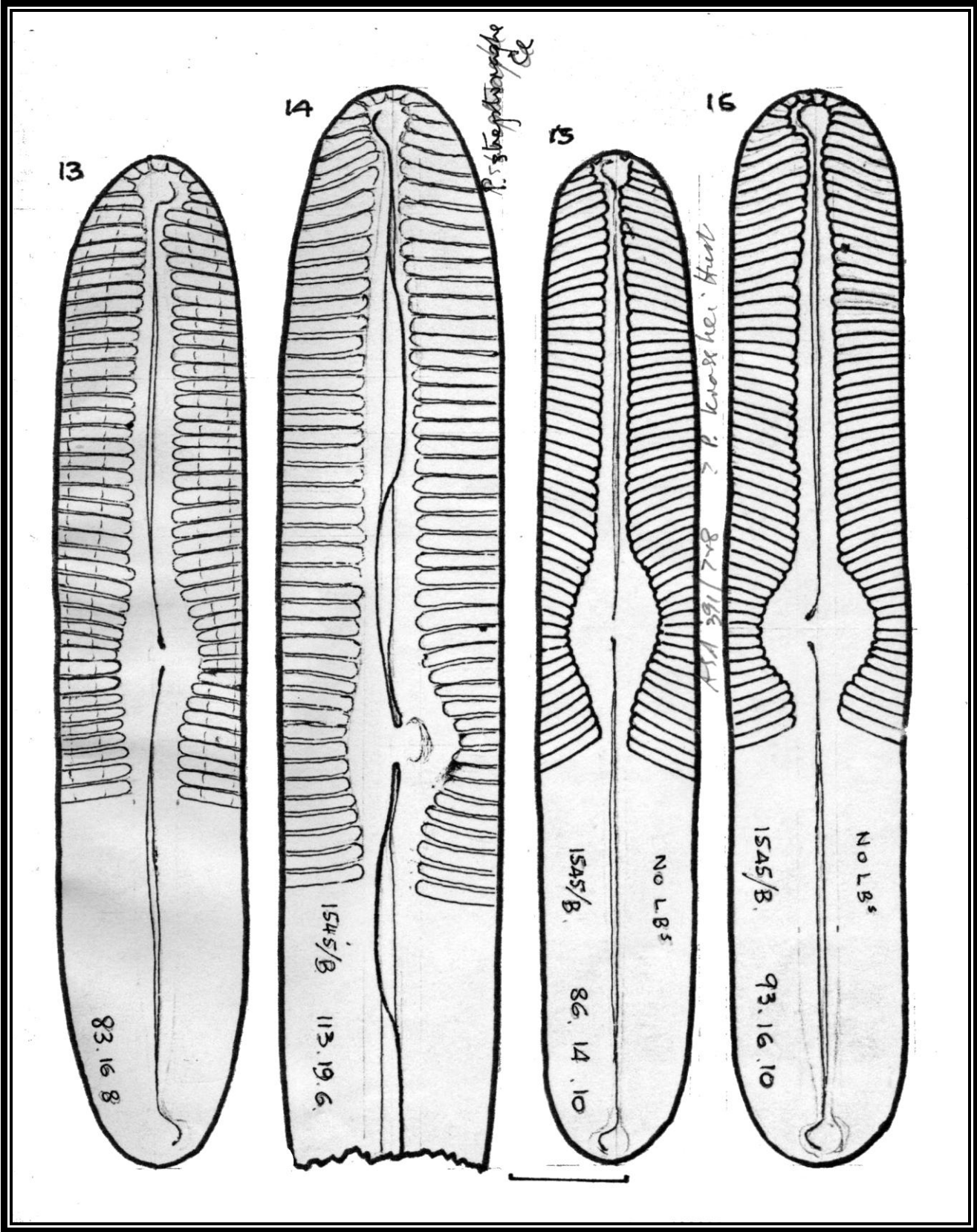
E.Y.H. – *sudetica*, *viridis* var. *sudetica*

(16) 93.16.10 *P. ? rupestris*

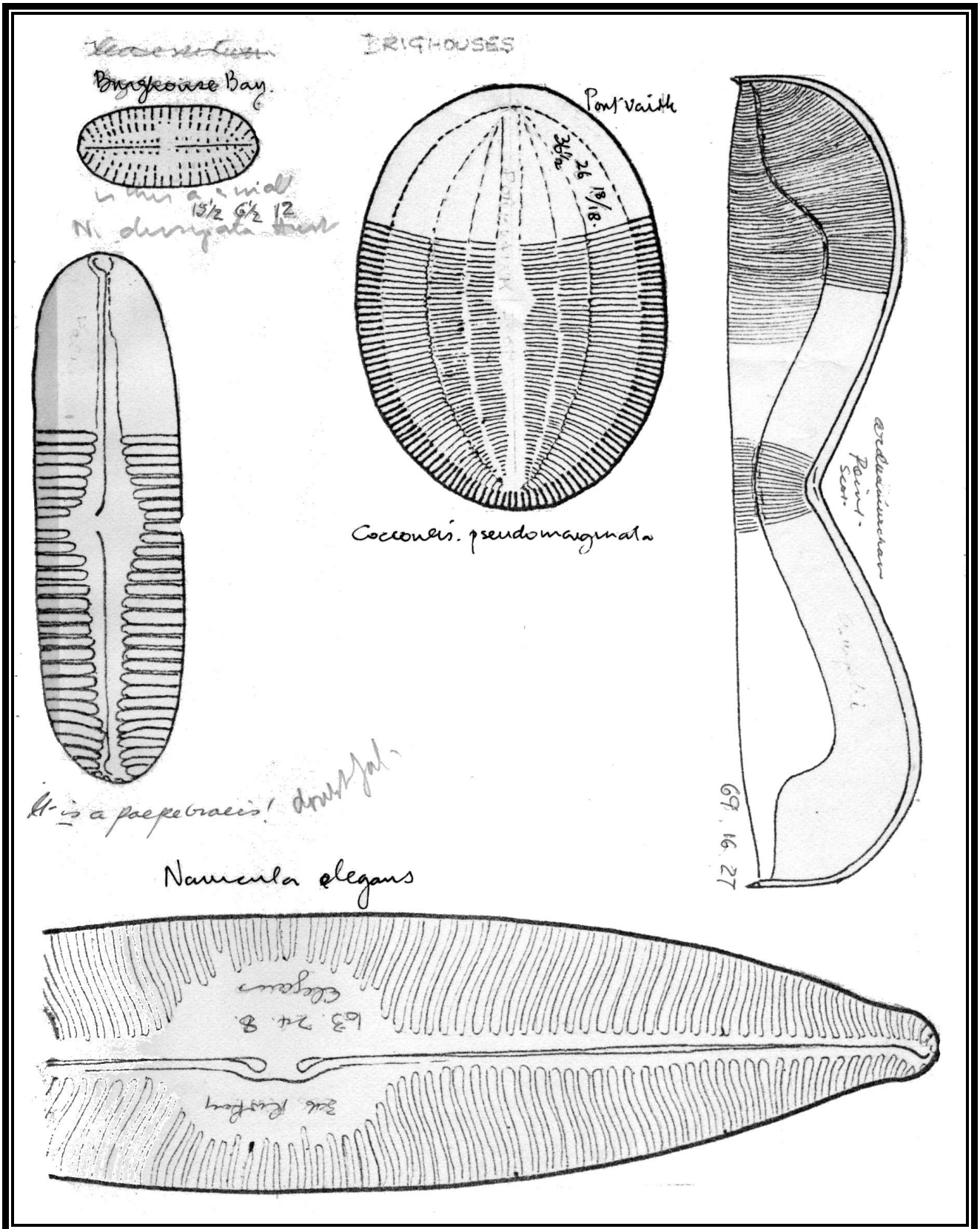
B.H. – could be *kraskei* (ASA 391/7-8)

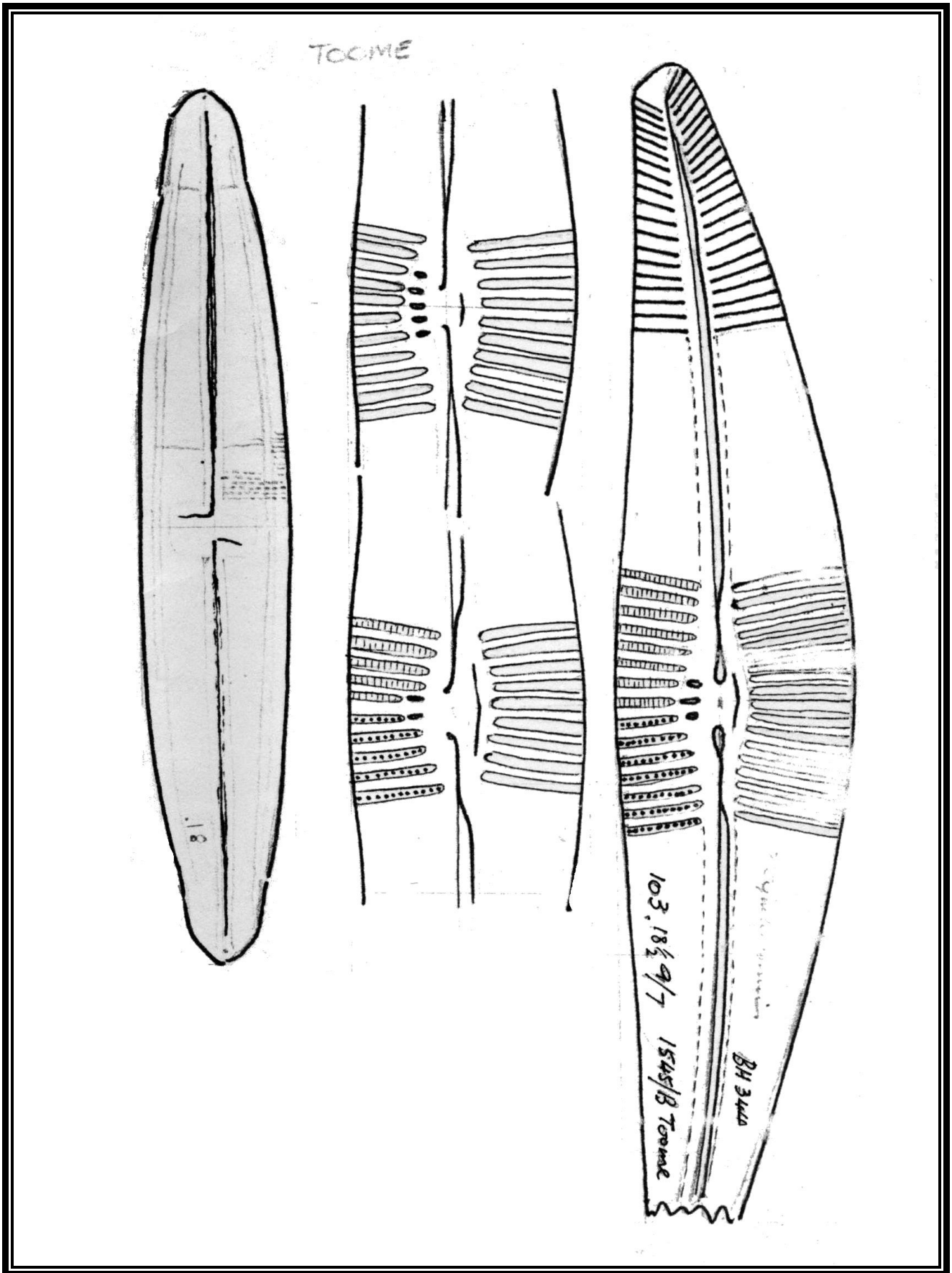
J.R.C. –

E.Y.H. – *sudetica*, *viridis* var. *sudetica*

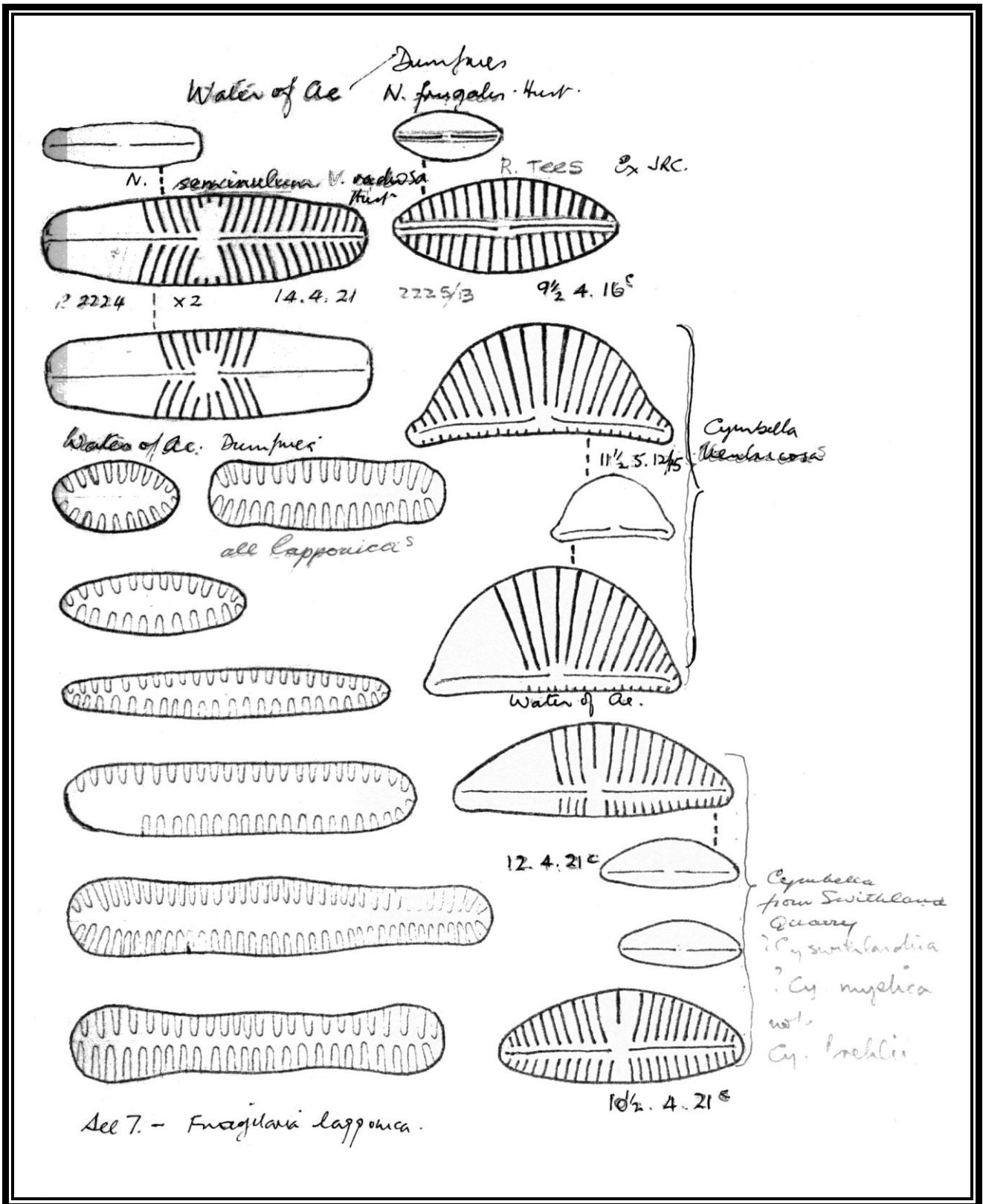


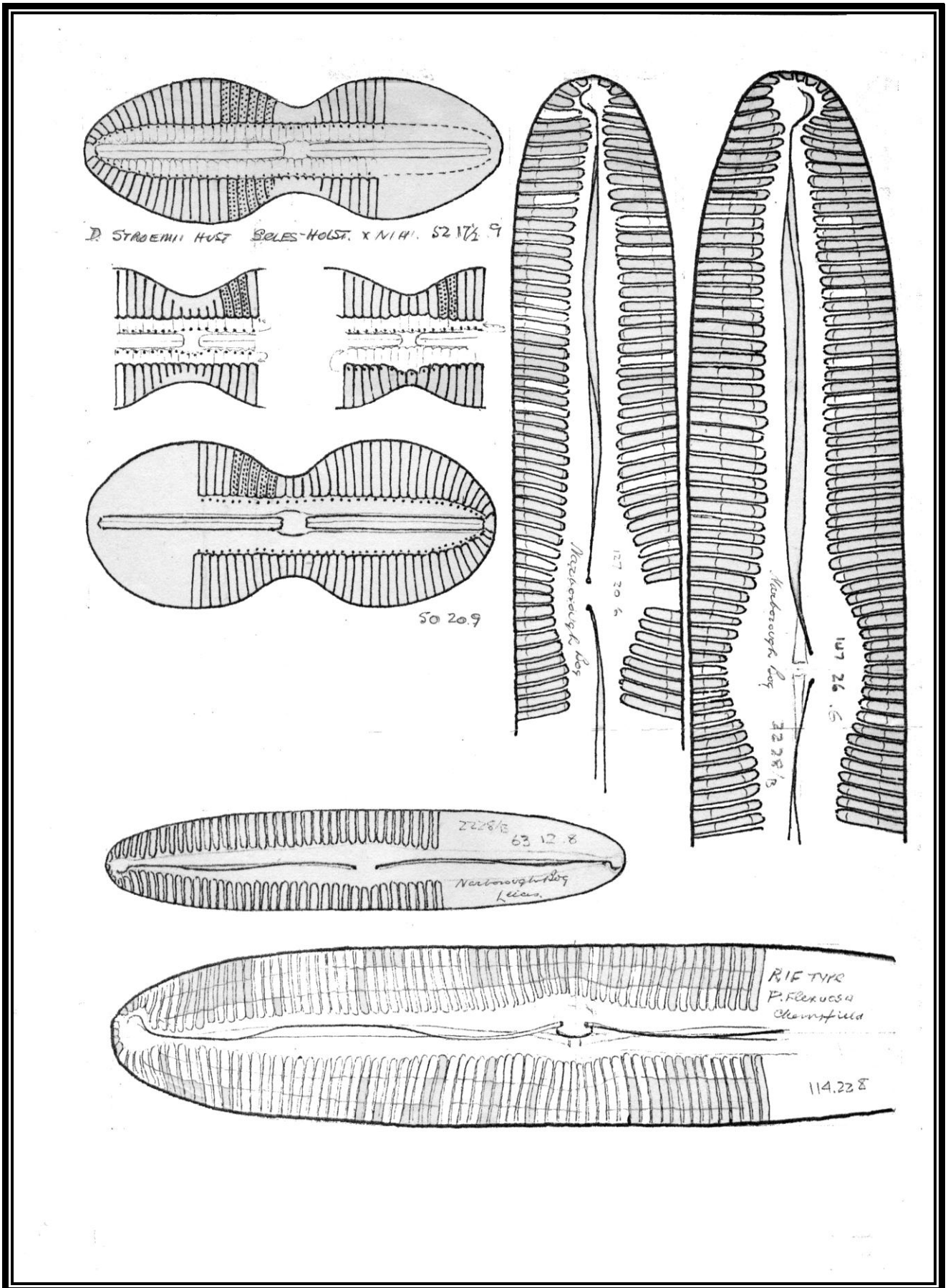
Miscellaneous Plate 296(2)



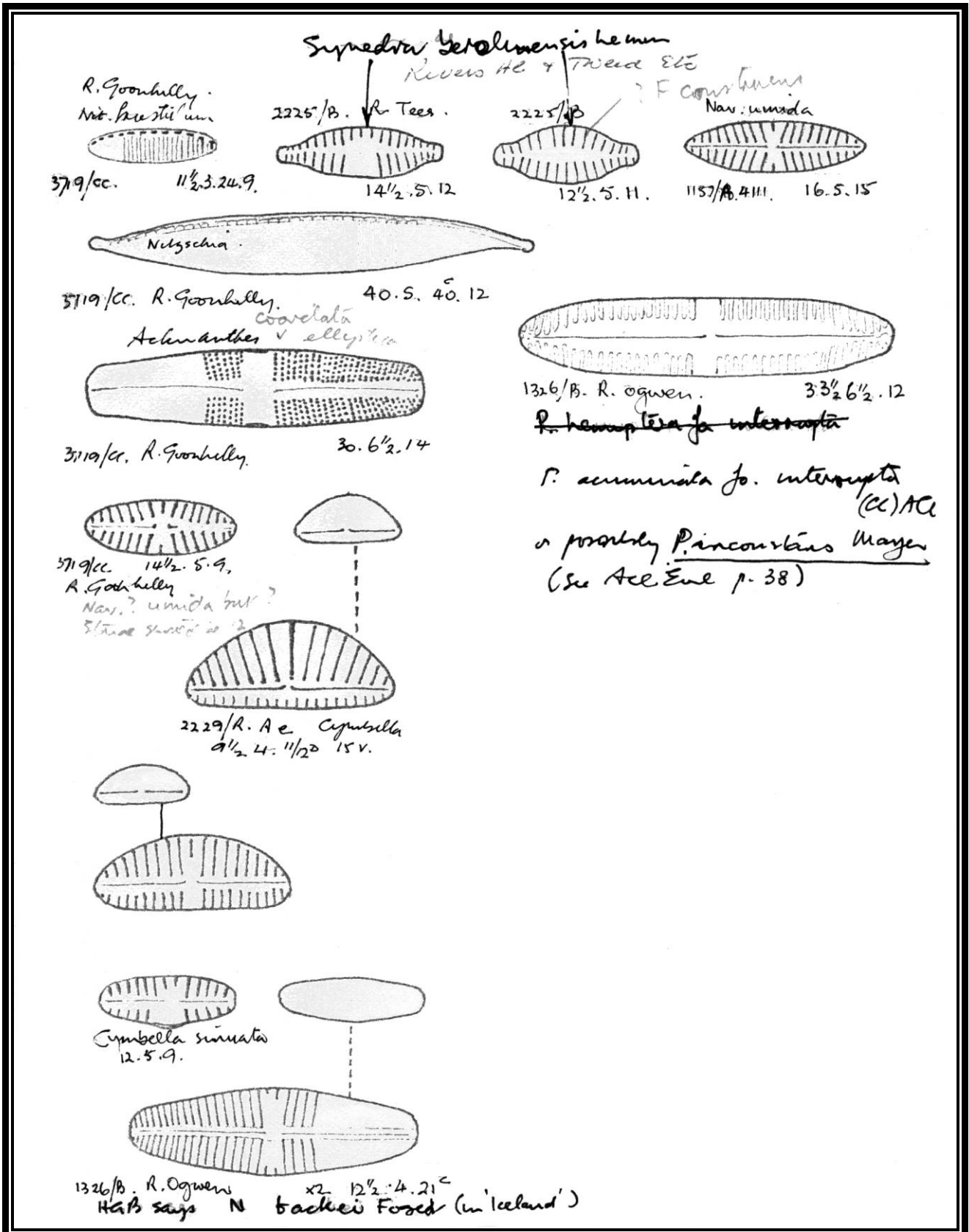


Miscellaneous Plate 297(2)

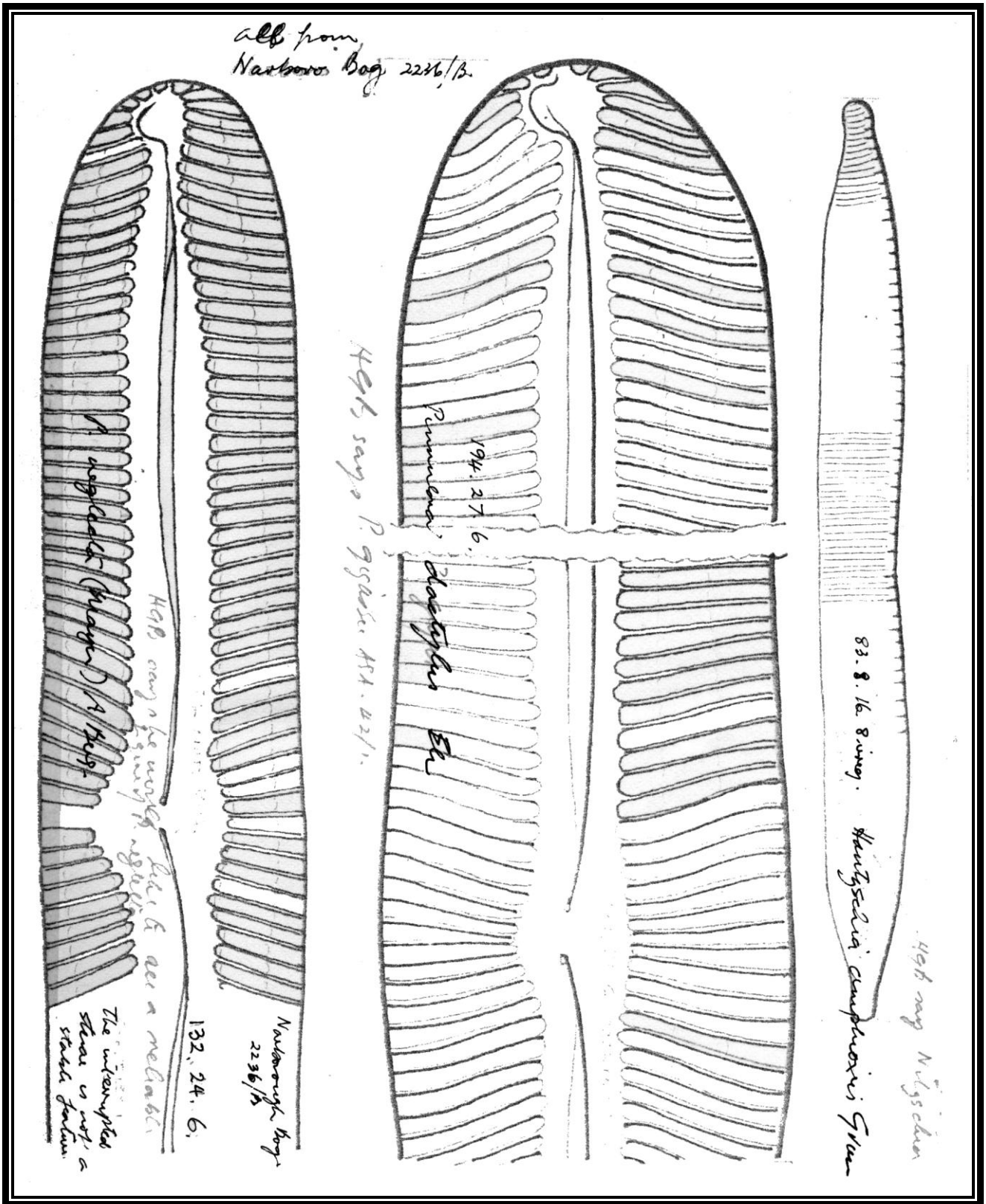




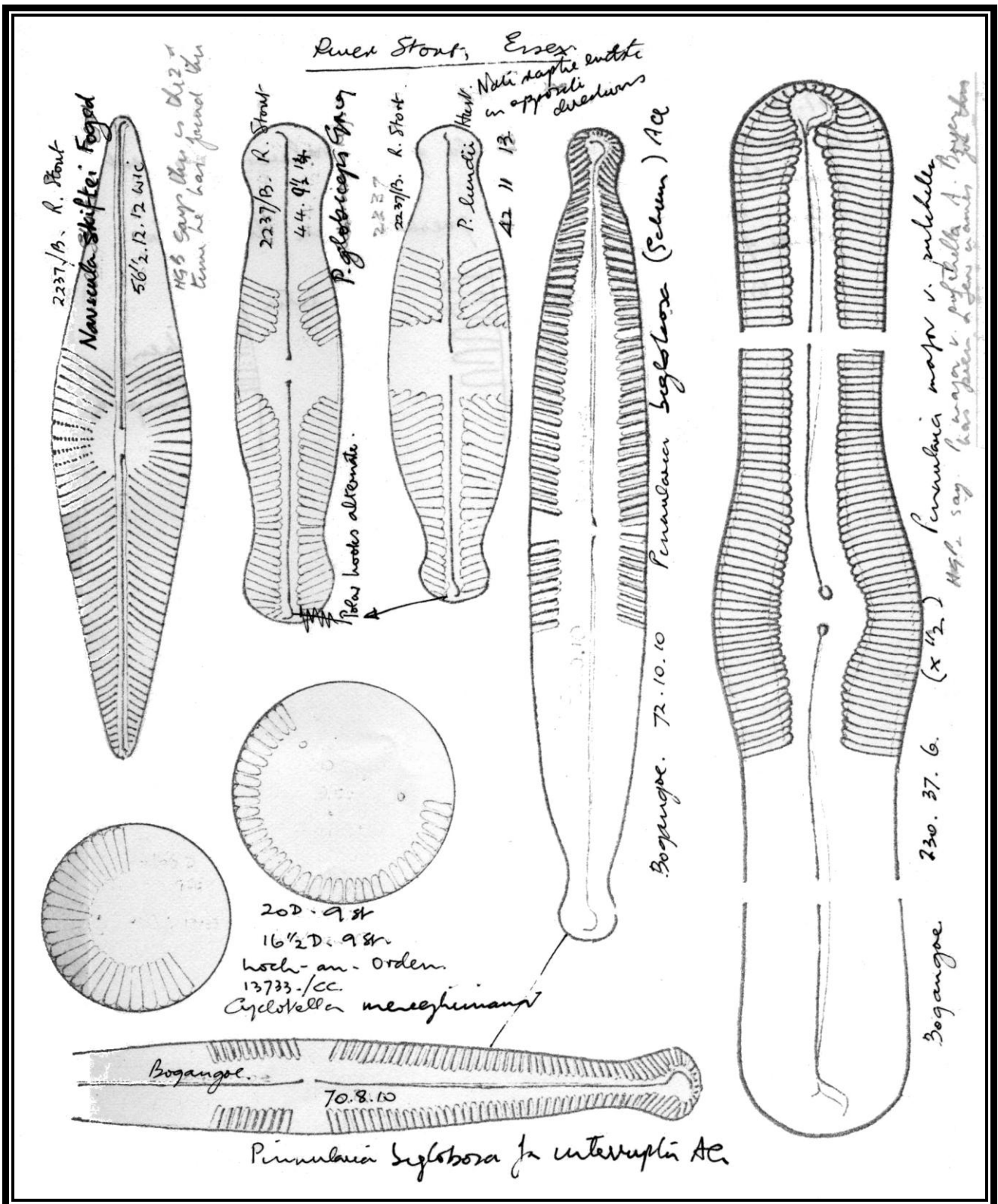
Miscellaneous Plate 299







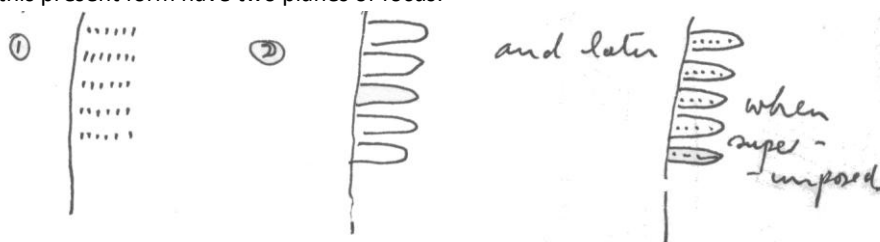
Miscellaneous Plate 301

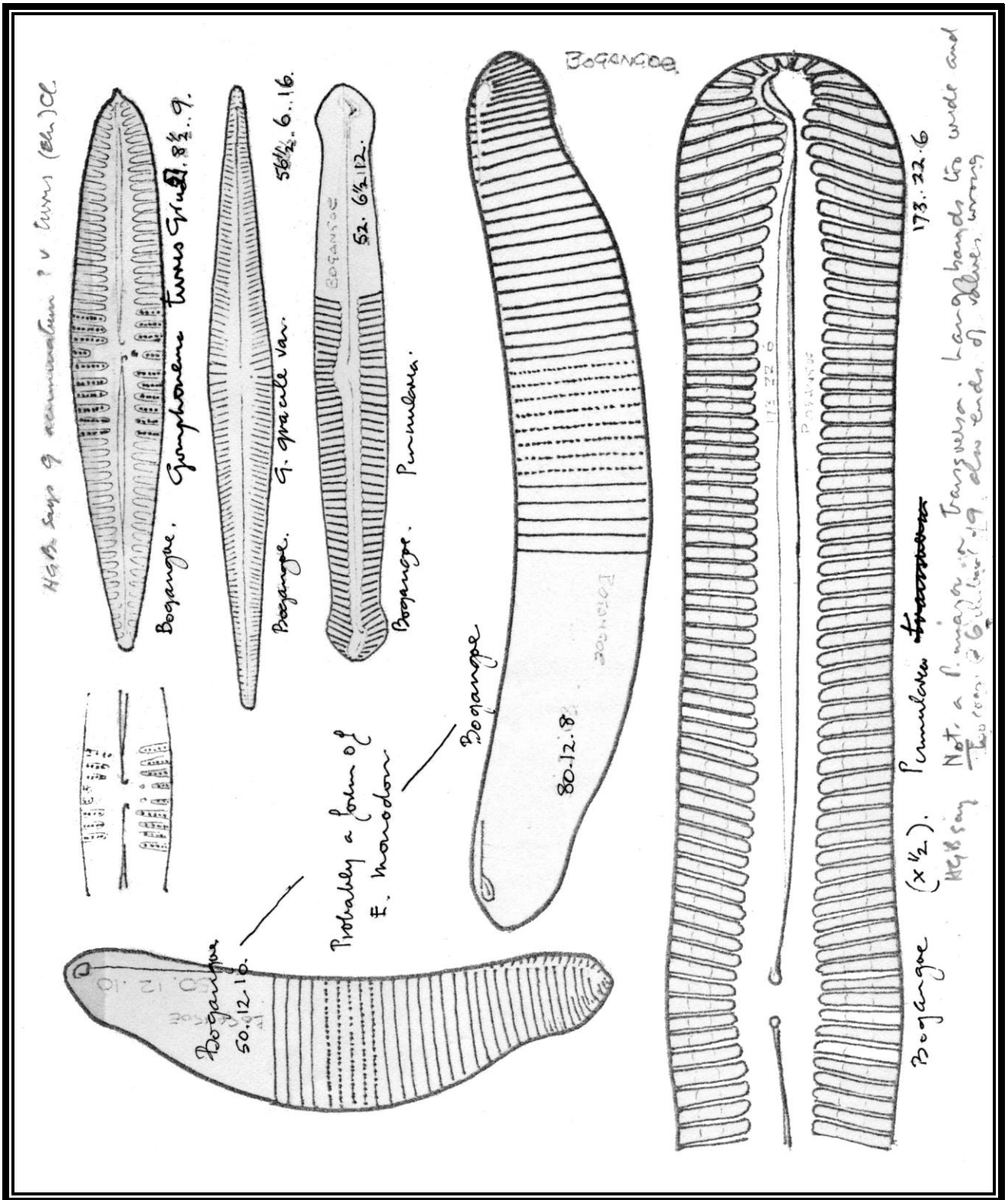


230.37.6 *Pinnularia*.

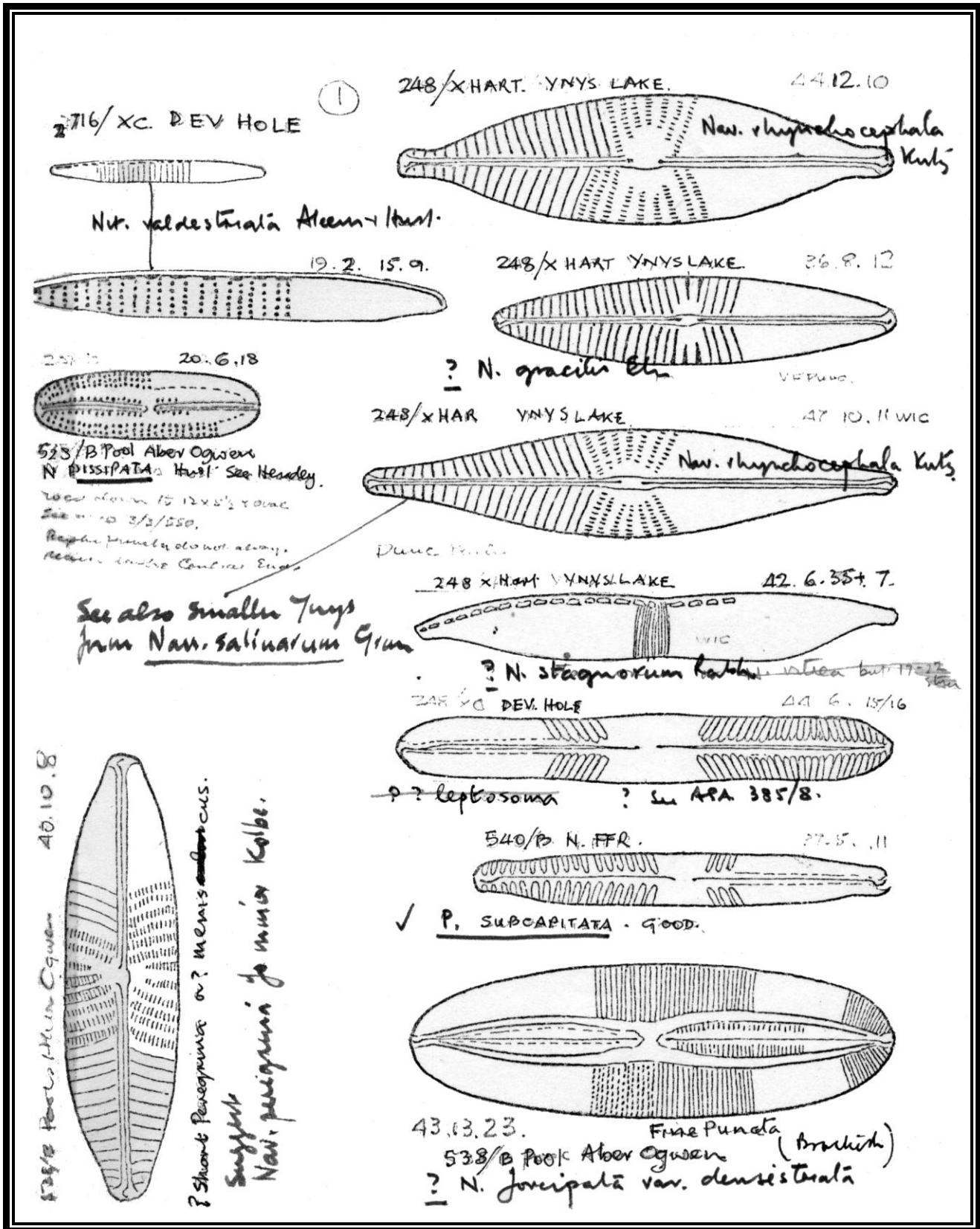
HGB says the langsbands are too wide and the ends of the valves different from *P. transversa*.

Also the striae of this present form have two planes of focus:



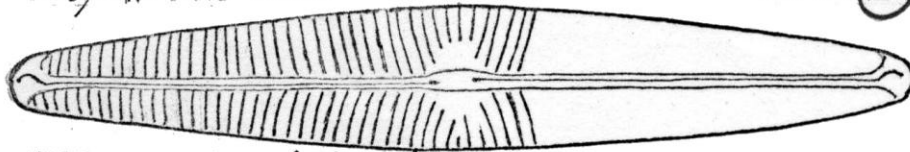


Miscellaneous Plate 303

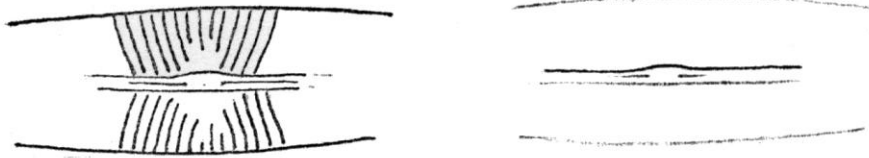


248/xH. YNYS LAKE.

58.10 (12)

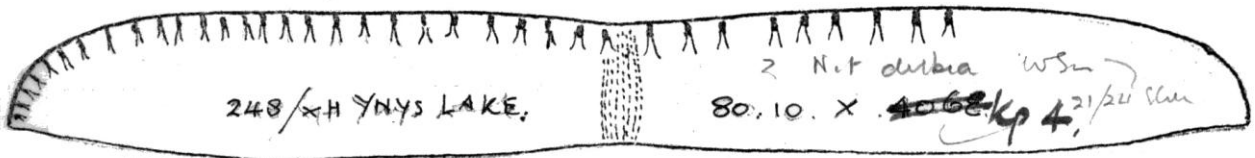
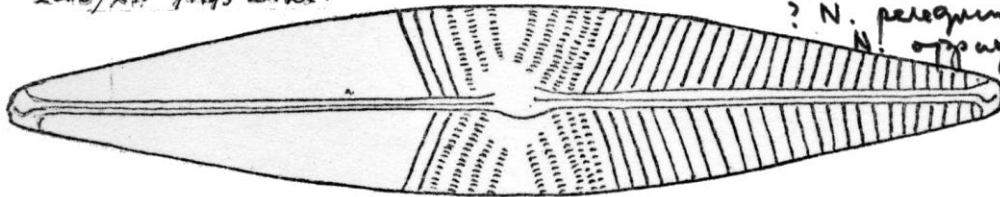


lineations like *Radiosa* fine ? 28 m (10)<sup>m</sup>



248/xH YNYS LAKE.

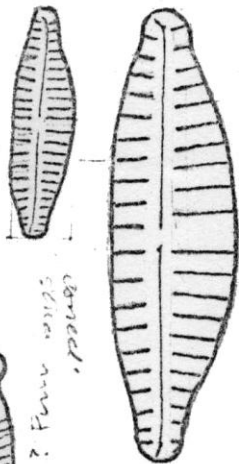
64.129.  
? *N. peregrina* n  
*N. oppugnata*



248/xH YNYS LAKE.

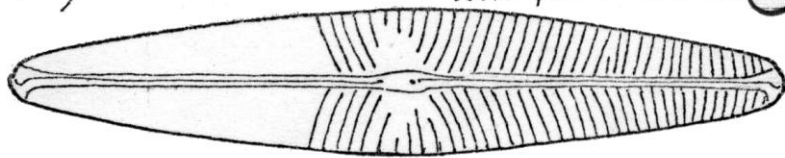
? *Nit dubia* WSm  
80.10. X ~~40~~ 68.4p 4, 21/24 cm

14.44 15/16  
Museum of Natural History  
London E/105



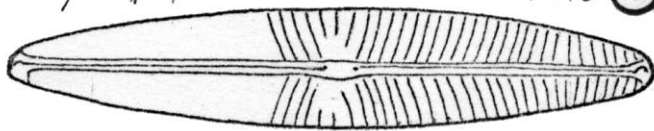
248/xH YNYS LAKE

Line fine 50.9 1/2 (13)



218/xH YNYS LAKE

42.8 (13) WIC



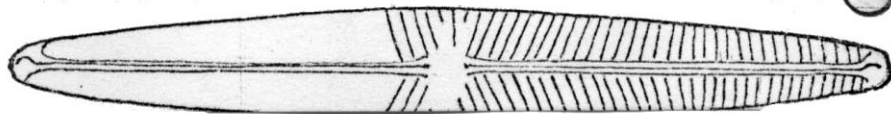
248xHAR 19.5.19



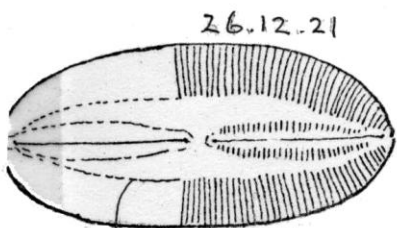
Ynys lake ? *Furc* *sp*  
4 spots

248 xH YNYS LAKE.

57.8 (13) WIC



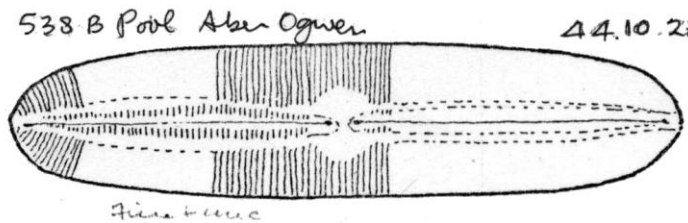
Miscellaneous Plate 305



26.12.21

No. lines

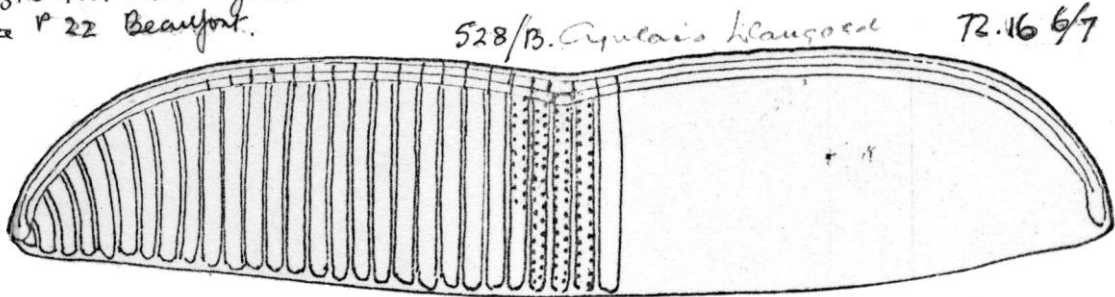
538/B Pool Aber Ogwen  
See P 22 Beaufort.



538 B Pool Aber Ogwen

44.10.23

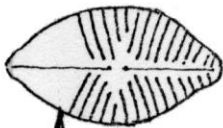
fine lines



528/B. *Cyrtaxis* Langsd.

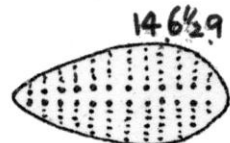
72.16 6/7

SCOLIOTROPIS SEPTENTRIONALIS A. CL. EU.



See 20 Con.  
to x2

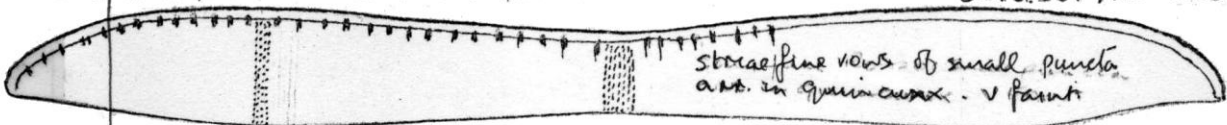
528/B *Cyrtaxis* Bean Langsd.



146 1/2 9

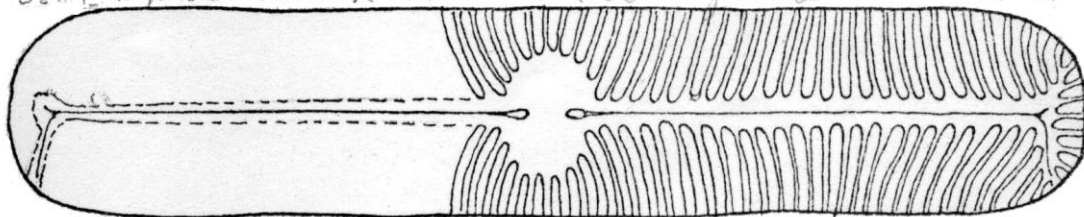
*Cyrtaxis* Langsd.  
22/17 B

80.8.30? TMS lineae

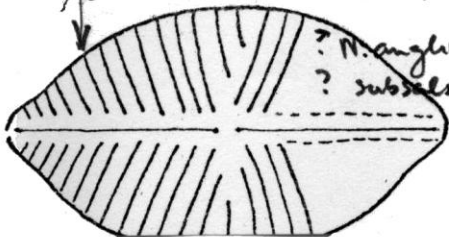


Striae fine rows of small puncta  
arr. in quincunx. v faint

528/B *Cyrtaxis* Bean Langsd. & *reclavata* 70.14.9.



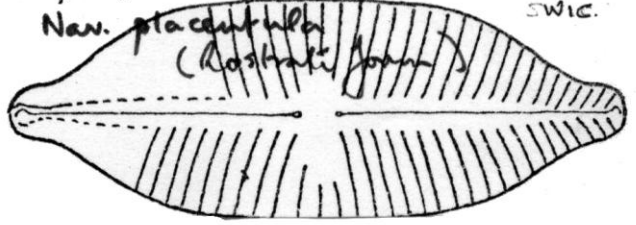
510/B *Elan* Langsd. 15.8.12 Swic



? *N. anglica*  
? *subulsa*.

510/B. *Glen* Langsd

40.15.9  
SWIC.



Nav. *ptacutula*  
(*Rostkii* form)

4

36. 8.

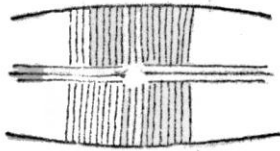


562/B N. Warr.

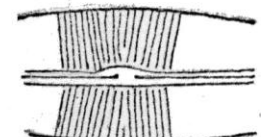
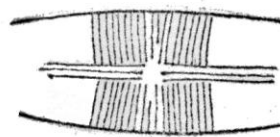
? Nav. halophila.



-do-



-do-



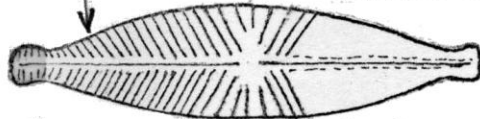
-do-



1136/B

16 4. 20+ CAE

Not so heavy in central striae + ? punctate. GUMFRIESTON WELLS



Ends questionable for stria direction.

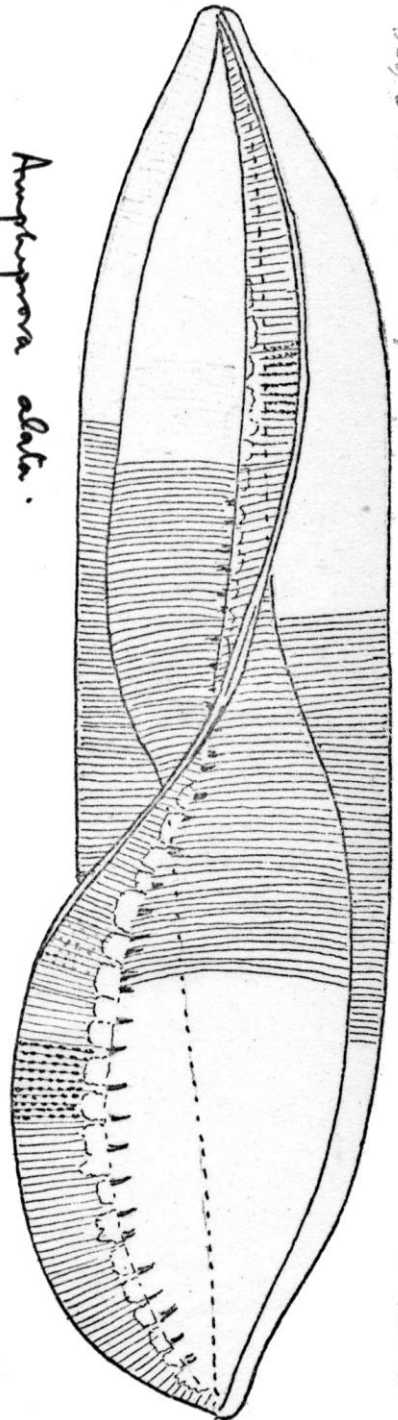


1606/B. 4/5 DIA

C. glomerata Bach



Amphipora alata.

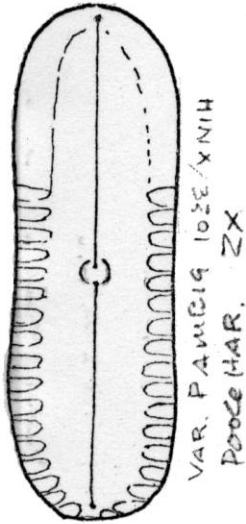


538/B Prosa Nam Ogawa

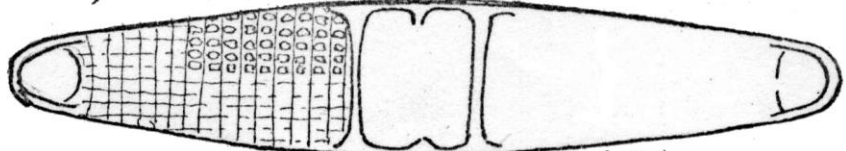
95. 25. 15

Miscellaneous Plate 307

5. 1038/XN114 Poole HAR SA. 10.9

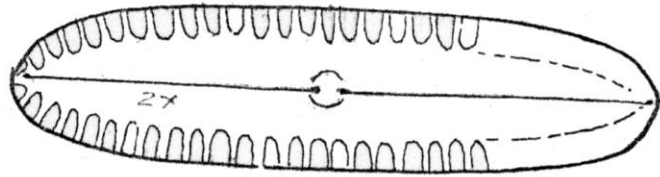


VAR. PAMBIG 102E/XN114  
POOLE HAR. 2X

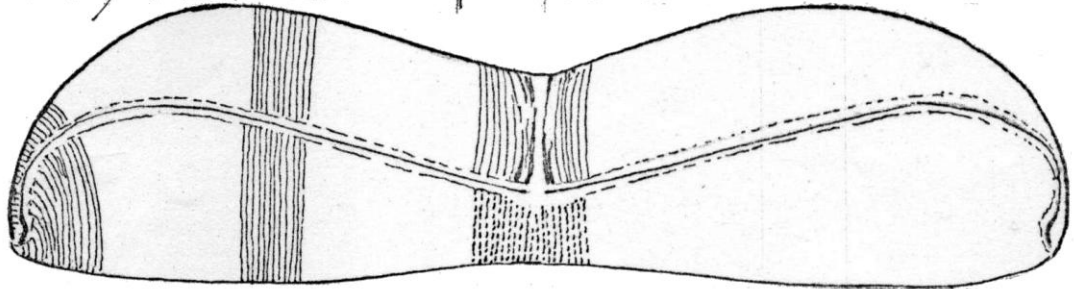


*Plagiosamma stauophora* (Greg) Heib.  
but see also ASA 209/66 *P. correlatum* Grav. 20 1/2 6 1/2 12

1038/XN114 Poole

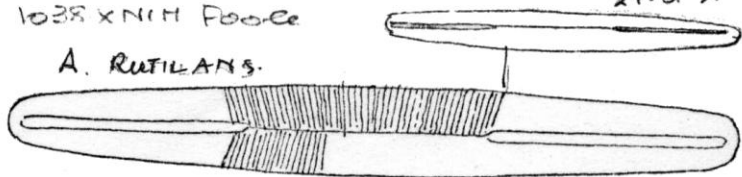


1038/XN114 POOLE HAR *fine punctata* 67. 18. 25?

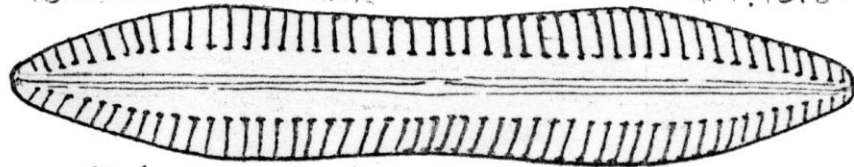


1038 XN114 Poole  
*A. RUTILANS.*

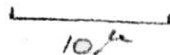
24.3 X



1038/XN114 POOLE HAR SA. 10.8

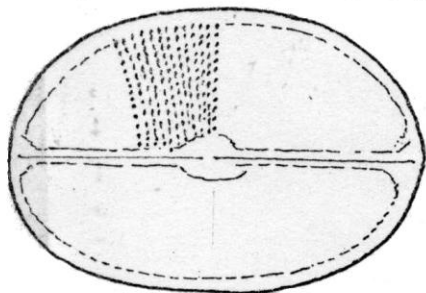


*P. AMBIGUA.* ✓

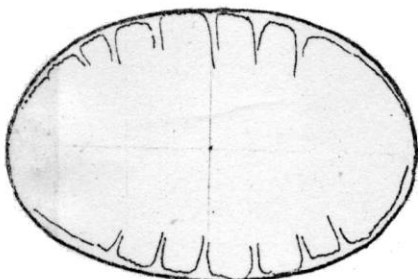
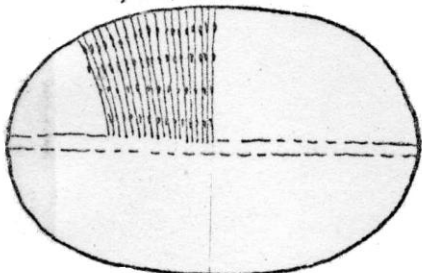




770/B BURNFOOT ALE - SECT.



27.18.18.

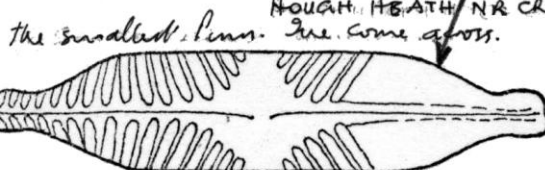


6

1278/B. 184-15



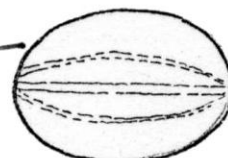
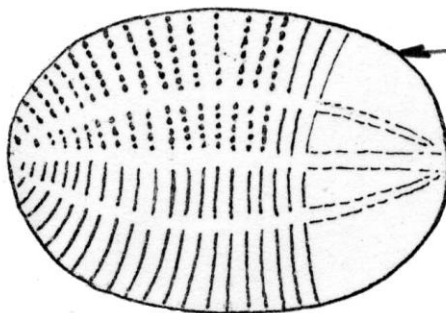
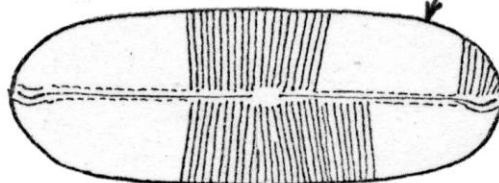
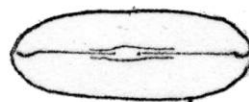
HOUGH, HEATH & CREWE  
are come across.



? *Porellaria minutissima*...  
2 spots

16.6.34.

13063/XC LTAY.

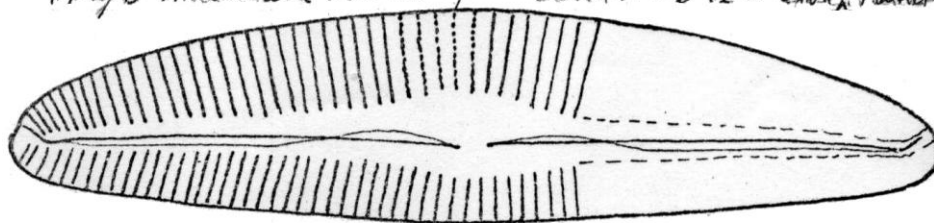


1038/X Hendey  
Porellaria  
14.10.14

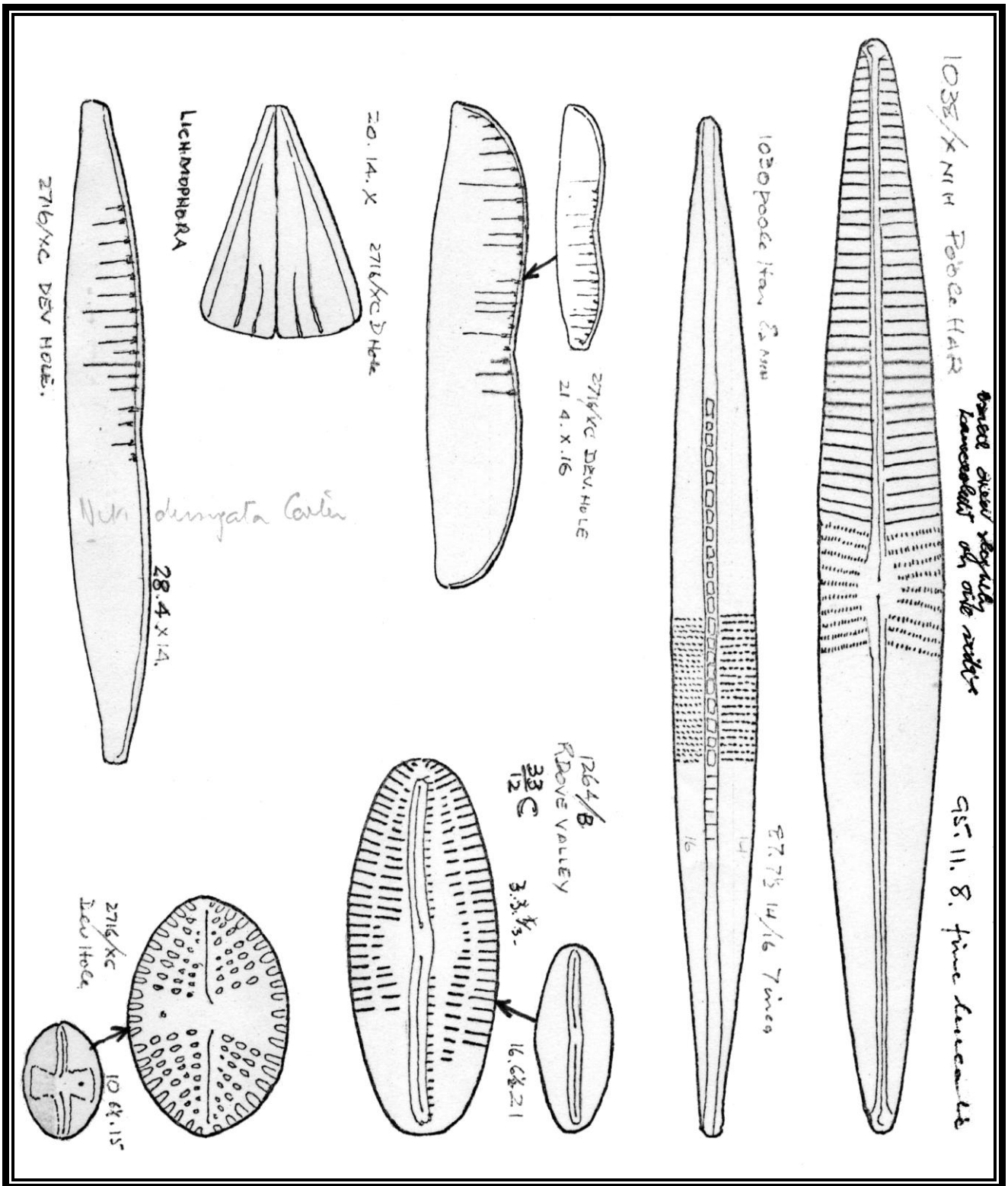
Near *C. flammivensis*

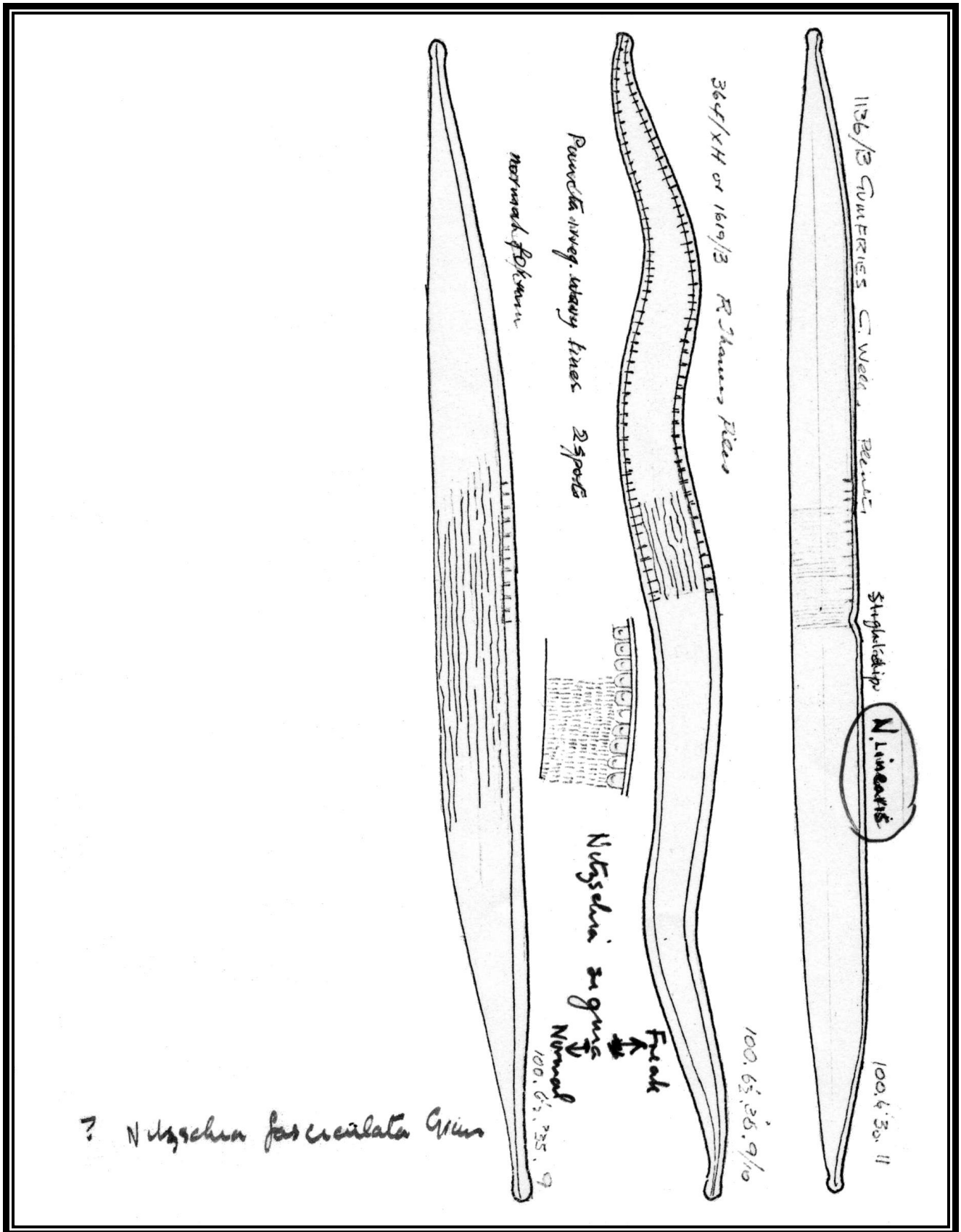
7744/B Anachisum Red. Pump 60.14.10 D 12 V. Div. A. P. and  
close

?  
*C. australis*  
sup. H.G.B.



Miscellaneous Plate 309

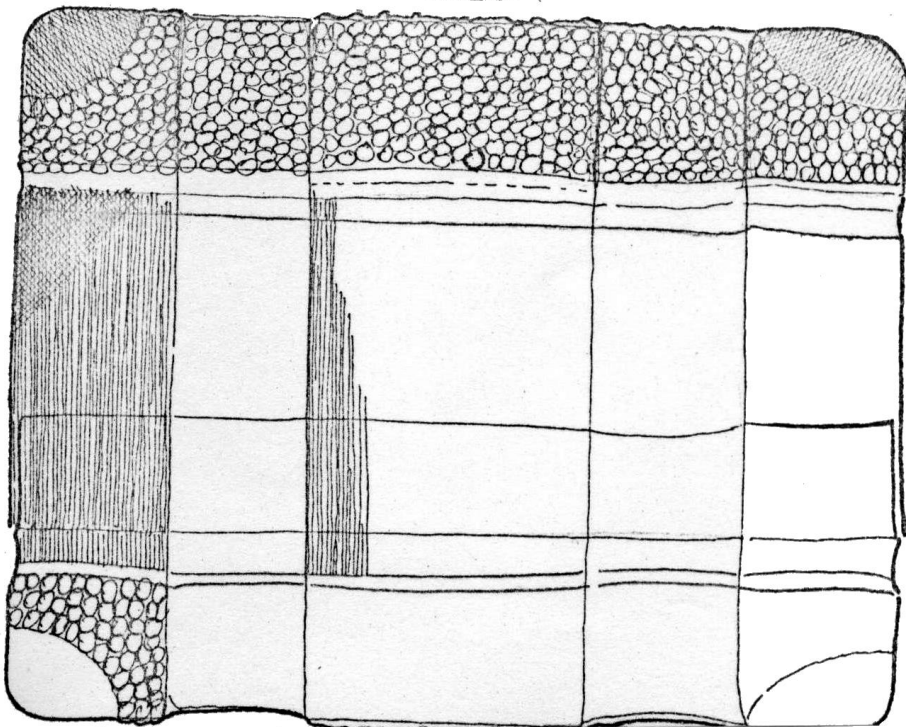
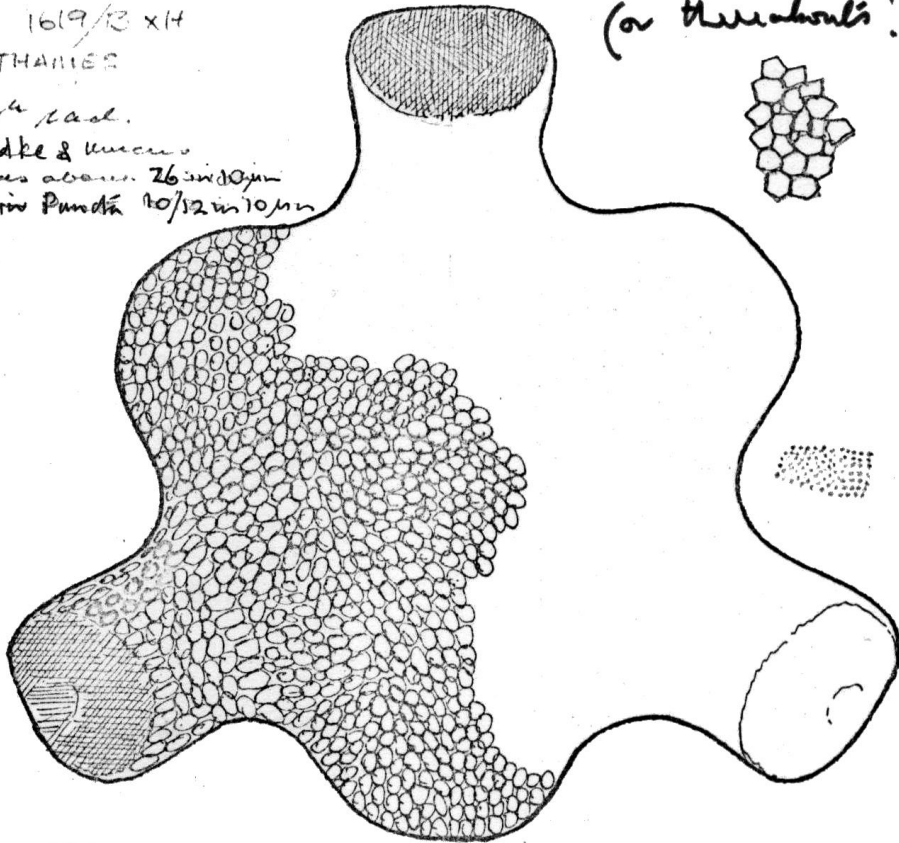




Miscellaneous Plate 311

*Hyalosira triquetra* Walcott  
(or *threaboulis*?)

1619/B x14  
R THAMES  
30/4 1921  
Girdle & Urcus  
Pass above 26 in 10 μm  
Marin Punta 10/12 in 10 μm

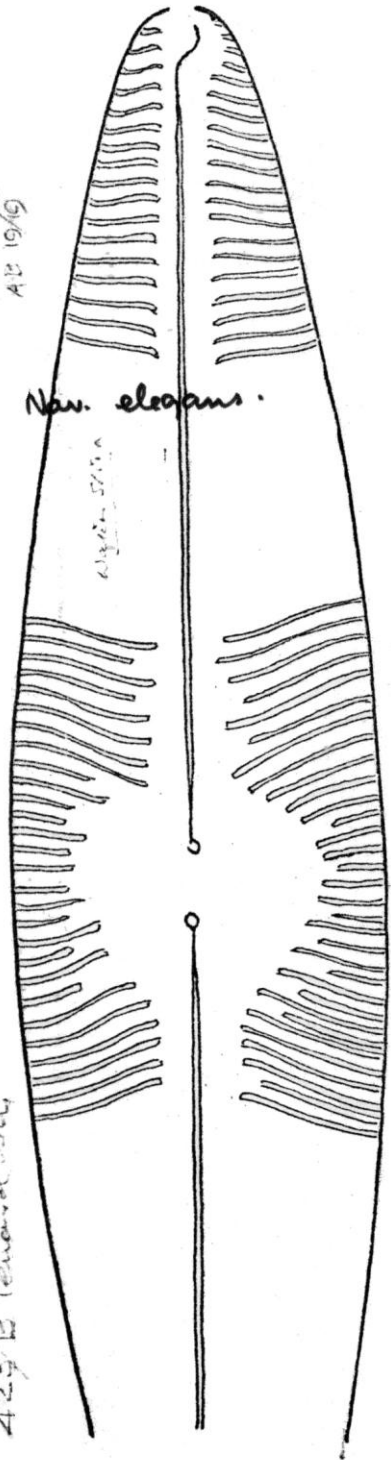


April 1972 H.G.B.

120.20.69.  
AB 19/9

*Nav. elegans.*

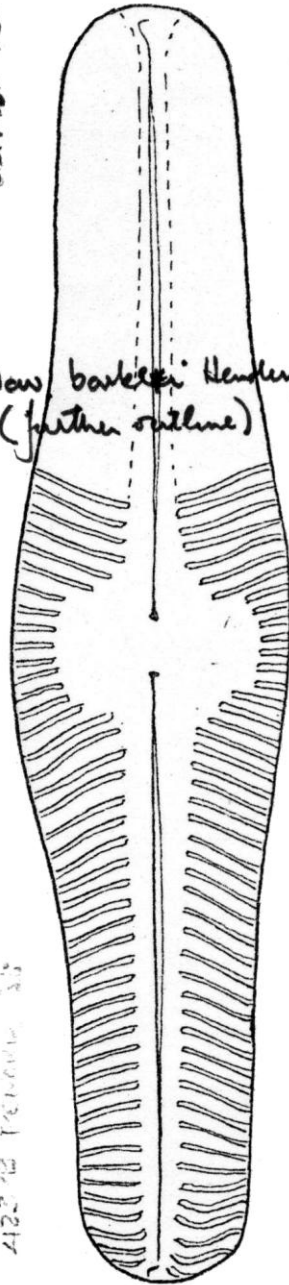
423/B *Penaeoecetes*



80.19.8.

*Nav. barlettii* Hendley  
(further outline)

422/B *Penaeoecetes*



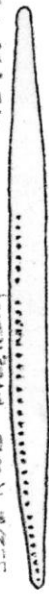
80.4 x 4 inc

522/B RW12

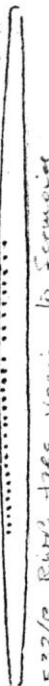
F 15/50

522/B RW13 Fragment

40.26.20.13



47.2.20.11



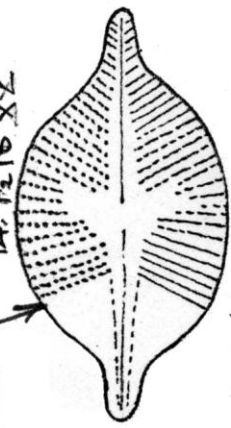
50.26.20.12



522/B RW13 frequent

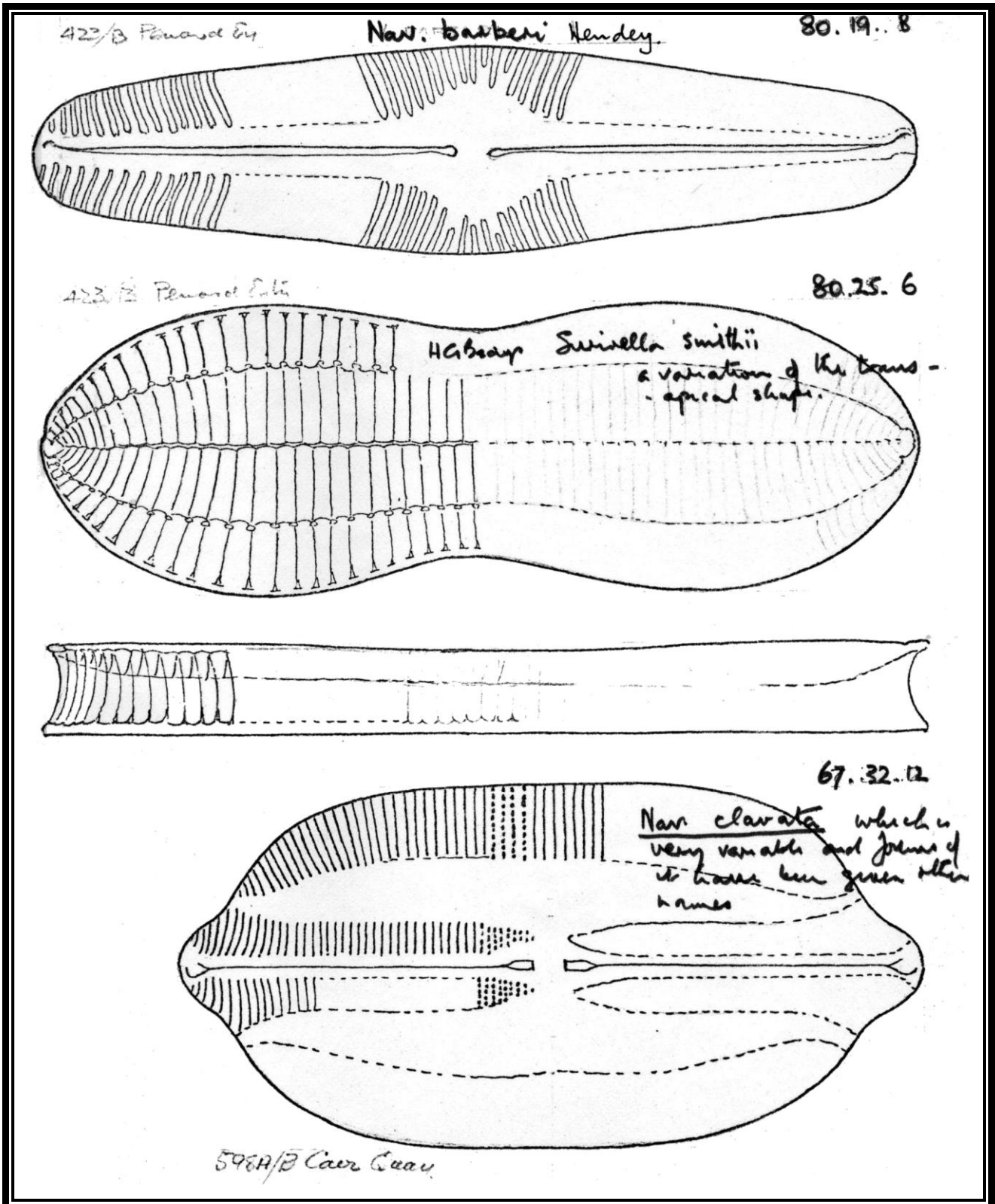
HGB kindly via  
*Navicula*

14.7.16.82

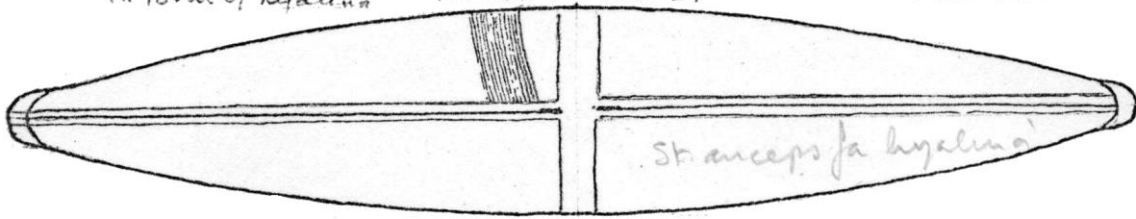


14.04/12 New Ferry, Mar 7

Miscellaneous Plate 312a

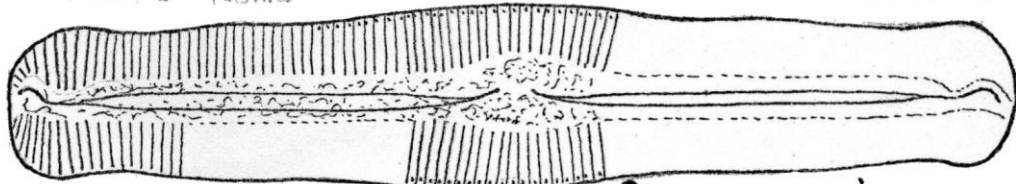


N. form of *hyalina* Toomey 1621/B. 76.14.30



*Stanceps ja hyalina*

1621/B Toomey 68.12.12

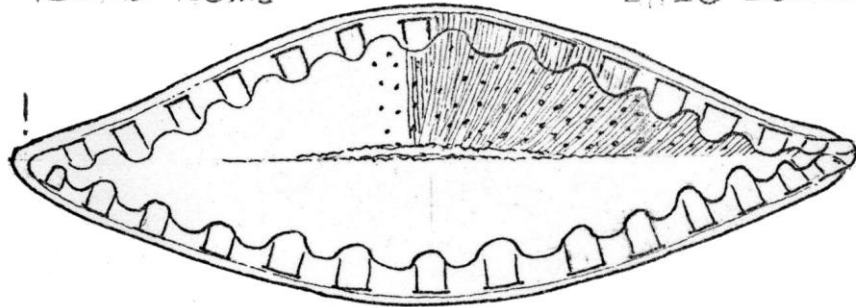


Note HGB. illustration of shape which is correct for this specimen. 1621/B Toomey

*P. acrospora*

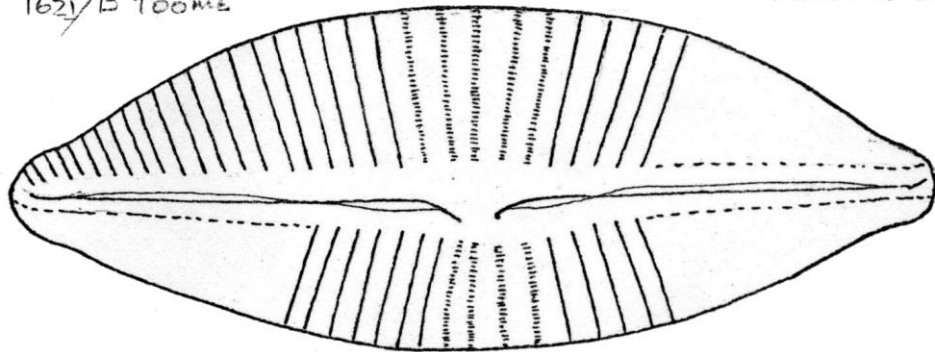
57.20 20-100

HGB says *Sennella turgeda*!



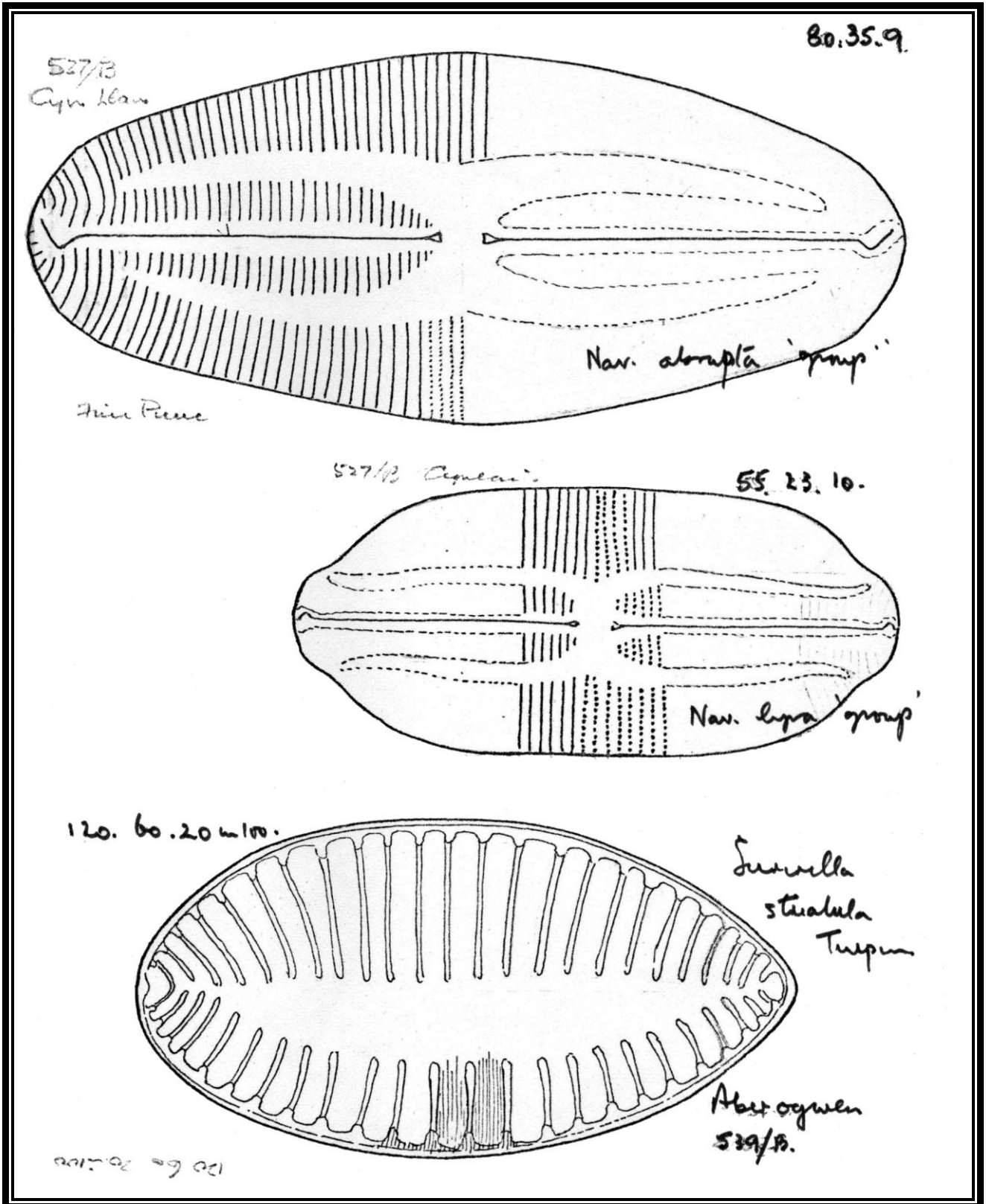
1621/B Toomey

61.23. 62 WIC CAE



*Cymbella schenbergyi*

Miscellaneous Plate 314





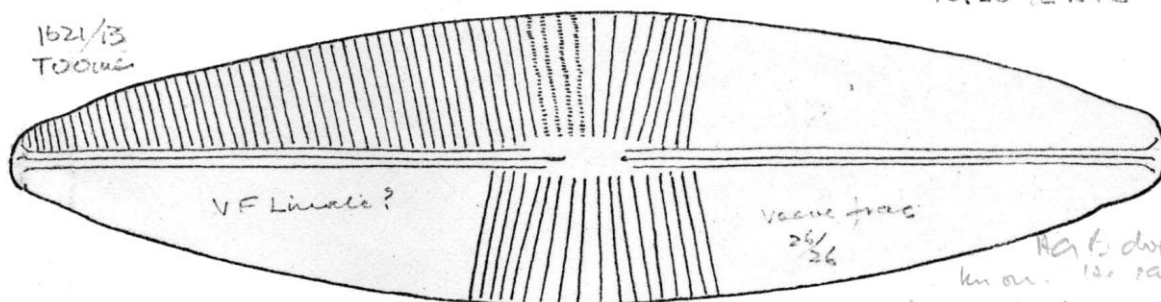
1621/B Toome Pt

bet. 7. 8/9



? *My longiceps* Parson  
*Gomphonema*  
HEB says of *intertextum*  
78. 20. 12 WIC

1621/B  
Toome

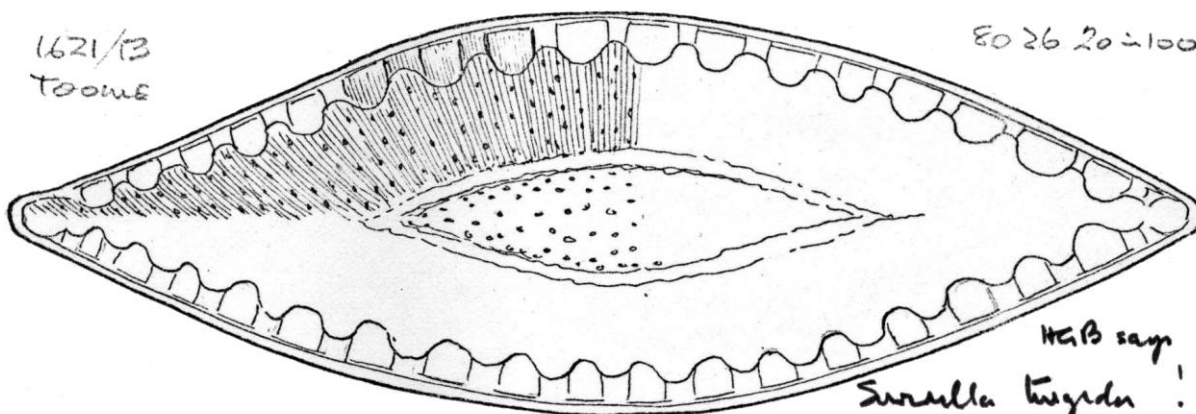


VF *Lineale*?

vacuole fracs  
26/26

HEB does not  
know. 120 rays J of  
is not *Orthostichia*

1621/B  
Toome

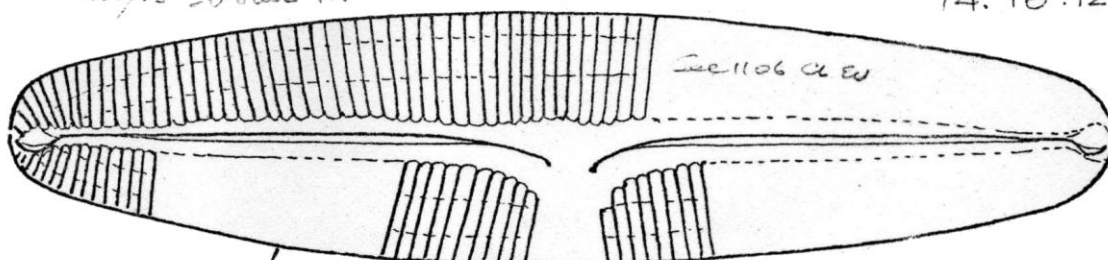


80 26 20-100

HEB says  
*Siraella longica*!

1621/B Toome Pt

74. 16. 12



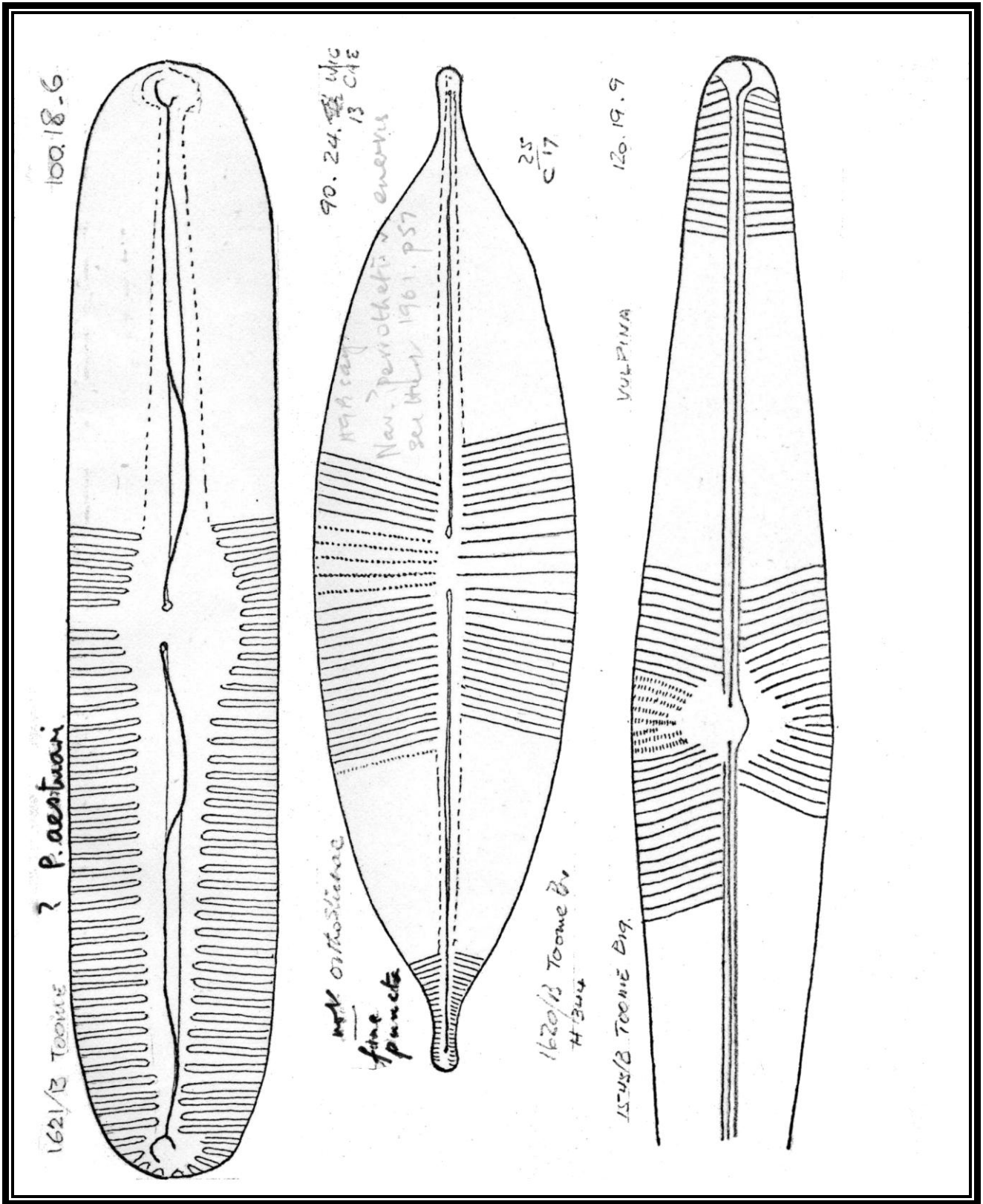
See 1106 A.E.

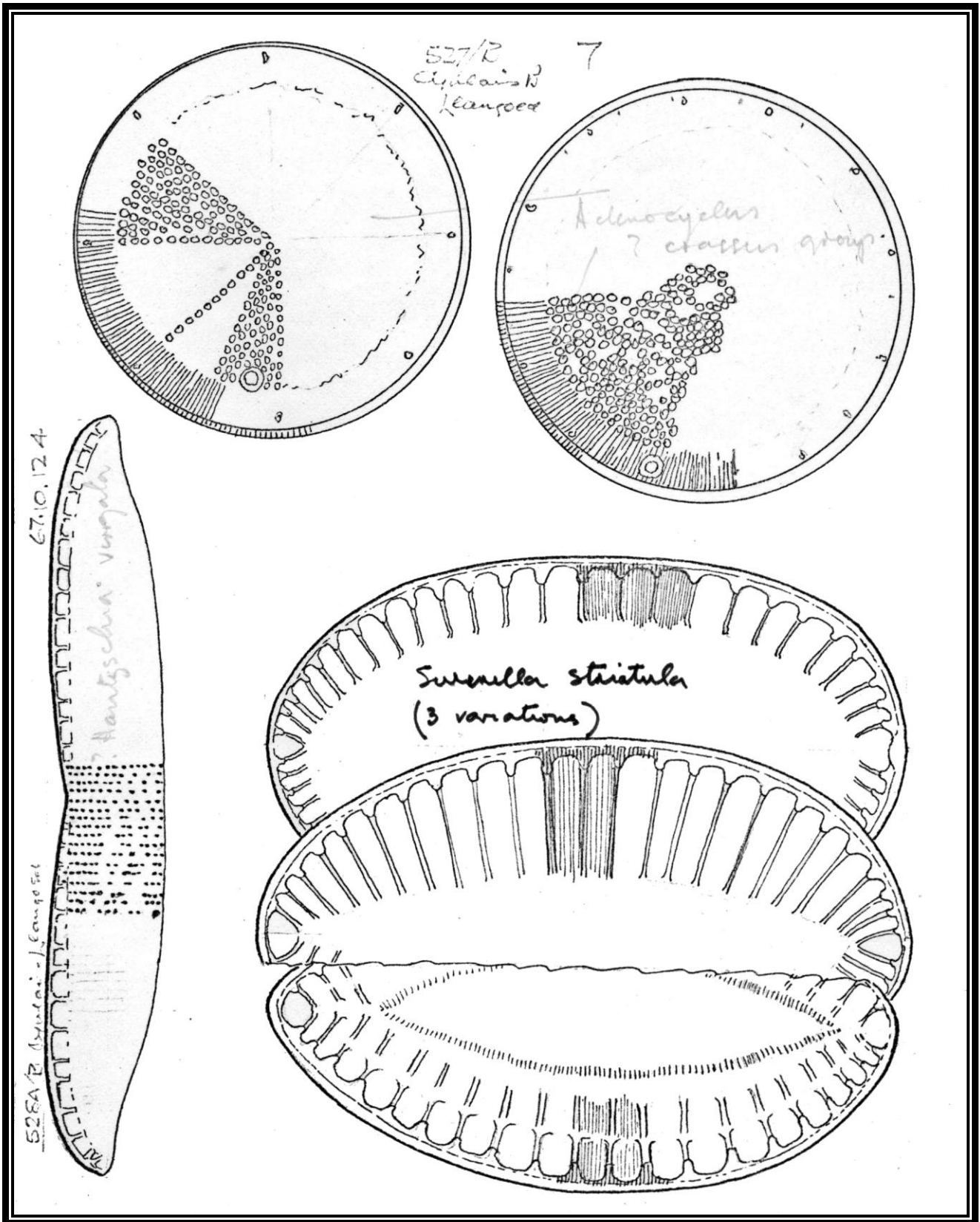
See A.C. Ehl 1106 which has been named *P. ? semiaperta*  
but is then a valid sp.

*Pinnularia semicostata* (A.S.) Ace

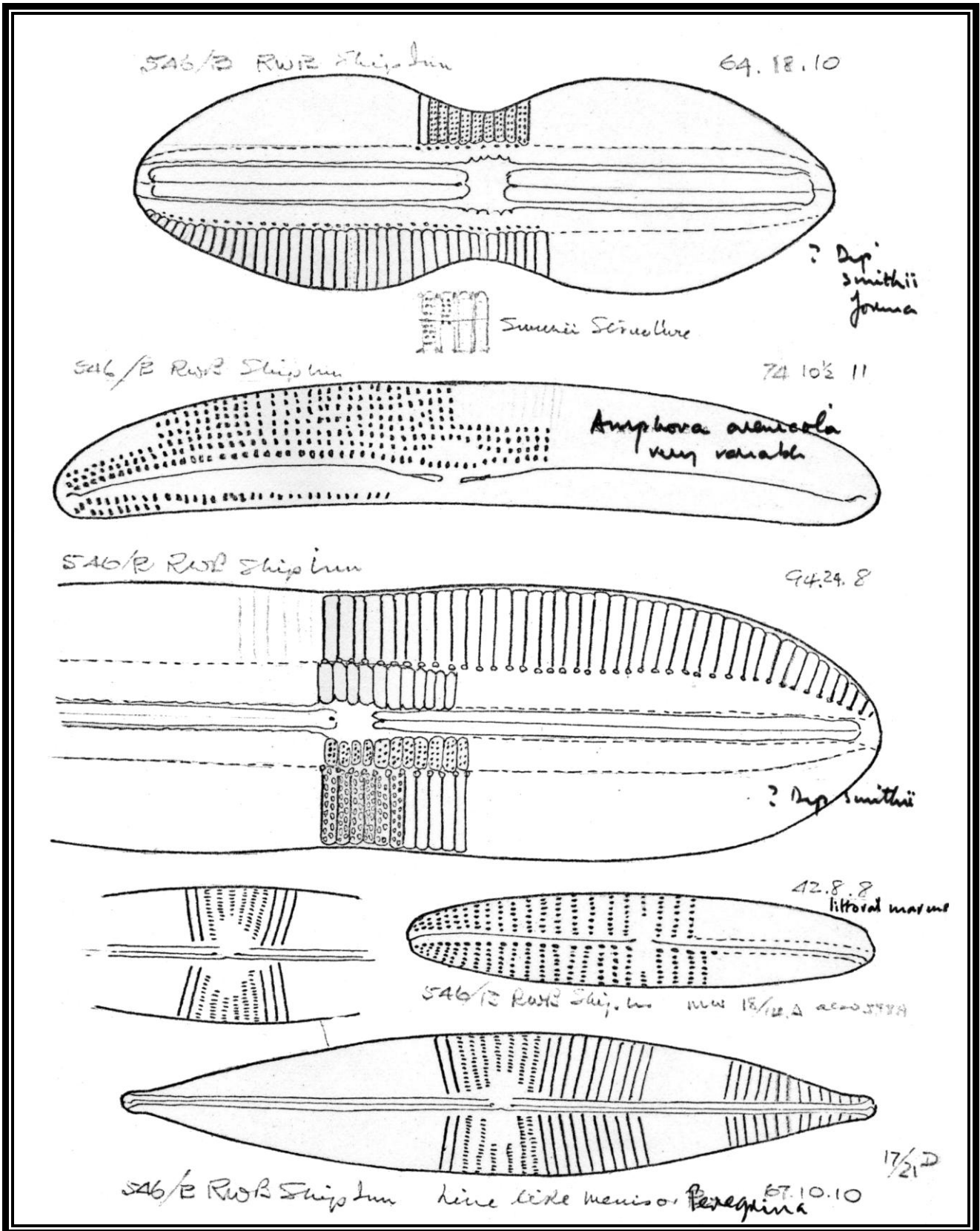


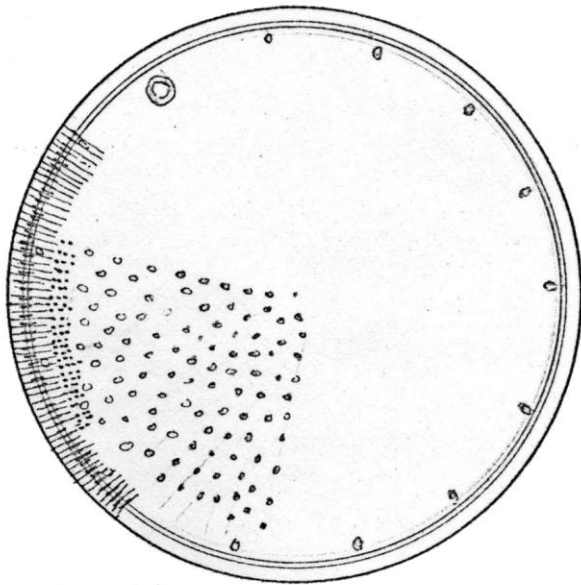
Miscellaneous Plate 316



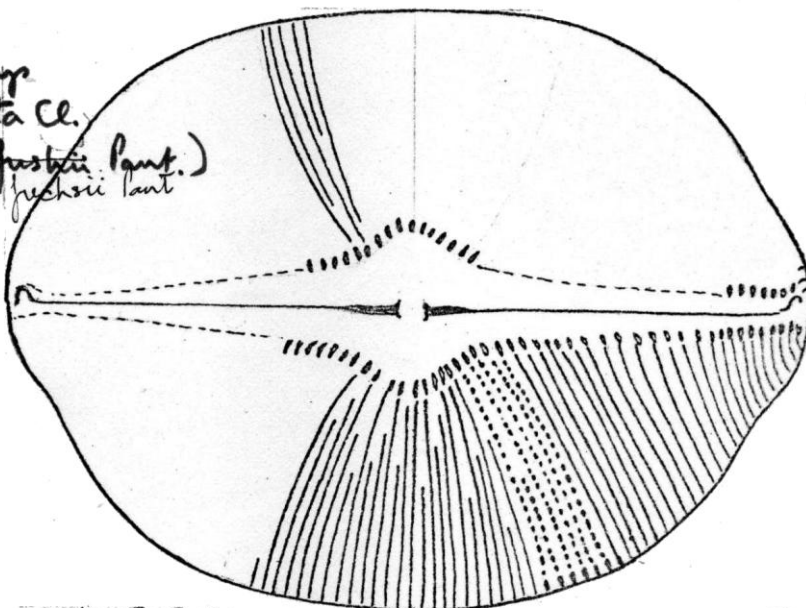


Miscellaneous Plate 318



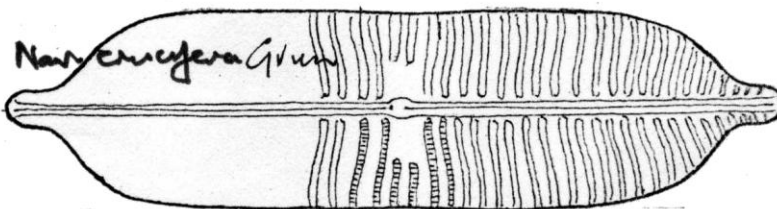


HGB says  
Nav. eta Cl.  
= (N. justii Pant.)  
justii Pant



546/B RWB S. Inn.

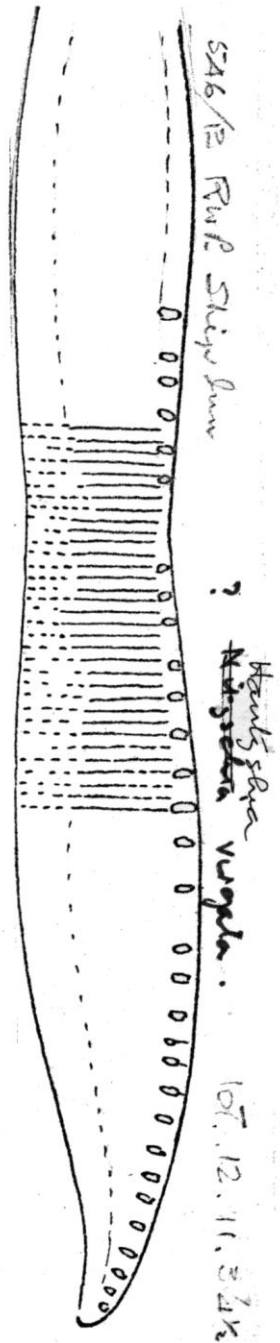
57.40. E



546/B RWB S. Inn

52.14. E

~~Nav. eta Cl. = (N. justii Pant.) var. hab.~~



546/B RWB S. Inn

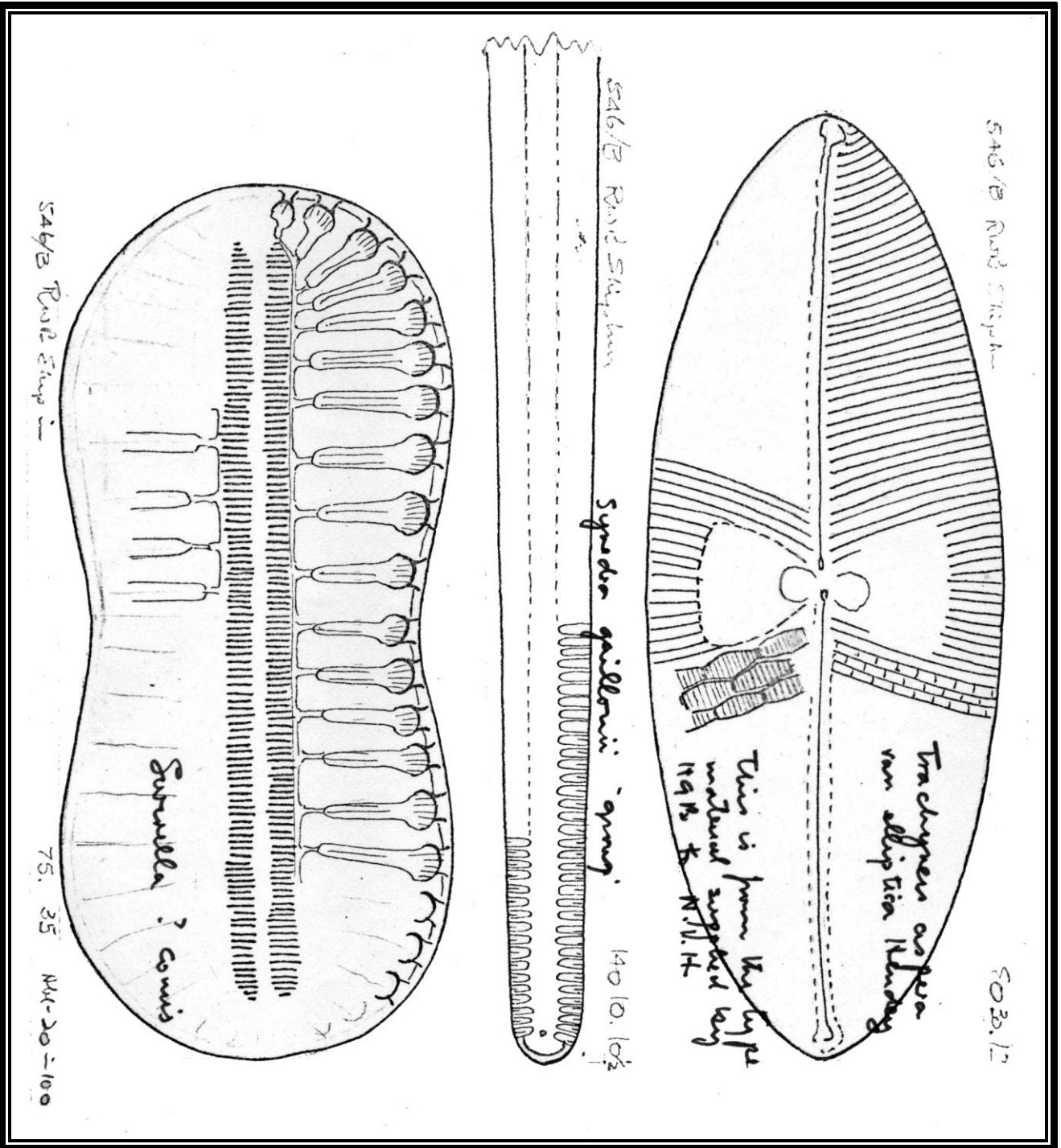
?

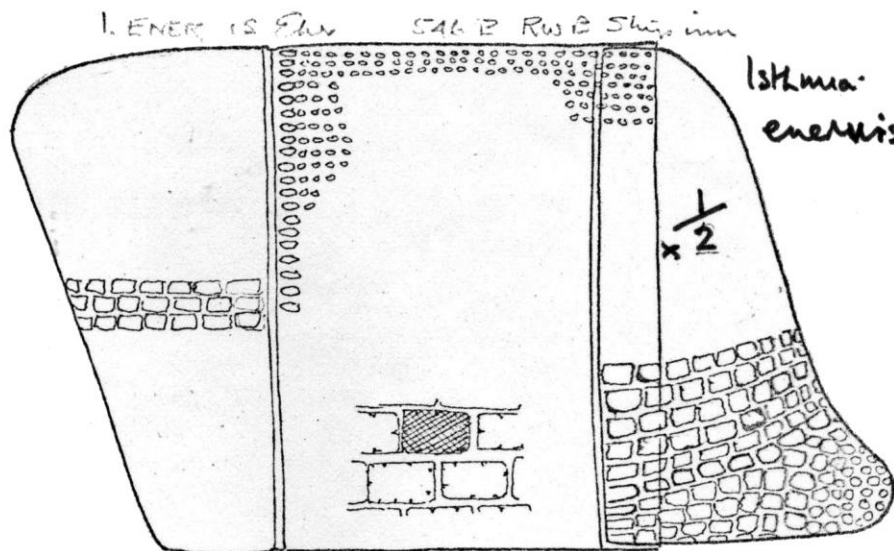
HGB says  
Nav. eta Cl.

var. hab.

107.12.11. 24%

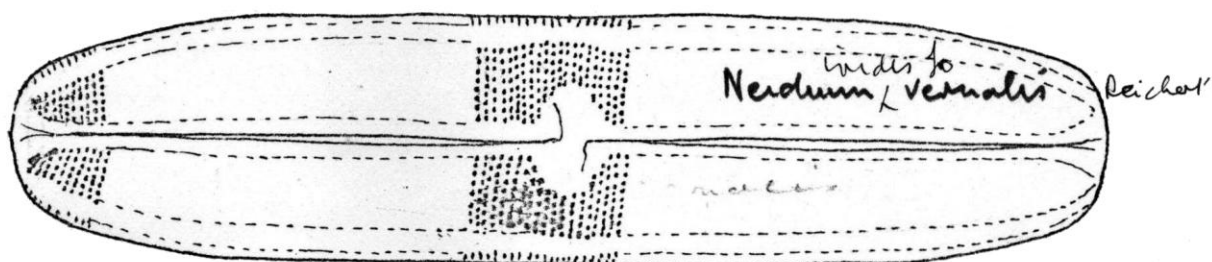
Miscellaneous Plate 320





2 rods from 1  
Amphora veneta.

562/B N.W. 20.4 x 24 CAE

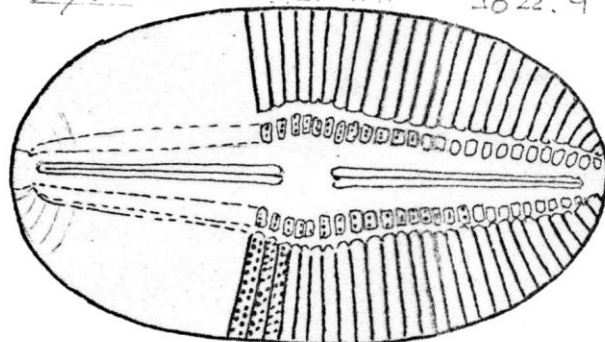


562/B N.W.

75. , 16

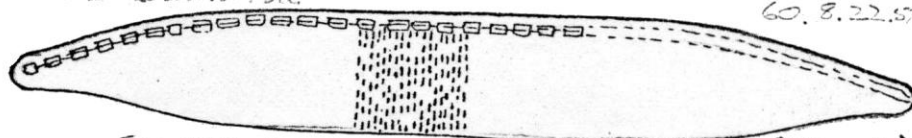
562/B N.W. DENITHII

10 22. 9



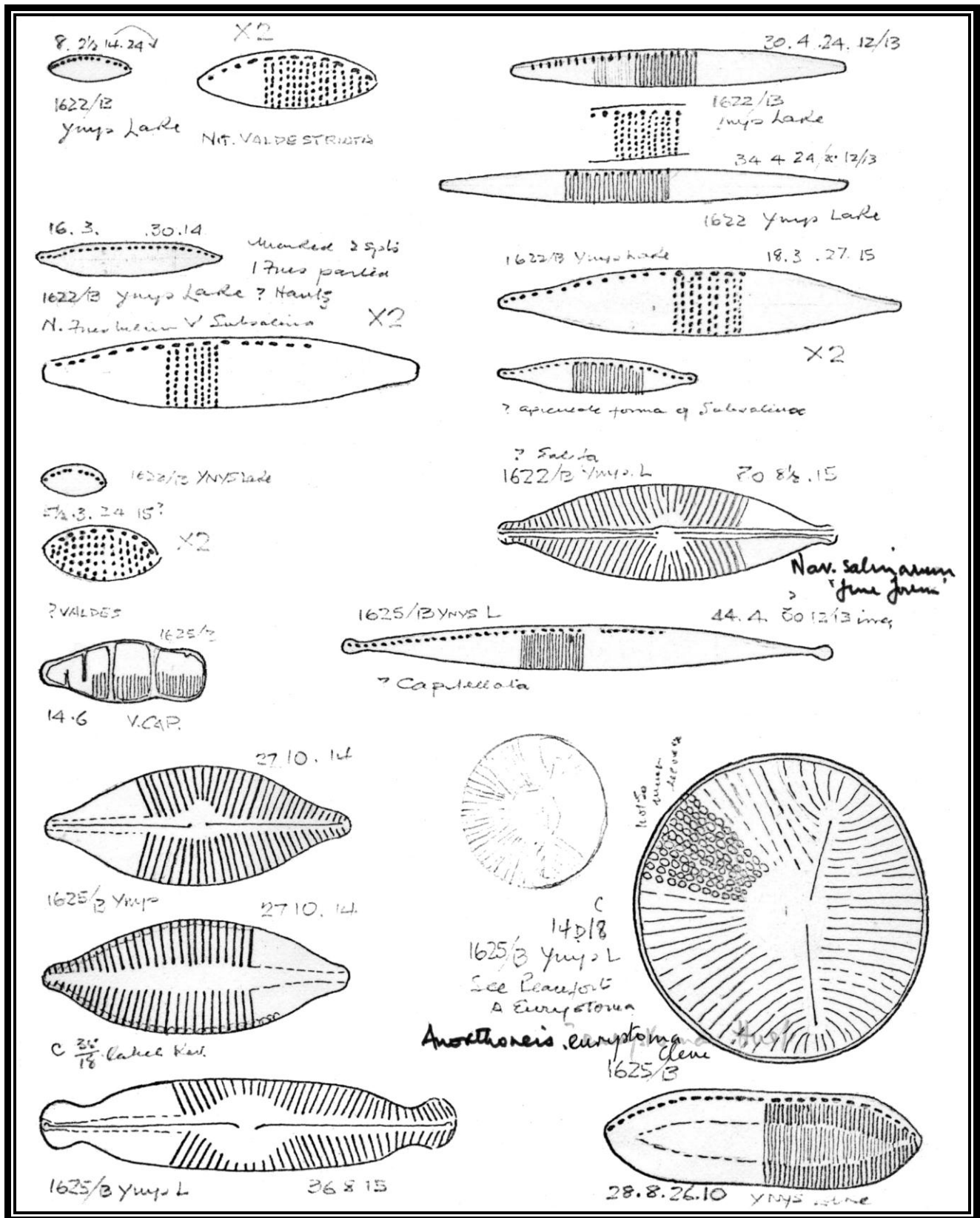
423/B Deuand Foli

60. 8. 22. 5/6



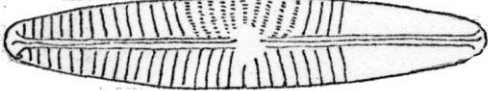
See M7a form - the same sp.  
This is only as far as much lighter can be seen. ? Nitzychia vitrea.

Miscellaneous Plate 322





1338/13 *Neobornia* *flavescens* 33.6.13

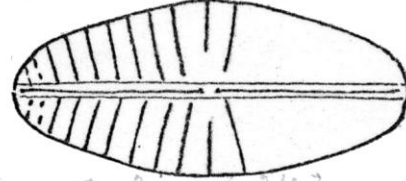


*opposita* ? *curta*  
Lines above on very slight curve  
at center

14.6.13 WIG CAE

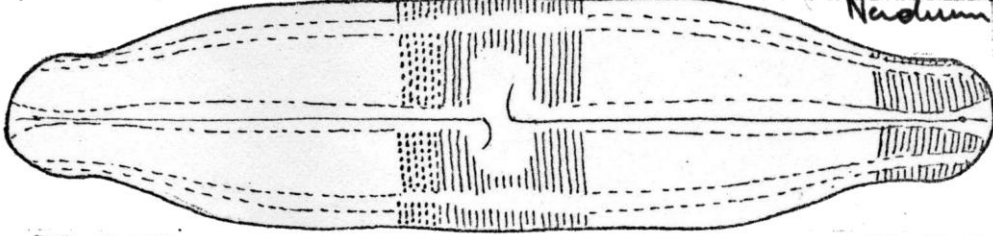


1404/13 N. Ferry



1542/13 TOOME

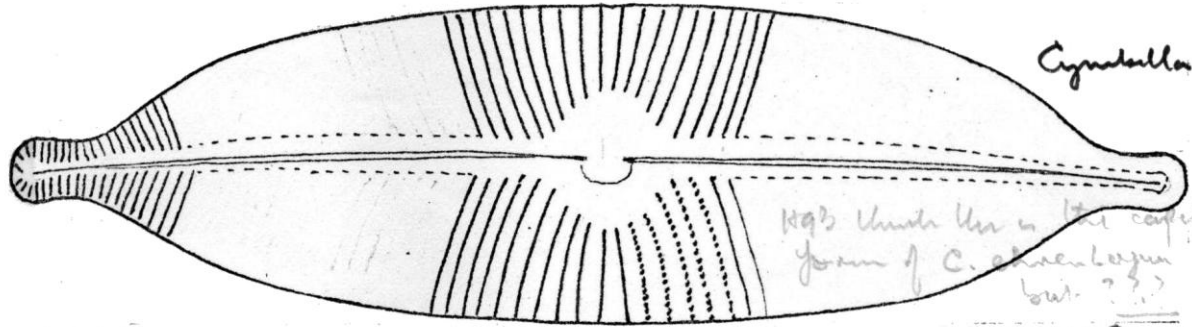
HQB says *Nav. Salsenfeldii* group



*Navicula producta*

PROFUS.

67.15.18

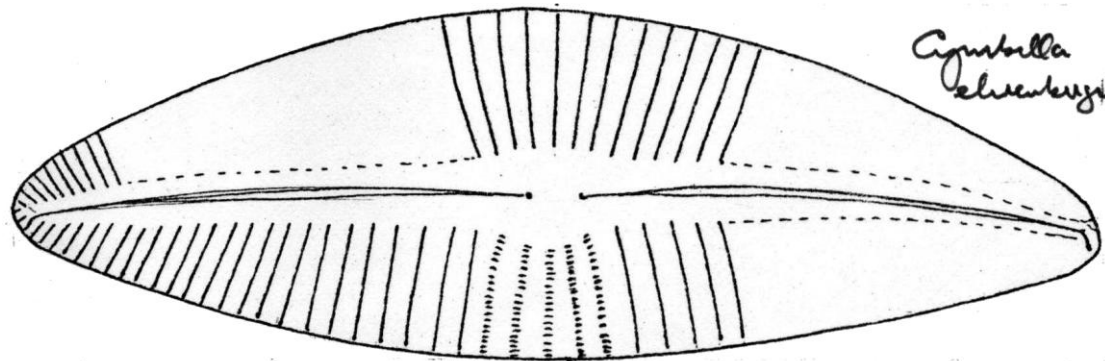


*Cymbella*

HQB thinks this is the capital  
form of *C. schrenkii*  
but ???

1542/13 TOOME

80 21.9 WIG CAE

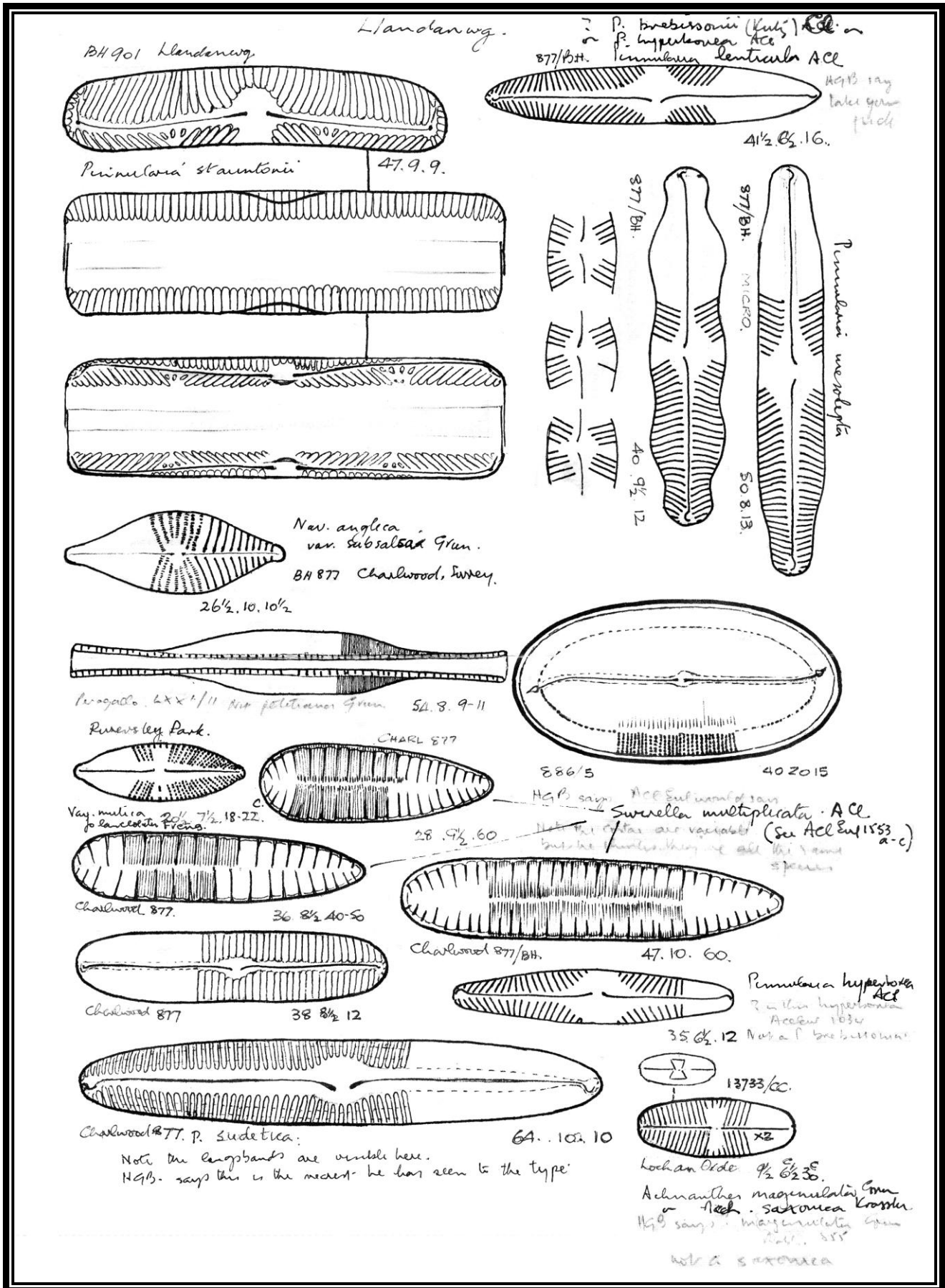


*Cymbella schrenkii*

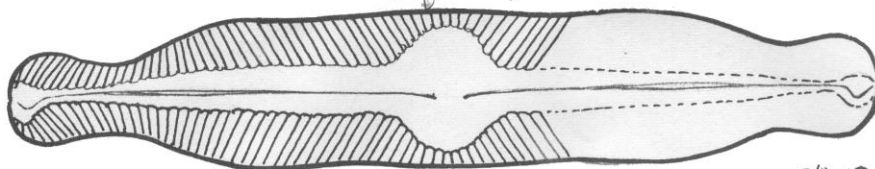
1545/13 TOOME

74 24.6 WIG CAE

Miscellaneous Plate 333



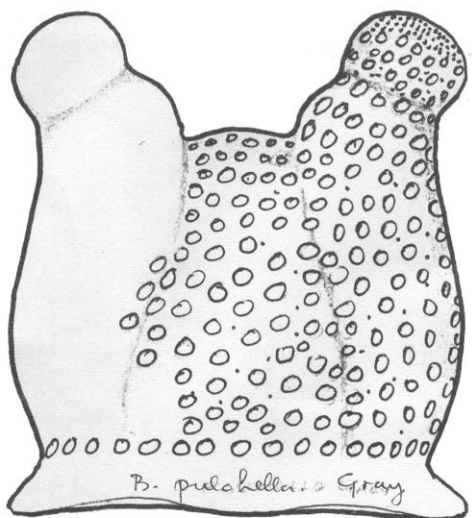
7 of 886/5 BH



*P. legumen* Ehr

886/5 mix

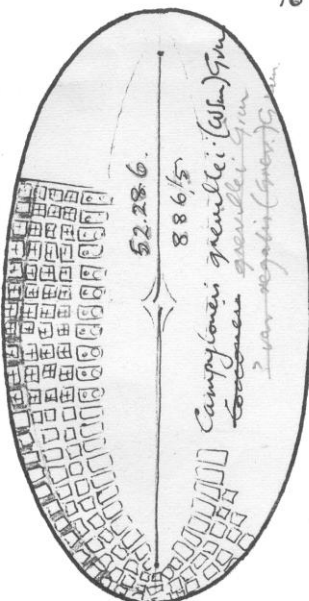
76 13 1/2 .12



*B. pulchella* Gray

886/5

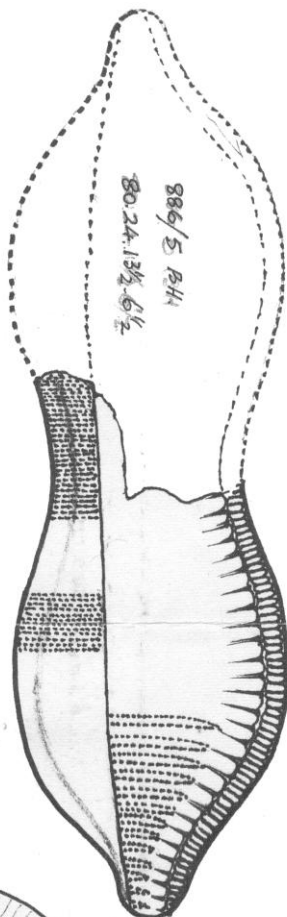
40.44. 4.



52.28.6

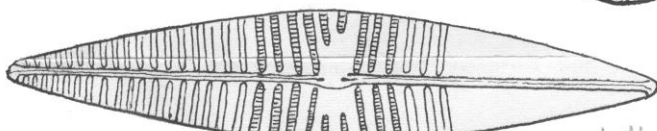
886/5

*Campyloneis gemellei* (Gr) Gr  
*Coenen gemellei* Gr  
*(C. gemellei) Gr*



886/5 BH  
80.24.13 1/2 .6 1/2

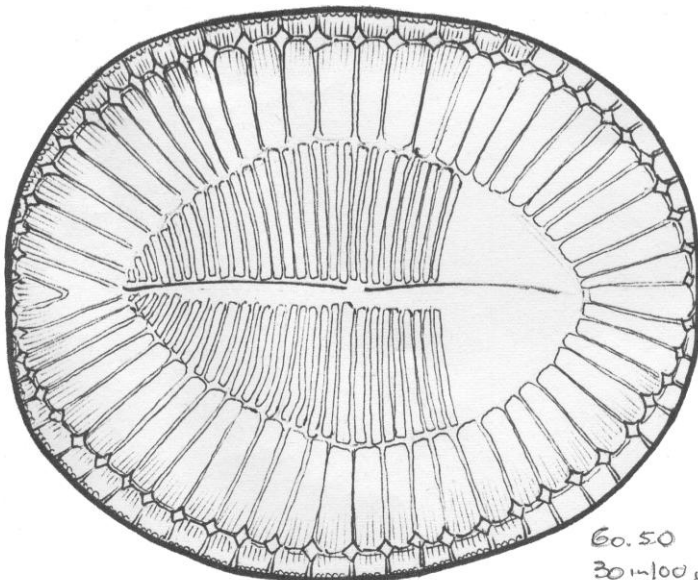
*Actinodiscus* or *Monocyclidiscus*



886/5

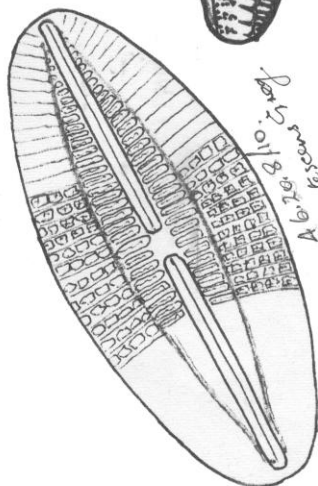
*N. directa* Gr  
or *N. zosteri*

Harb says not of the same  
57 11 1/2 .7-9



*Campylodiscus samoensis* Gr

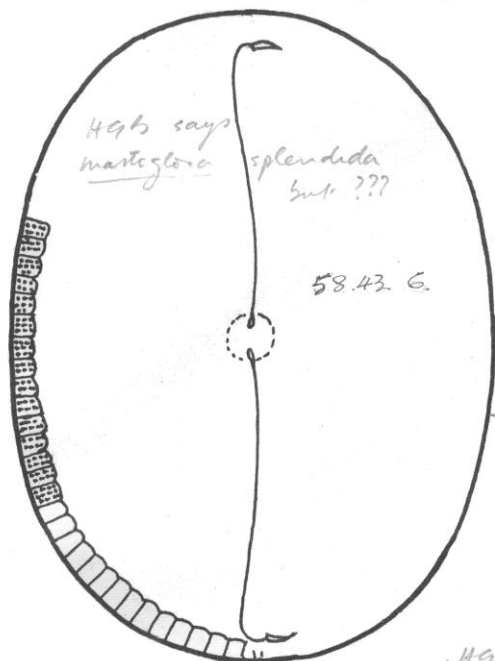
60.50  
30-100 μ



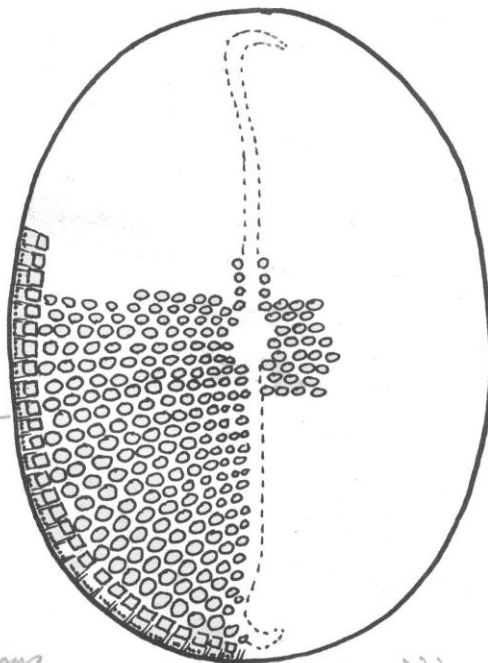
*Thalassiosira* *intercedens* Gr  
A 6720 8.10  
886/5

Miscellaneous Plate 335

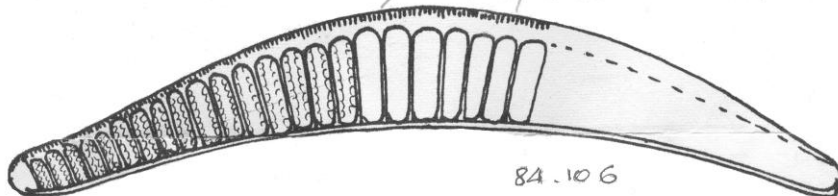
5 of 886/5



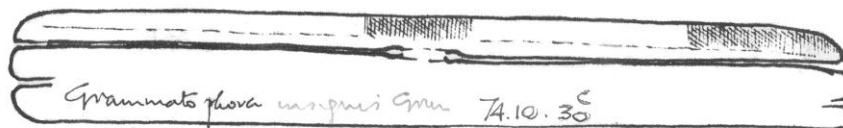
Hgb says  
*maritima* splendida  
but ???



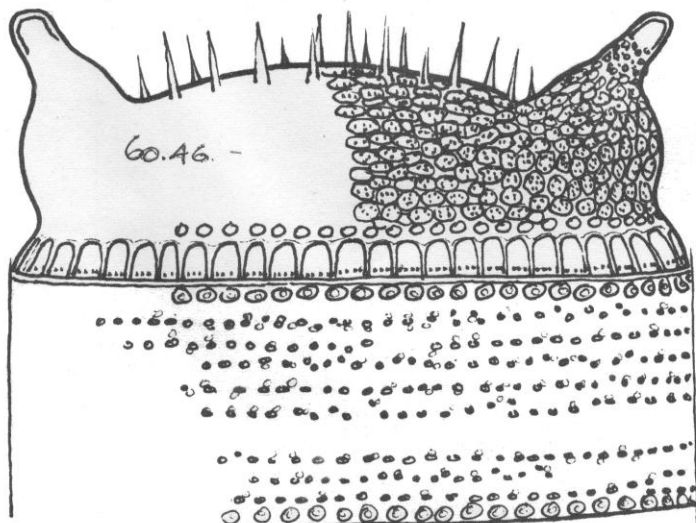
Hgb says  
*Rhopalodia musculus* Grun but ???



Handover  
90/84  
*Pinnularia  
stauritana*

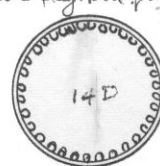


*Grammatopora unguis* Grun  
with *G. maxima* note v. fine striae



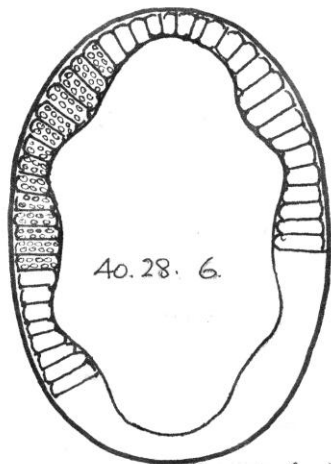
*Biddulphia*

Riverley. Note fine  
*Thalassosira*  
? *gumardii*  
? *epidictella*  
Is *Acetabularia*?

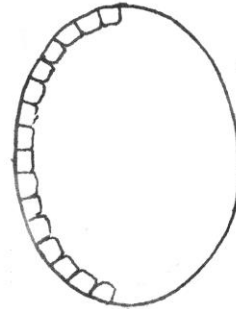
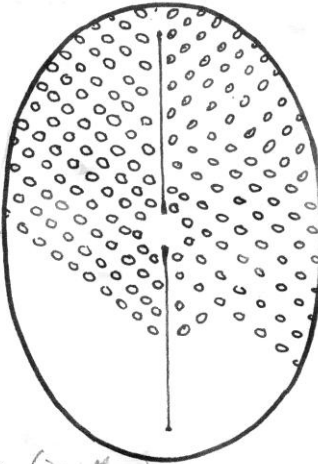


2684  
SOUTH.

886/5 SHEET



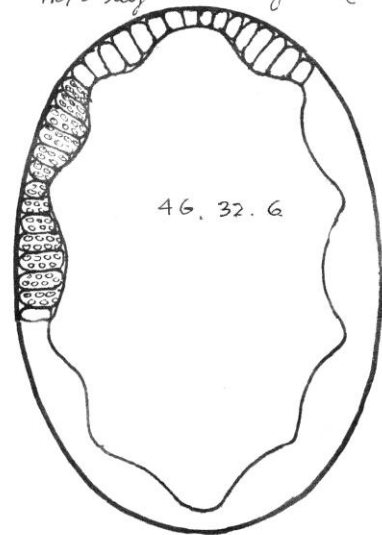
40.28.6



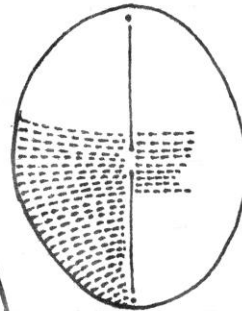
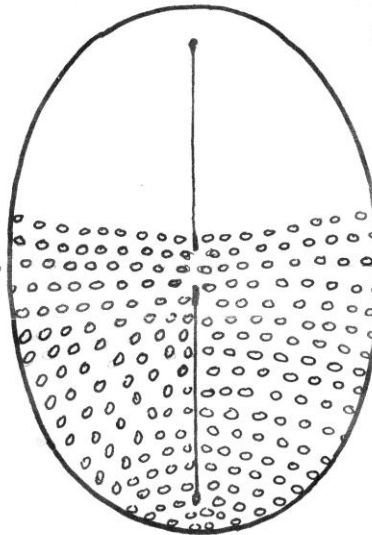
H.G. Sayers  
*Mastogloia*  
*ovata* var.  
*intermedia*  
Percy.  
(Det. Percy,  
P.V. 1/15)

26 1/2 . 20 . 15

H.G. Sayers *Mastogloia* *umbriata* (S. author)

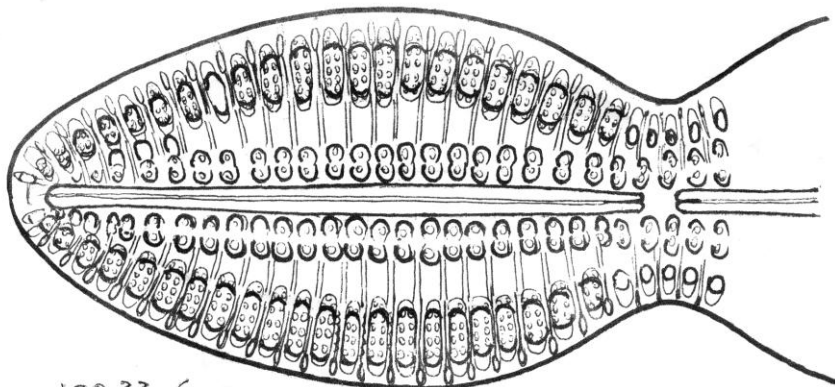


46.32.6



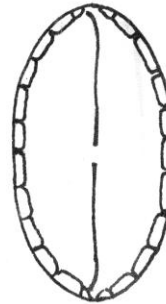
H.G. Sayers  
*Mastogloia*  
*barbadensis*  
(S. author) cl.  
See text in  
Rabanon's  
fig. 891

26 . 14 . 10

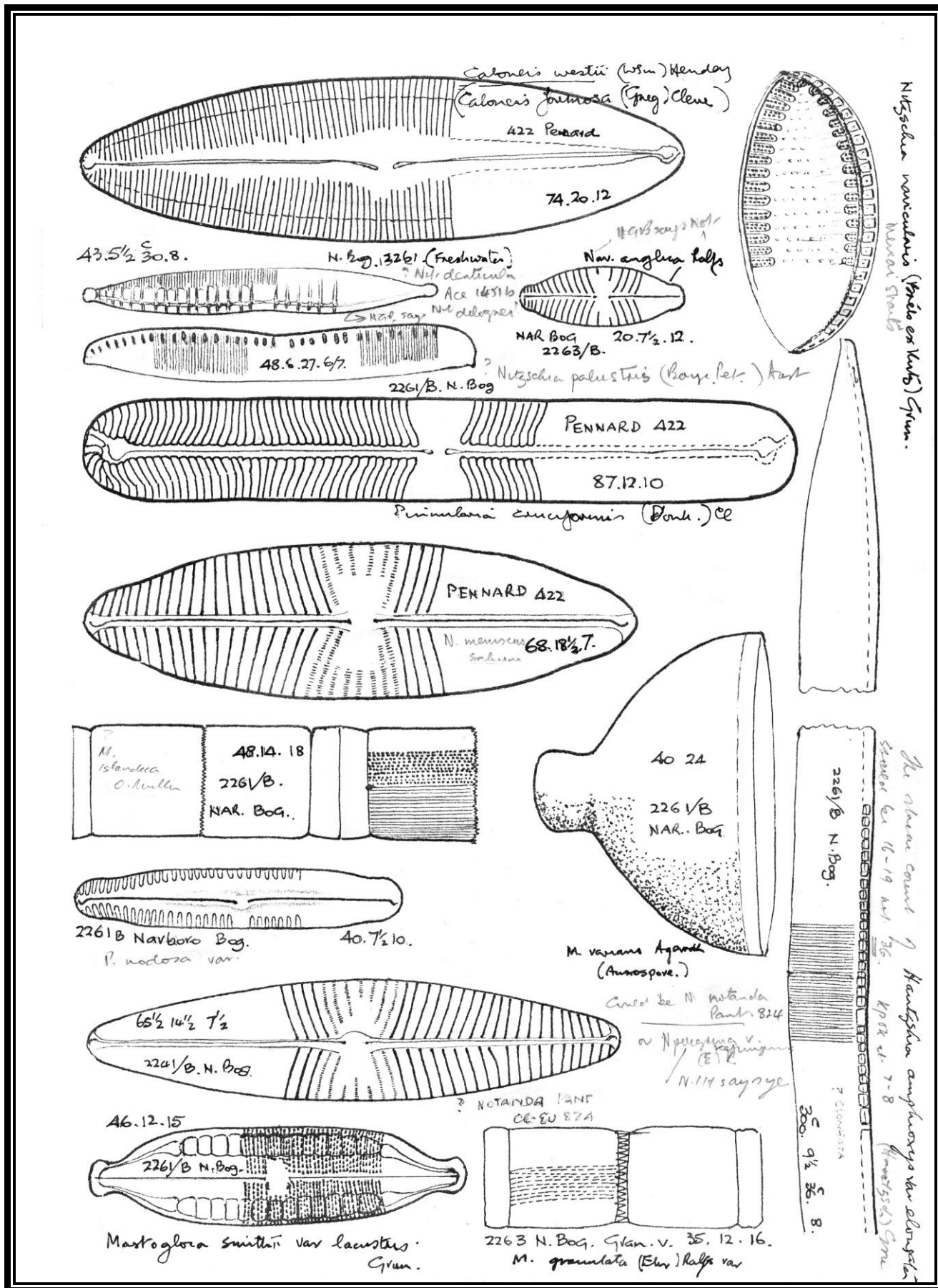


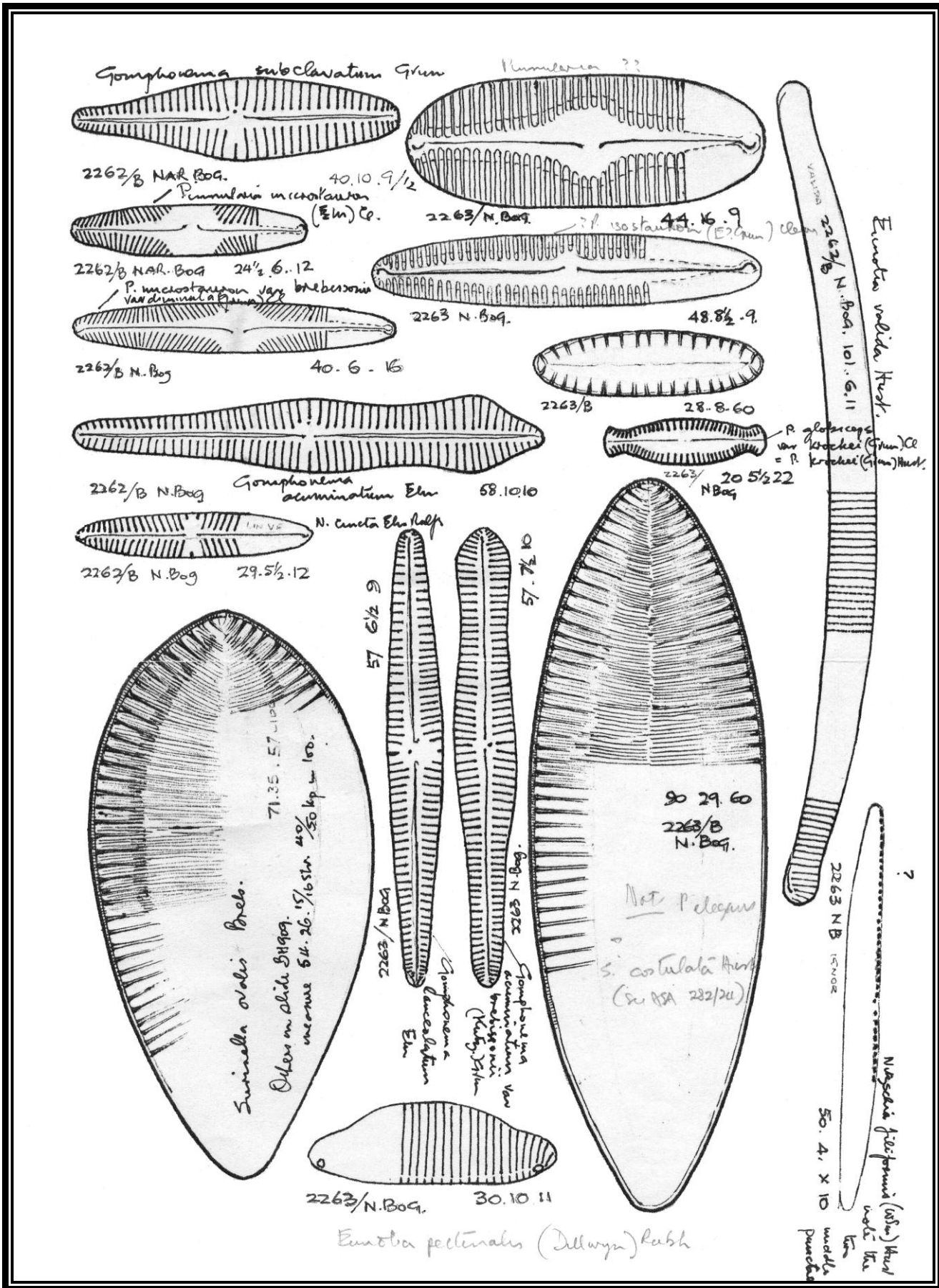
180.33.6

*Diploneis* *crabro* var.

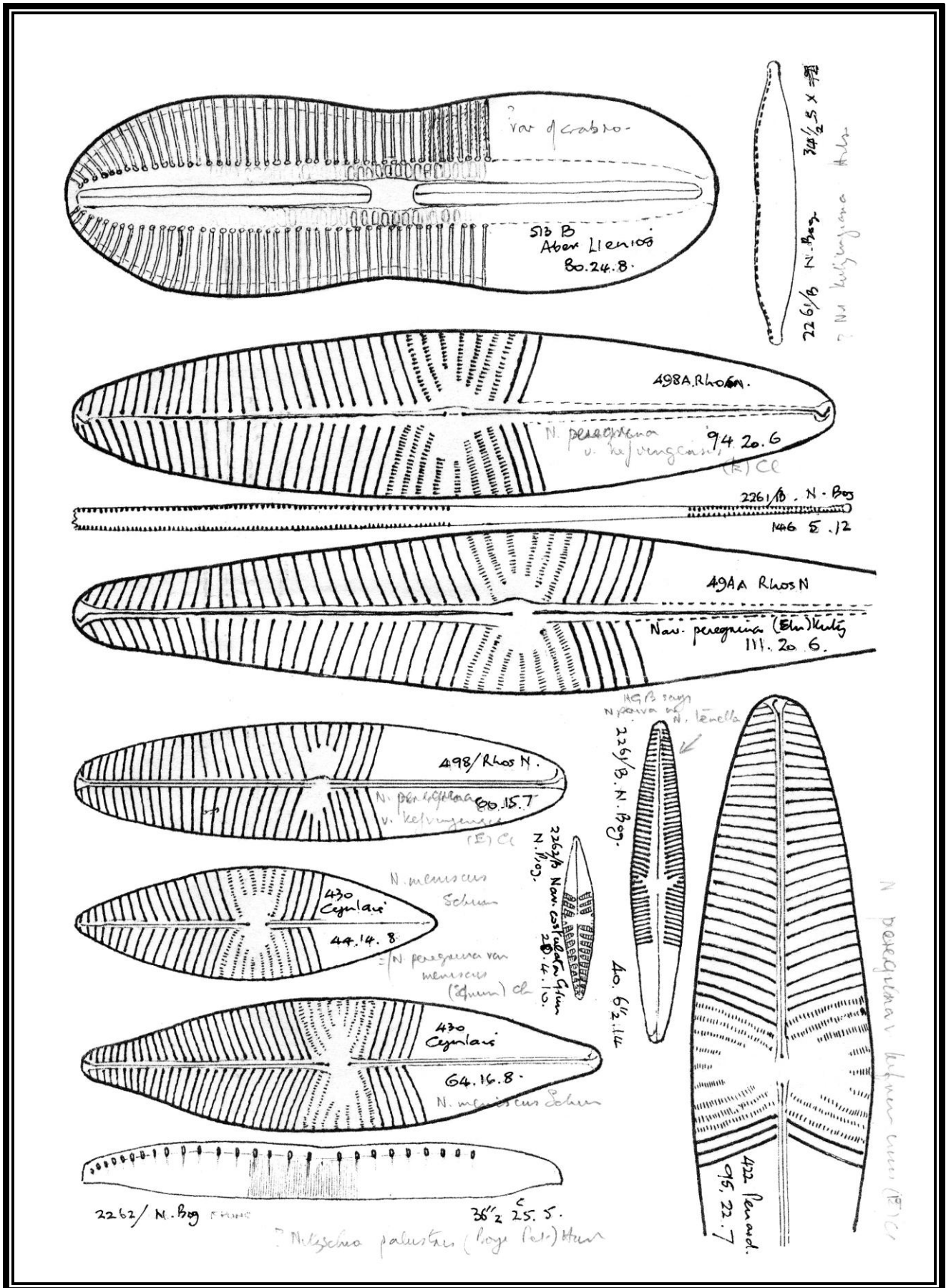


Miscellaneous Plate 337





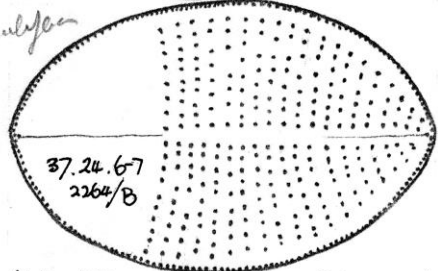
Miscellaneous Plate 339





NH & HGB say not *C. distans* (circled) but see Van de Weyer which shows opposite puncta & raphe valves  
which should have puncta (circled)  
*Cocconeis distans* Grag  
DURNESSE / *Cocconeis* Grag  
HGB & Pat Sims with same

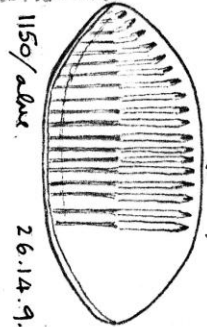
*C. granulosa*



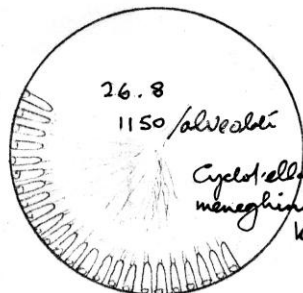
Kyle of Durnesse



HGB says it lacks the undulations of *P. laurina*

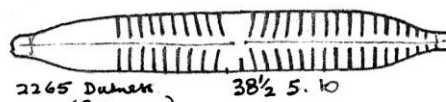


*Nitzschia laurina* (V. S. Van de Weyer) Van de Weyer



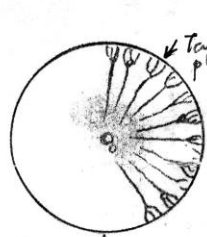
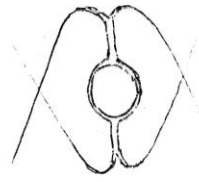
26.8  
1150/alveolate

*Cyclotella meneghiniana* Kütz

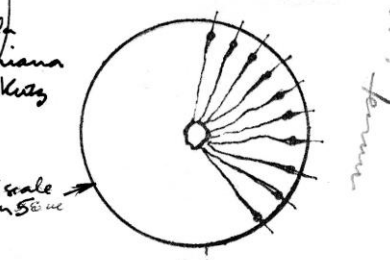


2265 Durnesse (Estuarine) 38 1/2 5. 10 HGB dorsal view

*Chaetoceros cinctus* Grag (see ASA. 341/11).

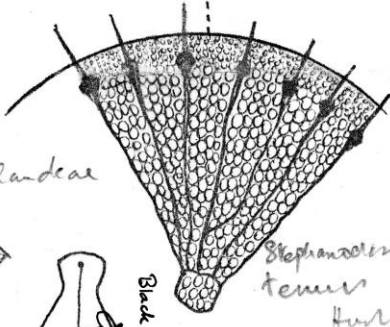
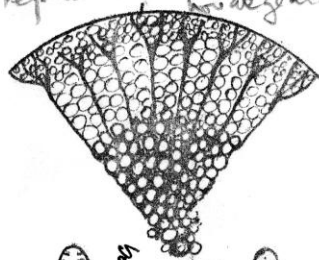


not to scale  
Taken from SEM photos.

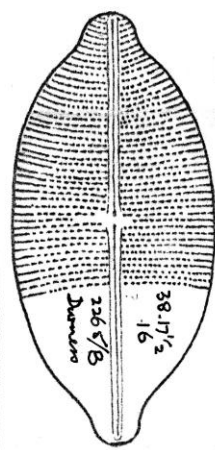


the form

*Stephanodiscus alveolatus*



*Stephanodiscus tenuis* Hust



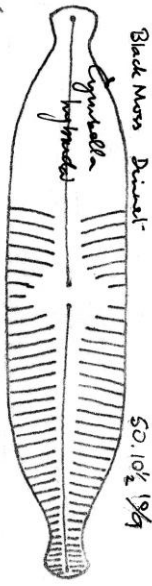
26 1/2 16  
2265/8 Durnesse

HGB says this *Mastocera* which is nearest to *Mastocera eluthiensis*



Black Moss Diatom

*Stephanodiscus intricatum* Van Helmskemper (Kütz & Hust) ACE  
35.6 9/10  
different valves



Black Moss Diatom

BH. 98. The lagoon, Southampton.

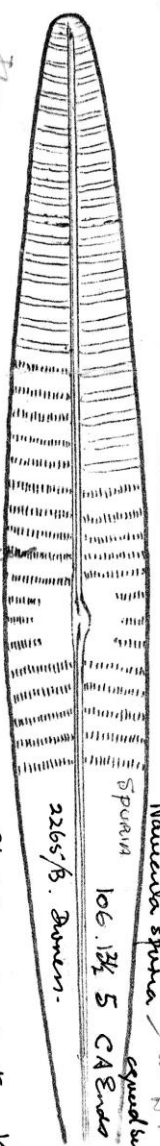
50.10 1/4



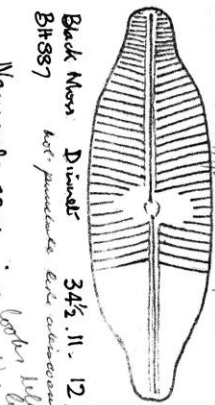
*Rhabdonema minutum* Kütz

38. 12 1/2 6

*N. bicephala* (N. 50/11) (543)  
*N. bicephalata* Hust



*Nannula spina* Grag by NH  
spines 106. 1 3/4 5 CA Ende  
HGB



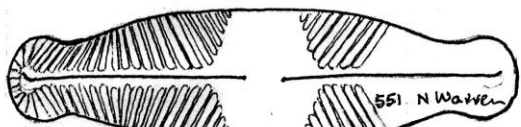
Black Moss Diatom

BH 887 34 1/2 11. 12.  
not punctate like *calceolaria*

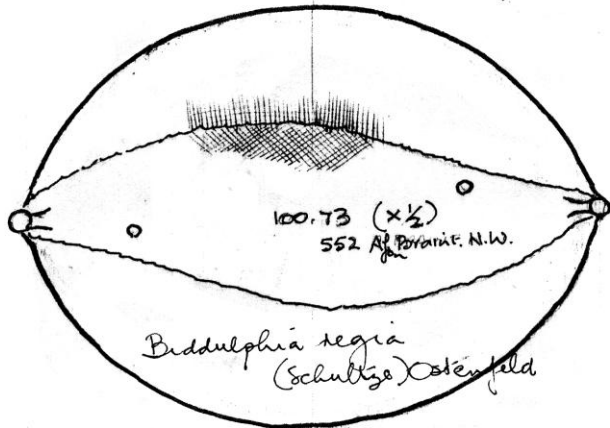
? *N. elongata* (Grag) by  
*N. elongata* Hust



*Nitzschia lacunatum* Hust.  
 551 N. Warren (Newbotonyl Warren)  
 BS. 6½. 30. 6-8 irreg



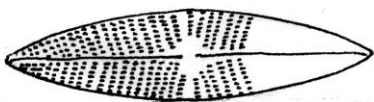
*P. interrupta* var *Schmidtii* Acl 44½. 11½. 12  
 = (*P. biceps* v. *crassior* (Grun) Acl See ASA 45/79



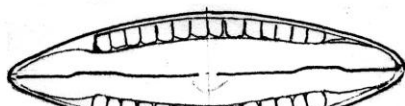
100.73 (x½)  
 552 A. Porritt. N.W.  
*Biddulphia regia* (Schultze) Ostenfeld



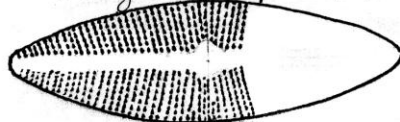
868 6½M Lin Bog 46. 10½. 10  
 ? *Nav. appugnata* Hust



868 6½M L Bog 32. 8. 12  
*Nannula menisculus* Schum.



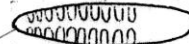
*Mastogloia elliptica* (Ag) Cleve



870 10M. Lin Bog 34½. 10½. 15



1807 Boat side Kivikaday Bay 46½. 4. 9  
*Opephora geminata* (Grun) v. It



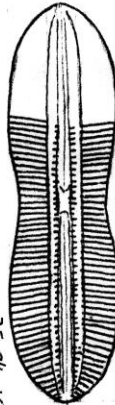
HGB says they range from 16 µ to 50 µ in this sample LXXXIII-8  
 but see also Acl Est 315. *Opephora kulloni* Acl



1809 Quantam Shewy

50. 8. 20

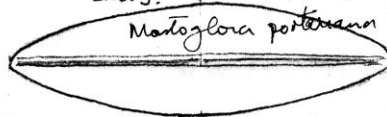
JRC says see Bentley Fort Cove. p 203 N. Karana Grun  
*Nannula kalyptin* fo. *leucomedea* Hust.



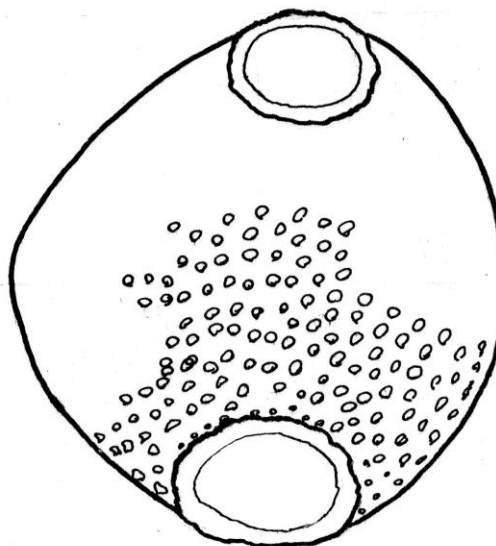
1809 Quant. subradens Hust  
 with by thick Dyr. vacillans in radiatum  
 Pombly Dyr adena (Acl) Cl  
 35. 9½. 16



1809 Quant. Shewy. 34½. 10 x 9L



*Mastogloia portoricensis* Grun

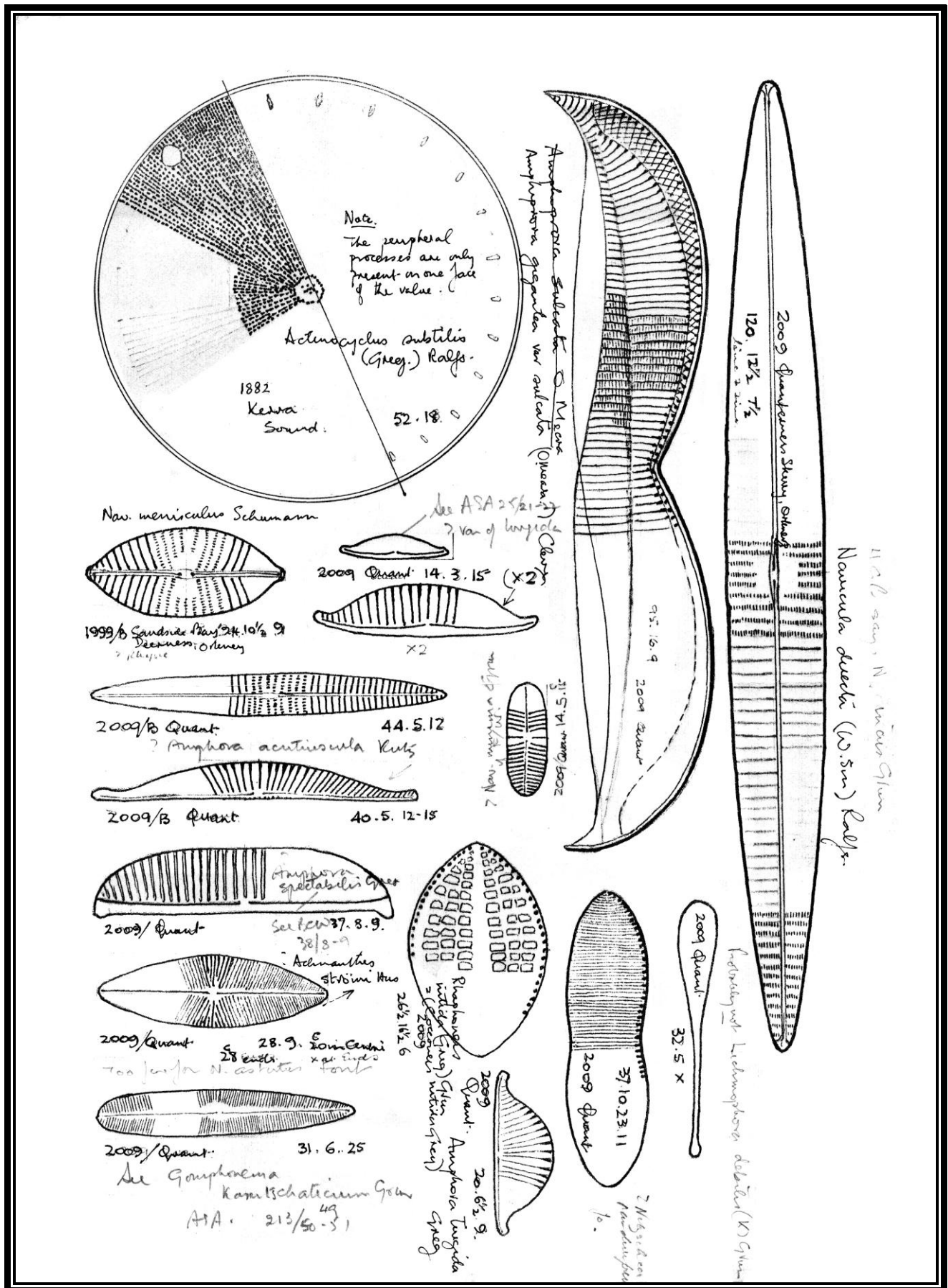


1809 Quant. *Crataulus tuxedus* 46. 43.

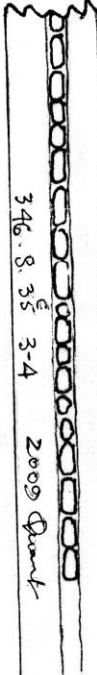
? *Crataulus smithii* Ralps

Not *Biddulphia ardeburana* a suggested by HGB

Miscellaneous Plate 344



Penhaly Nitzschia maculenta Grig but what does Nitzschia halowachensis Ferryer look like

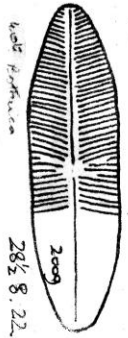


346. 8. 35 3-4 2009 Quant

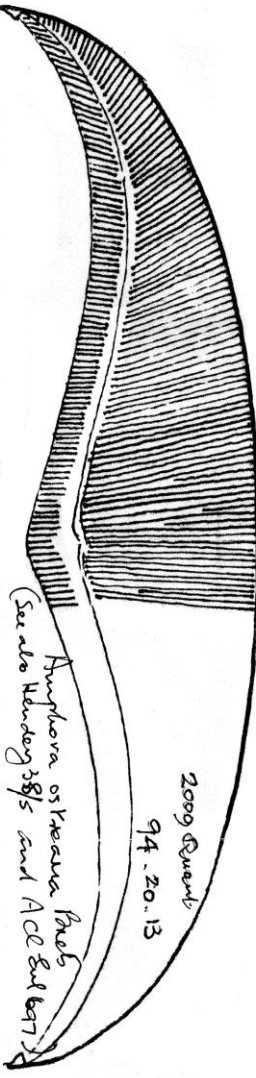
Lucifera punctata Ag (Penhaly Nitzschia) 189m



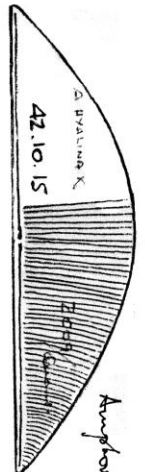
160. 9. 30 2009 Quant



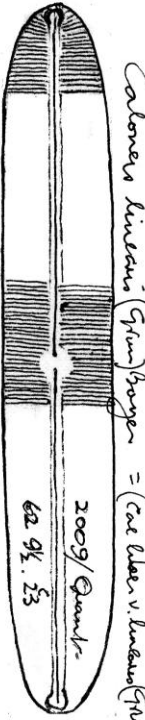
283. 8. 22



2009 Quant 94. 20. 13  
Amphioxys (Ferryer) 189m  
See also Henderson 1895 and ACE Ed 1897

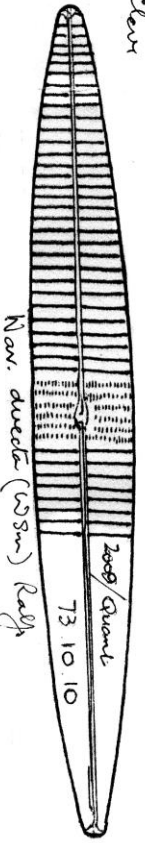


42. 10. 15  
Amphioxys (Ferryer) 189m

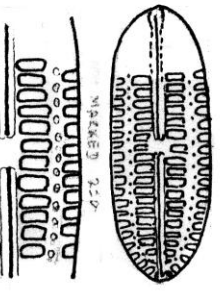


2009 Quant 62. 9. 23

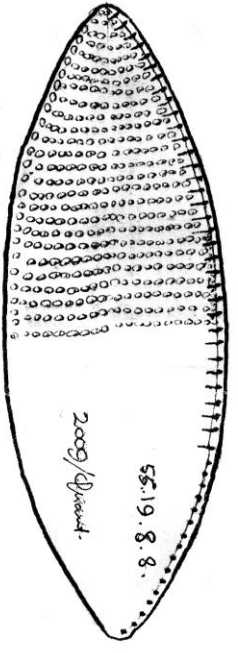
Caloneis linearis (Grun) Ferryer = (see also v. linearis Ferryer) clear



2009 Quant 73. 10. 10  
Nitzschia linearis (Grun) Ferryer

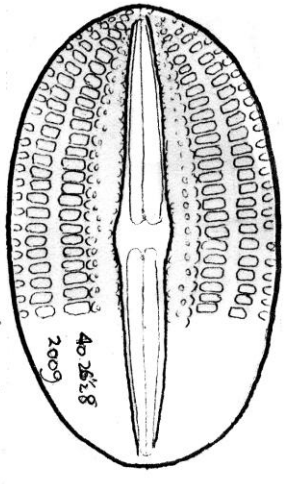


2009 Quant 24. 8. 10



55. 19. 8. 8. 2009 Quant

Nitzschia punctata 189m



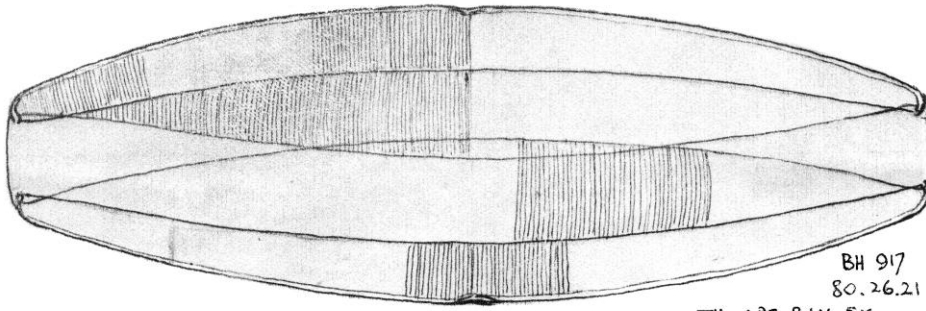
40. 26. 8 2009

Diploneis utahensis (Grun) Ferryer

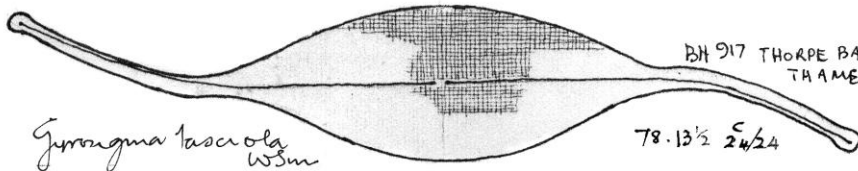
See also Ferryer 1895 Plate 9/124  
Diploneis utahensis (Grun) Ferryer

Miscellaneous Plate 346

*Tropidoneis vitrea* (W. Sm.) Cleve



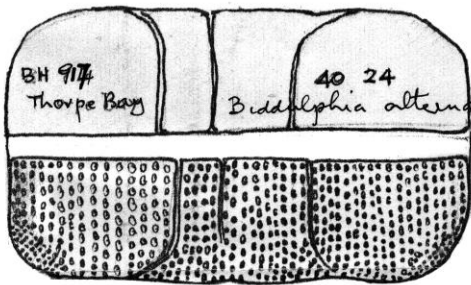
BH 917  
80.26.21  
THORPE BAY EX.  
THAMES ESTUARY, Essex



*Gyrodinium lasioides*  
W. Sm.

78.13 1/2 24/24

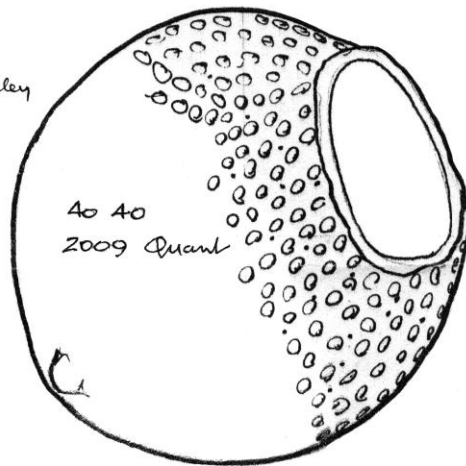
BH 917 THORPE BAY  
THAMES ESTUARY  
Essex



BH 917  
Thorpe Bay

40 24  
*Biddulphia alternans*

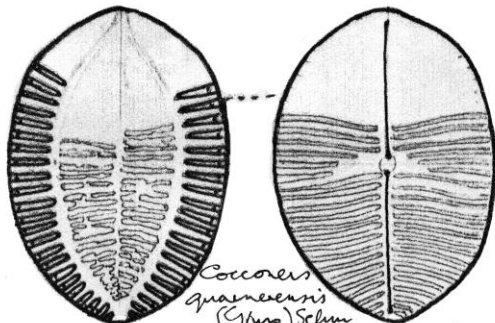
Bailey



40 40  
2009 Quant

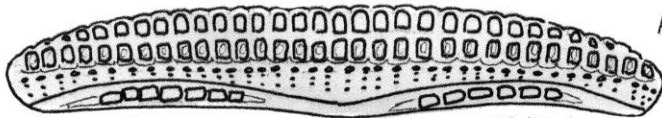
*Illydium ? var. sp.*

97.5 x 3 2003 Quant



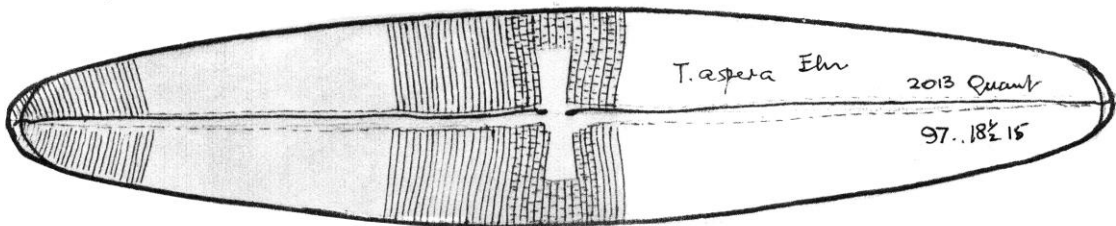
*Cocconeis quatrifida*  
(Gruno) Schum  
2013 Quant 28 18 1/2 8      28.18 1/2 9

*Ceratoneis smitheyi* Bailey  
*turgida* Ehr  
*Biddulphia antediluviana* (Ehr) VH

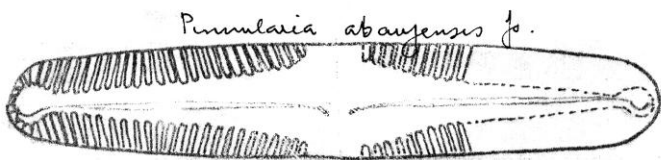


2013 Quant 58 10.6

*Amphora crassa* ? var. *spuria* Cleve



*T. aspera* Ehr  
2013 Quant  
97.18 1/2 15



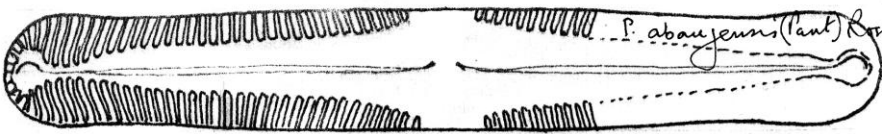
BH 797. Charwood

57. 10. 10



BH 752 Windermersee 24. 9 1/2. 17

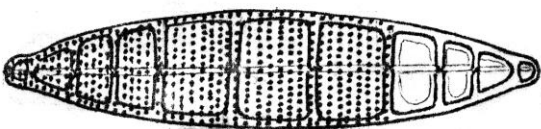
? Nav  
Kriegel  
Krauder  
Acellul 853A  
= N. unistriolatus  
(Lager) ACE



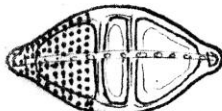
BH 797 Charwood.

77. 10 1/2. 10

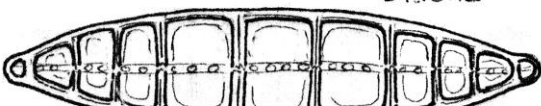
P. abaujensis (Pant) Des.



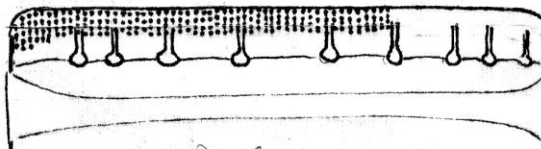
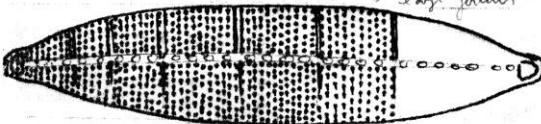
54. 10. 12



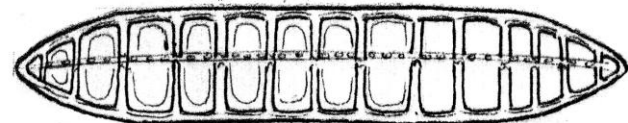
8 1/2. 10. 12



? D. tenuis var crassula (Naegele) Lagergren



? D. obliquus var



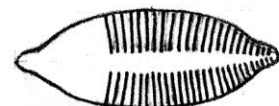
Nitzschia denticulata Grun

58. 10. 12

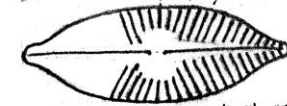


BH 752 Windermersee ? D. tenuis

42. 6. 15. 5



Loch wabneri 13780/CC 22 1/2 8 1/2 13



22 1/2 8 1/2 10

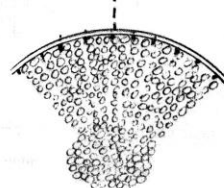
Achnanthes atacamae Hust  
Ser ASA 421/444.



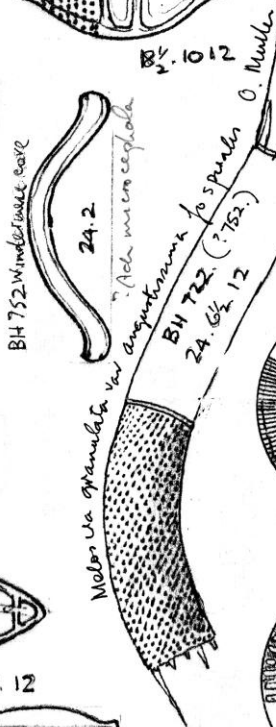
BH 752 14. 4. x  
a small Nav subtilissima  
Clem



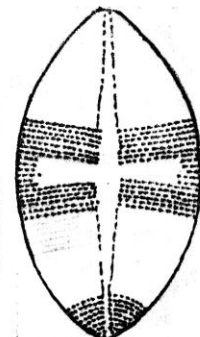
L. MA BON 13 1/2 Dia 9



Coc. pliculatus Grun



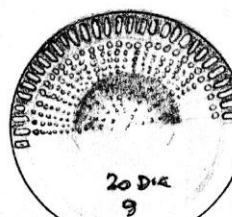
BH 752 Windermersee, east  
24. 2  
Nitzschia var angustissima Grun  
BH 752 24. 6 1/2. 12  
O. Munk.



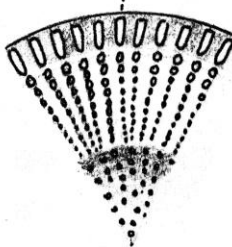
BH 752 29. 16. 18  
Windermersee  
? a "regular" form  
of Achnanthes obliquus  
(Grun) Hust



20 dia  
BH 752  
Windermersee



20 dia  
9



L. MA BON 13786 CC

Cyclotella dubius  
(Fricke) Hust

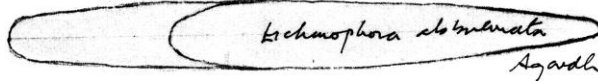
Miscellaneous Plate 348

TREVONE



2270/B TREVONE

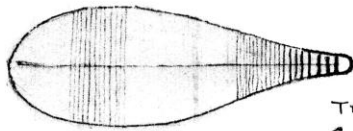
53.6:13/15



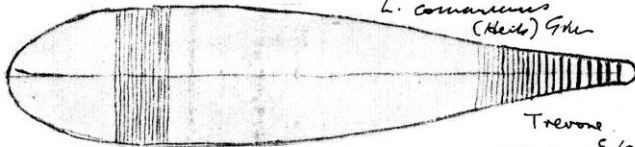
*Lichmophora obtusata*  
Agardh



Setivella  
*L. communis*  
*L. elvenbyyji*  
Trevone  
40 9 1/2 15/25

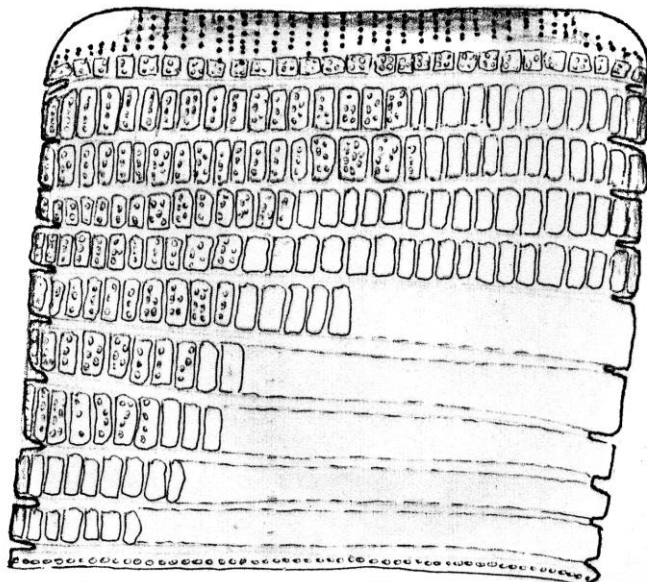


*L. communis*  
(Heide) Gilv  
Trevone.  
30 10. 15/20



*L. communis*  
(Heide) Gilv

Trevone  
56. 10 15/20



53 50

2270 Trevone

*Rhabdonema acutatum* Kütz

? *Acinanthus laevigata* Grun  
lineares var  
subatomus Hirtl



2270 16. 3 3/4 15/25

Trevone



2270 18. 2. x

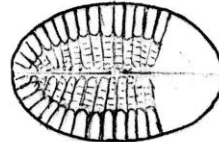
Trevone



8.2.x

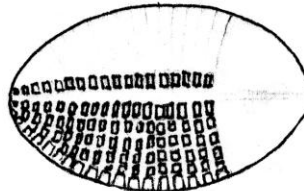


4 1/2 1 3/4 x



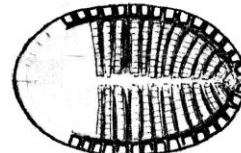
*Cocconeis signata* Gray

18. 12. 9 Trevone



*Cocconeis*  
*scutellum* Ehr

26 16 7 Trevone



? ASA 190/32

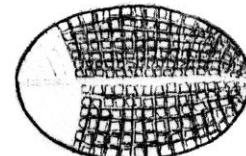
*C. praestens* A.S.

ASA 190/30

*C. japonica*

Trevone

20 13 1/2 8



*Cocconeis*  
*scutellum* Ehr

20 13 1/2 9. Trevone



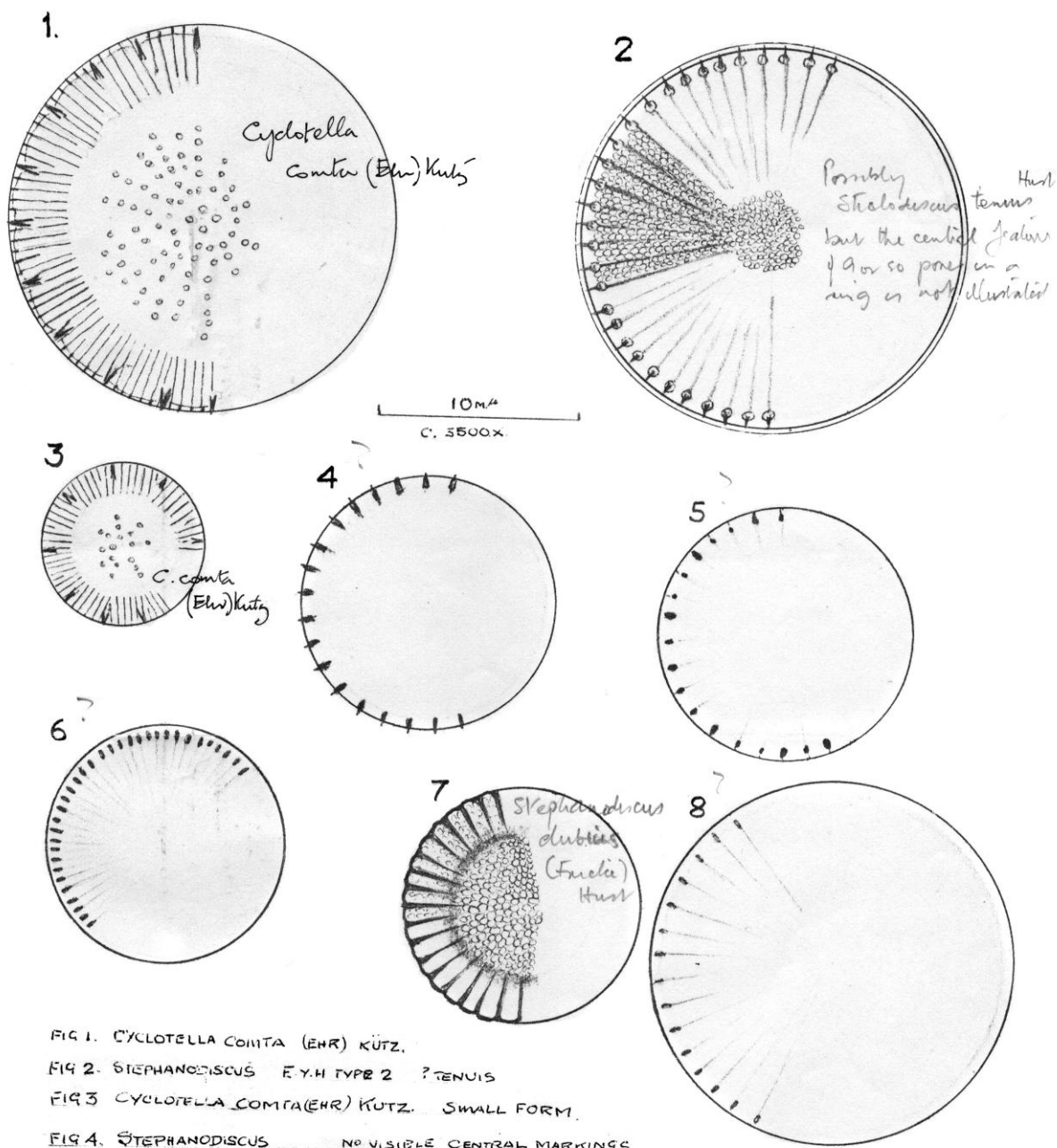


FIG 1. CYCLOTELLA COMTA (EHR) KÜTZ.

FIG 2. STEPHANODISCUS E.Y.H TYPE 2 ? TENUIS

FIG 3. CYCLOTELLA COMTA (EHR) KÜTZ. SMALL FORM.

FIG 4. STEPHANODISCUS NO VISIBLE CENTRAL MARKINGS

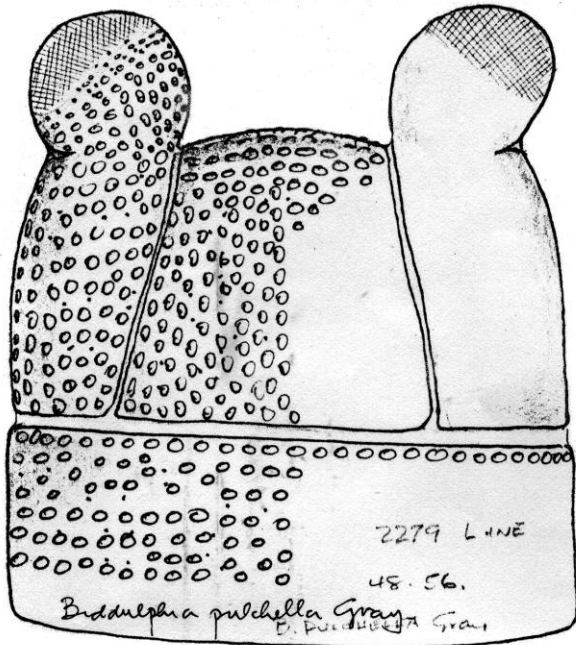
FIG 5. " E.Y.H TYPE 4. SOME VERY FAINT RADIAL PATTERN BUT UNABLE TO RESOLVE

FIG 6. " ? E.Y.H TYPE 7. CF CYCLOTELLA IRREGULARIS GRUN. IN HUST 1930

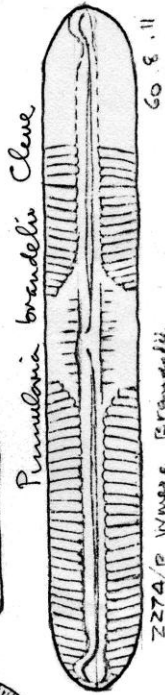
FIG 7. ?

FIG 8. ? VERY FAINT RADIAL MARKS UNABLE TO RESOLVE.

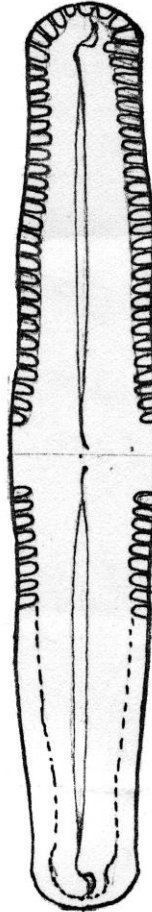
Miscellaneous Plate 351



*Biddulphia pulchella* Gray  
D. P. ... Gray

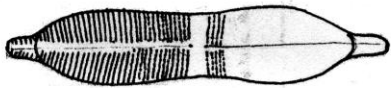


60.8.11



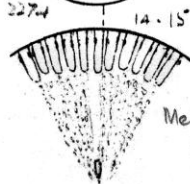
8.521.08

*Ace. baxillifera* Jullien  
*Ace. baxillifera* Jullien  
*Ace. baxillifera* Jullien  
*Ace. baxillifera* Jullien

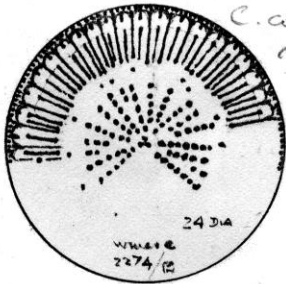


2274 B Wm. Brandelii  
*Stauroneis prominula* (Gr.) Hust.

? could even say in the  
*C. conla*  
series

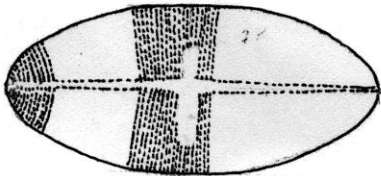


14.15

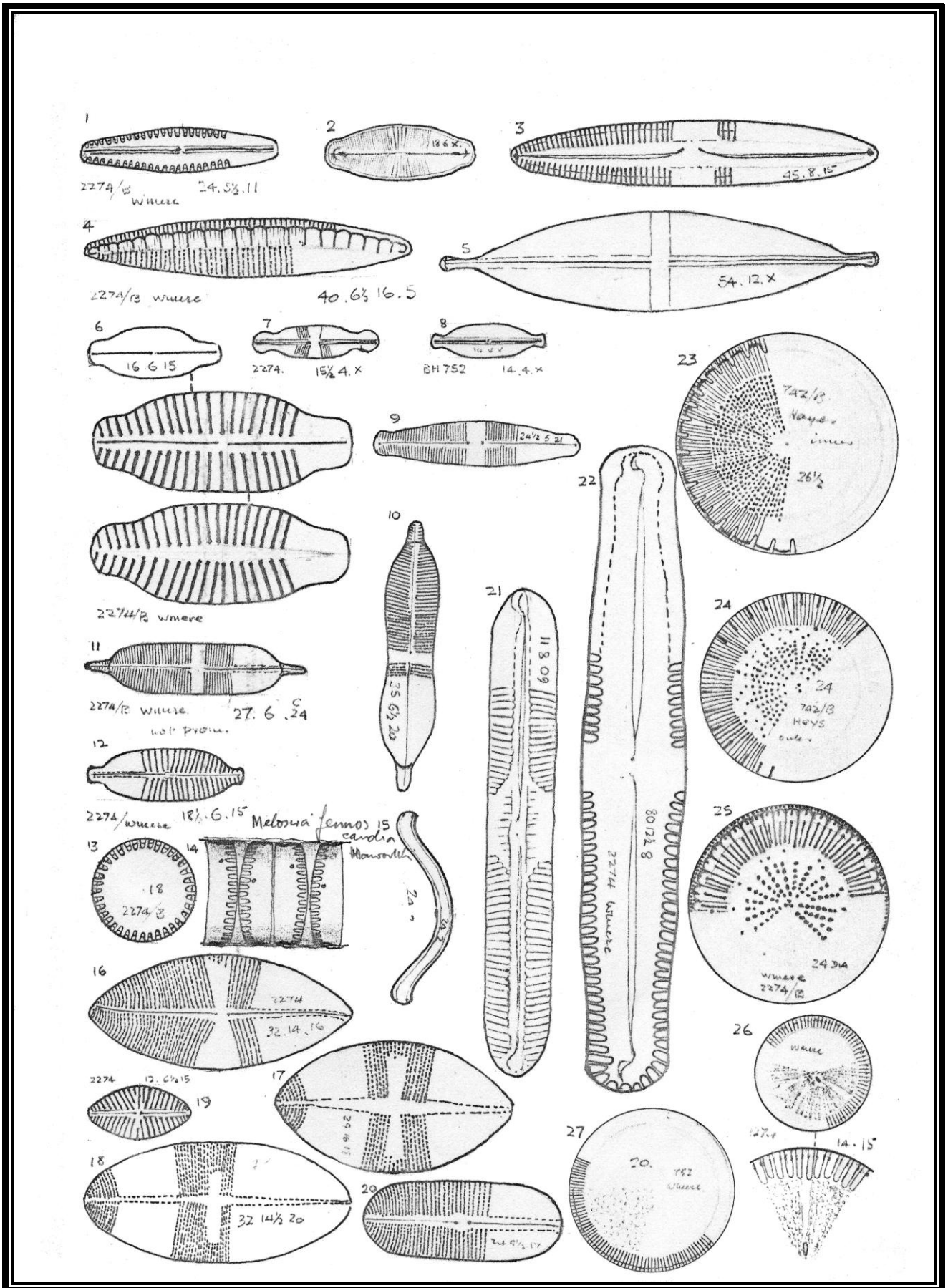


24 1/2 5 21

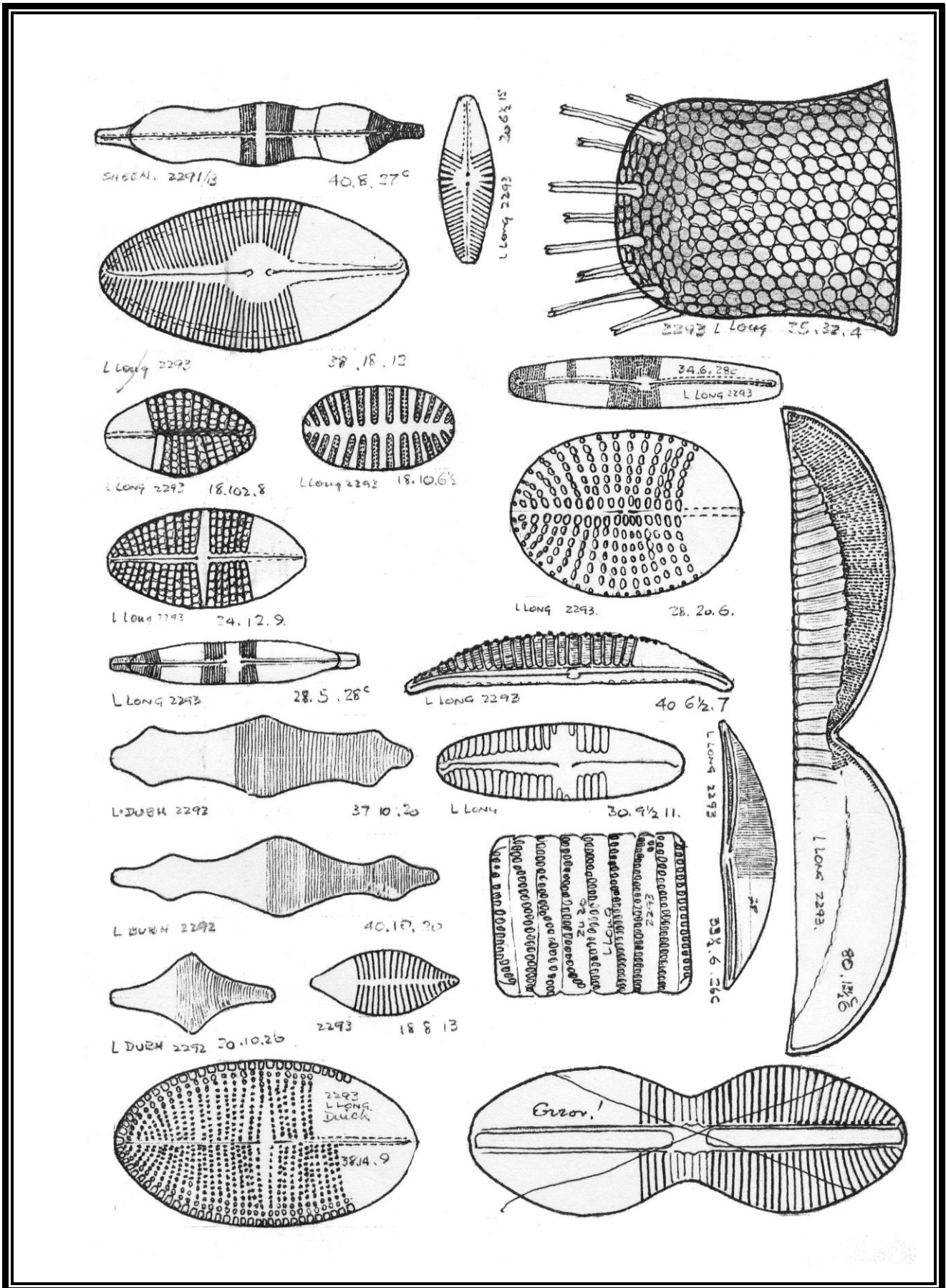
? *Stauroneis lapponica* A. Cl.

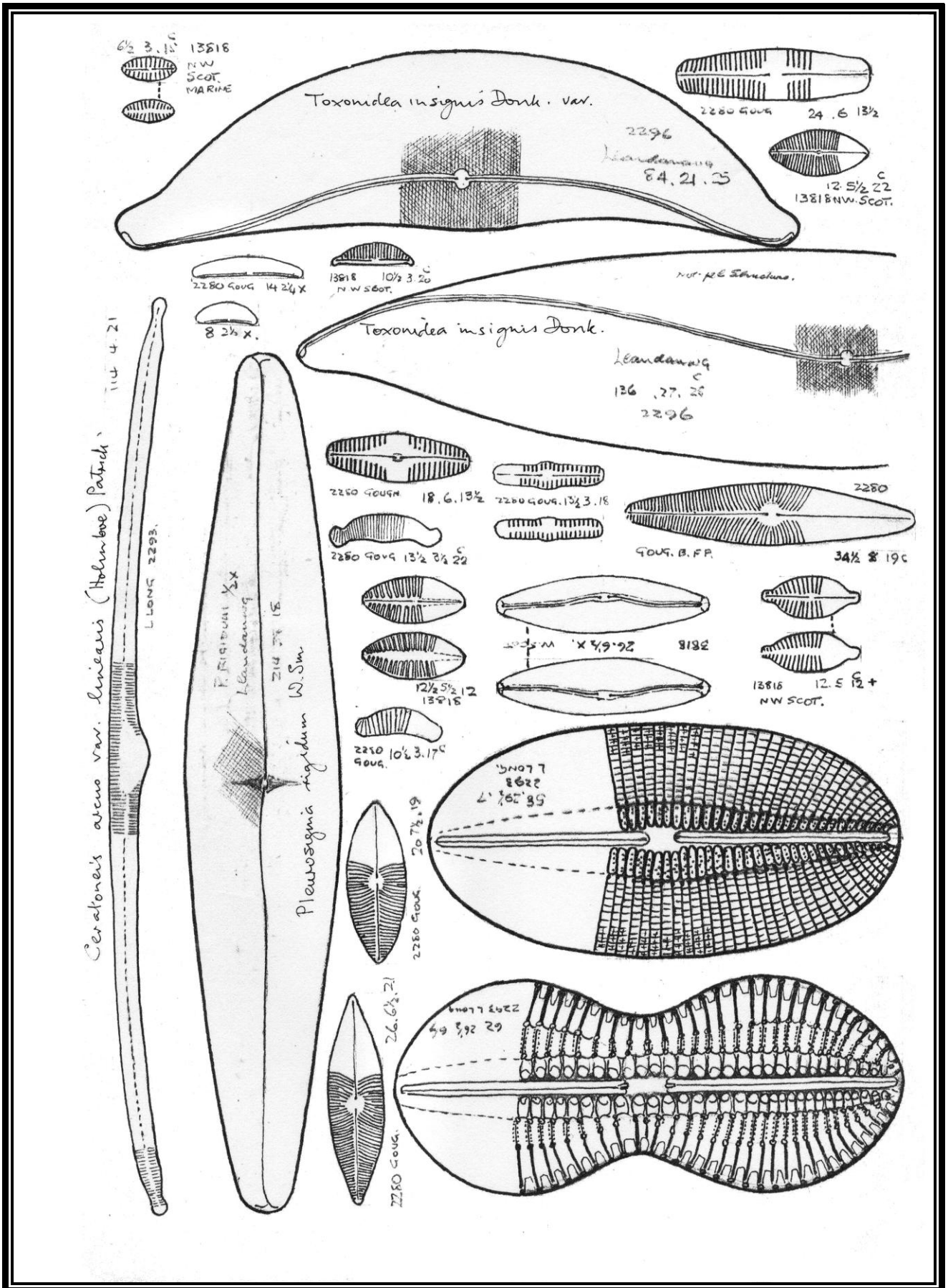


*Achnanthes obliqua* (Gr.) Hust.

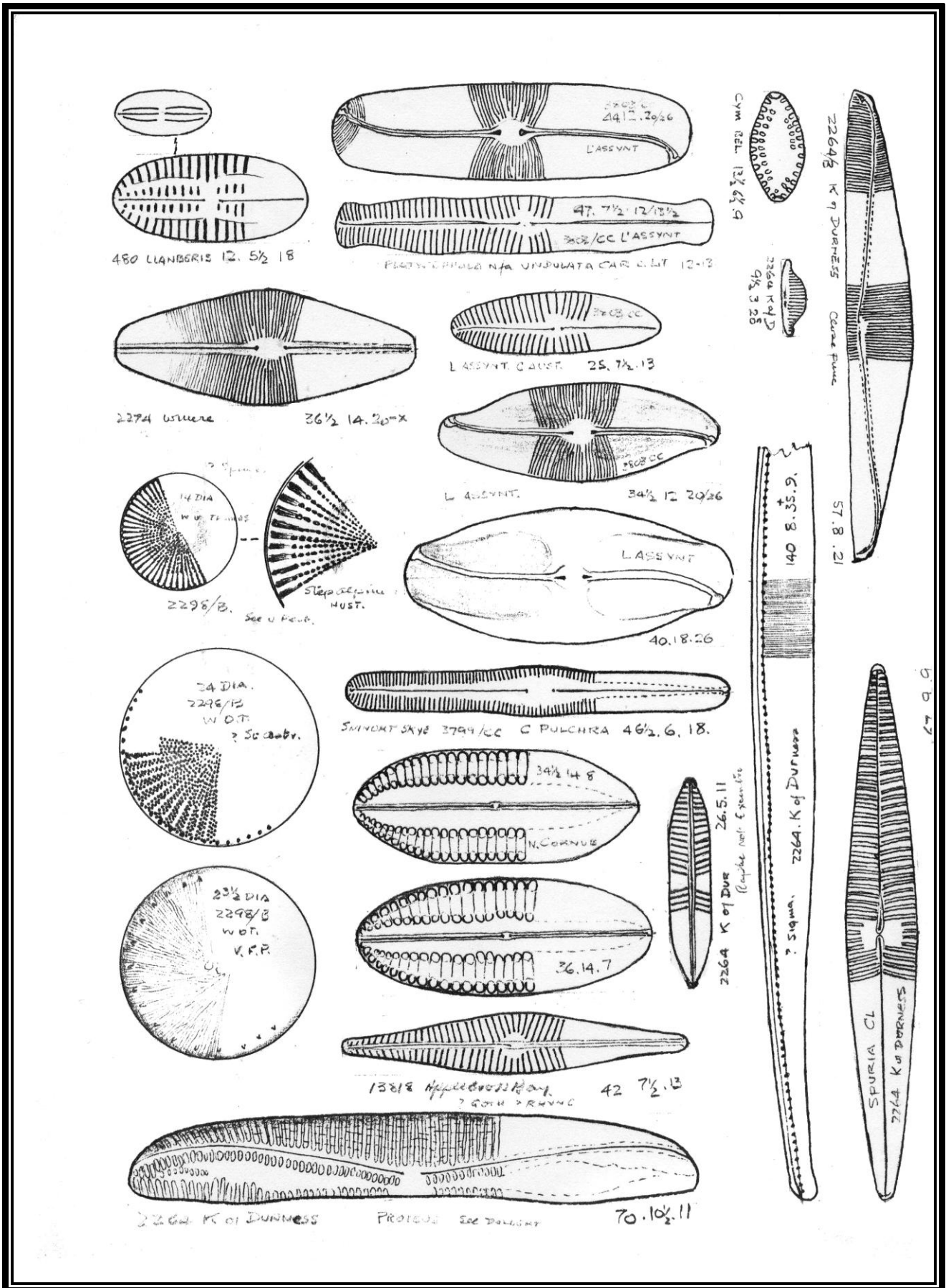


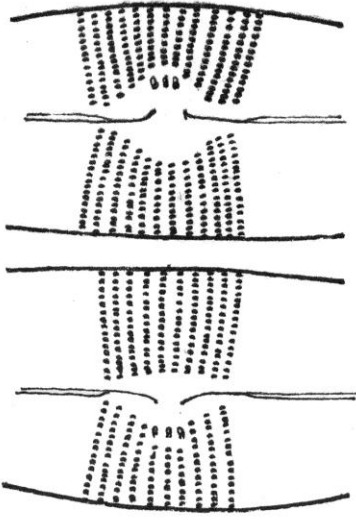
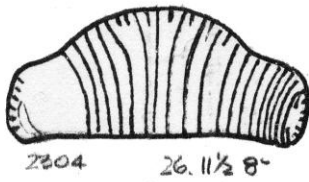
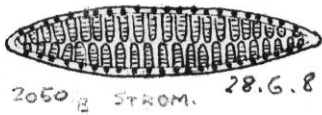
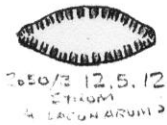
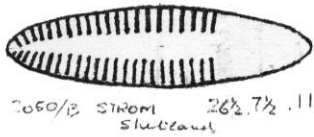
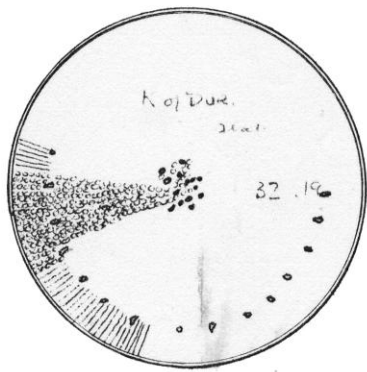
Miscellaneous Plate 353





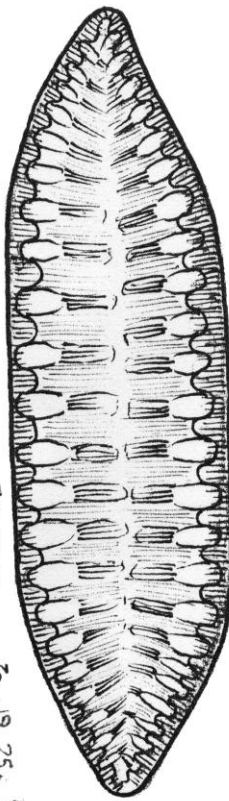
Miscellaneous Plate 355



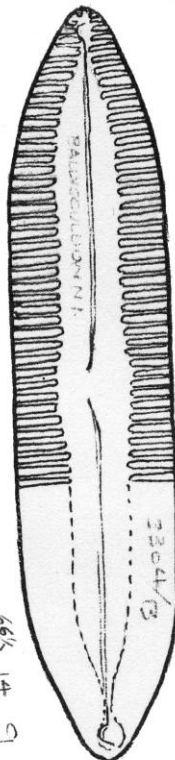
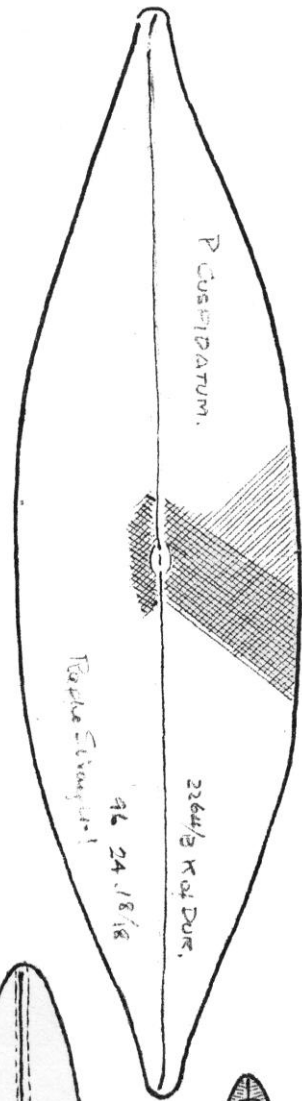


STROM. ZOSI

TO 25-100 To .19 25



60.6 1/2 x

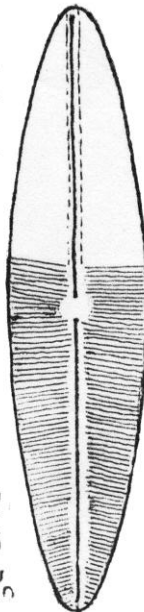


66 1/2 14 9

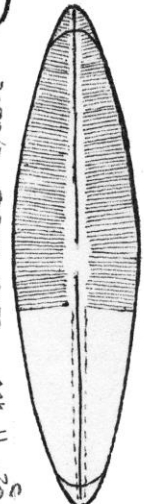


2050/2 STROM

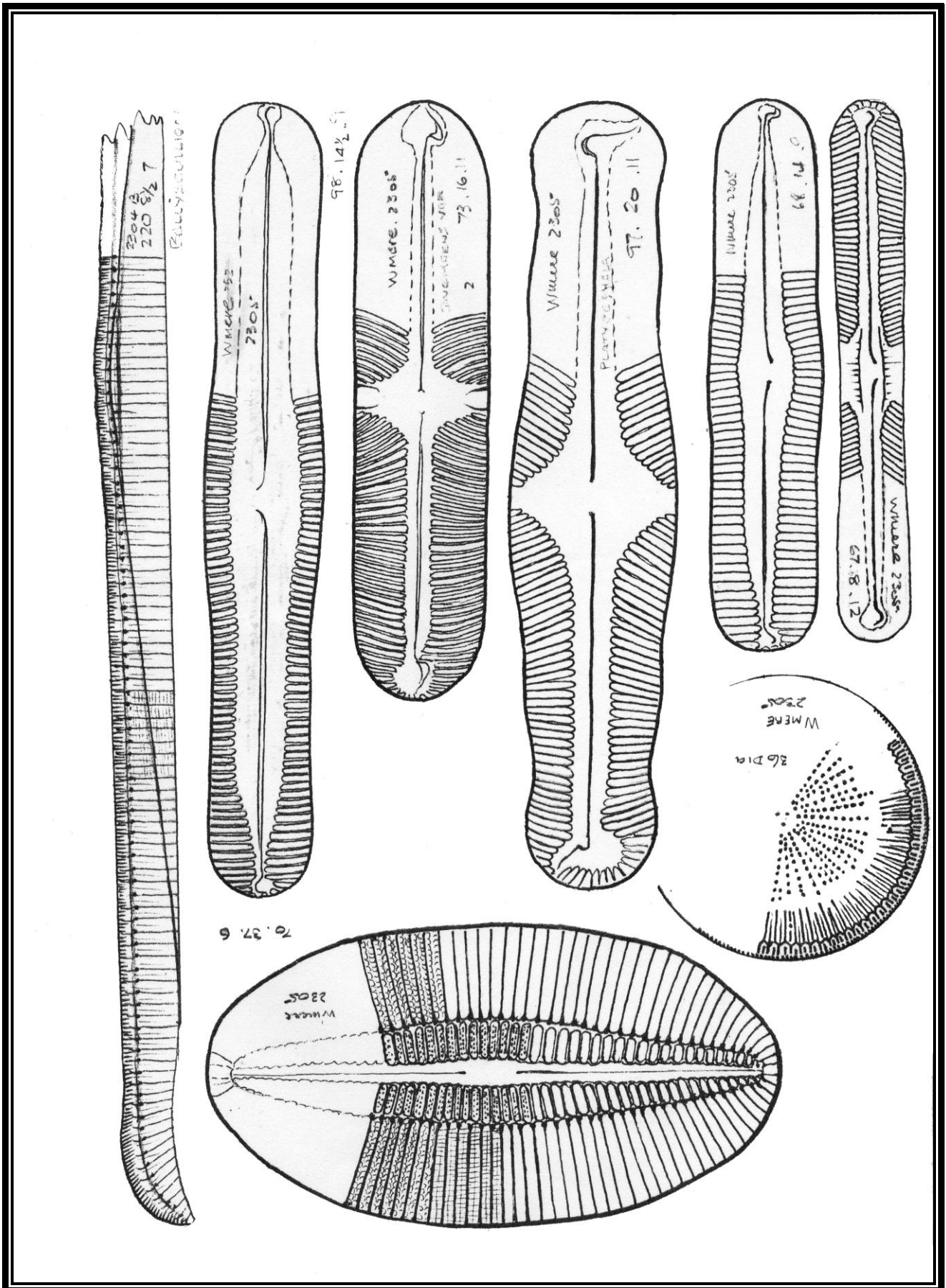
54 12.20



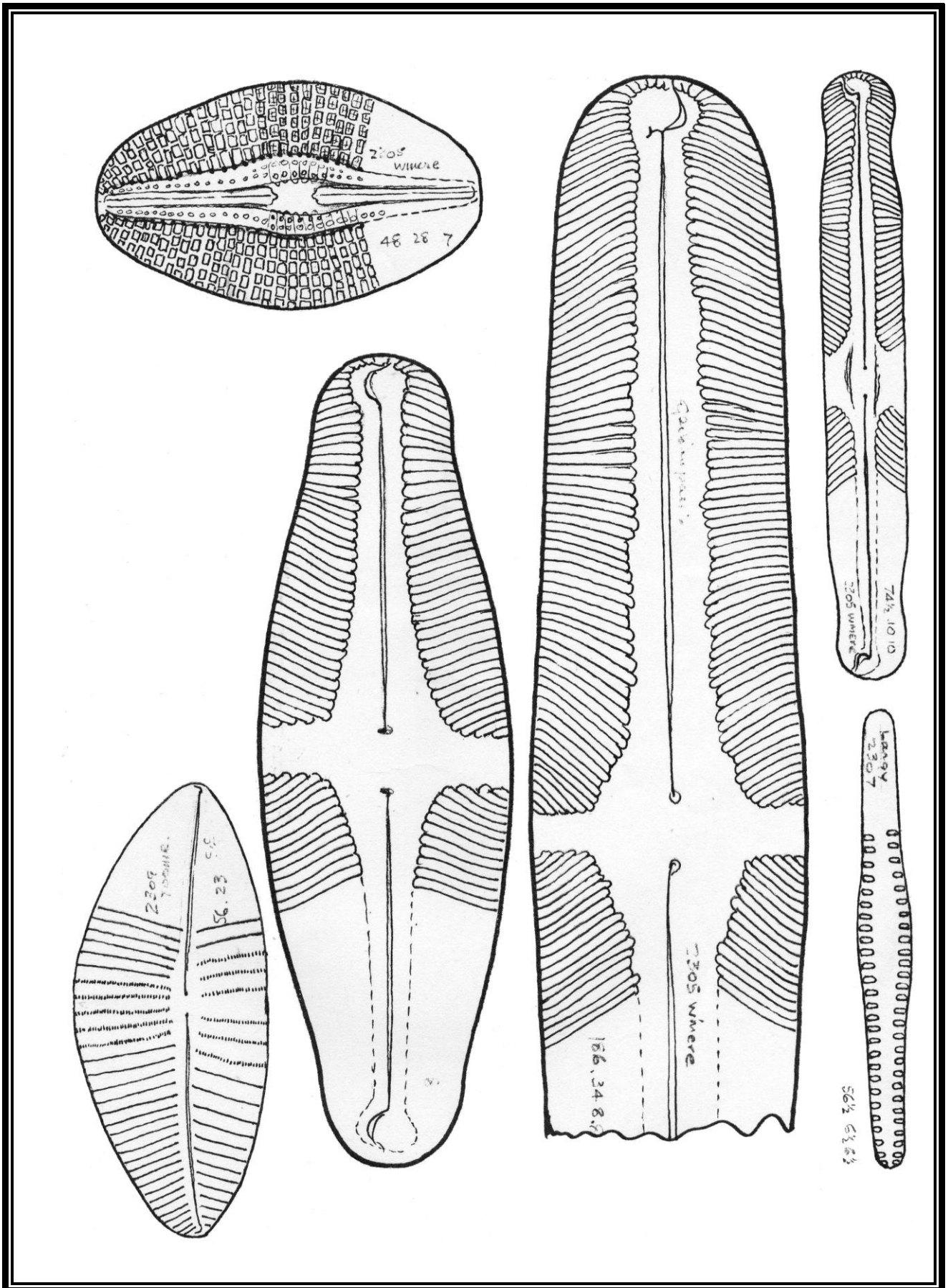
2050/3 STROM SKELT, 44 1/2 .11 .20



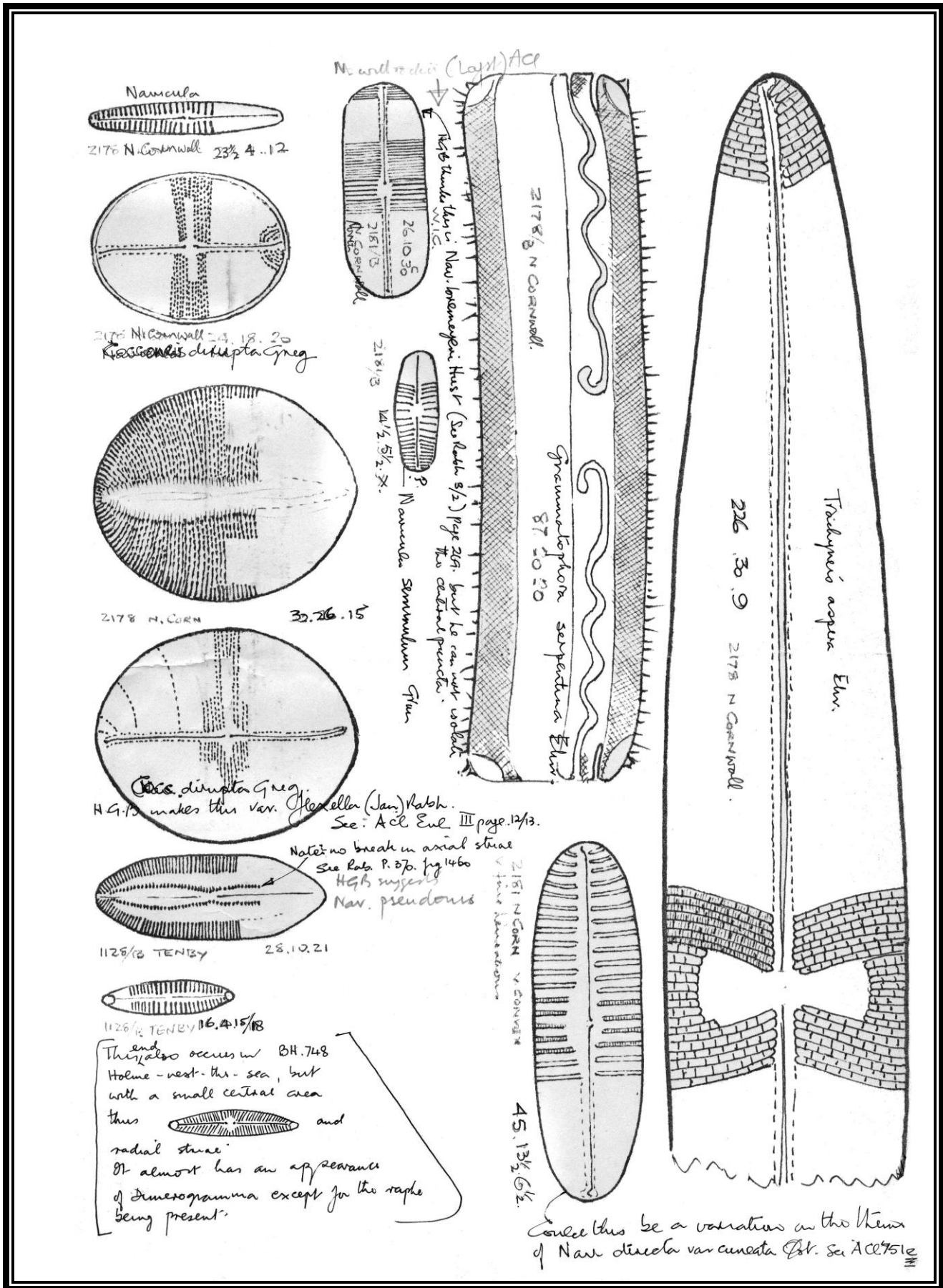
Miscellaneous Plate 357



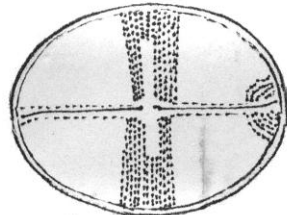




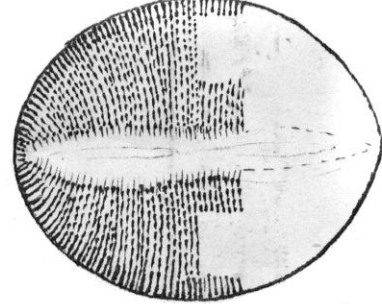
Miscellaneous Plate 360



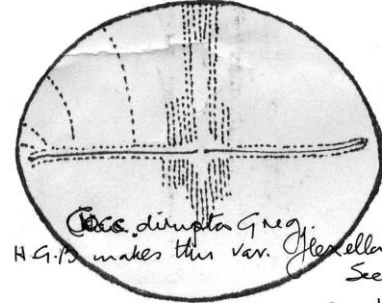
Nannula  
2176 N. Cornwall 23 1/2 4 .12



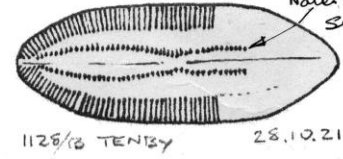
2177 N. Cornwall - 4. 18. 20  
Pseudonella disrupta Greg



2178 N. CORN 32.26.15




Glenella (Jan) Ratsch.  
H.G.B. makes this var. Glenella (Jan) Ratsch.  
See: Acl Eul. III page. 12/13.

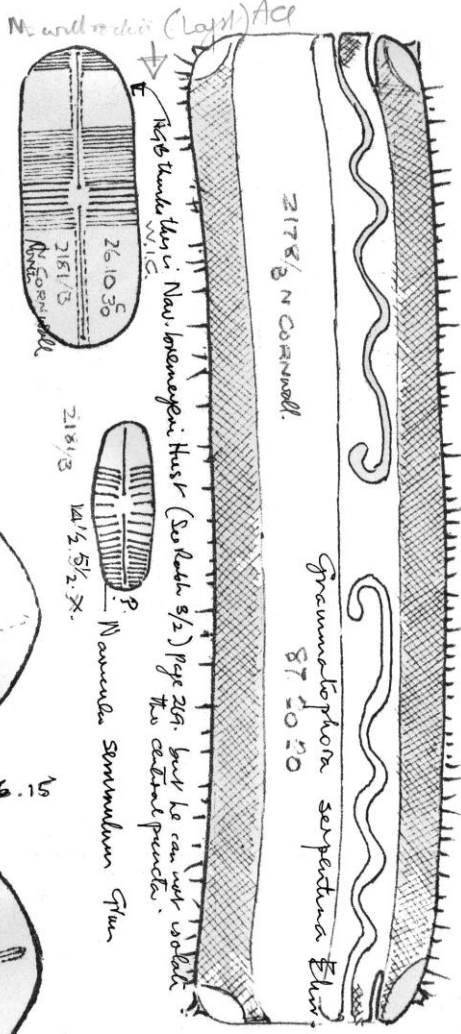


1126/8 TENBY 28.10.21



1126/2 TENBY 16.4.15/18

This also occurs in BH. 748  
Holme - next - the - sea, but  
with a small central area  
thus  and  
radial striae.  
It almost has an appearance  
of Dimerogramma except for the raphe  
being present.



N. and P. etc. (Lach) Acl

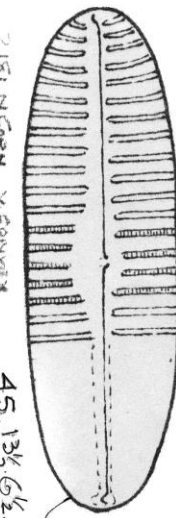


2181/3  
N. Cornwall  
2181/8  
14 1/2 5 1/2 X.  
P. Nannula. Simundium filum

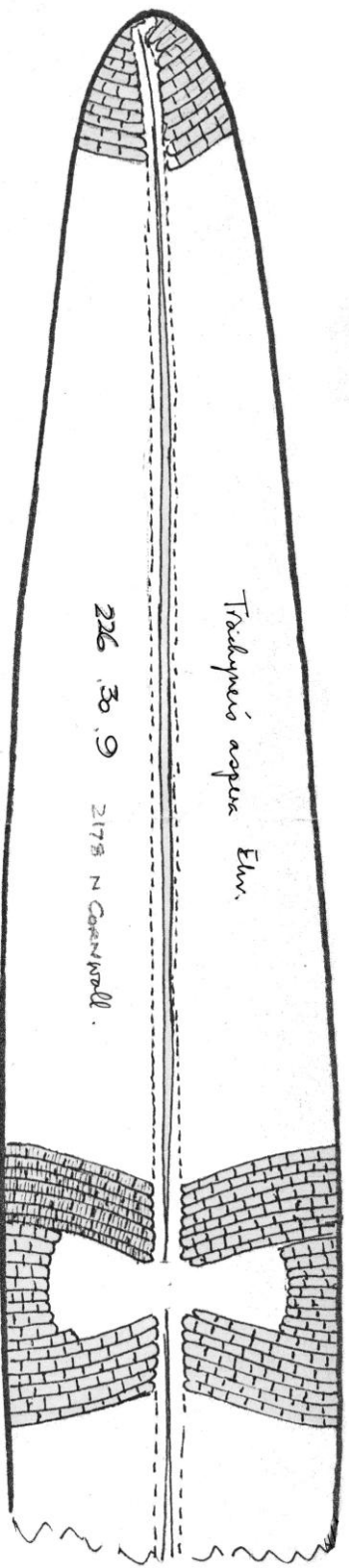
Right hand this is Nann. homomorphi Hust. (See Ratsch 5/2) Page 216. but he can not identify the central process.

2178 N. Cornwall.

Gyrodactylus serpentina Ehrh.  
87 20 20



2181 N. CORN V. CORNWALL  
45.13 1/2 6 1/2



226 30 9 2178 N. Cornwall

Trachyneis rapax Ehrh.

Could this be a variation in the form of Nann. discata var. cuneata Gr. see Acl 751e

NIH also found in Scyllia  
Newspaper

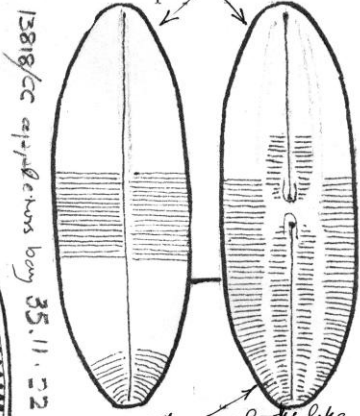


13818/CC. 34 1/2 6 1/2 24.



Appelcross Bay, N. Scotland

See also a similar case with  
"Cocconeis" at Reay II, 16 which  
we called Cocconeis lypa.  
Note: - Both from the  
same frustule !!!



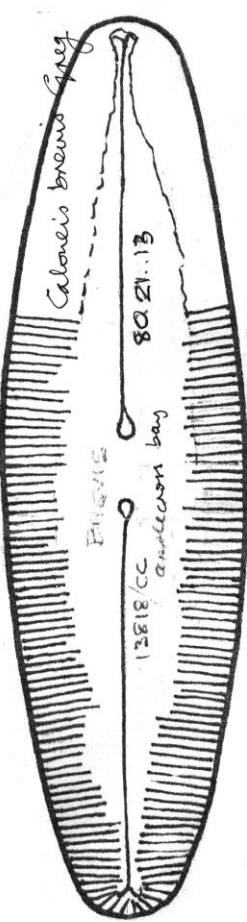
13818/CC Appelcross Bay 35.11.22



13818/CC Appelcross Bay 35.11.22

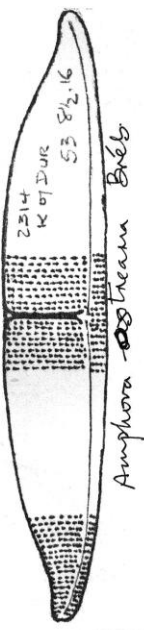
H.G.B. says Nav. var. var. Carter

This one looks like  
Nav. hudsonensis Green  
but what about the other valve



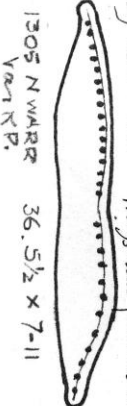
Caloneis brownii Gray

8021.13  
13818/CC  
Appelcross Bay



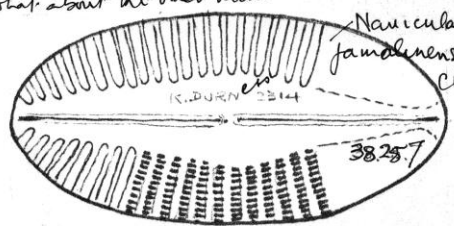
2314  
K. DURNESS

Amphora ~~estrea~~ Bréb



1305 N.W. R.R.  
VAN R.K.P.  
36.5 1/2 x 7-11

Nitzschia 'pavulula' Lemm

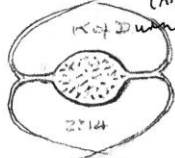


Navicula  
fandulensis  
Clare

K. DURNESS 2314

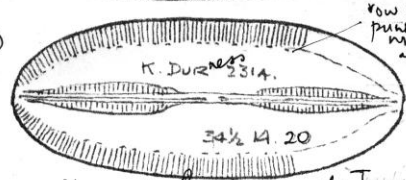
38.25.7

Chaetoceros cinctus Grun  
(MA. 3.41/11)



K. DURNESS

2314



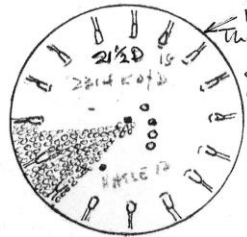
Navicula hyalinula de Tom  
(su also pp. 369.)

Ceratulus  
twiggii Ehrh.

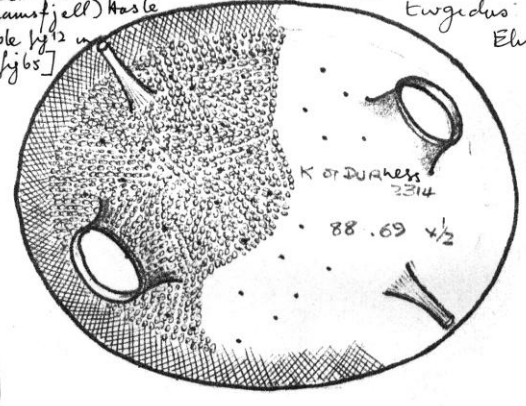
row of  
puncta  
in  
along  
seen

K. DURNESS 2314.

34 1/2 14.20

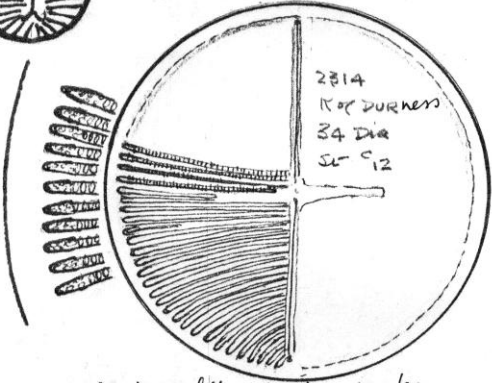


H.G.B. says  
Thalassiosira poroseriata  
(Ramsfjell) Hasle  
[See Hasle p. 12 in  
Di II. figs]

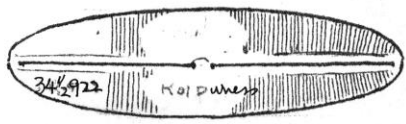


K. DURNESS 2314

88.69 1/2



2314  
K. DURNESS  
34 Dia  
52 1/2



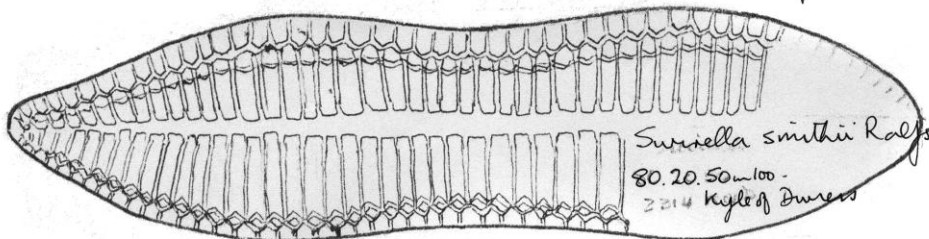
34.922

K. DURNESS

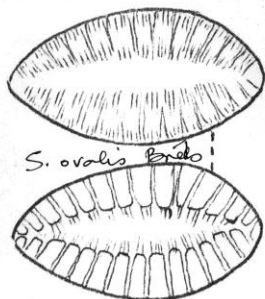
Not unlike ASA 189/34  
Cocconeis magnifica Janssch.

Miscellaneous Plate 362

Note: Kyle of Dunes slide 10496 per JAC  
was from sand ripples at low tide!

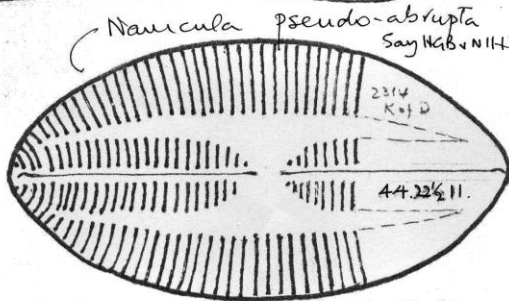


*Navicula smithii* Ralfs  
80.20.50w.100 -  
2214 Kyle of Dunes



*S. ovalis* Gröb

30.12.50. 2214 KofD.



*Navicula pseudo-abrupta*  
Say Hab. N.H.

2214 KofD

44.22 1/2 11.

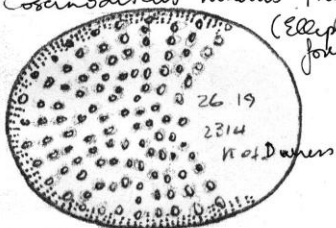
check again the terminal features as otherwise  
it looks like *Nav. scopulorum* Gröb  
(60-400) (7-16) (16-24)  
± 20 pericentral

44.22 1/2 11

2214 KofDUR

80 13 1/2 20

*Coscinodiscus nitidus* Gröb  
(elliptical form)

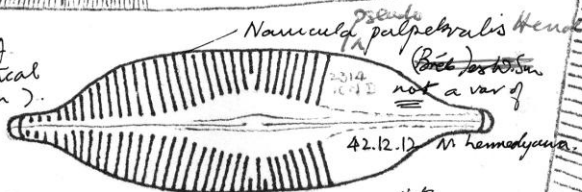


26 19

2214 KofDunes

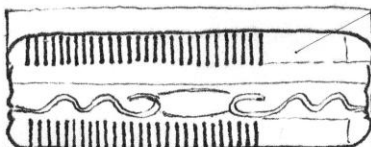
? *Navicula*  
*tryplocornella*  
var. *debilis*  
(Arnett) A. Mayer.

2295 Nor. B. 14.6 2010



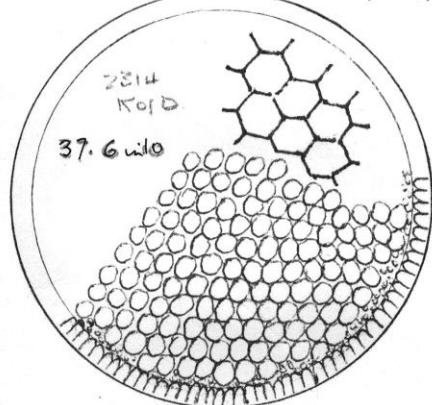
*Navicula palpestralis* Gröb  
(Brock for Gröb)  
not a var of

42.12.12 M. hemadyana.



Note:  
complete pustules  
but only one  
septum.  
this occurs  
often in this  
genus

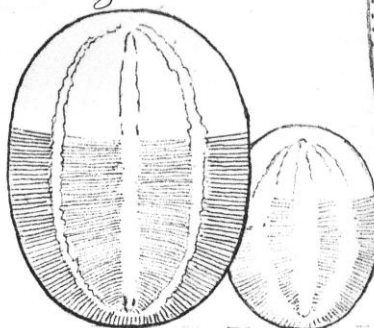
2214 KofDUR *anguinea* 32.14.12  
*Grammatophora angulosa* Ehw.



2214 KofD

37.6 w10

*Coscinodiscus lineatus* Ehw.



2184 N. CORN 28.20 1/2 25

2375 NOR. EAY

59.4 30 11+CAE

*Navicula*  
*palpestralis* Gröb

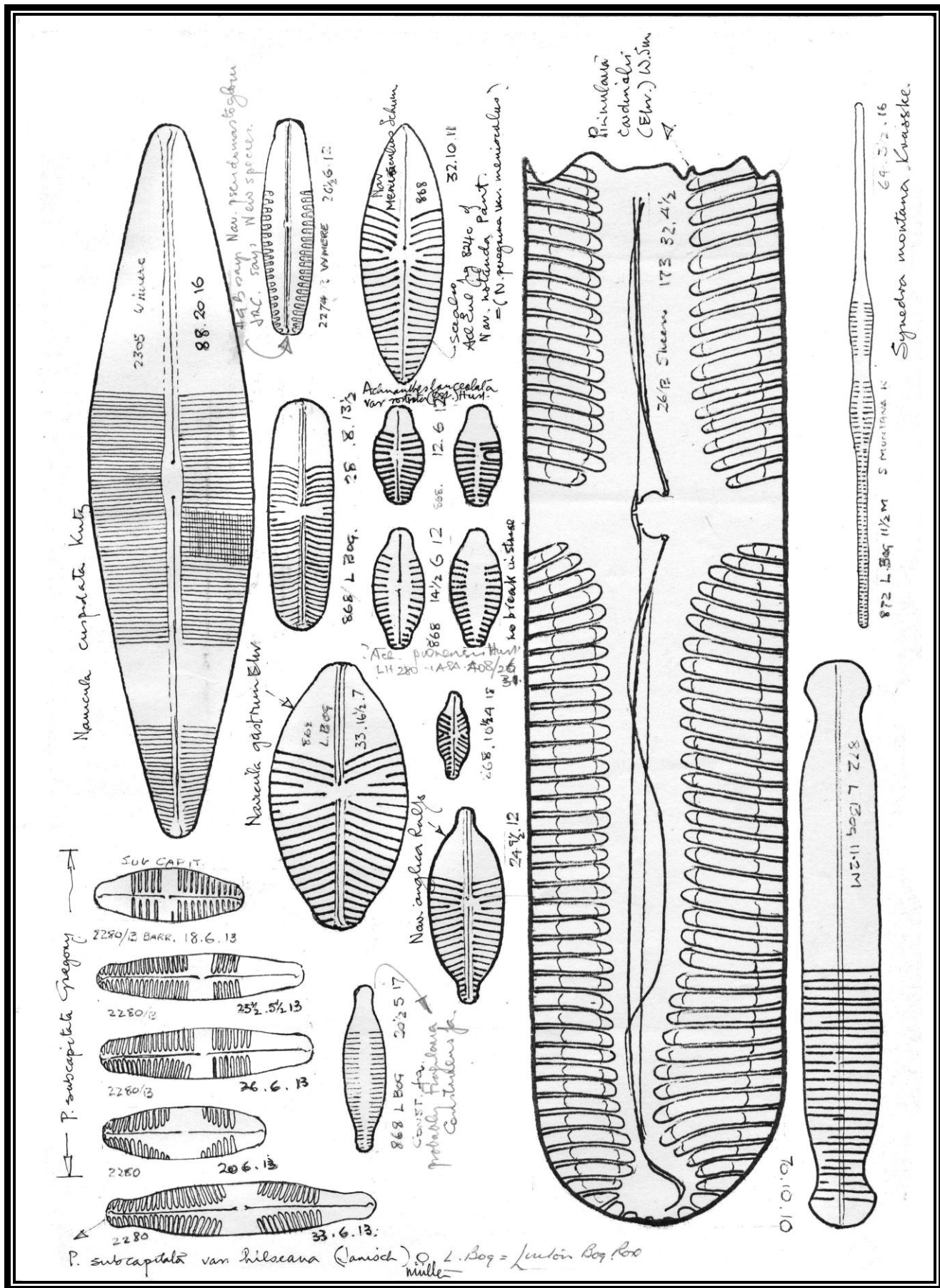
2212 TRESPONE

24 5 10

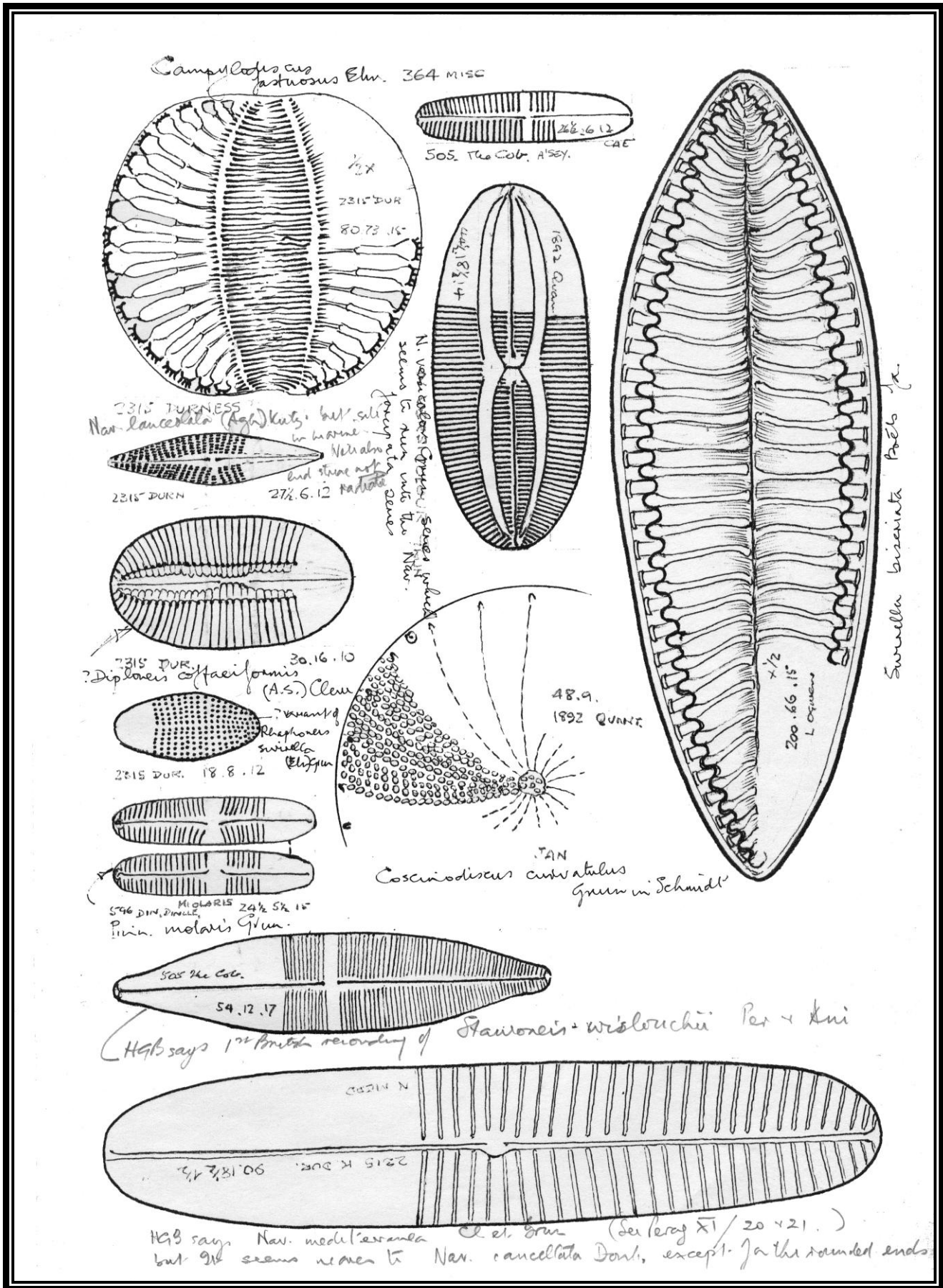
± 20 pericentral

*Navicula*  
*linguis* var.

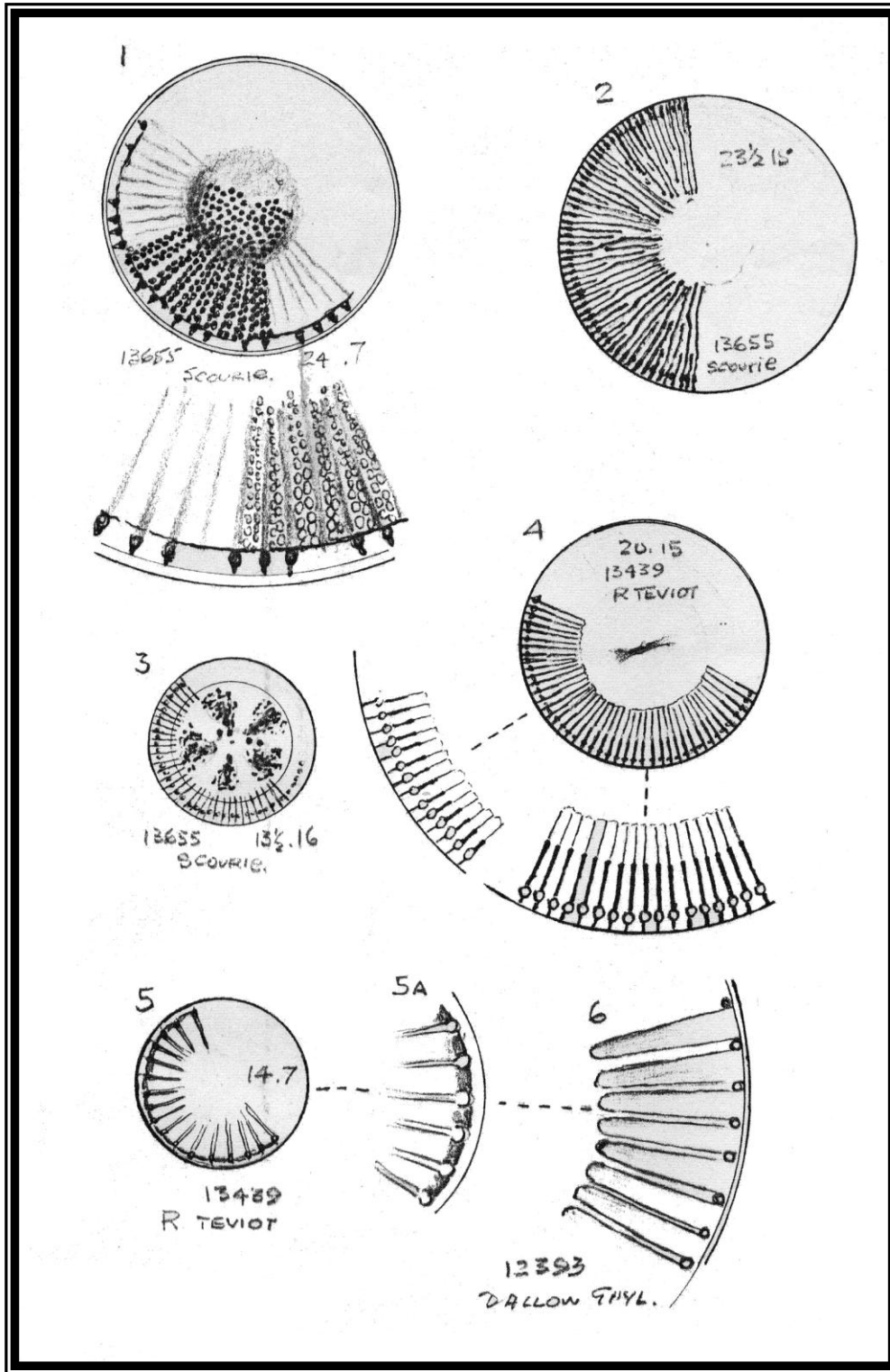
See *Paragallo*. LXXV/1/3-4



Miscellaneous Plate 364



Miscellaneous Plate 365



1. This is not like the usual *Steph. astraea* I find. Note irregular spines, Central area not typical.

2. I question as being *Cyc. striata*. There are quite a few but often broken valves.

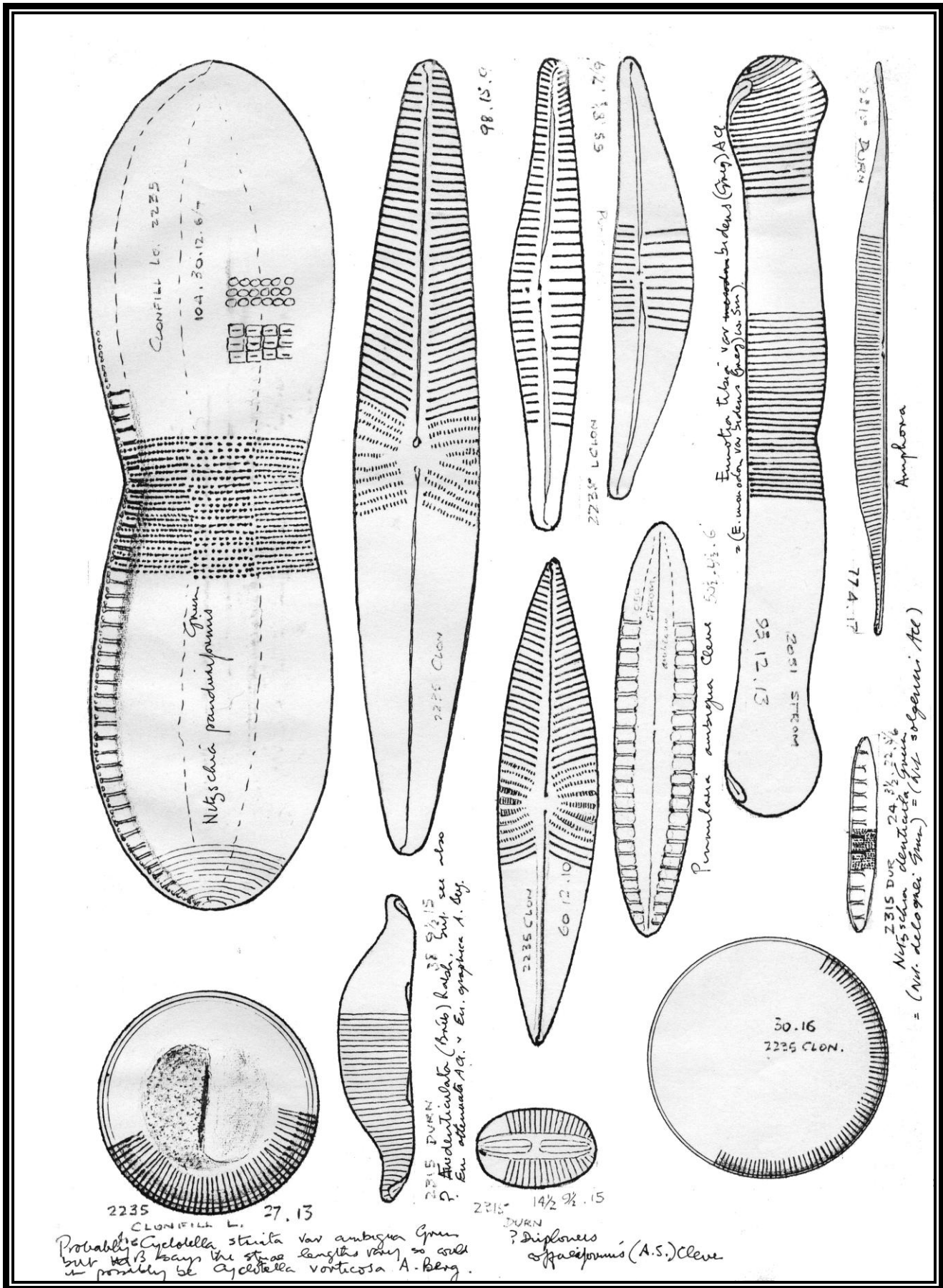
3. *Cyc. commensis* OK.

4. You say this is *C. kutzingiana* but *C. kutzingiana* is striae 12-14 OK, near enough but these striae in the Central area are same length, not like the figures for *kutzingiana*. See Flora plates for latter. Plate 3, 14, 16 etc. Note length of radial stria vary and there is a central fold. See *striata* in Hust. 14, 30. See Pl. 4 for figs 5, 6, 7 for your 13402/C, I have these as *C. striata* var. *ambigua* Grun.

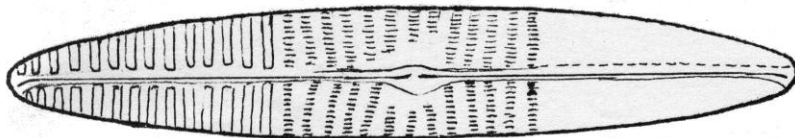
6. The *C. meneghiniana* on 12393/C are quite like I usually find. See Pl. 3, 7, 8, 9, etc. The R. Teviot ones 13439/C 5, 5A are all smaller and no twist visible also minor stria just fade out and not like fig, 6. ? a habitat variation?

H. "I have had another very careful look at 13439 and am pretty certain it really is *kutzingiana*. Striae are 13 – not quite equal, so the valve is tangentially curved on the one surface. I agree not quite to your plate 2 but still with the sp. The equal like the above length is shewn in Hustedt (1930) in his fig. of var. *radiosa*. – all very tricky and subjective."

Miscellaneous Plate 366



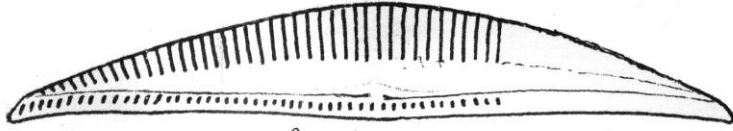




1892 Quant

Navicula? spina? divisa 70.12.6.

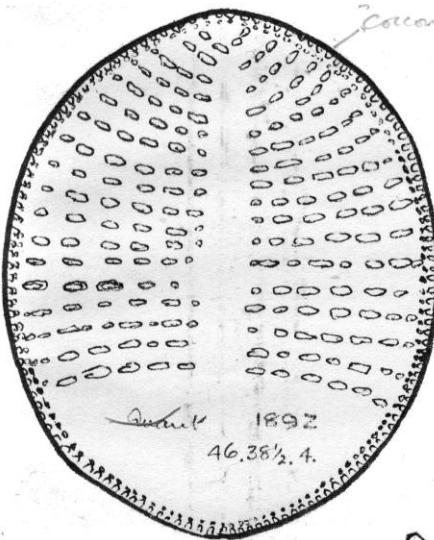
2171 TREV 2 1/2 3 1/2 17  
Str v faint  
? Amphora Swadlowi Gray



1892 QUANT

Amphora

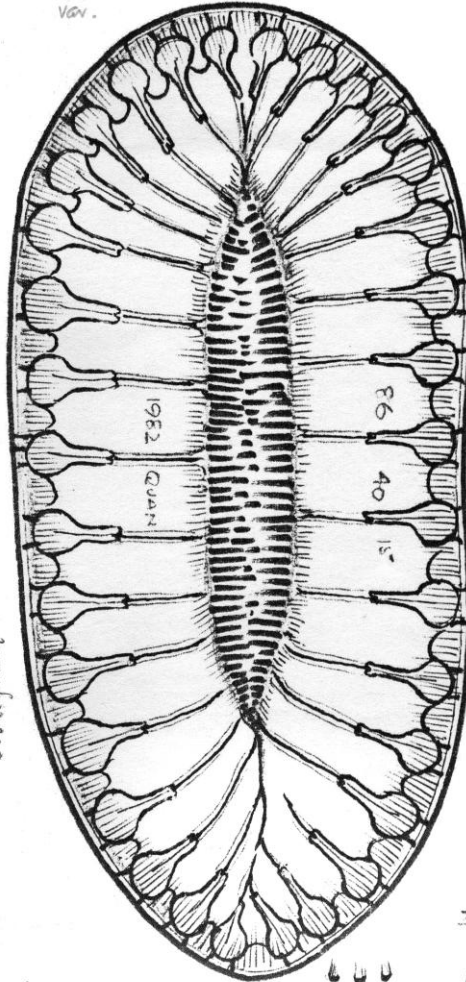
64.10.10.



Cocconeis scutellum  
var.

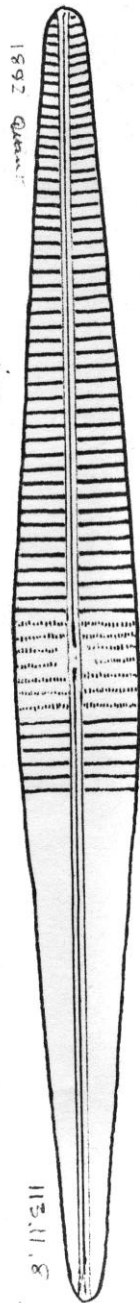
1892  
46.38 1/2 .4.

Sutrorella fastuosa (Ehr) Kütz.



1892  
QUANT

86  
40  
15



1892 Quant

113.11.8

Nav. divisa W.Sm  
(normally more strongly sinuate than this)

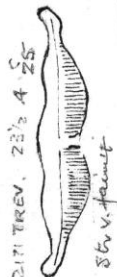


2171 TREV. 23 1/2 6 1/2 14



2171 TREV 30 1/2 4.18

Amphora



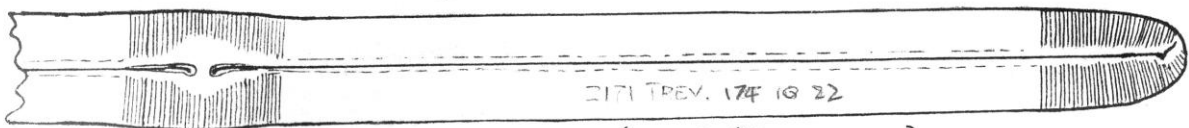
2171 TREV. 23 1/2 4 25  
Str v faint

? also a form of  
Amphora Swadlowi Gray

2171 TREV. 16 9 1/2 7



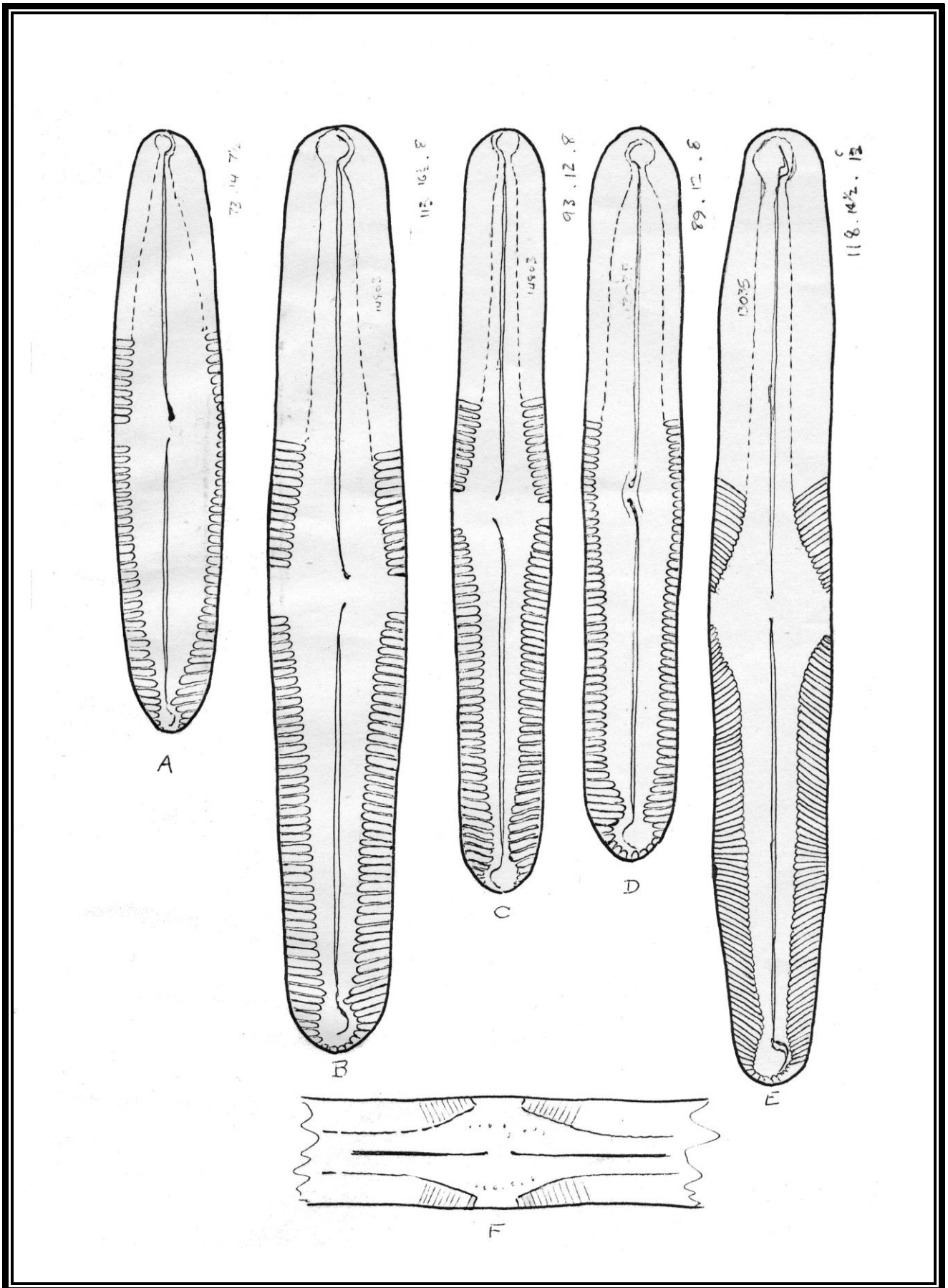
? Cocconeis costata Gray

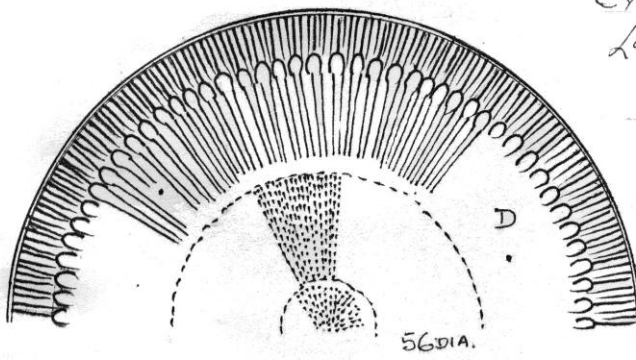
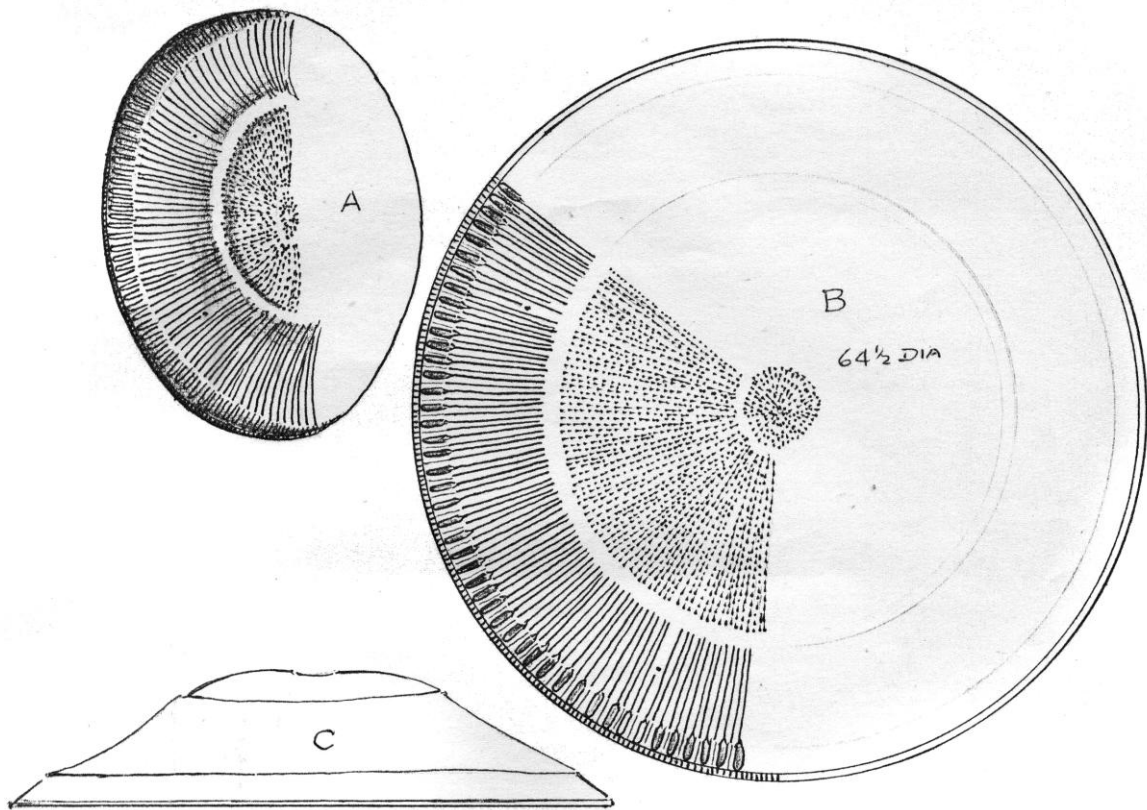


2171 TREV. 174 16 22

Caloneis libet (W.Sm) Cleve var ?  
or a long Cal. linearis (Grun) Boyer

Miscellaneous Plate 368





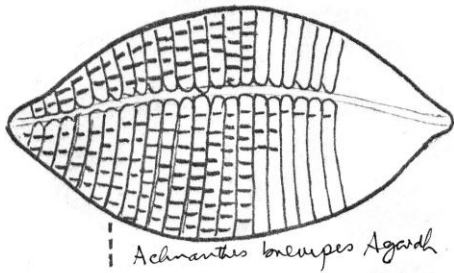
CYCLOTELLA BODANICA EUL.  
Lac Lemmon - N° 169 D.R.

B. Mus. type slide 14423.  
from the Deby collection.  
labelled:  
J. Lemper. H. Peragallo  
Paris.

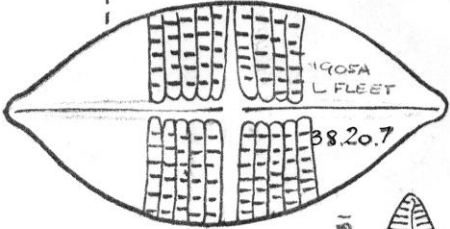
- A - Conjectural view of tilted valve as it was not possible for me to find one strictly on edge.
- B - Presentation of outer surface of valve and a large specimen. The average diameter being about two thirds this diameter.
- C - Cross section of a valve as far as I can tell by differential focussing
- D - Presentation of inner surface of valve.

Note - I do not see the cross section of what valves seen as that figured by some diatomists

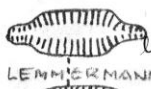
Miscellaneous Plate 369a



*Achnanthes brevipus* Agardh



1866 K of T. 29.9.15.



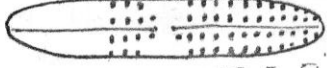
*Achnanthes Lemmermannii* Hust.  
LEMMERMANNII



1905A 12 4 15  
L. FLEET *Sceptonema australe* (Pehr.) var. *boreale* A.C.

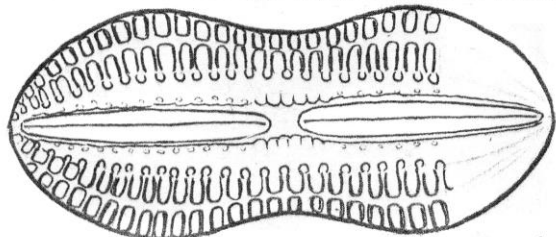


K of Tong 1877 24.6.9.



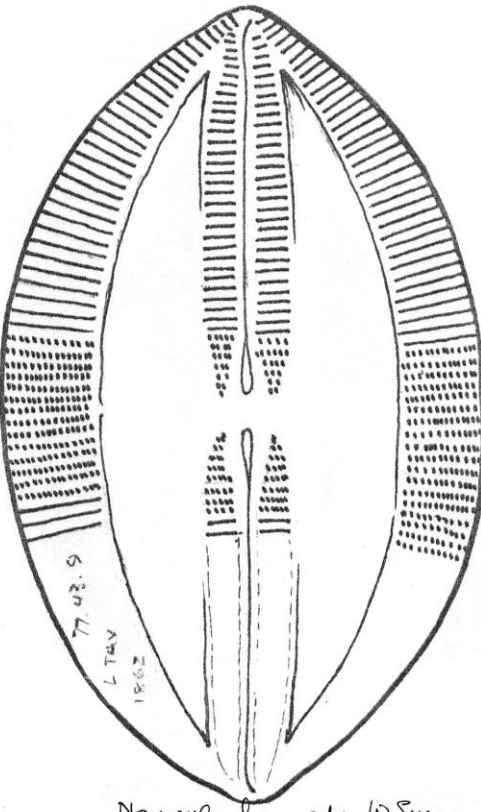
1877 K of Tong 28.5.9

*Achnanthes pseudogroenlandica* Hensley  
D. SUBCINCTA (A.S.) CLEVE

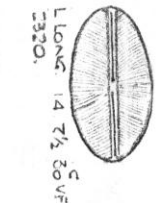
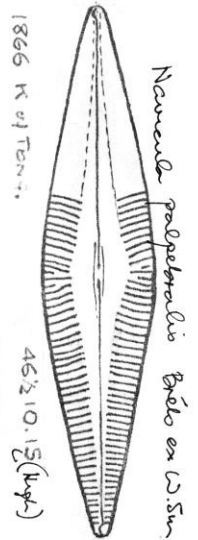


1866 K of Tongue 48.20.6

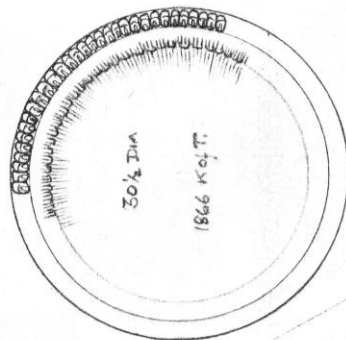
*Deploneis subcincta* (A.S.) Cleve



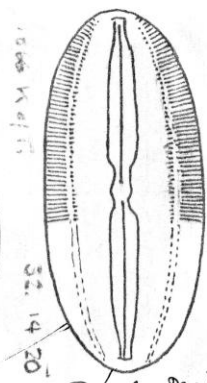
*Navicula hennedy* W.Sm.



*Navicula palpestralis* Bréb ex W.Sm.  
(high striae rate)



*Paralia sulcata* (Ehr.) Cl.

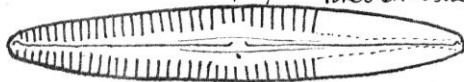


See also Pl 361.

See also Flora Plate 86/20.21. <sup>not type of Dinesen material</sup>  
 See also however Hensley's *Pantlevar* fig 32  
 of *Nav. hyalinula* de Toni which says 1498,  
 "is not brilliant". Generally the striae are marginal  
 and just inside the perimeter. Within these striae  
 are sometimes seen a row of punctae as Flora 86/21  
 The central feature  
 is fairly constant.

See also Plate 361  
 1498 says:-  
*Nav. hyalinula* Donk.  
 but it doesn't agree with  
 Hensley's 37/6 or  
 Donk's Plate 1/1  
 See Hensley's *Pantlevar*  
*Nav. hyalinula*.

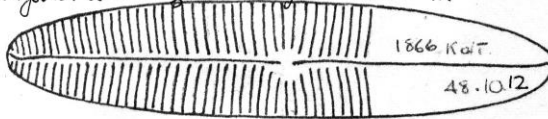
*Navicula palpebralis* 370 misc  
Paves on WSM



1866 K. & Tenacre 40.6 1/2 . 11

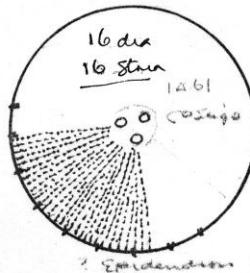


1866 K. & T. this is just about like *Nitzschia marginata* Grun joins forces with *Nitzschia longicauda* Grun ...



1866 K. & T. 48. 10. 12

*Melosira koesseana* Rabh  
var. *epidendron* Grun.



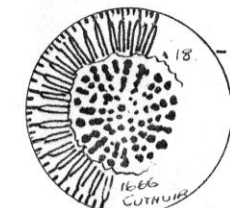
16 dia  
16 str  
1861

? Epidendron

Is this *Amphora* known?  
? *Amphora incurvata* Carter



1861 C. S. 21. 4. 50 X



? *Cyclotella comta* var.



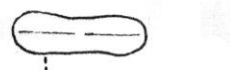
1866 Cuthuir 18. 6 1/2 . 12



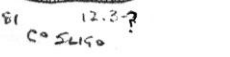
1866 Cuthuir 13



1866 Cuthuir 12. 6. 16



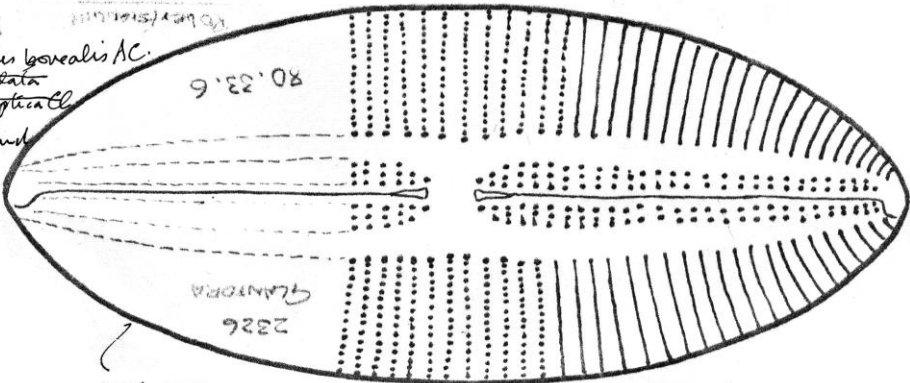
1866 Cuthuir 12. 3. ?



1866 Cuthuir 12. 3. ?

? *Achmanthes didyma* Hust.  
(See also ASA 409/1-8.)

*Achmanthes borealis* AC.  
~~lanceolata~~  
~~elliptical~~  
see page 494  
Ireland



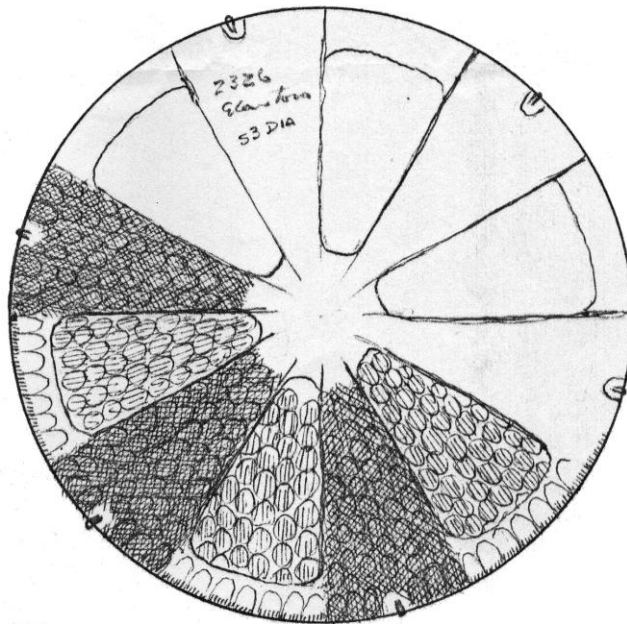
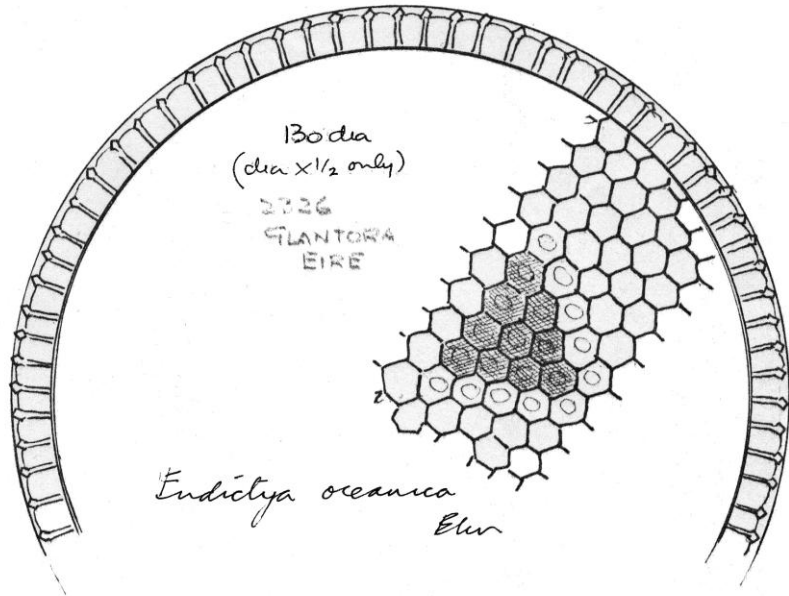
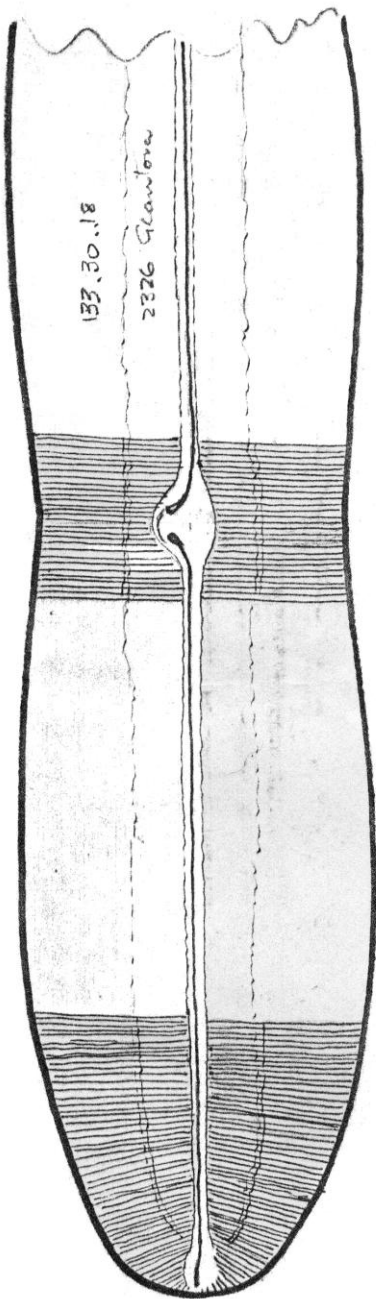
80. 23. 6

2326  
CLANNA

HGB says  
*Navicula robertsianum*

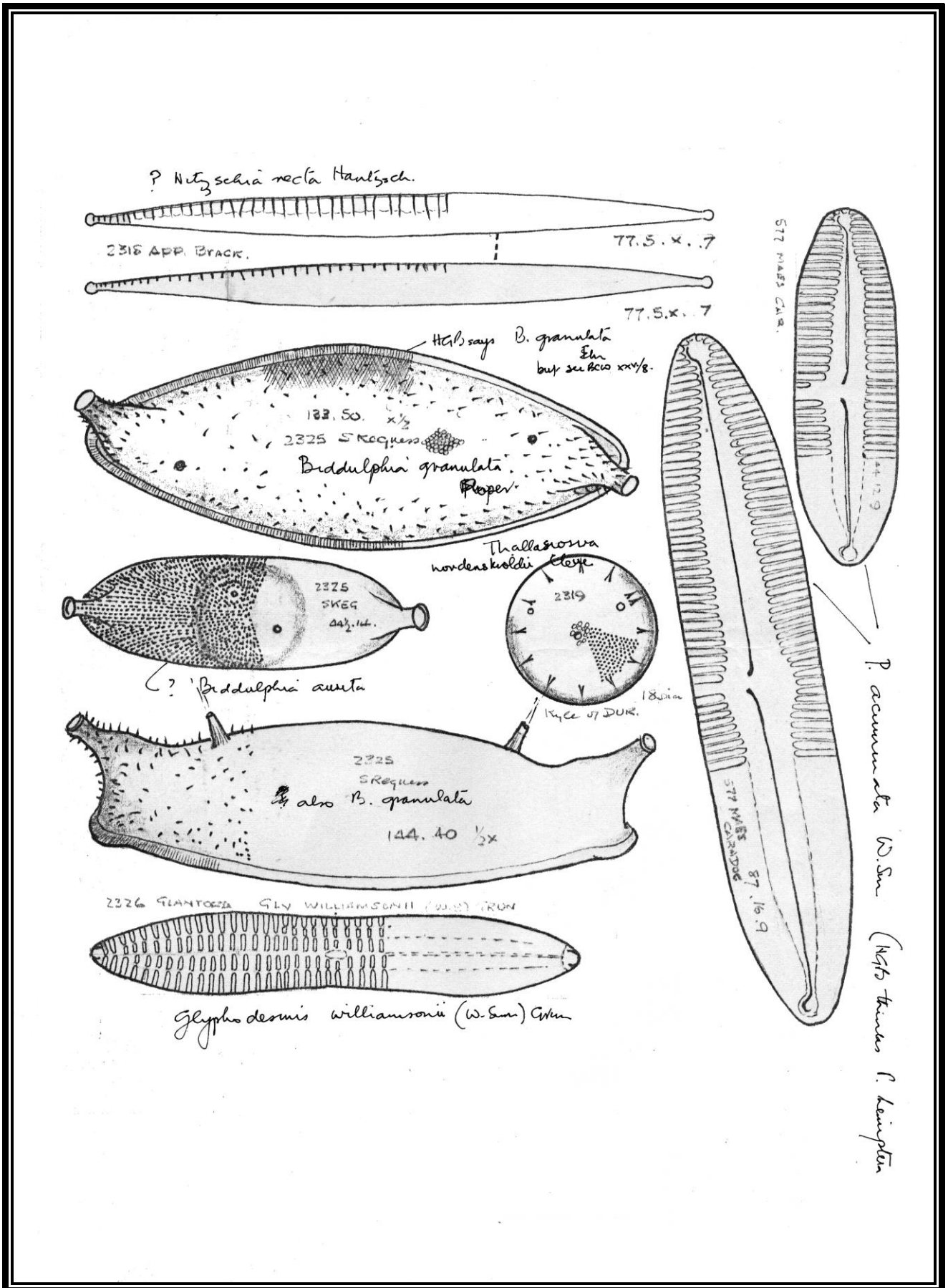
(See thesl: 3 page 494)

Miscellaneous Plate 371

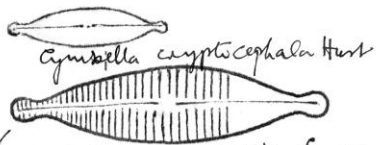
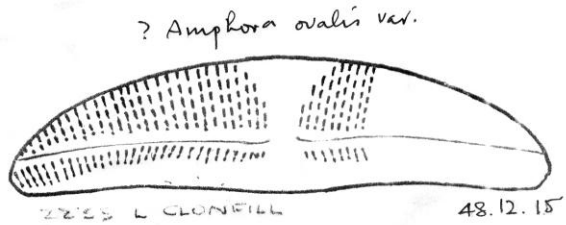
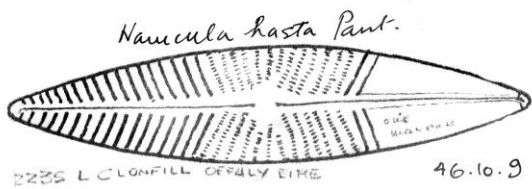


*Actinopterychus senarius* Ehr.

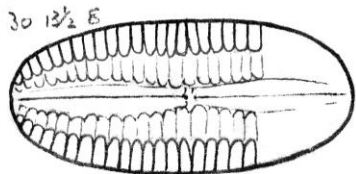
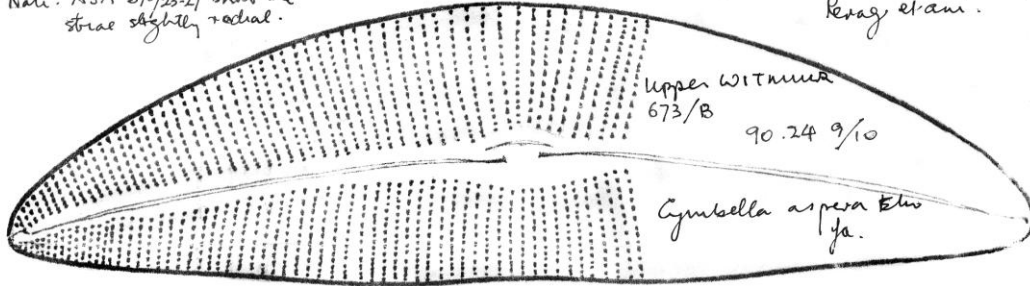
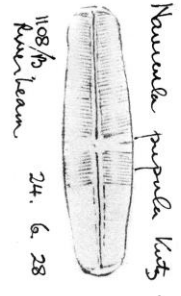
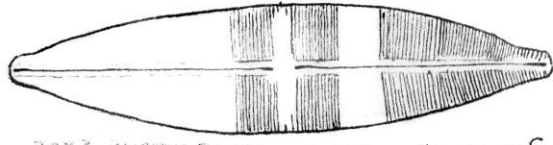
HGB says  
*Caloneis maxima* (Greg) Cl  
but is this just another  
variation of  
*Caloneis liber* W. Sm  
Van Landingham thinks so.



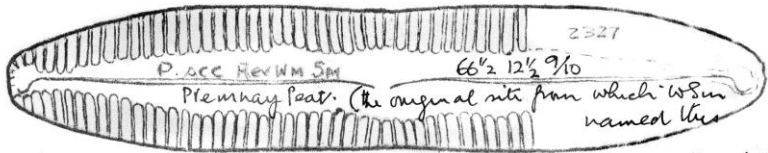
Miscellaneous Plate 373



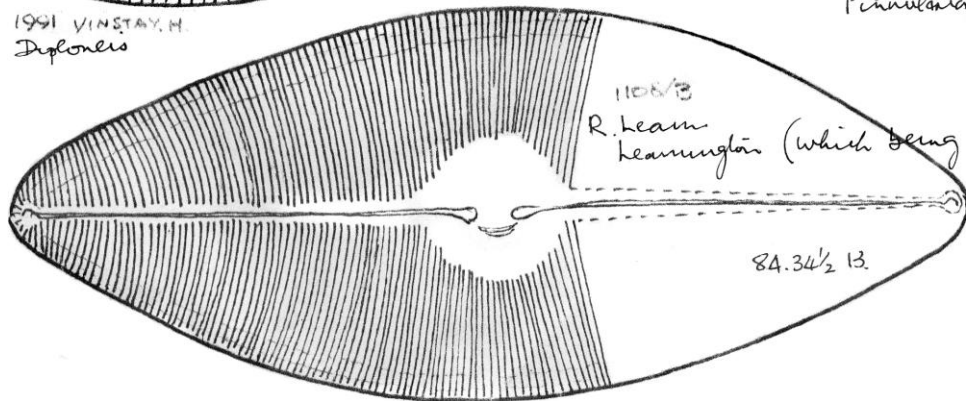
2235 121 3/4 26 x 2  
 Note: ASA 378/23-27 shows the  
 striae slightly radial.



1991 VINSTAY, N.  
*Diploneis*



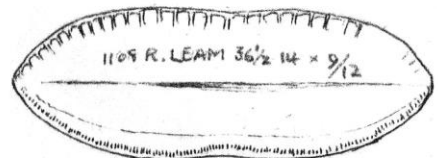
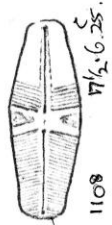
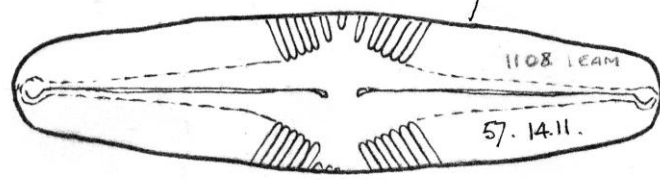
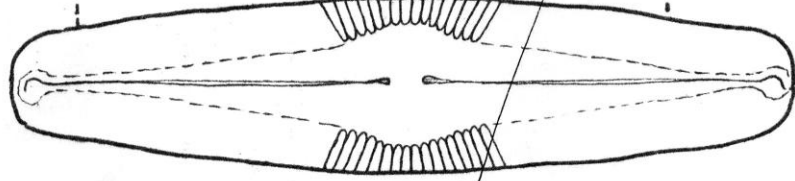
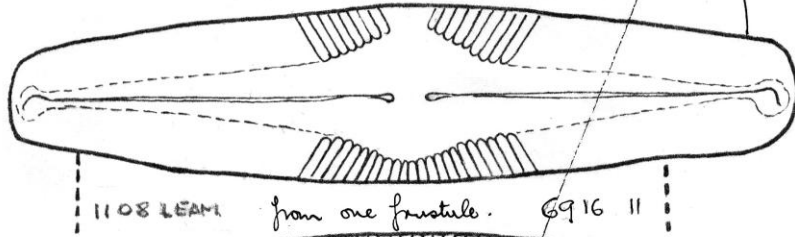
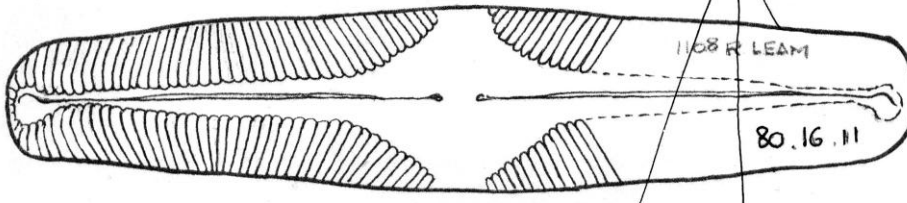
*Pinnularia acuminata* W. Sm.



*Caloneis fenestrata* Acl  
 = (*Cal. pennanga* (Bail.) Cl. var. *fenestrata* Acl.

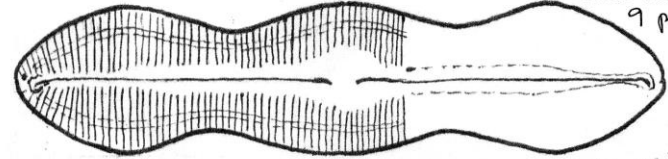


? *Prinularia leymeni* var. *Juventina* (Grun.) Gr.



*Notyschia tubionella* var. *Victoriae* Grun

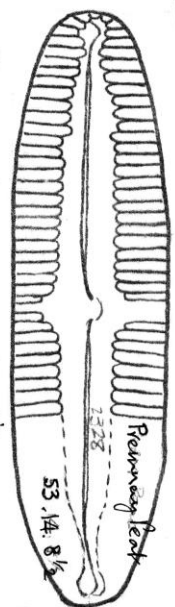
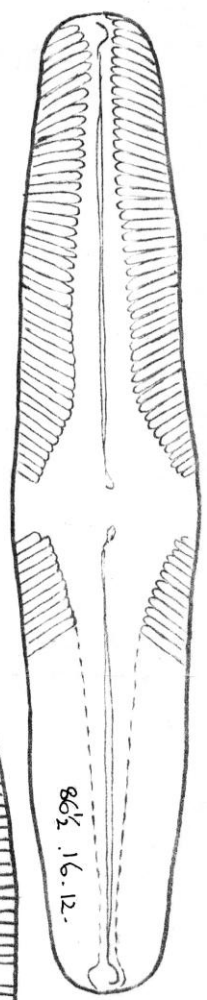
*Stephanoliscus tenuis* Hust  
which should have  
9 pores on a surf.



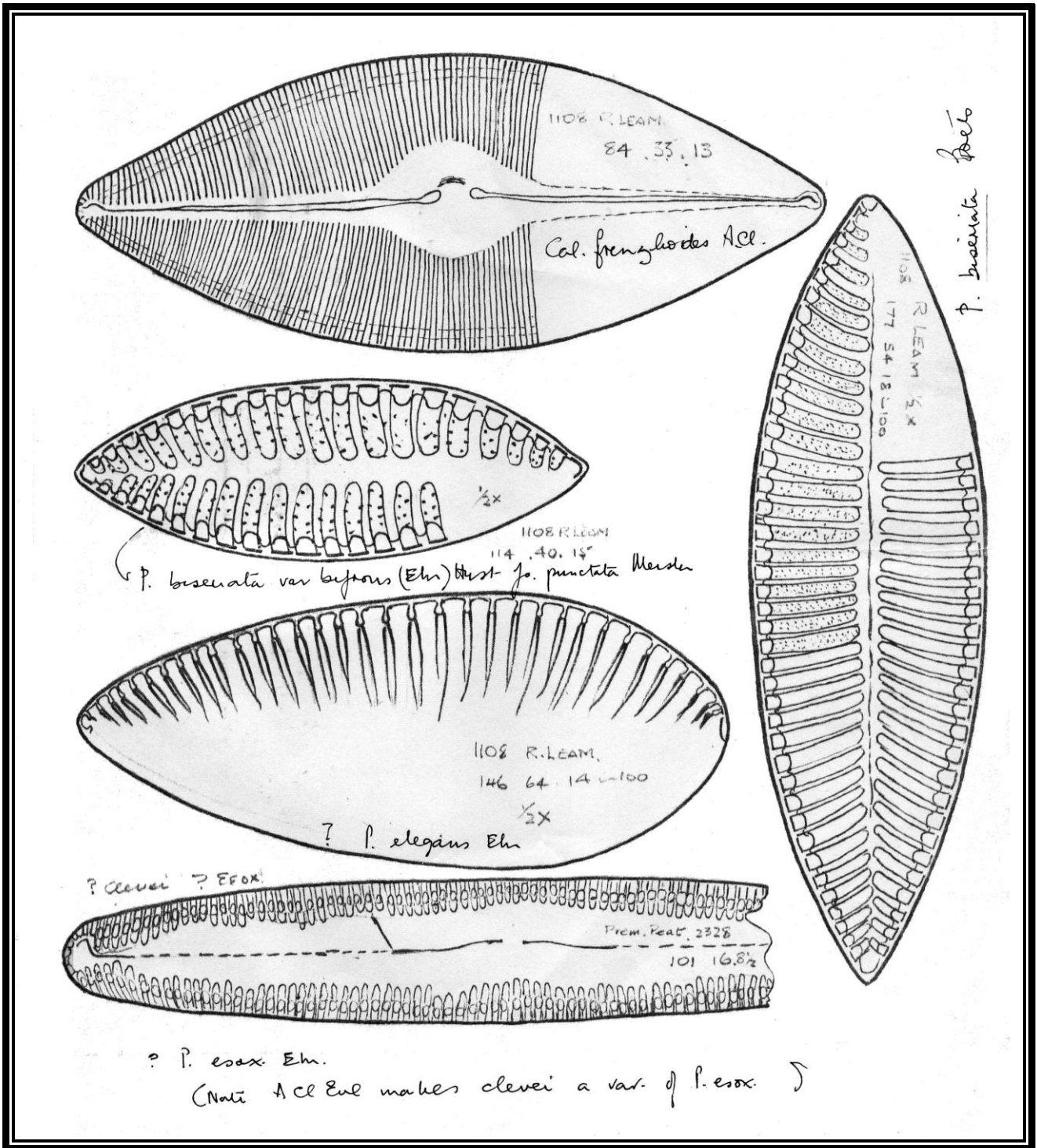
1108 LEAM According to ACE Ehrensh. 57.13 1/2 15'

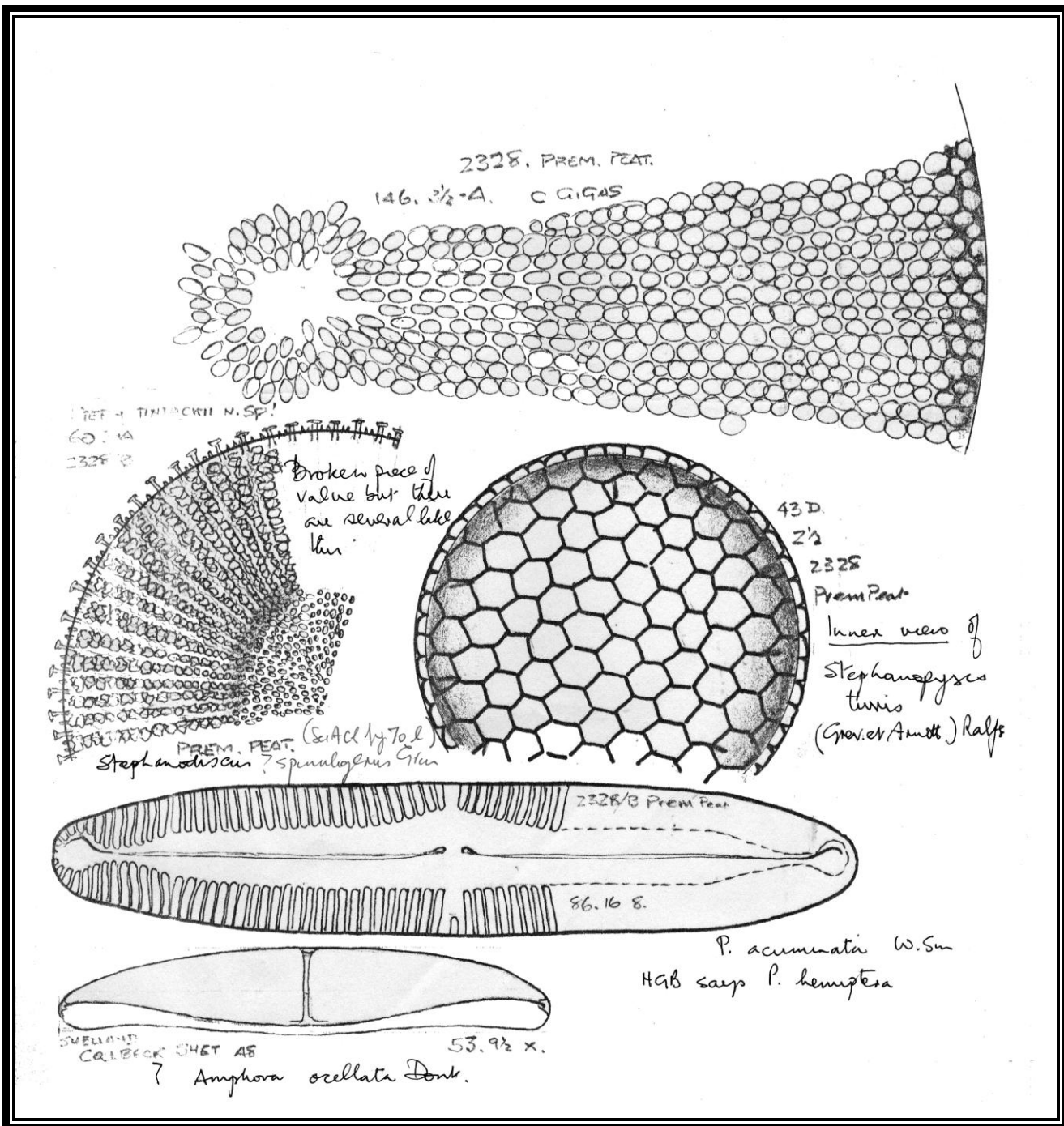
var. *Caloneis silicula* (subspecies *limosa*)  
var. *globosula* (Kütz.) Mayer.

*P. acuminata* W. Sm  
Horace says hemiptera



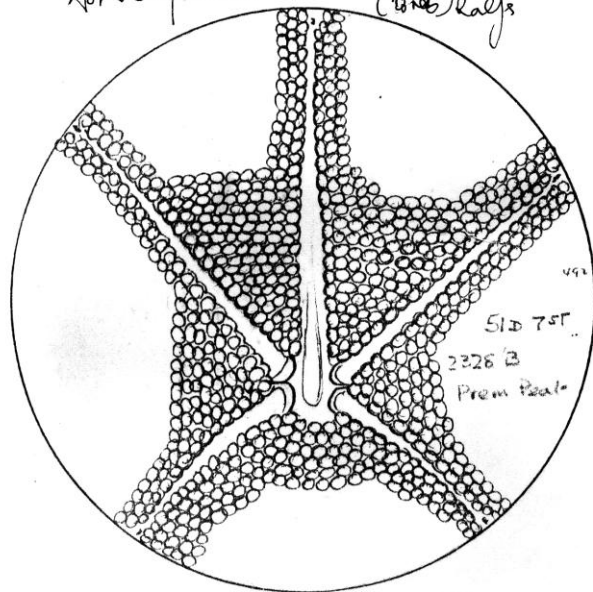
Miscellaneous Plate 375





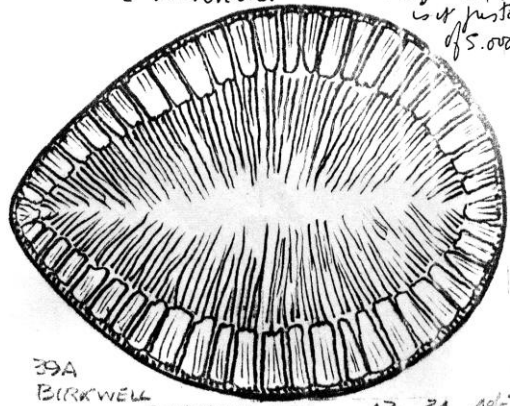
Miscellaneous Plate 377

H.G.B. says generally a brittle material  
 not contained in the Pennine Peak  
 sample?

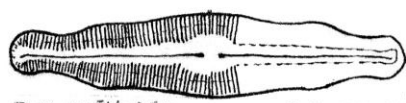


*Asteromphalus arachne* (Br.) Ralfs

H.G.B. makes this *S. ovalis* v. *cremna*  
 = *S. cremna* Bréb ex Kutz - but?  
 is it just a var of *S. ovalis*



39A BIRKWELL SHETLAND ISLES 43. 34 405. L100



BIRKWELL 39A SHET. *Perminularia undulata* Greg 34. 75. 26



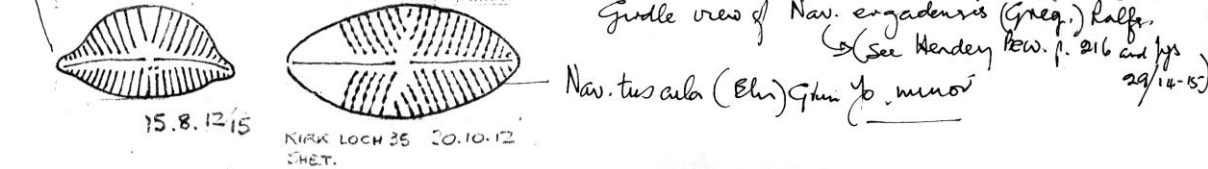
Westphalia 26. 8 1/2 12/15  
*Cymbella tumidula* Grun  
 BIRKWELL 18. 6. 2026 39A SHETLAND



Westphalia 27. 9. 12 1/2  
*Acmenanthe brevis* Grun  
 BIRKWELL 29A SHET 23. 4. X



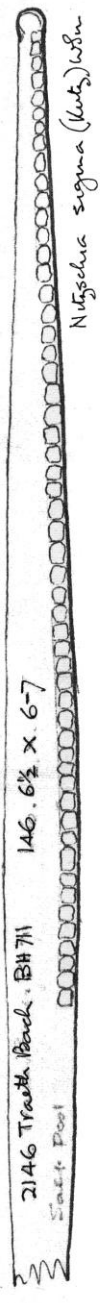
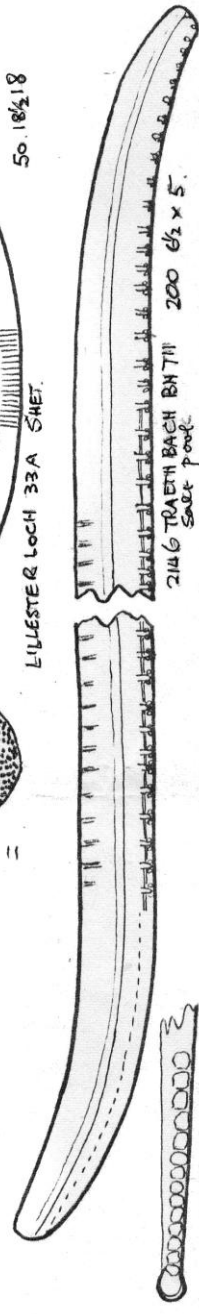
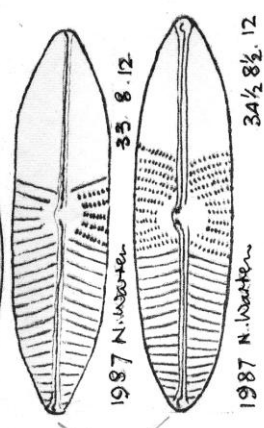
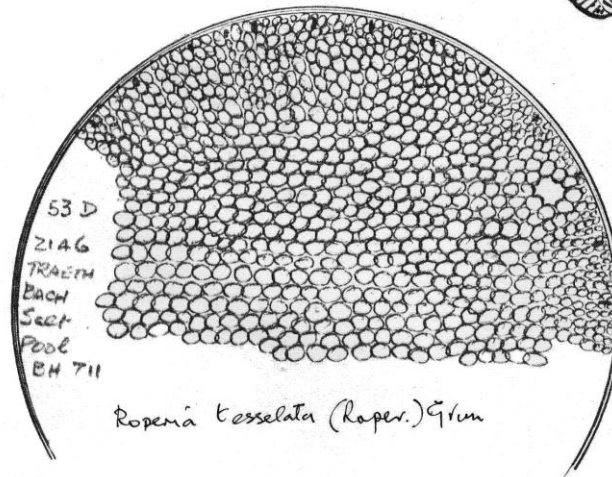
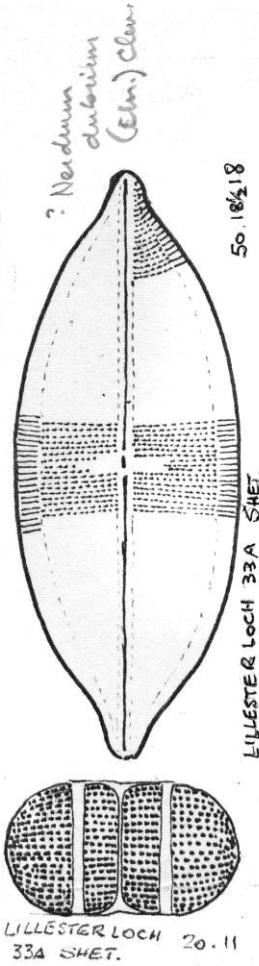
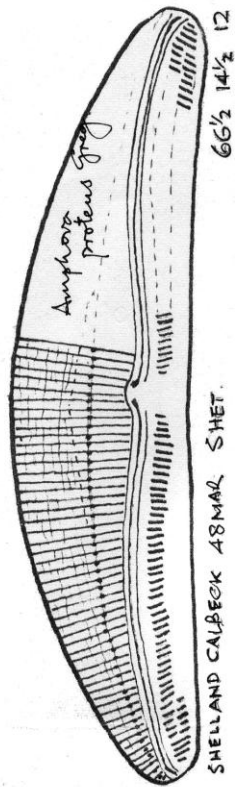
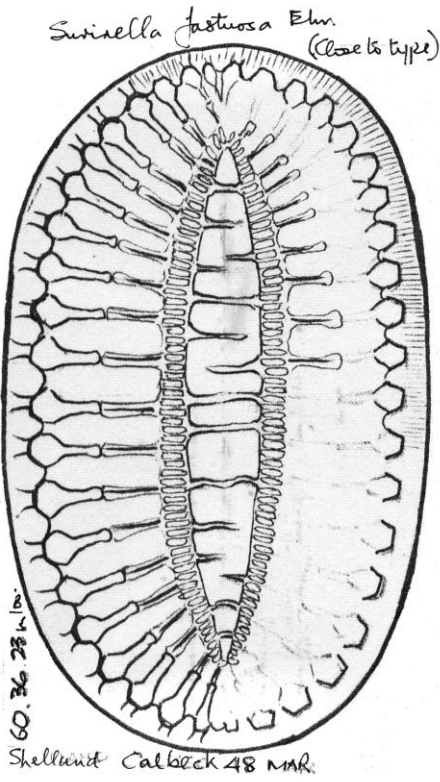
Westphalia 24. 9. 12/15  
 BIRKWELL 13 1/2. 8. 18 SHET. 39A  
 TUSCULA 10 MINOR



SHETLAND CALBERT 46 SHET. 57 9 1/2 . 8  
 Guide ves of *Nav. engadensis* (Grun.) Ralfs  
 (See Hendeny Rev. p. 216 and figs 29/14-15)  
*Nav. tuscula* (Ehr) Grun sp. minor

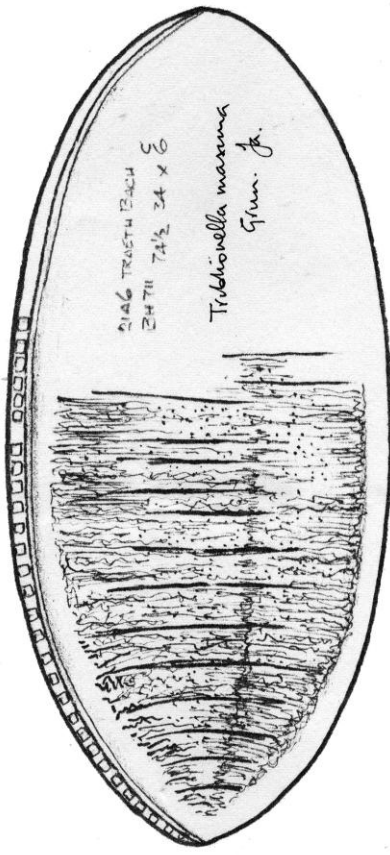
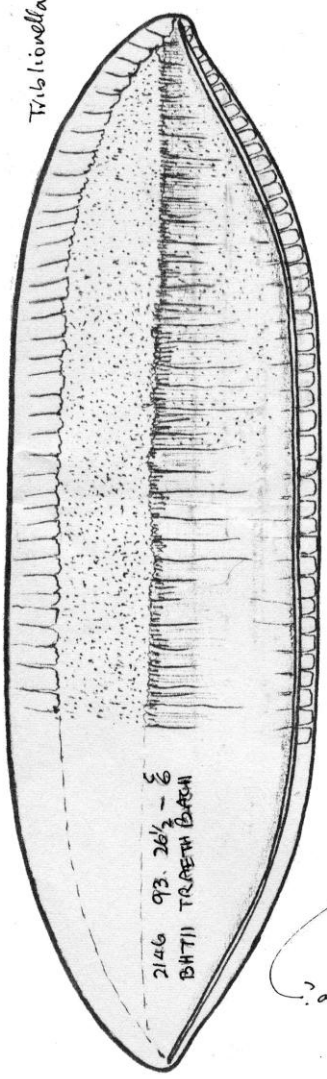
Note: Hustedt gives  
*C. tumidula* (fig 699) L 25/35. B 6/9 Str 14/18.  
*C. tumidula* (fig 670) L 30/50 B 10/15 Str 9-10.

An average of 8 random specimens on slide BH 915. gave average width of 8 1/4 μ + length 22-34 (av. 30.) and the striae 15-18 μ 10 μ

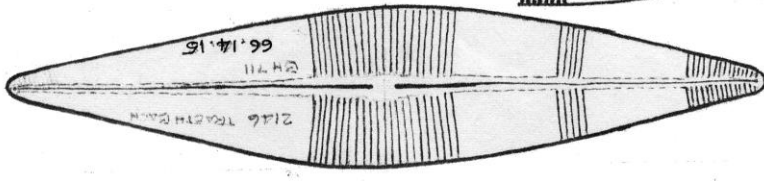
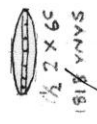
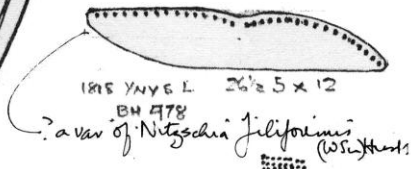
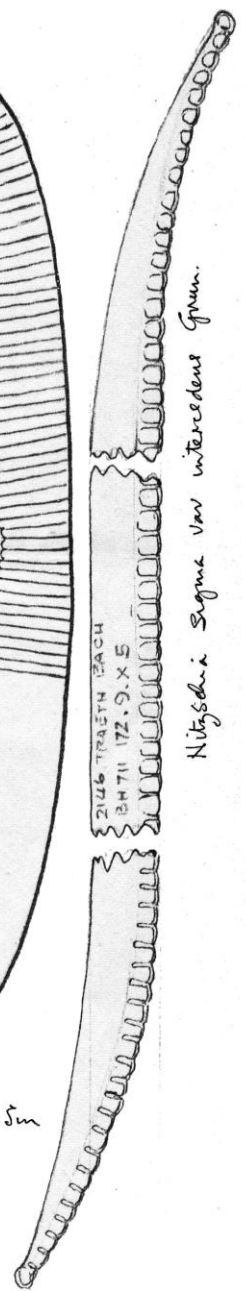
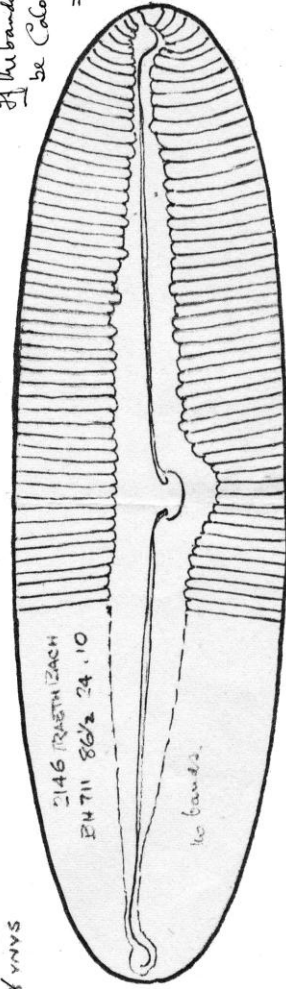


Miscellaneous Plate 379

*Triblionella maxima* Grun.



If the bands were present it would be *Coloniais westii* (W.Sm.) Hensley = (*Col. fortisosa* (Grog.) Cleve)



*Naucula rhombica* Greg.

Possibly an odd view of Amphioxus Crustic  
in Amphioxus

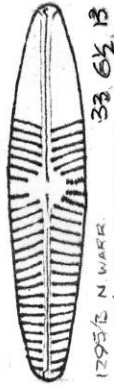


214 G. TRAETH BACH BH 711

103. 9 1/2. 6. NO RAPHE!

Navicula submarginata Grun. Hab says to

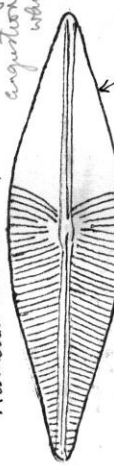
engulphed lanceolata Hust. which he suggests is a 192. trilineal record



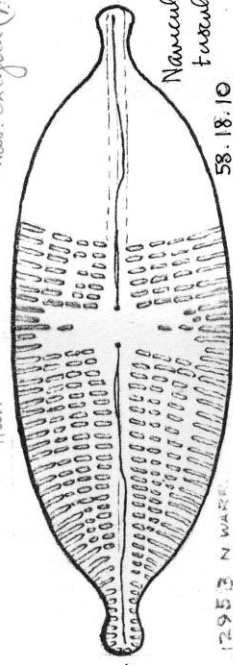
1295 E N. WARE 1741 WAIN FURBER 33 6 1/2 13



1818 YNYE 2 1/2 8 21 BH 117



40 10 17 Navicula acedosa var. tenella (Gr65) V.H



1295 E N. WARE

Navicula fuscula (Ehr.) Grun.

58. 18. 10

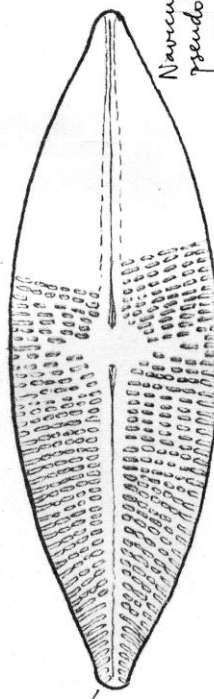


1795 E NEWBORN WAGEN 42. 6. 15



1295 B N. WARE 22. 5. 16

Hab's think ? Nav tenelloides Hust. but ??

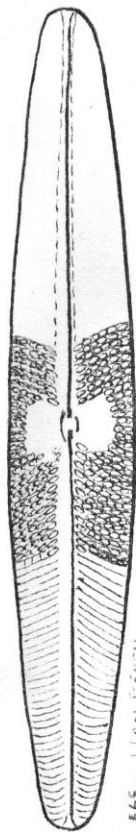


565 F. N. WARE

Navicula pseudofuscula Hust.

60. 18. 12

(N. fusculoides A. Cl.) SURACE 737 W

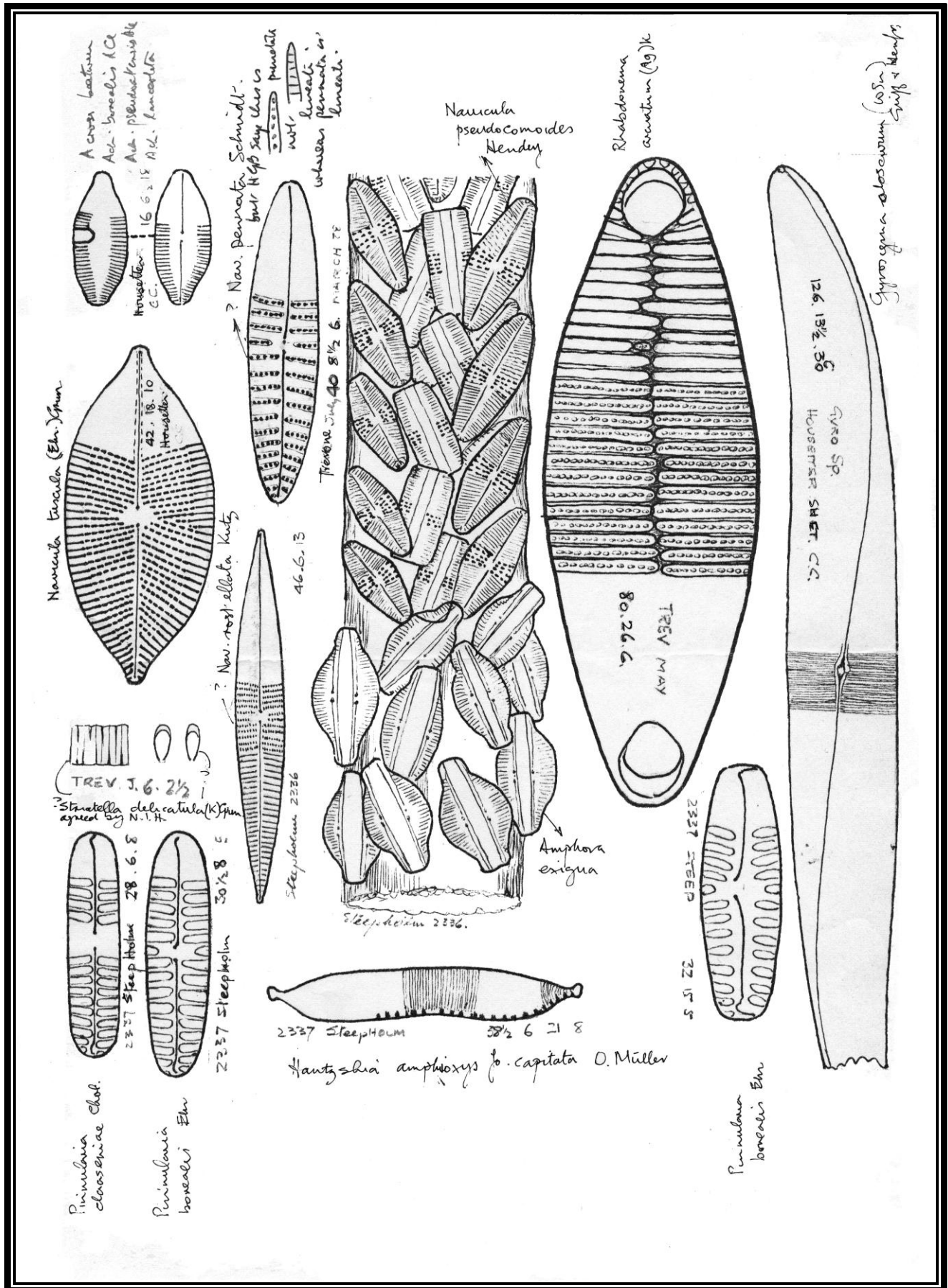


565 E LIAN TEGUCHI

72. 11. 15

But see also A. Cl. Eyles' figures 734 - 740 for several other interpretations  
See also Habsheli 1987. N. Wain was filed as BH. 973. (not BH 639.)

Miscellaneous Plate 381





*Pinnularia borealis* Ehn

382 MISC

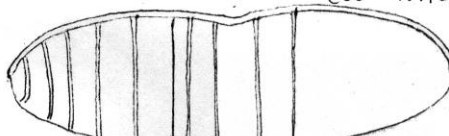


2337. SLEEPH.

43 1/2 . 10.6

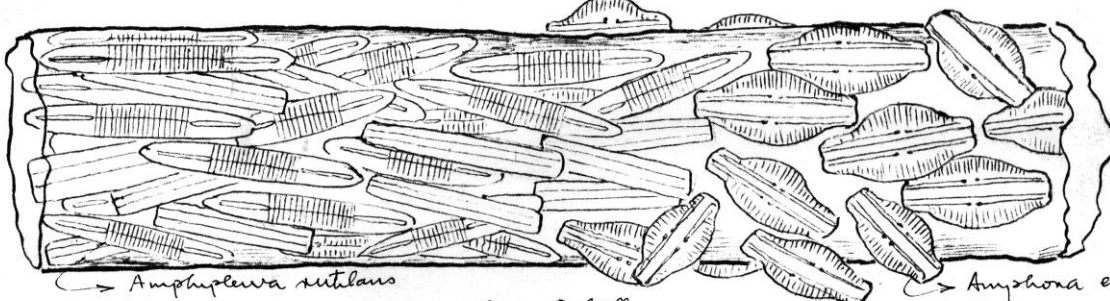
*Nitzschia epithemioides* Grun

(See also Acelul 1450', a-c)



2346 E. SUFFOLK

40.12 x 3/4



→ *Amphipleura sutilans*

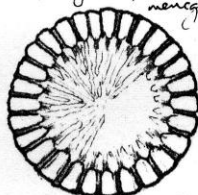
→ *Amphora exigua*



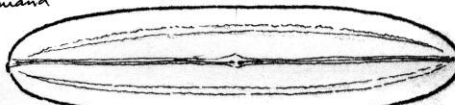
2346 E SUFFOLK 3010 15' 15'

Heb larvae *Nitzschia angustata* but it is a *Coenocelis* with *apiculata* or a small *Nitzschia acuminata*

H.G.B. *Cyclotella meneghiniana*



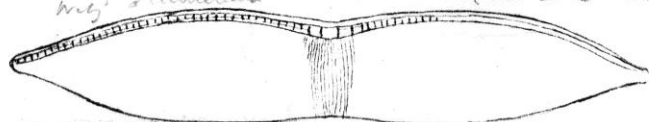
17 DIA 2346 E SUFFOLK



2346 E SUFFOLK

40 1/2 x

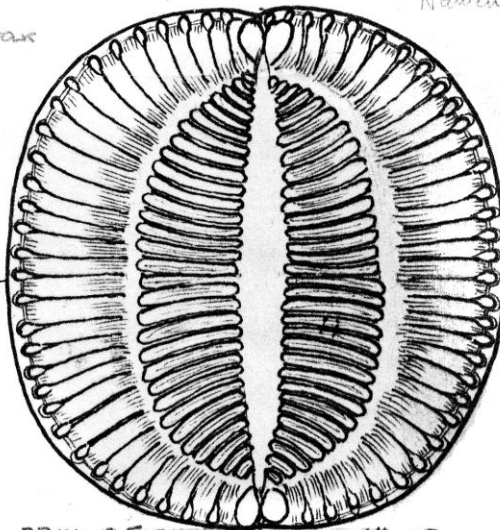
(498 rays not a *Nitzschia* - Calomen Nansen)



2346 E SUFFOLK

56 1/2 10 x 15' W.C.

? *Nitzschia dubia* W. Grun



2346 E SUFFOLK

46 1/2 43

C SAMOENSIS GRUN.

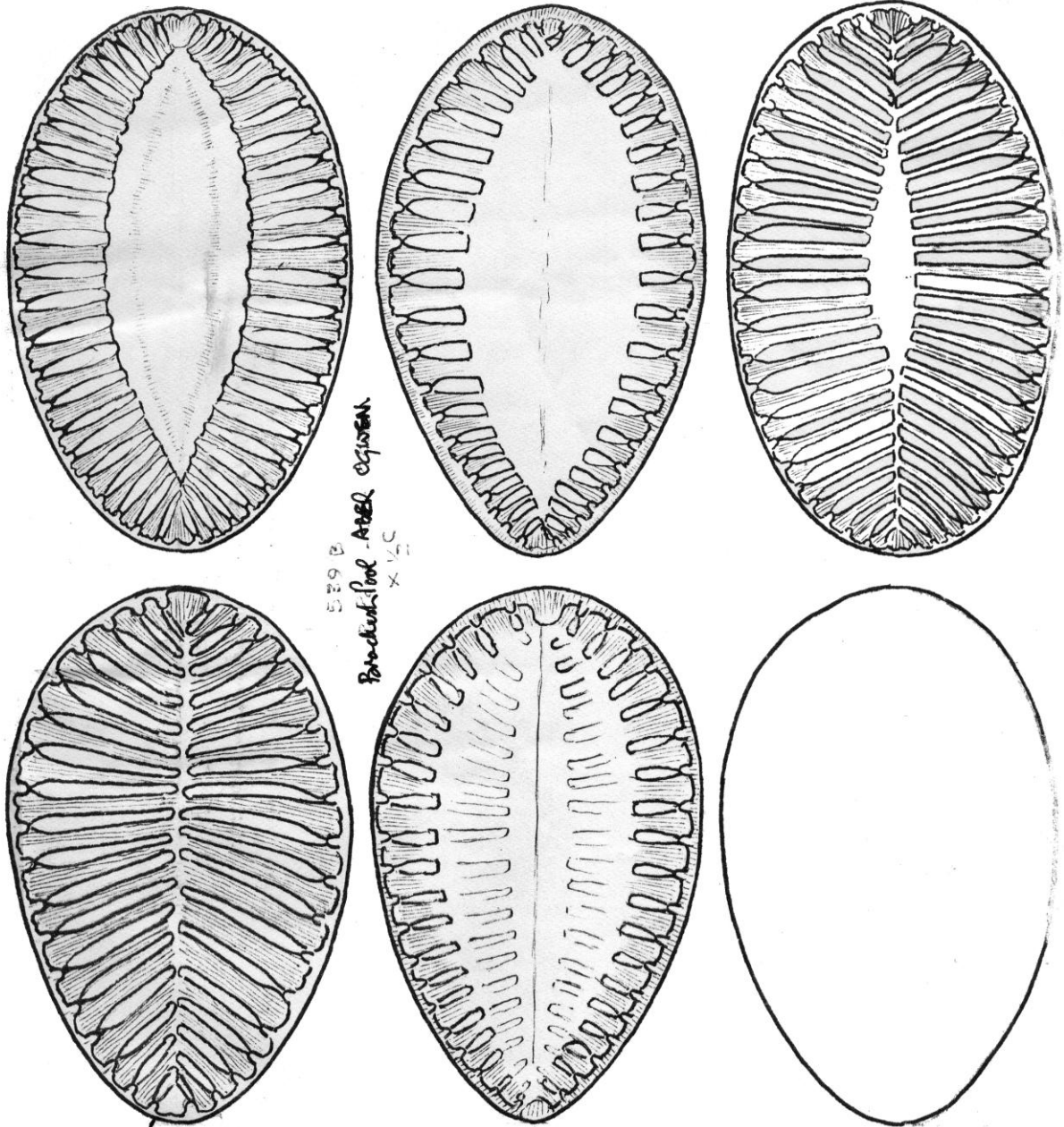
H.G.B. thinks this is *Campylodiscus samoensis* Grun. (as Berag LIV/6,7,8. but see also.

ASA

- 15/5. *C. triumphans* A.S.
- 18/9. *C. intermedius* Grun.
- 18/11 *C. undulatus* Grun.
- 50/10. *C. Schmidtii* Grun.

But Van Landingham says that *C. samoensis* Grun (ASA 15/182) is only a synonym for *Campylodiscus uniceclus* Schmidt (as ASA 15/13-15.)

Miscellaneous Plate 383

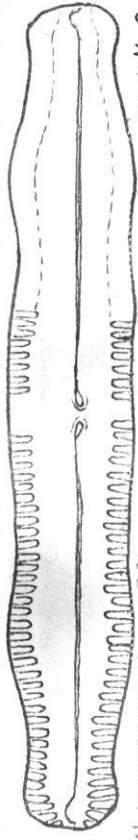


579 B  
Pencil-drawn - ARRL system  
x 1/2

*Swirella striatula* Turpin (x 1/2).  
(see Slide BH 1044 and 1044a.)

— 'Normal' pattern

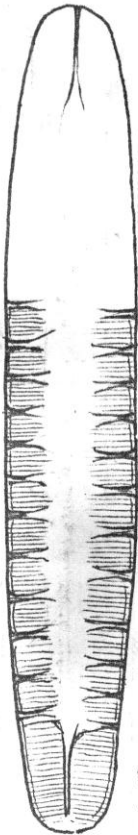
*Pinnularia subvestosa* Hust



S. AMBERGHAAN C 2351

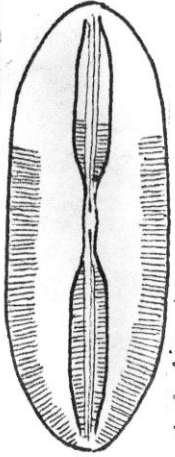
73.10.2.9

? anomaly form of *Pinnularia*

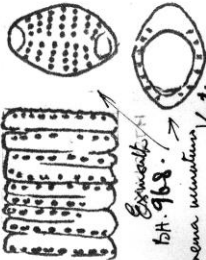


73.11.3.19

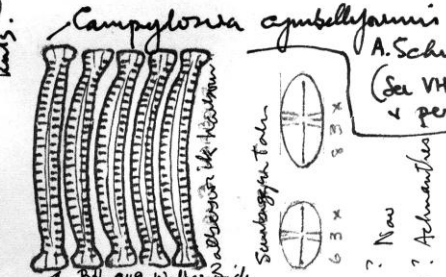
1sk of Mull 2352



Loch Coalisport New. *hyalinula* de Tanco 14.18

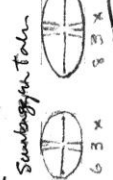


*Reclavella minutum* Kütz.



*Campyloneva cymbelliformis* A. Schmidt Grun

(See VII p. 327. & perag. LXXXII/26.)



Sumbagayun Tolu

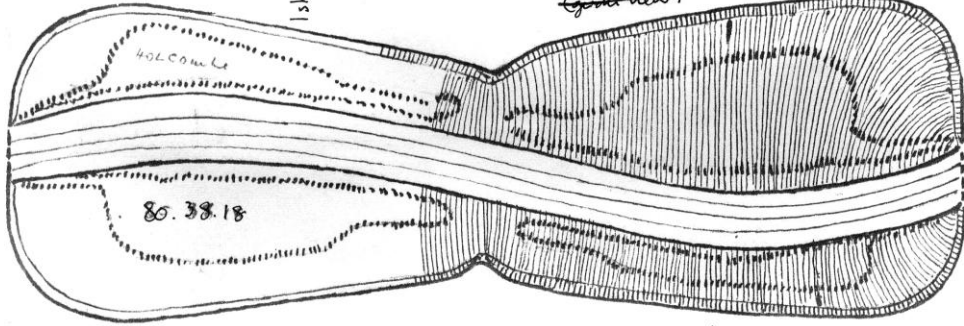
? New or ? *Achnanthes*

18th 1849. Walcott's diatom in the *Walcottian* (Spitzberg)

? Holkham sect. matches 34952

Holkham Sea worth

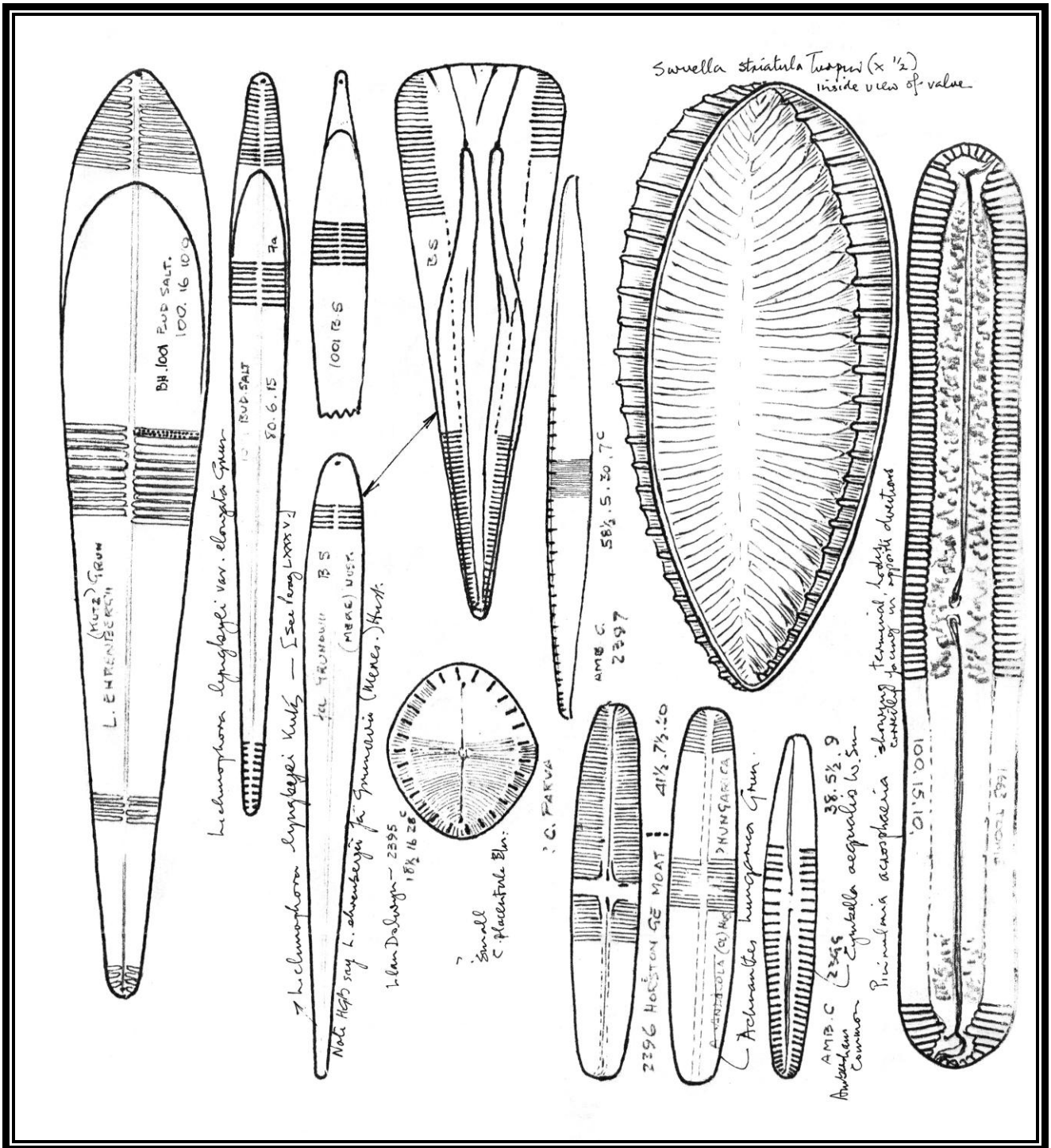
Replication of a valve instead of a complete frustule of *Amphiprova peludosa* W. Sm



80.38.18

H.G.B. believes this is only a variation in outline of *Amphiprova peludosa* W. Sm

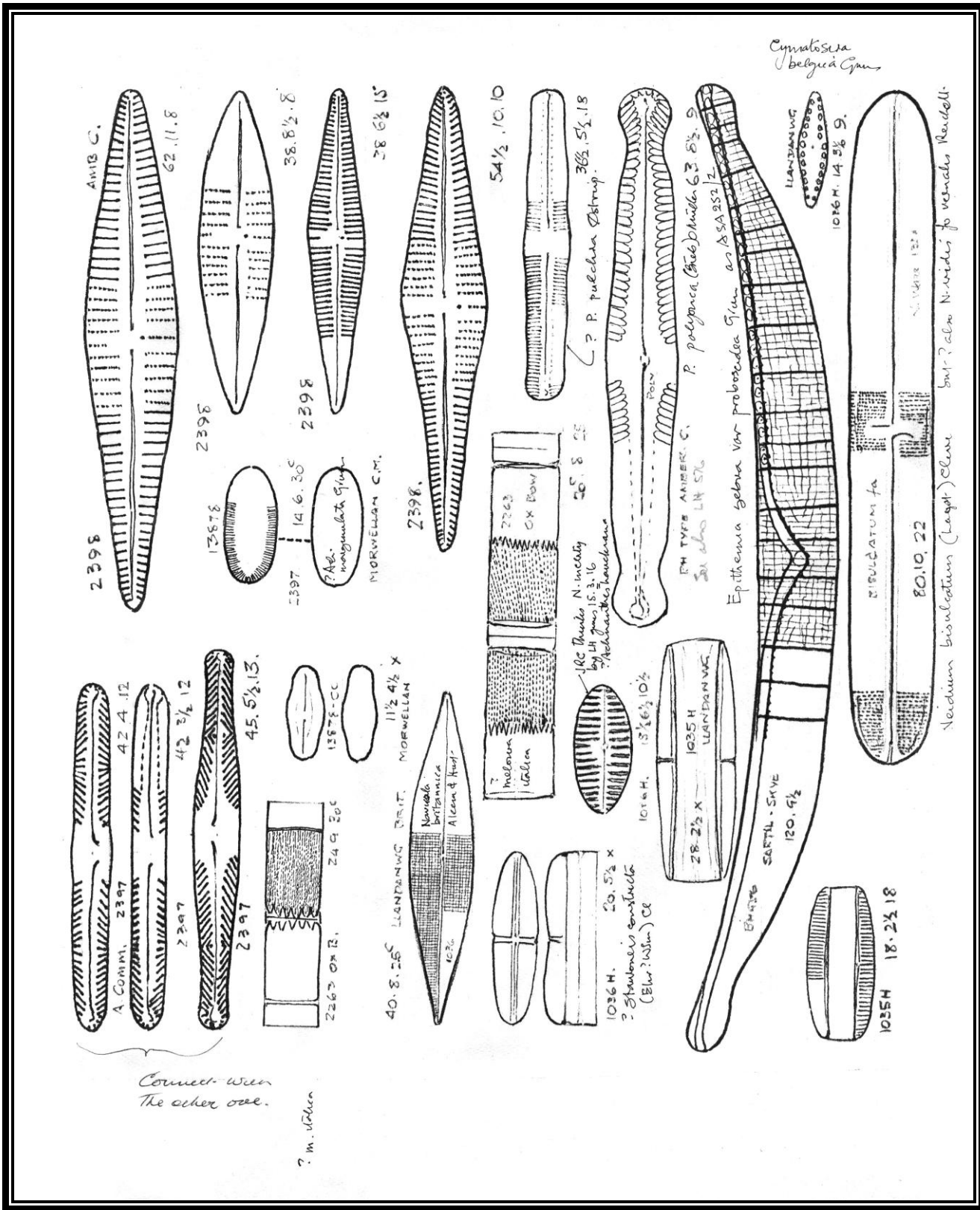
Miscellaneous Plate 385





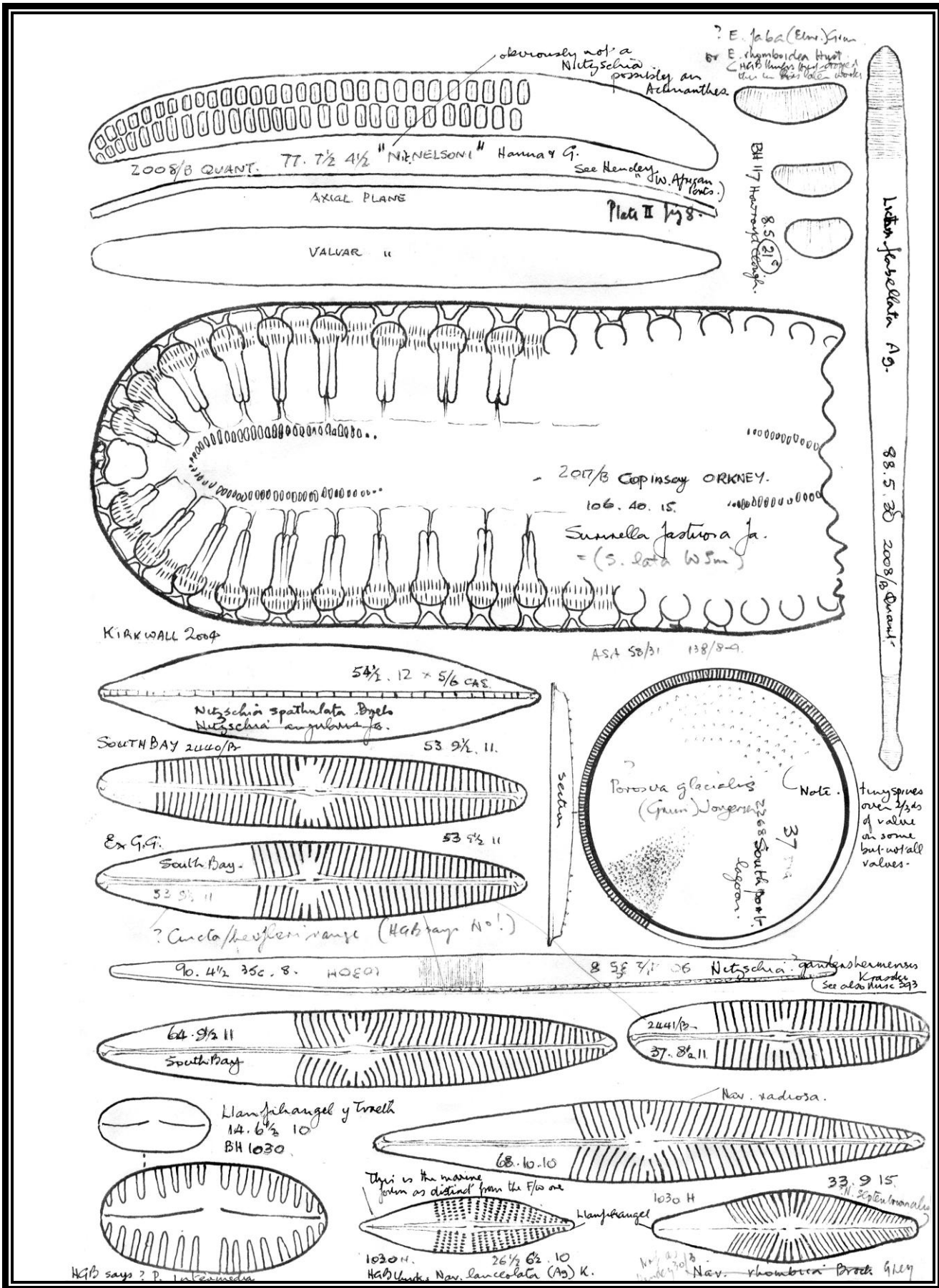


Miscellaneous Plate 390 (amended)

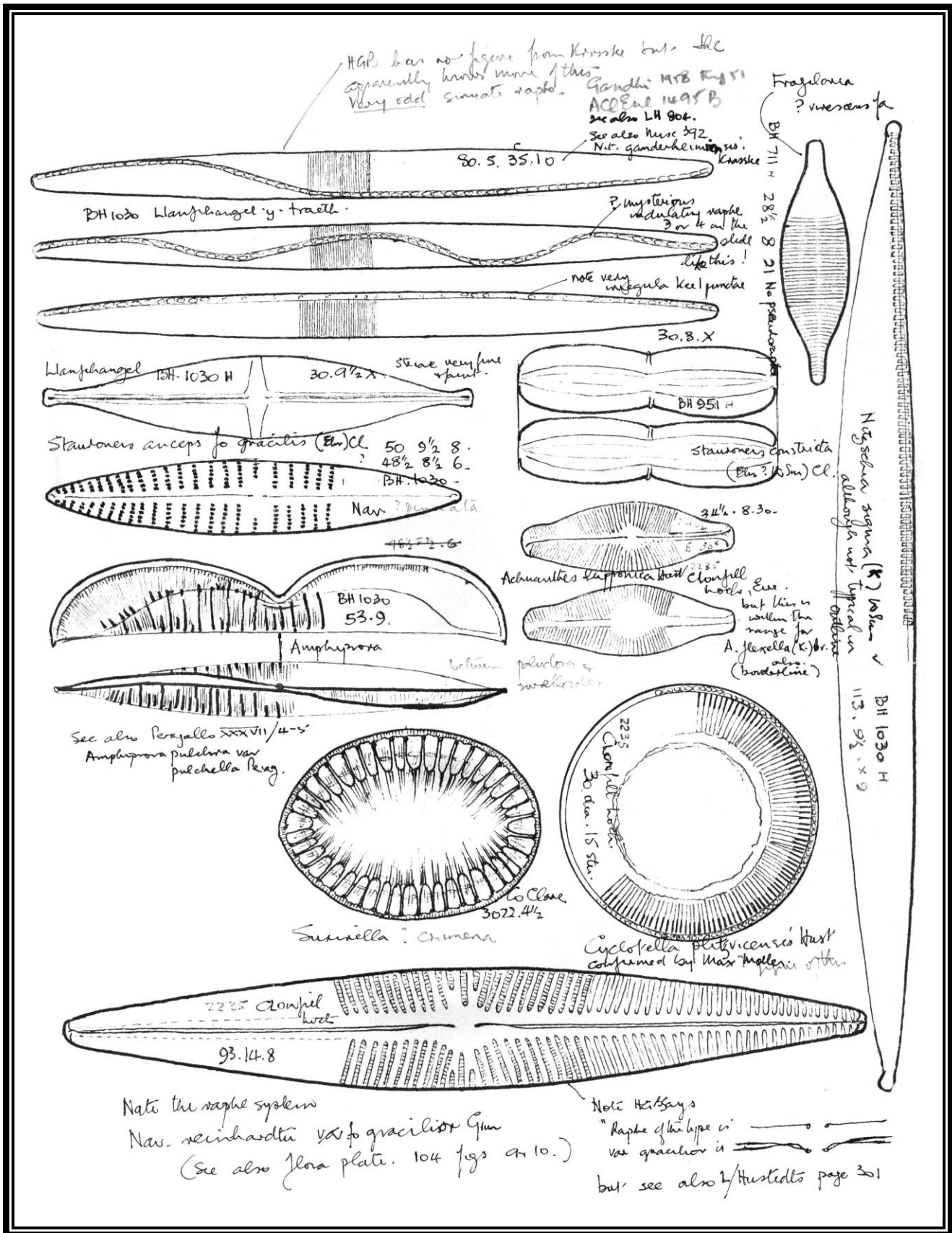




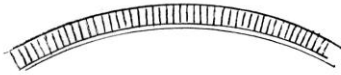




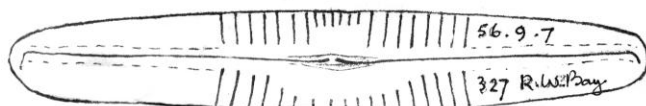
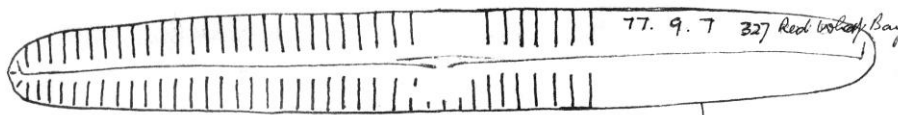
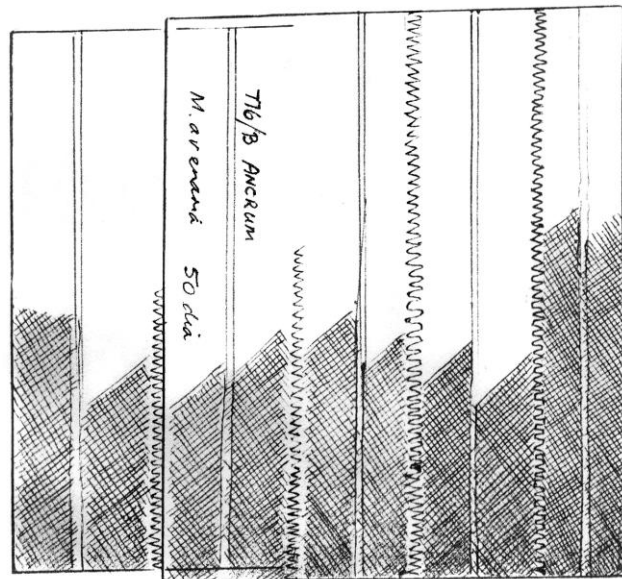
Miscellaneous Plate 393



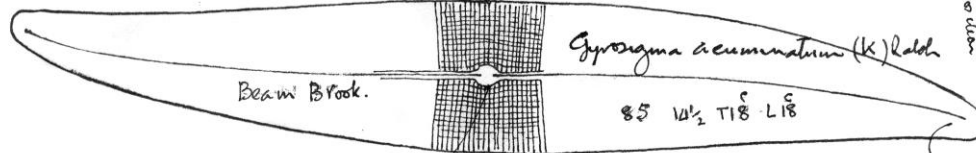
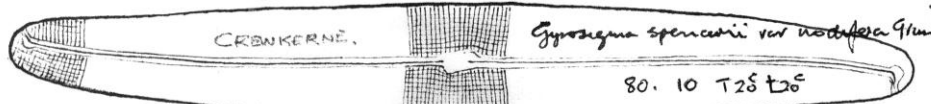
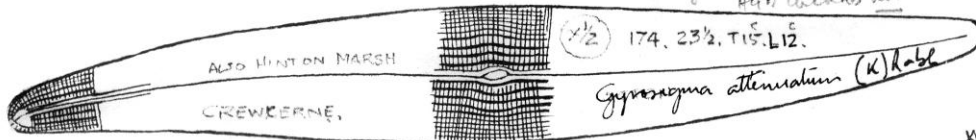
Note: HGB. has never seen *M. texa* in gentle views, not yet a grade.



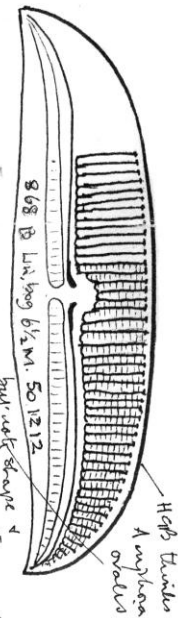
Two views of *M. arenaria* Moore.  
One much coarser than the other.



Note: raphe terminals and the central area striae. If this were circular, I would say Nav. cancellata Donk. but HGB checks not.



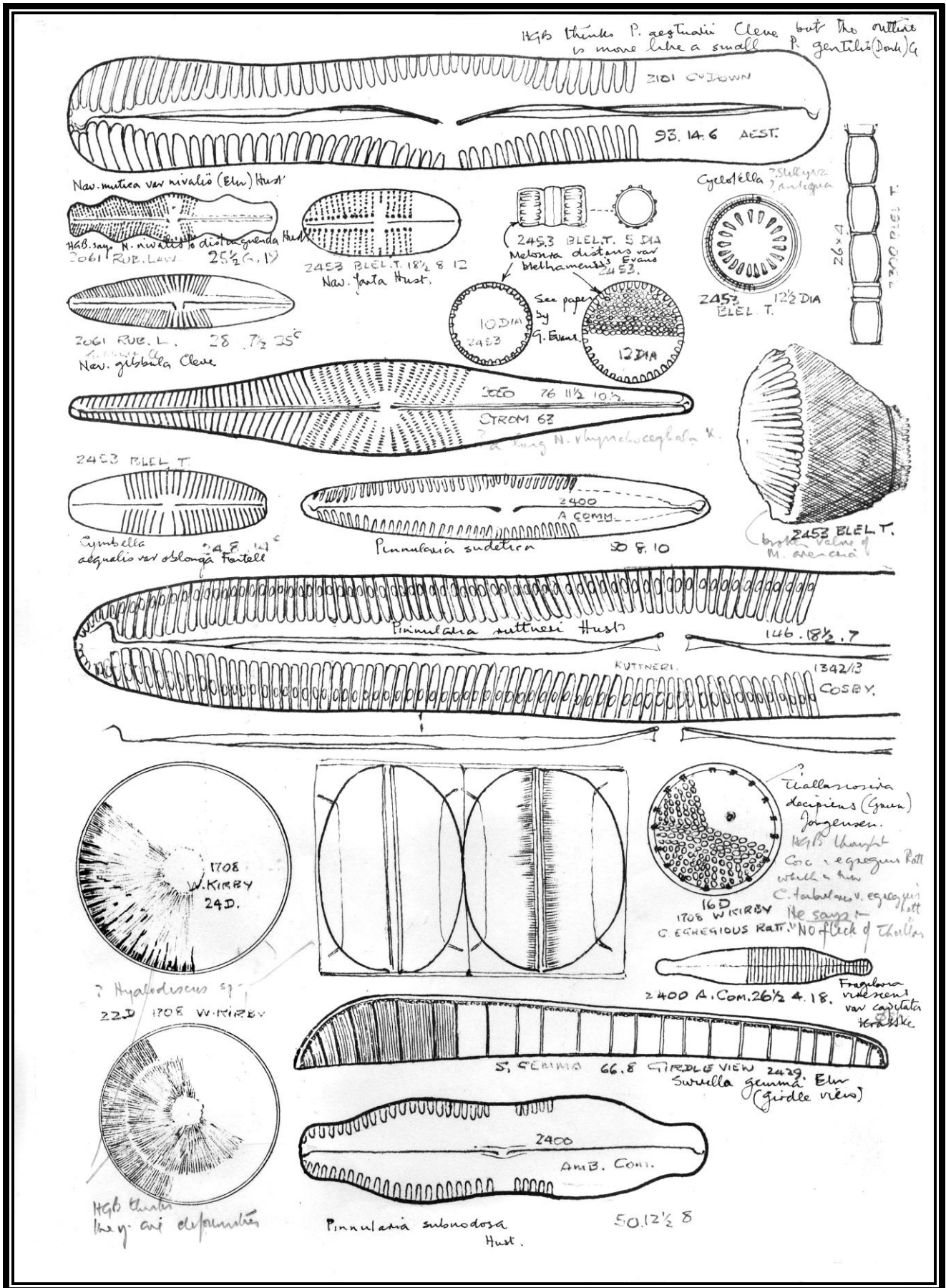
Small circular central area

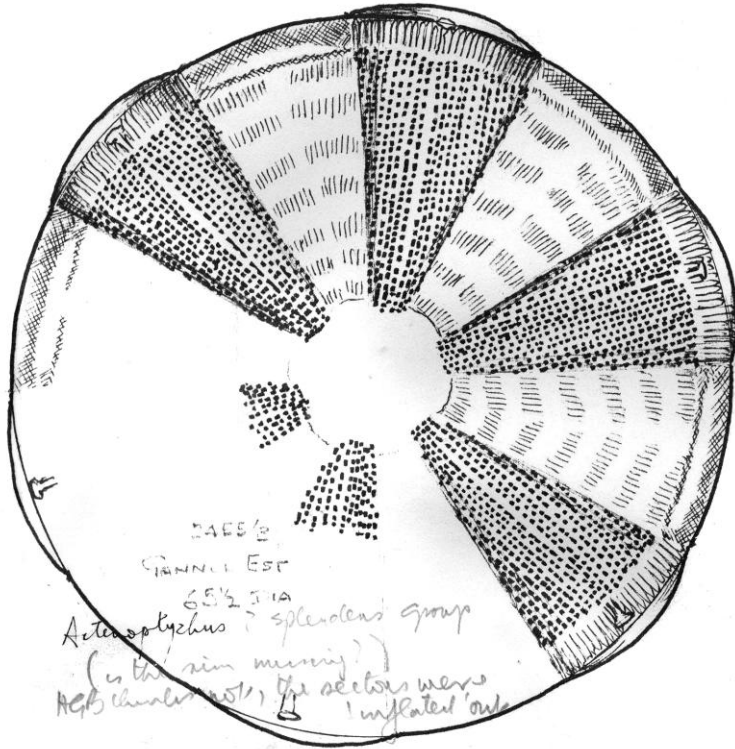


Note: - Polar terminals covered by other material - not drawn by HGB.

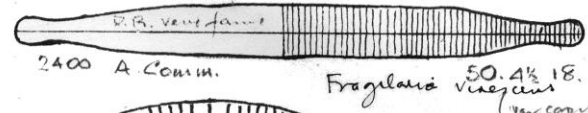
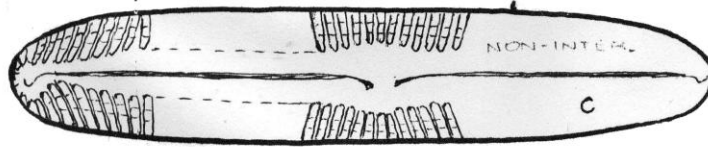
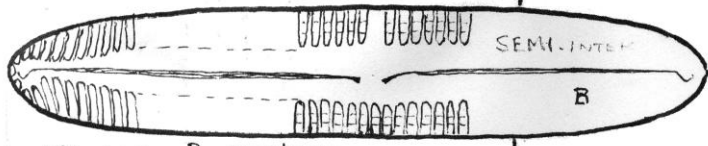
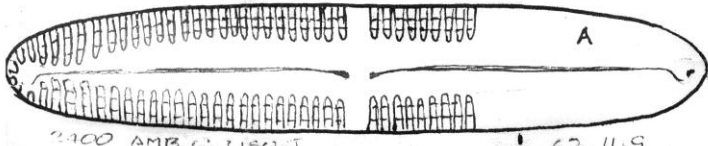
Note *Gyrosigma spencerii* (Quek.) Griff & Henf is also present in Crewkerne sample 1085.

Miscellaneous Plate 395





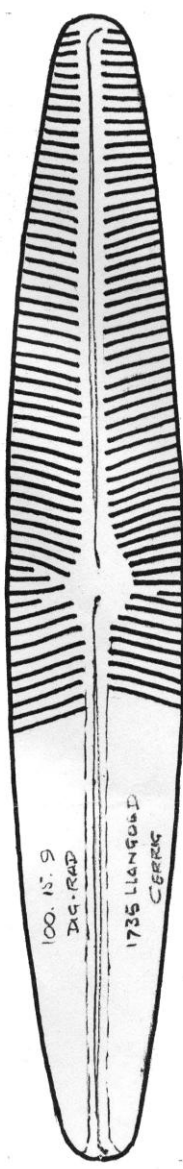
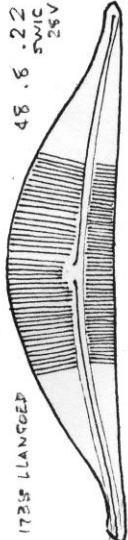
2400 AMB. C. 150ST



73.12.8



48.8.22  
SMIC  
25V



HGB thinks a very long.  
Nav. digitinodata (Grun.) A.S.

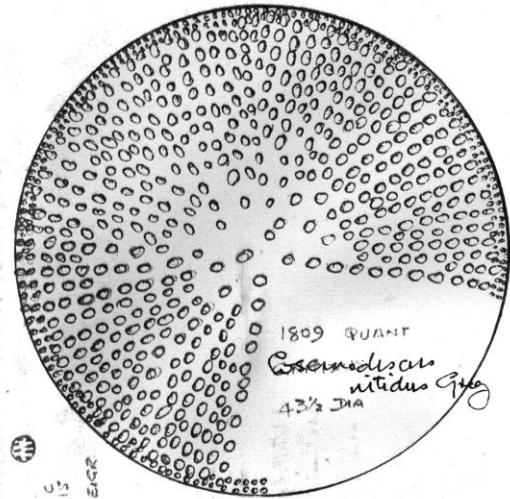






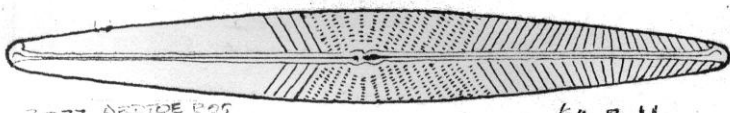
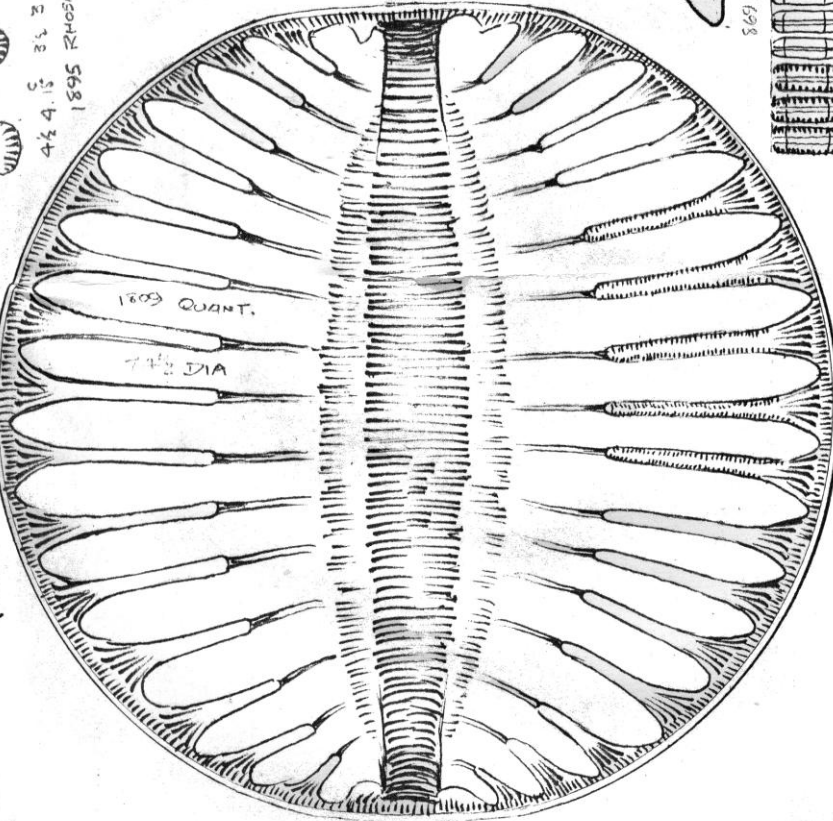


*Fragilaria constricta* var. *ventosa* (Ehr.) Grun



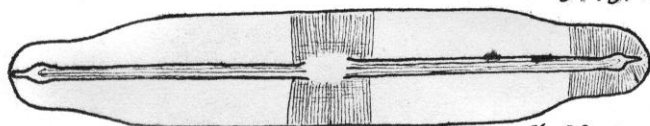
4 3/4 DIA  
1895 RHODNEUR

*Coscinodiscus fastuosus* Ehr.  
= (*C. thuretii* de Brés)



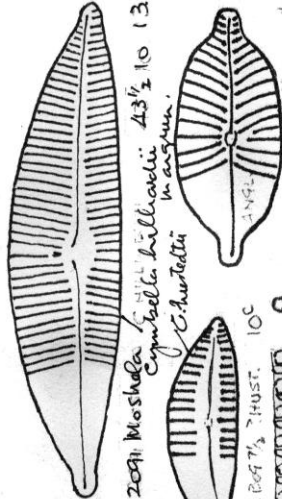
2077 ART 102 P09

64.8.11.

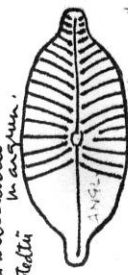


2077 ART 102 P09

56.8.30c



2091 Moshela  
*Cymbella hillhassii* 4 3/4 x 10 13  
in aquum.

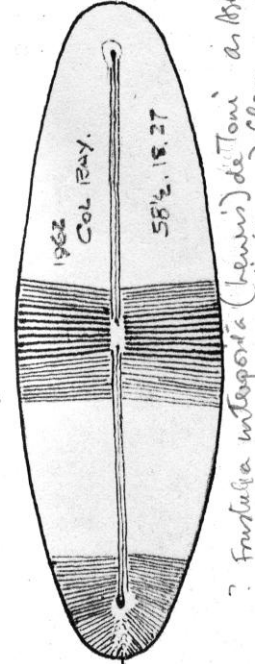


*Cymbella*  
1891 L. BOG 7 1/2 M. 26.9  
Nov. anglica Kelp



1869 L. BOG 7 1/2 M. 100

1869 L. BOG 7 1/2 M. *Fragilaria constricta* (Ehr.) Grun

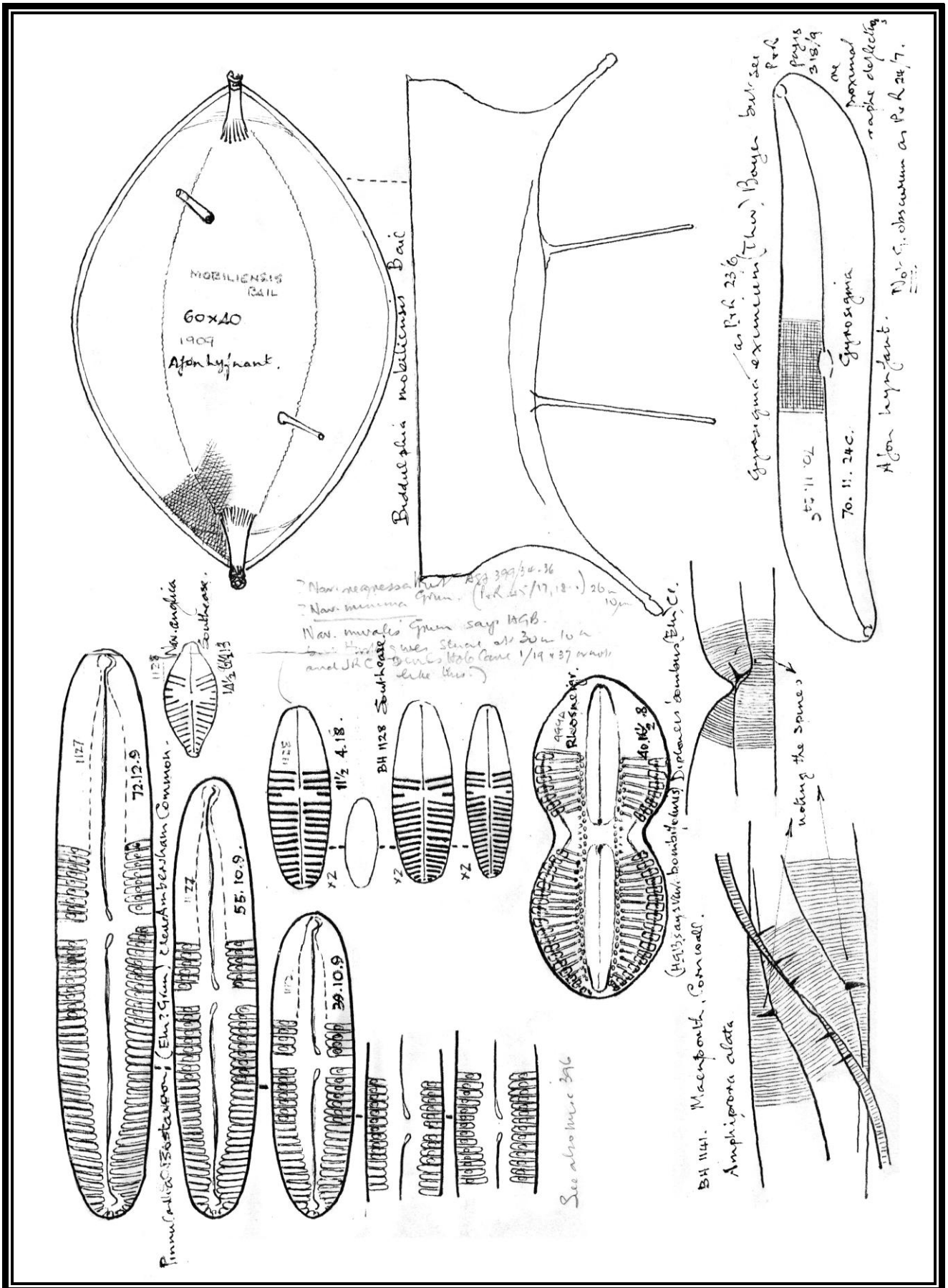


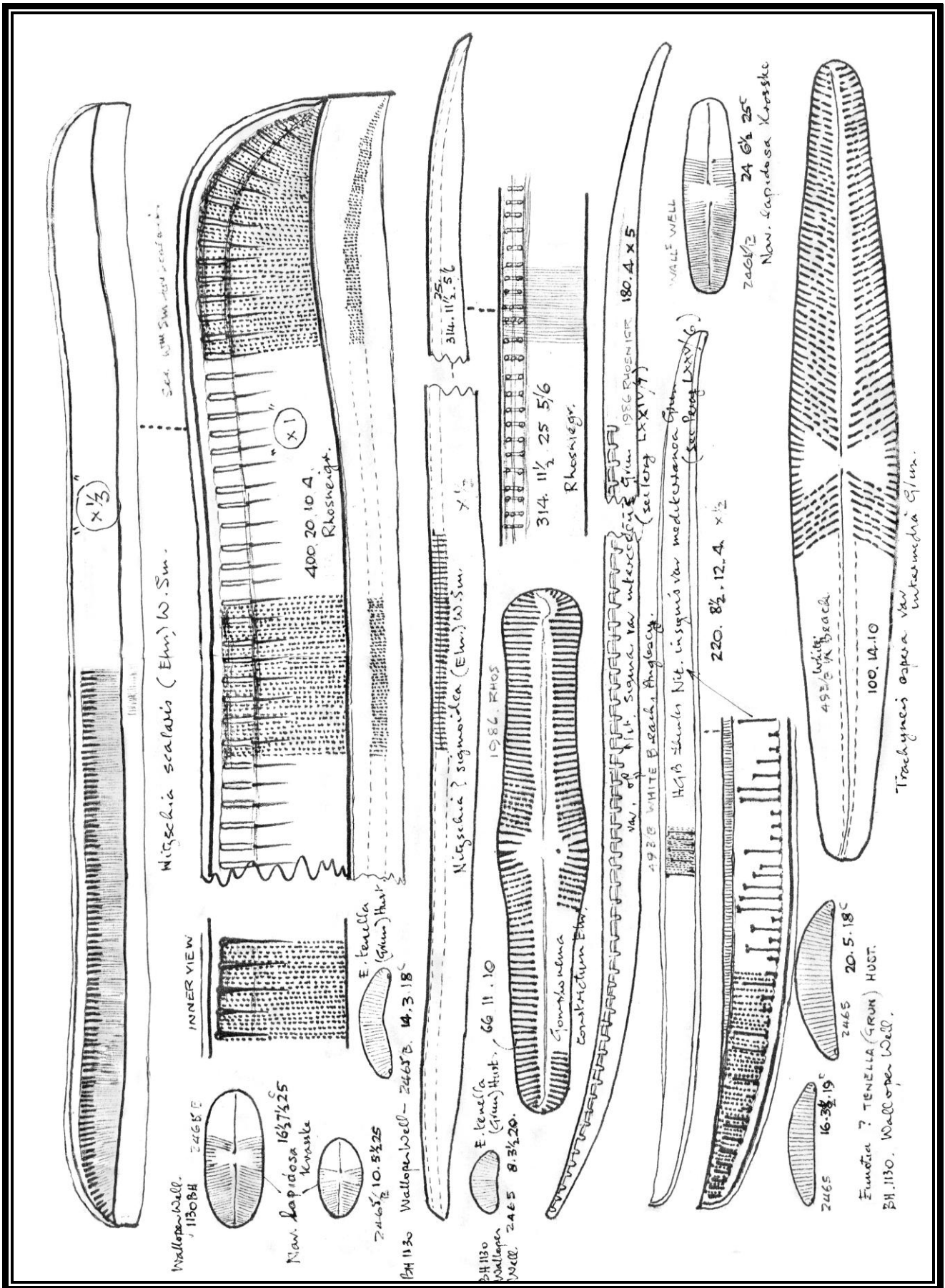
1902  
COL. BOY.

58 1/2. 18. 27

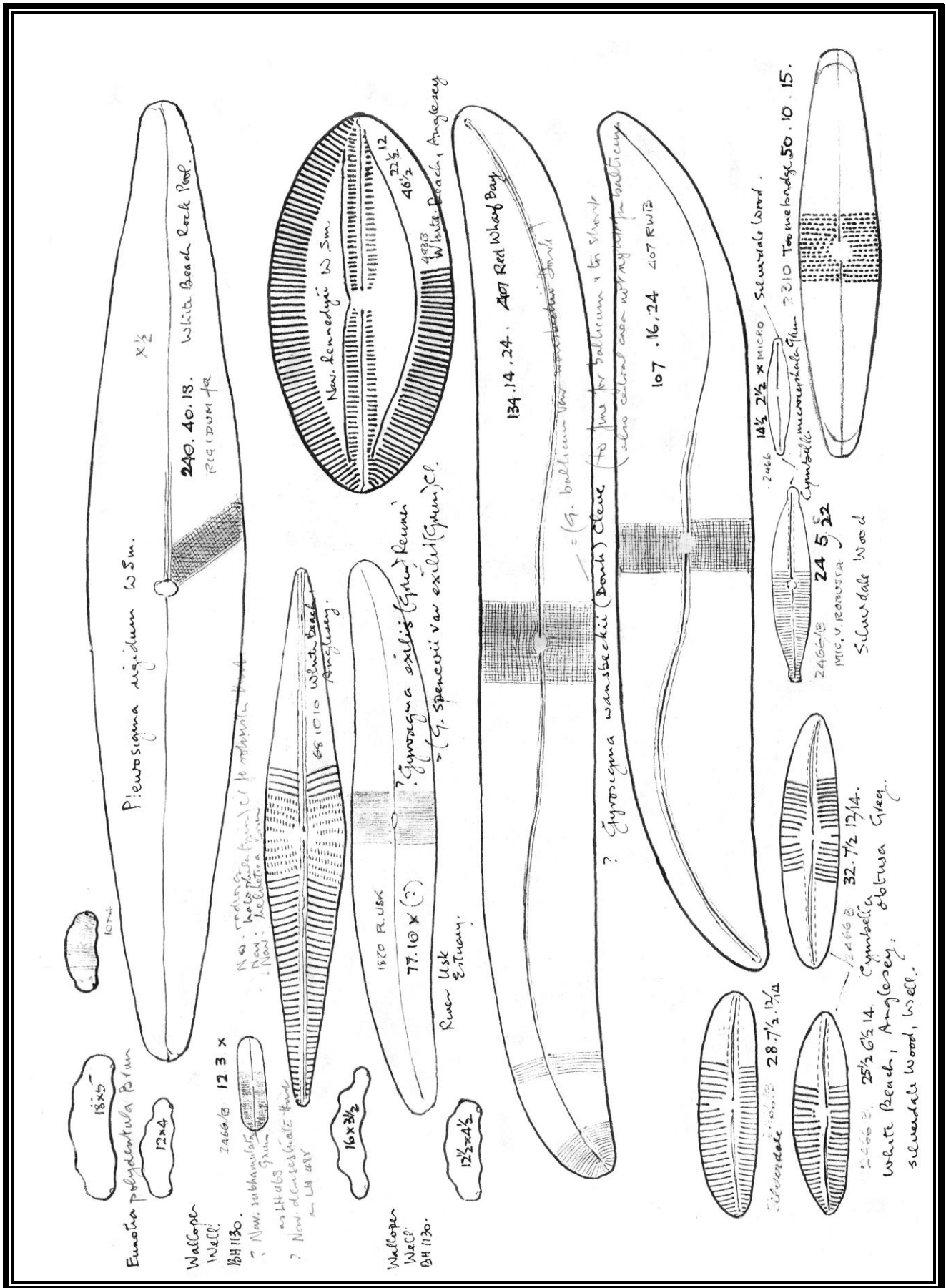
? *Fragilaria uterposita* (Lemmer) de Toni  
= *F. uterposita* (Lemmer) Cleve  
an. USA 368/10  
Cleve ex. Feb 22/11

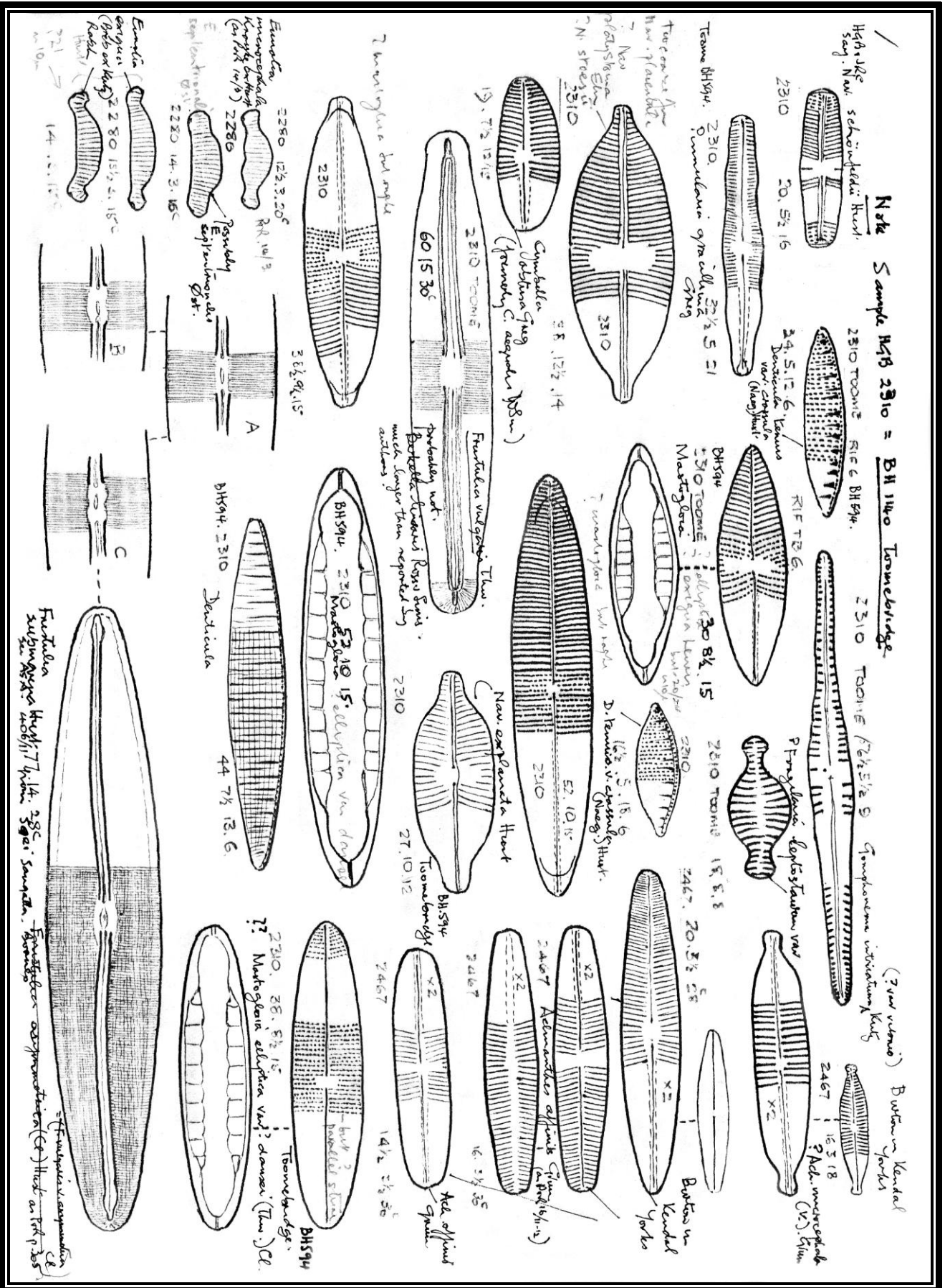
Miscellaneous Plate 401





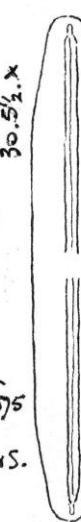
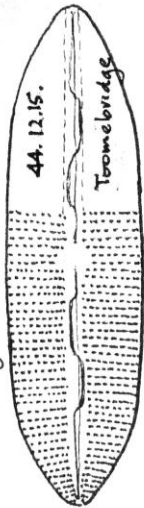
Miscellaneous Plate 403





Miscellaneous Plate 405

Mastoglossia nestla Hust. (See Hust Malaya) p. 43



These 4 are drawn from B.M. slide 78075 which contains Berkella linearis R+S.

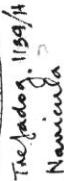
Achnanthes coarctata Hust.



43 1/2 12. 14. BM 68063 Box

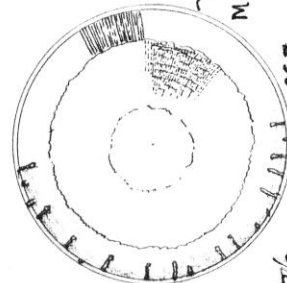


14. 3 1/2 . 18.



Trapezoid. 11. 9 . 14

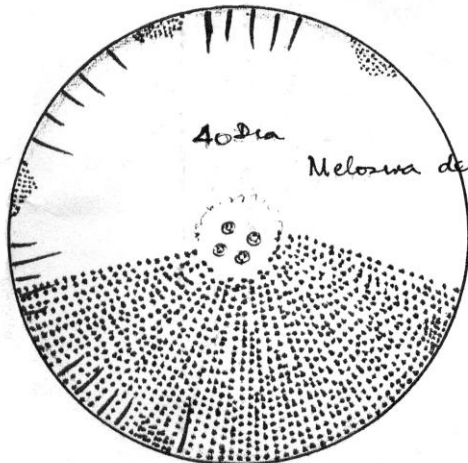
Navicula



Melosira nummuloides (Dill.) Ag.

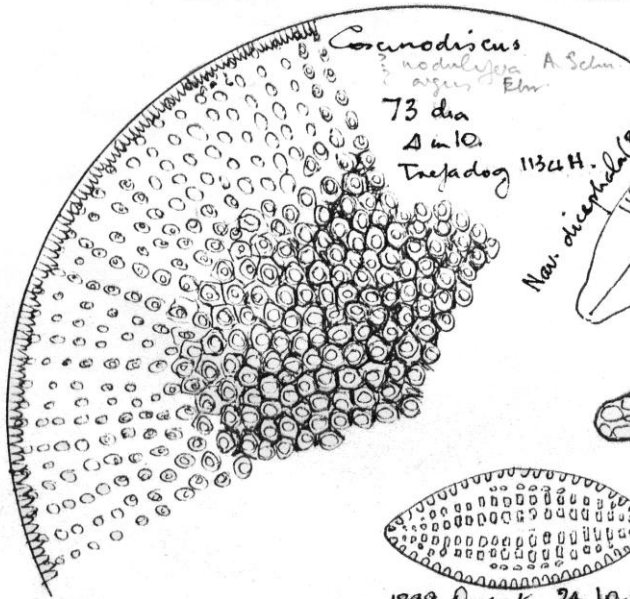
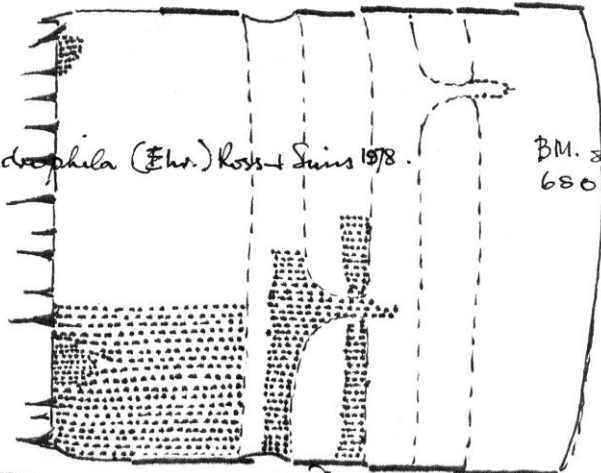
1957/3. Alcockian 25.7 7.0

Perforal markings minimal



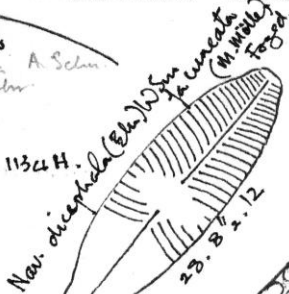
Melosira dendrophila (Ehr.) Hust + Sims 1978.

B.M. slide 68063 Box



Cocconeidiscus nodulifera A. Schm. argus Ehr.

73 dia  
4 in 10.  
Trapezoid 1134 H.

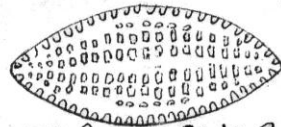


Nar. diephila (Ehr.) Hust + Sims (M. Hust) 1978.



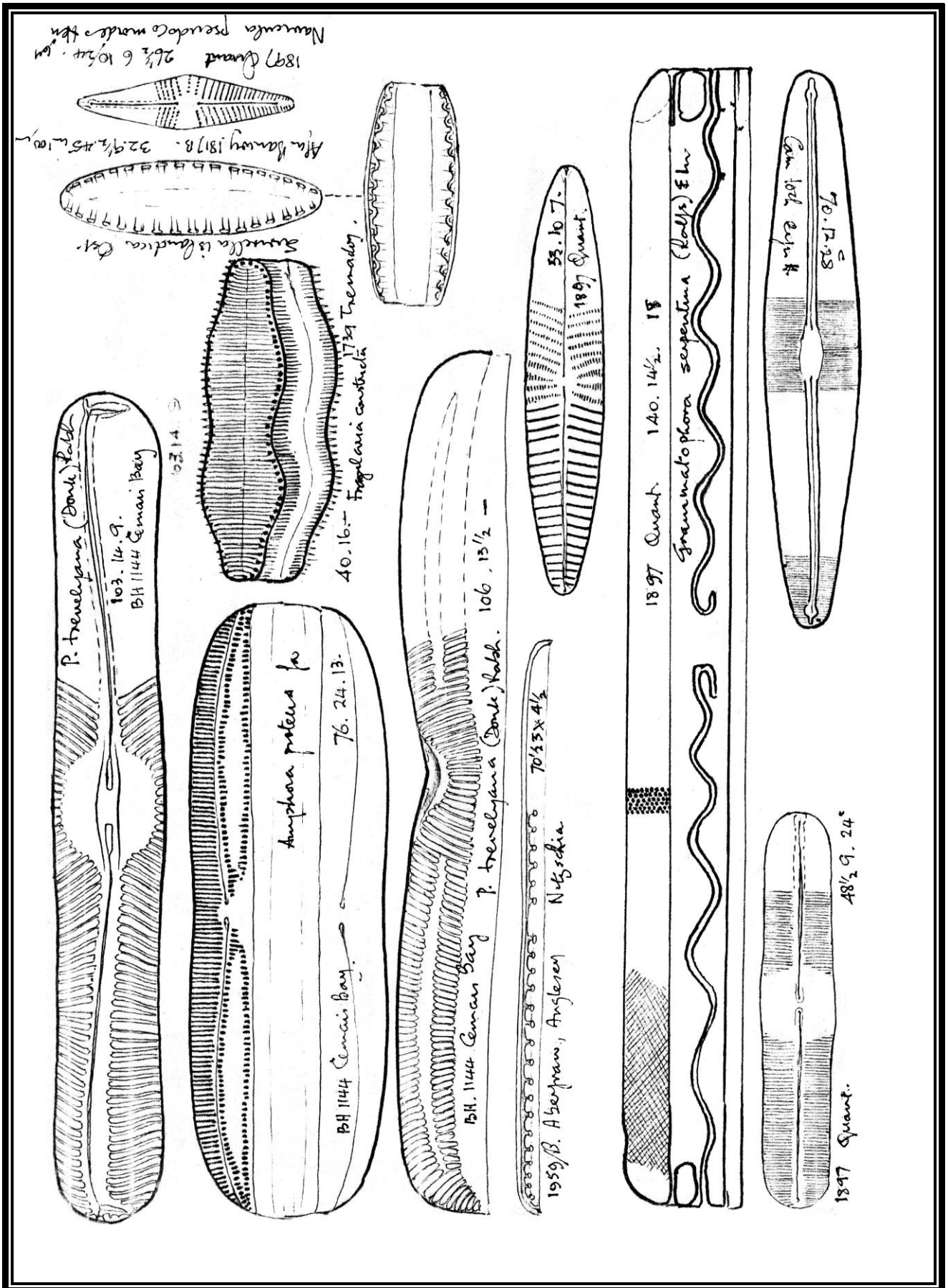
1144 BH  
Cemais Bay  
40 x 40

1897 Quanten's skew 40 1/2 x 9.  
Frunauella gamata (Grun) V.H.

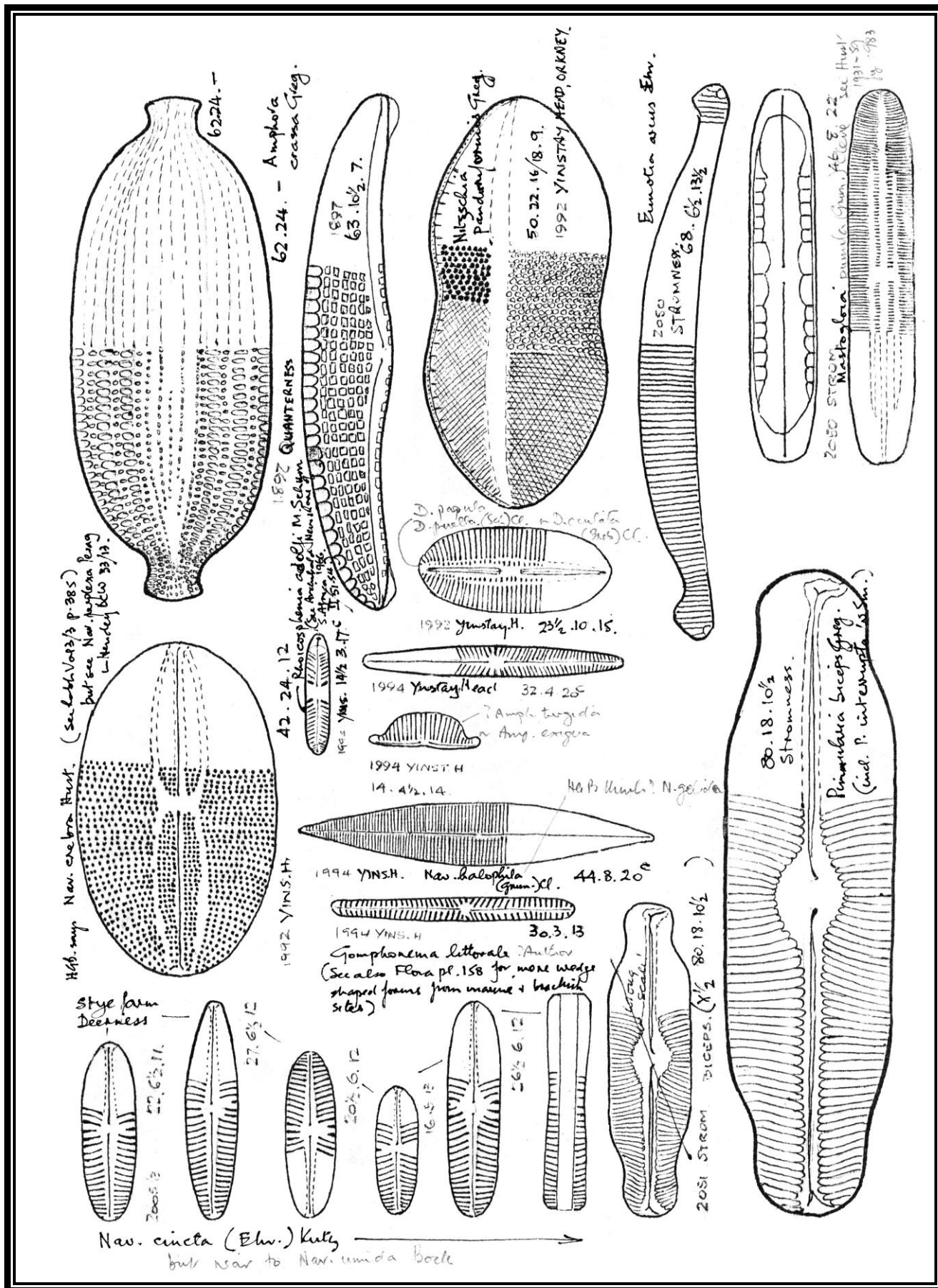


briculifera reticulata.

1398 Quant. 24. 10. 9  
Cocconeis discolores Hust.



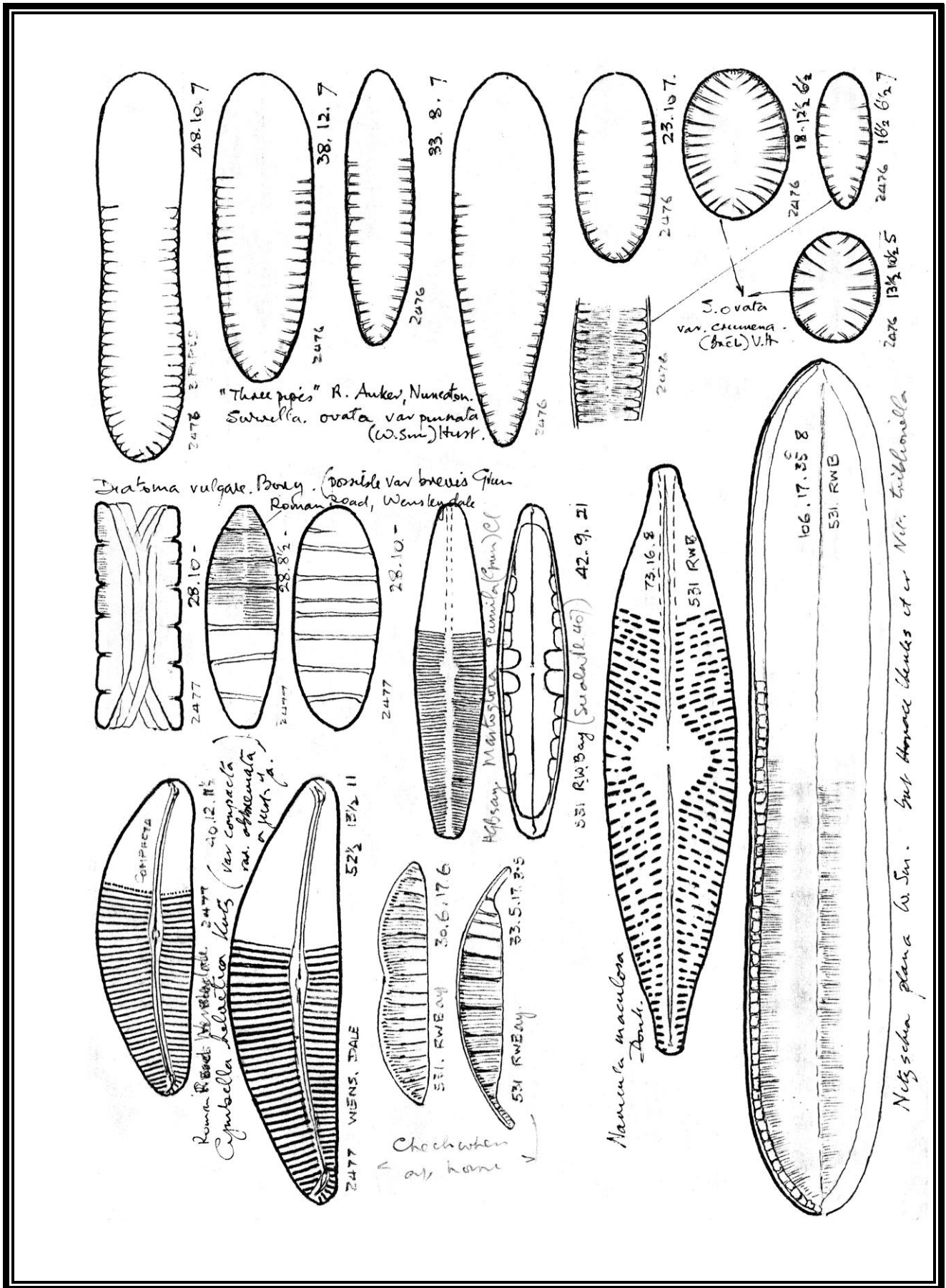
Miscellaneous Plate 407

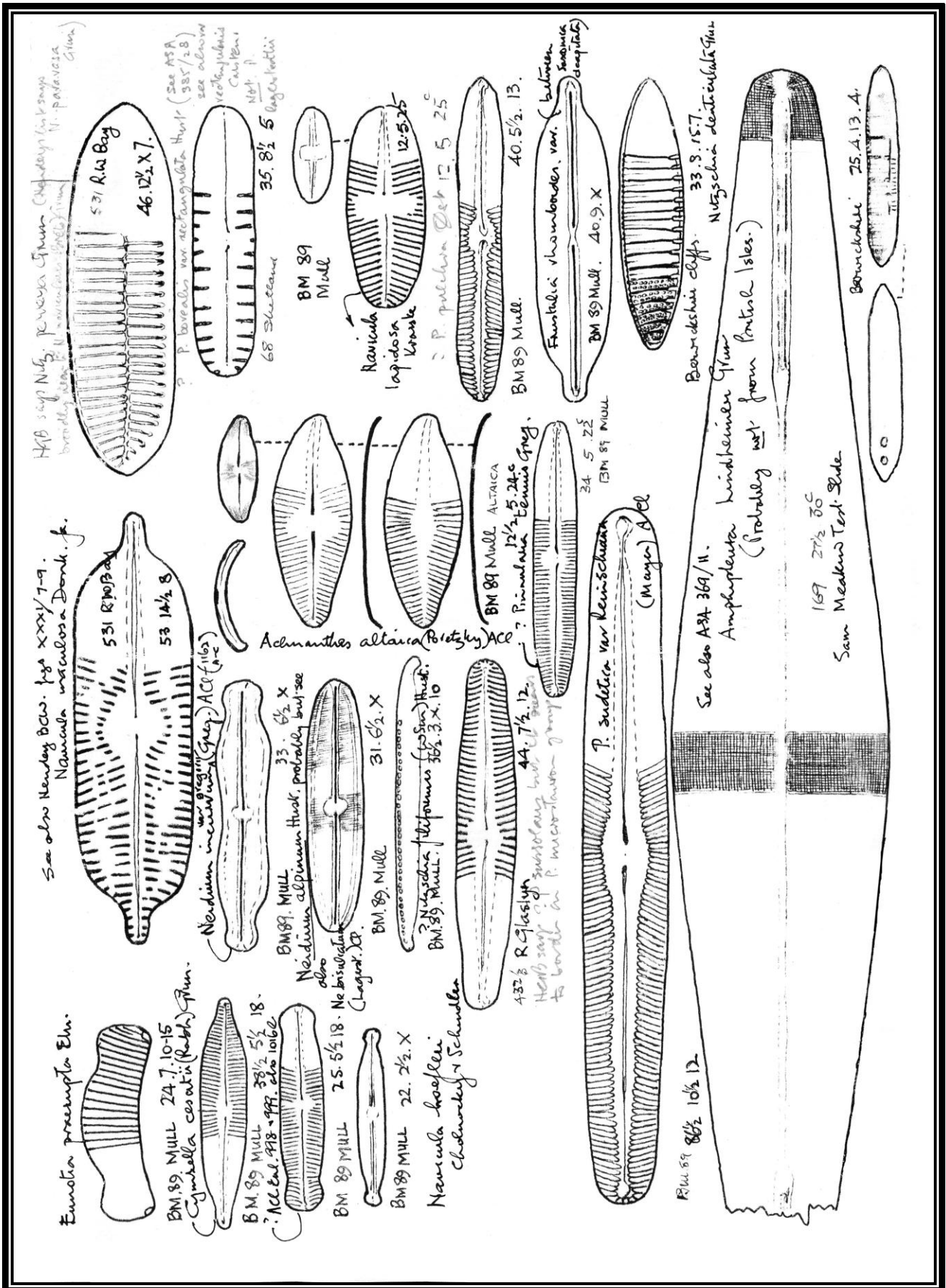






Miscellaneous Plate 409



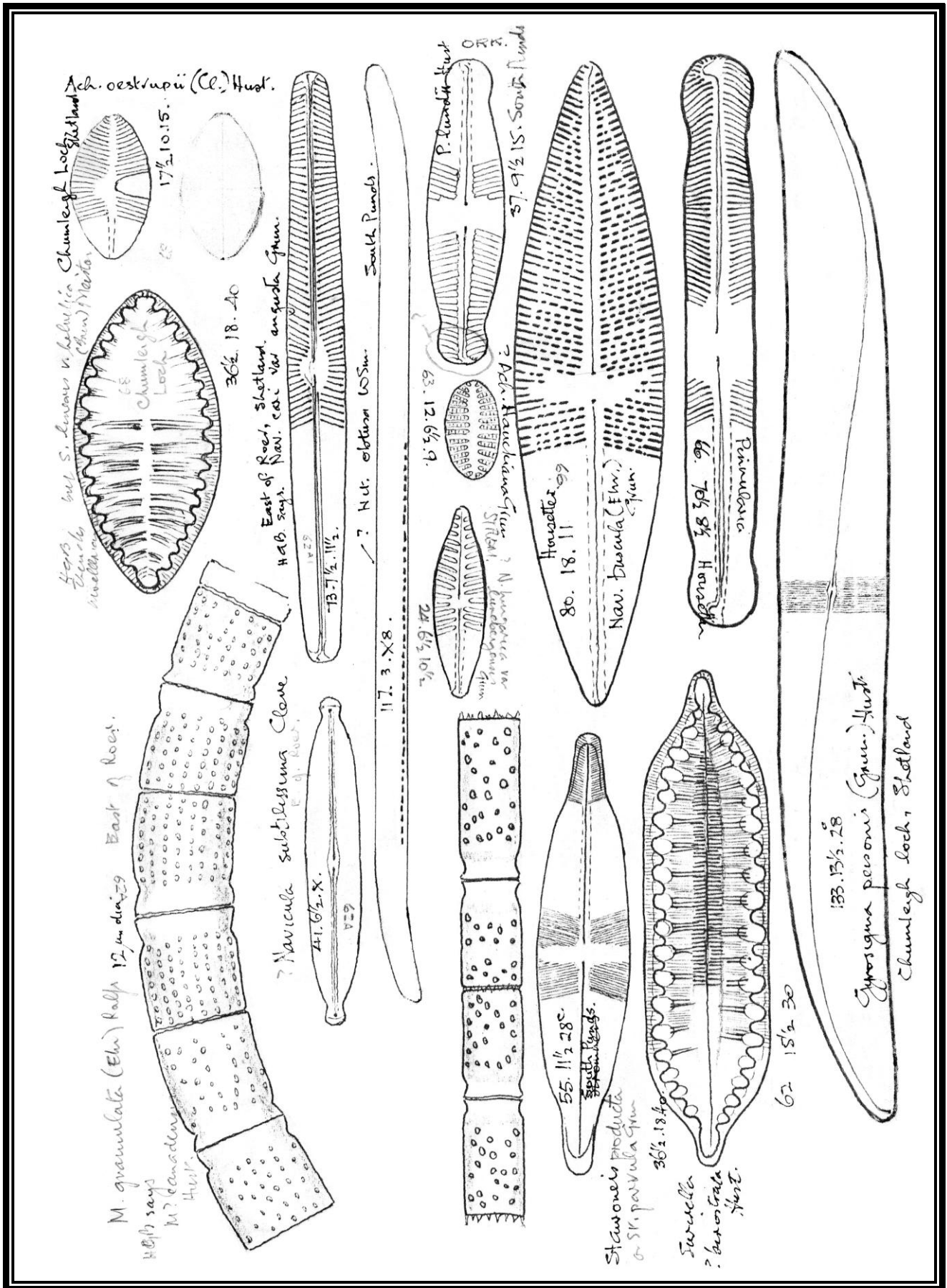


A. HGB says Max Moller confirmed this as Nitzschia perversa Grun. Nitzschia perversa Grun seems to be very near to Nitzschia navicularis (Breb.) Grun., but HGB says the latter has different striae with double rows of punctae.

B. Neidium alpinum has striae diagonal throughout whereas N. bisulcatum has striae radiate of diagonal at centre, diagonal at midway length and slightly convergent at ends – according to Reimer.

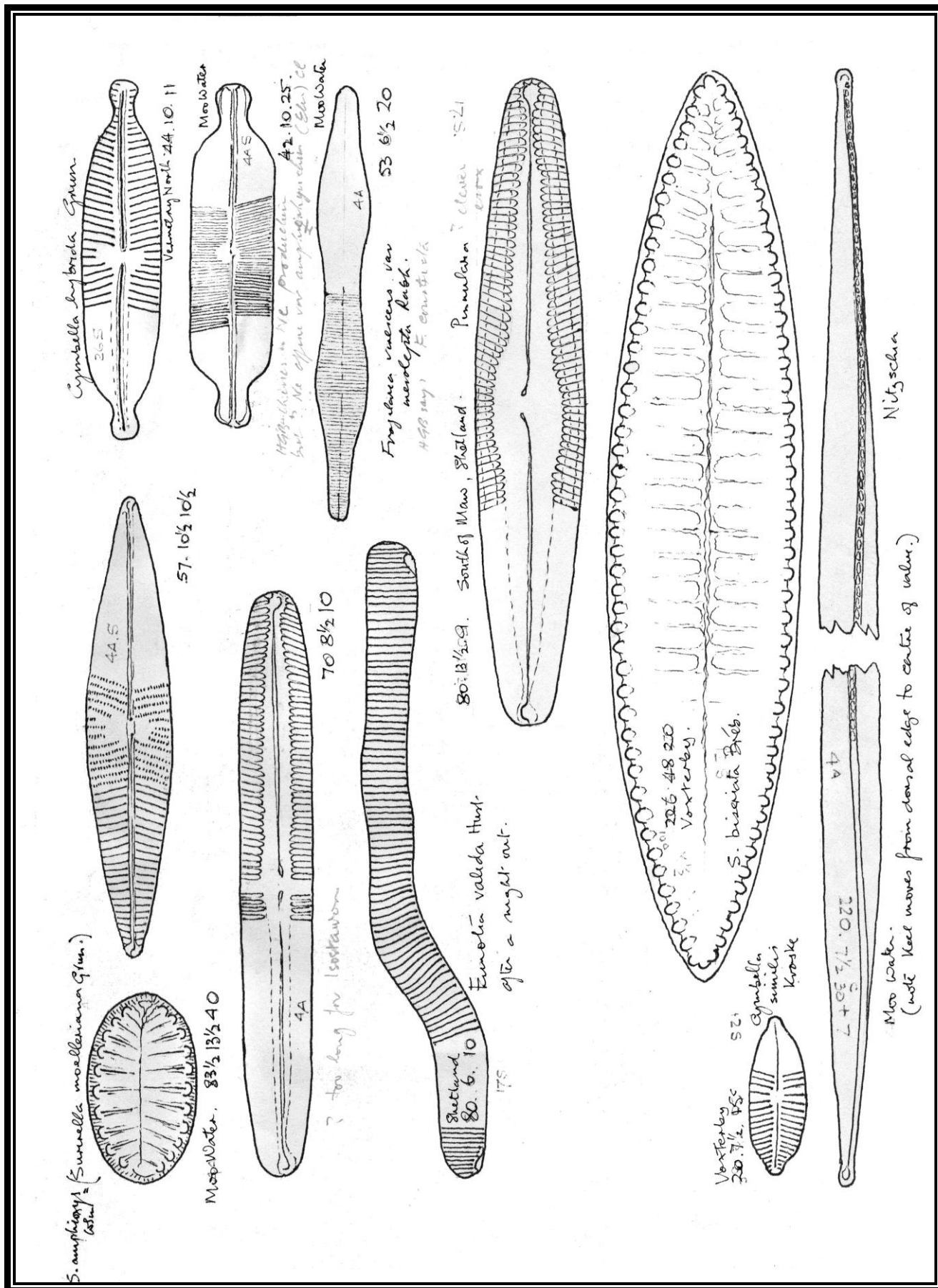
C. HGB says P. krookei is quite distinct from P. globiceps. The former could be with continuous or interrupted striae even in one frustule but no one says so!

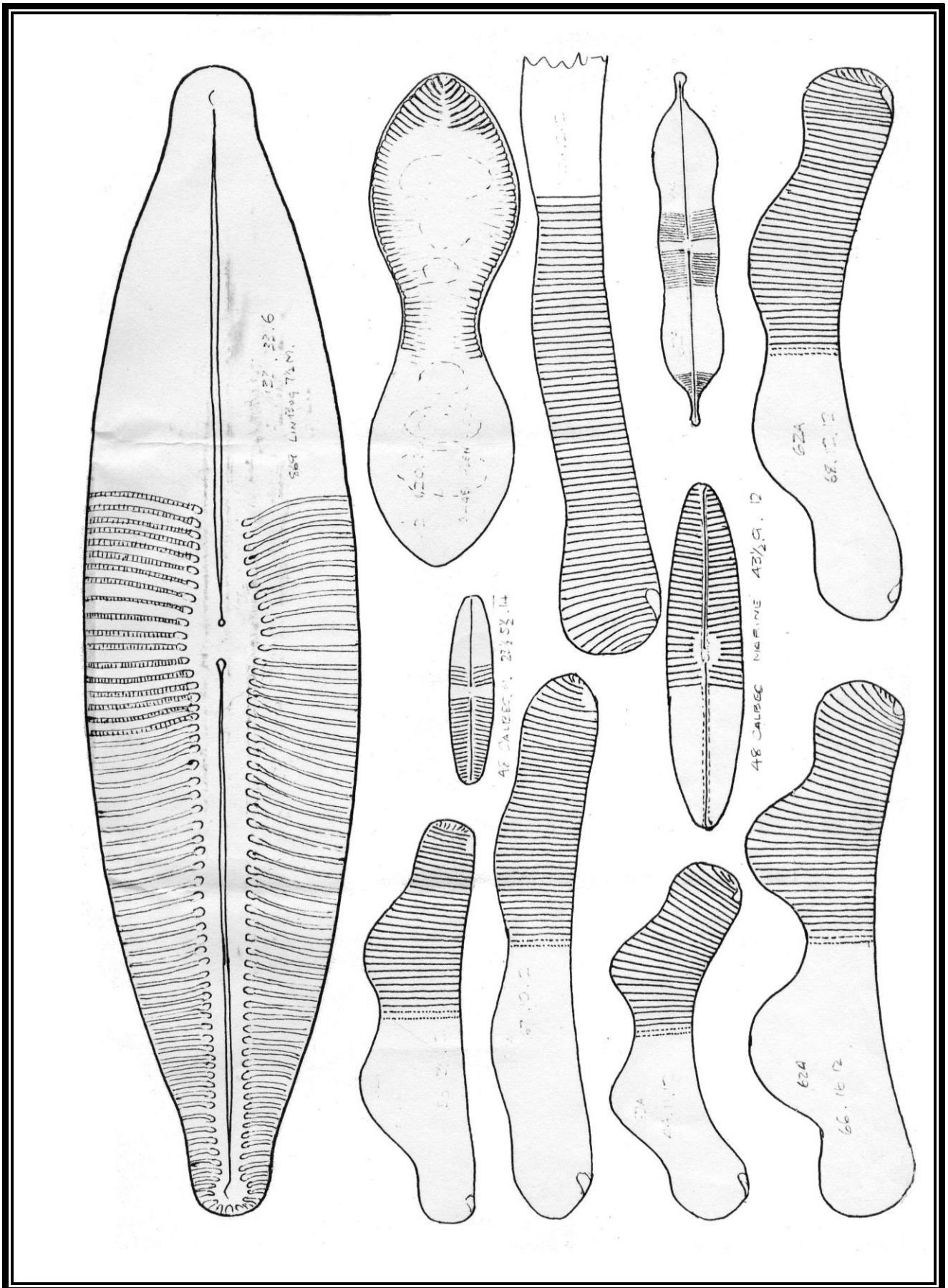
Miscellaneous Plate 411



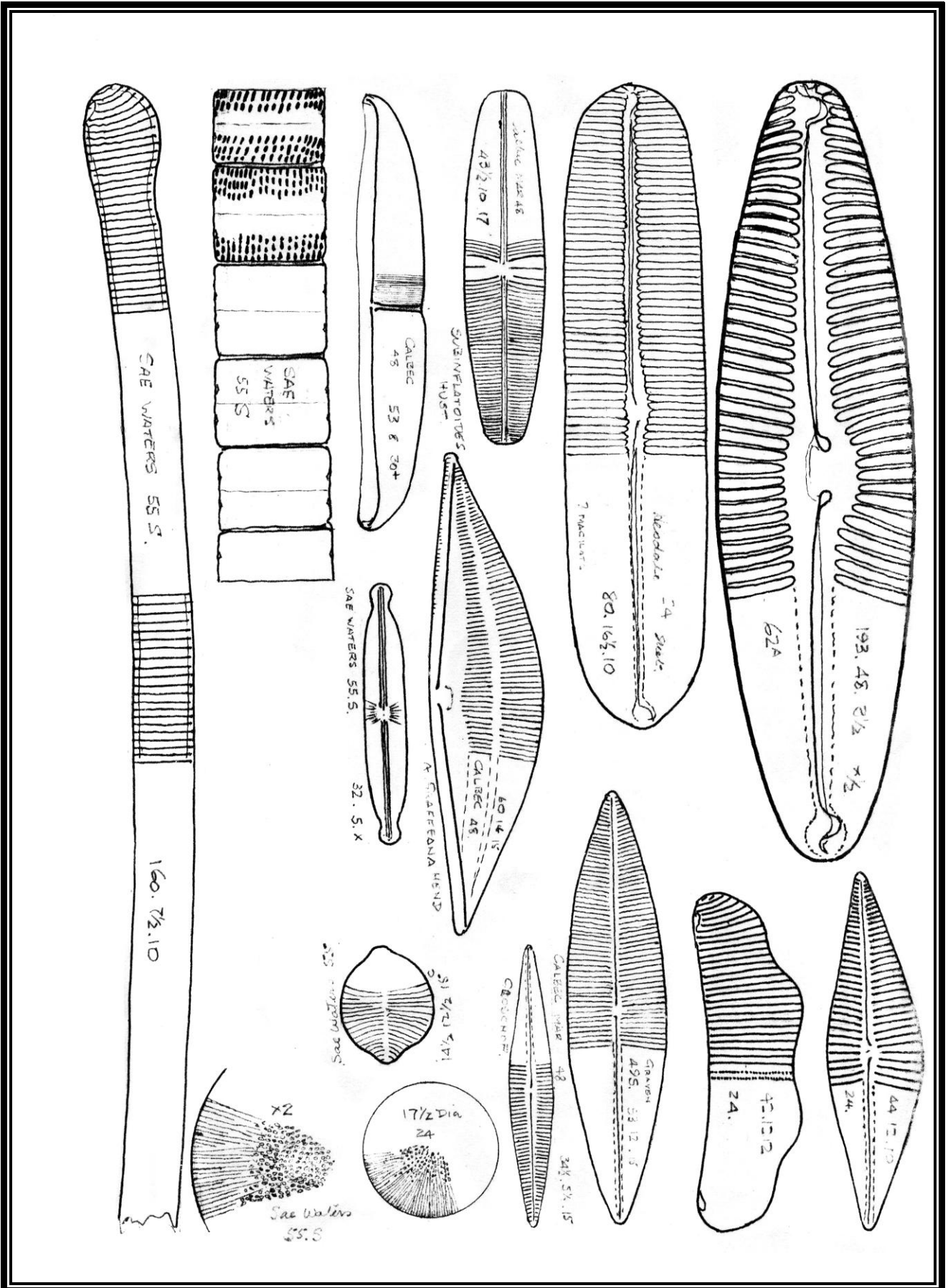


Miscellaneous Plate 413





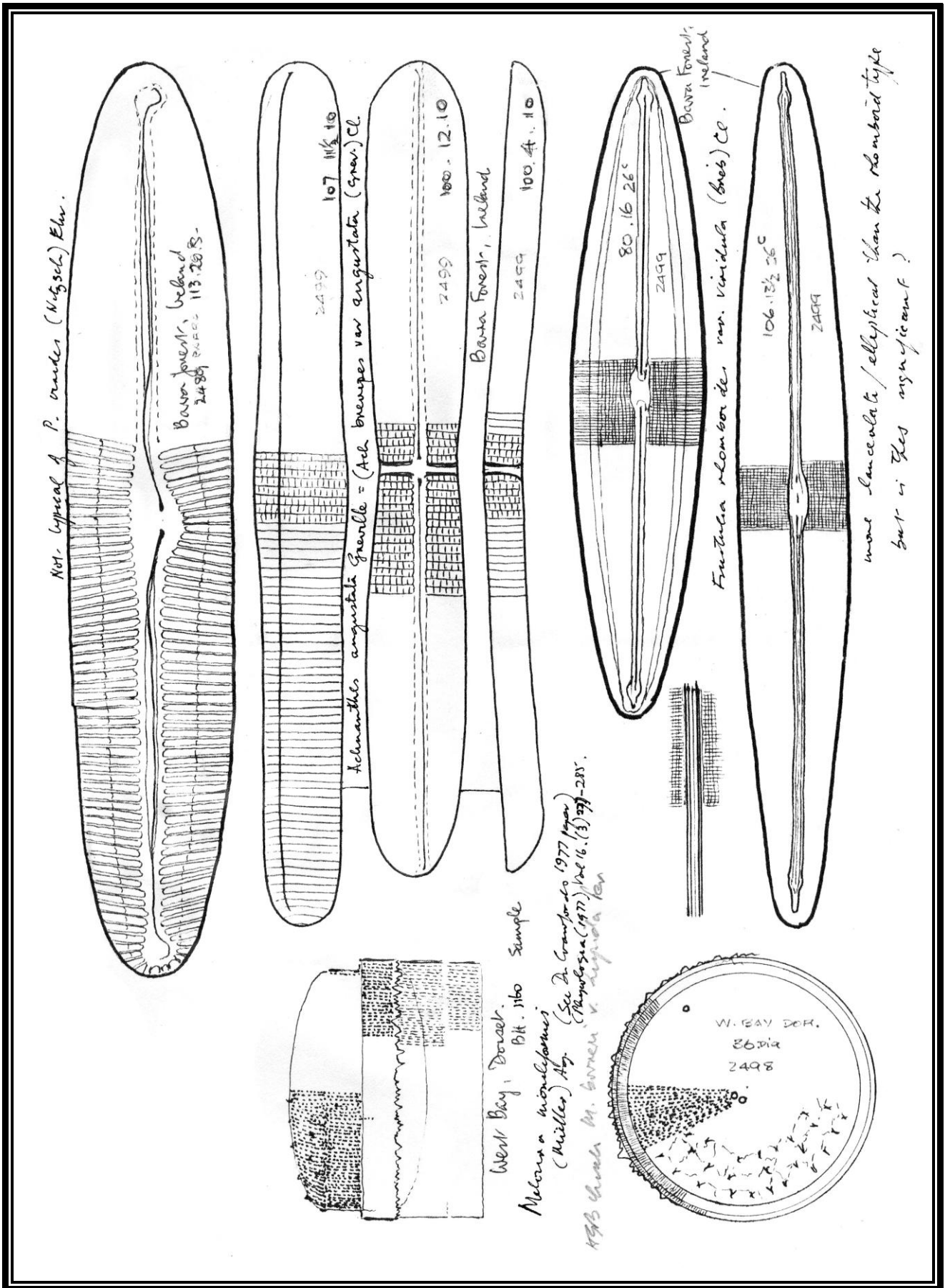
Miscellaneous Plate 415

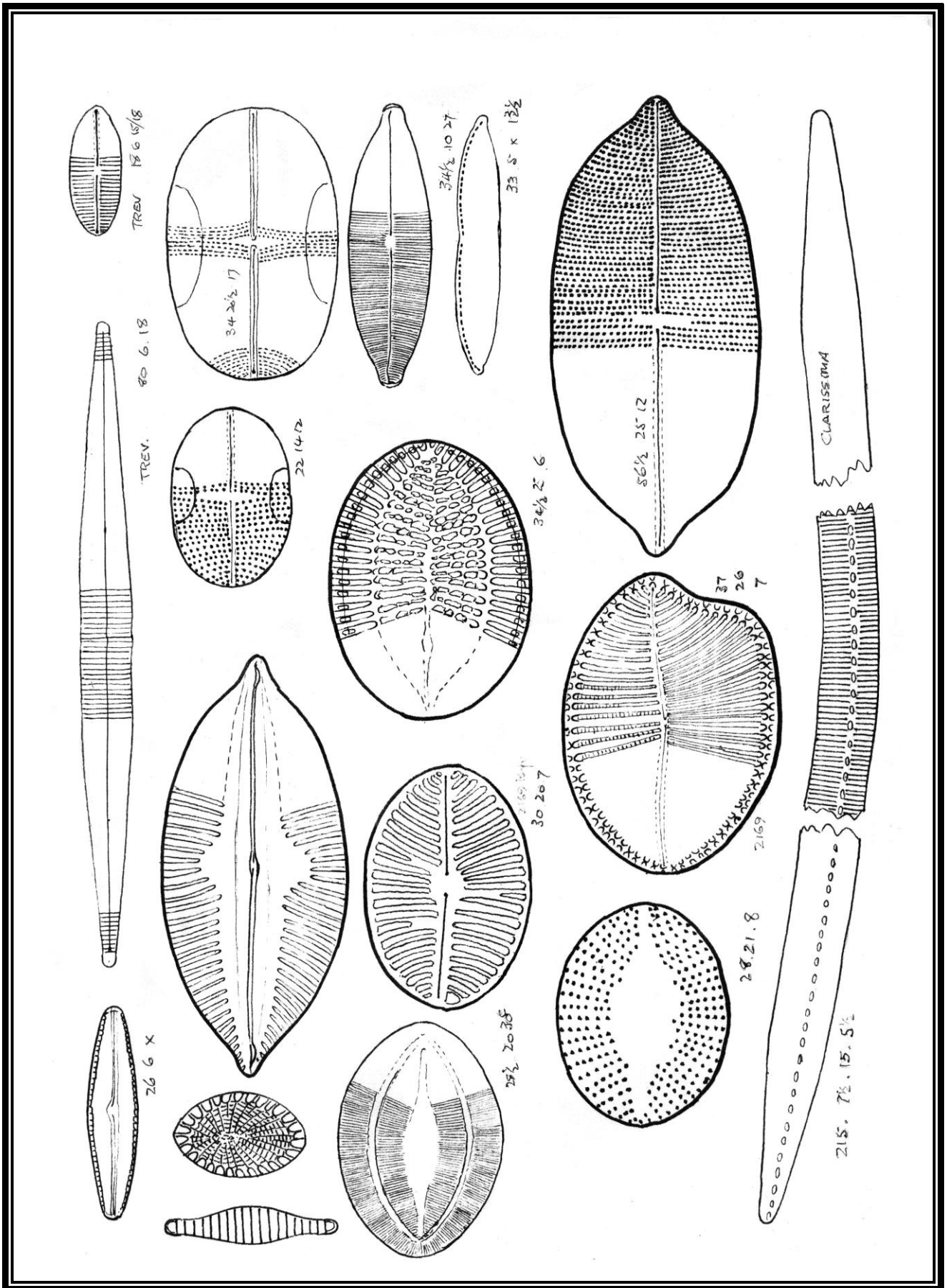




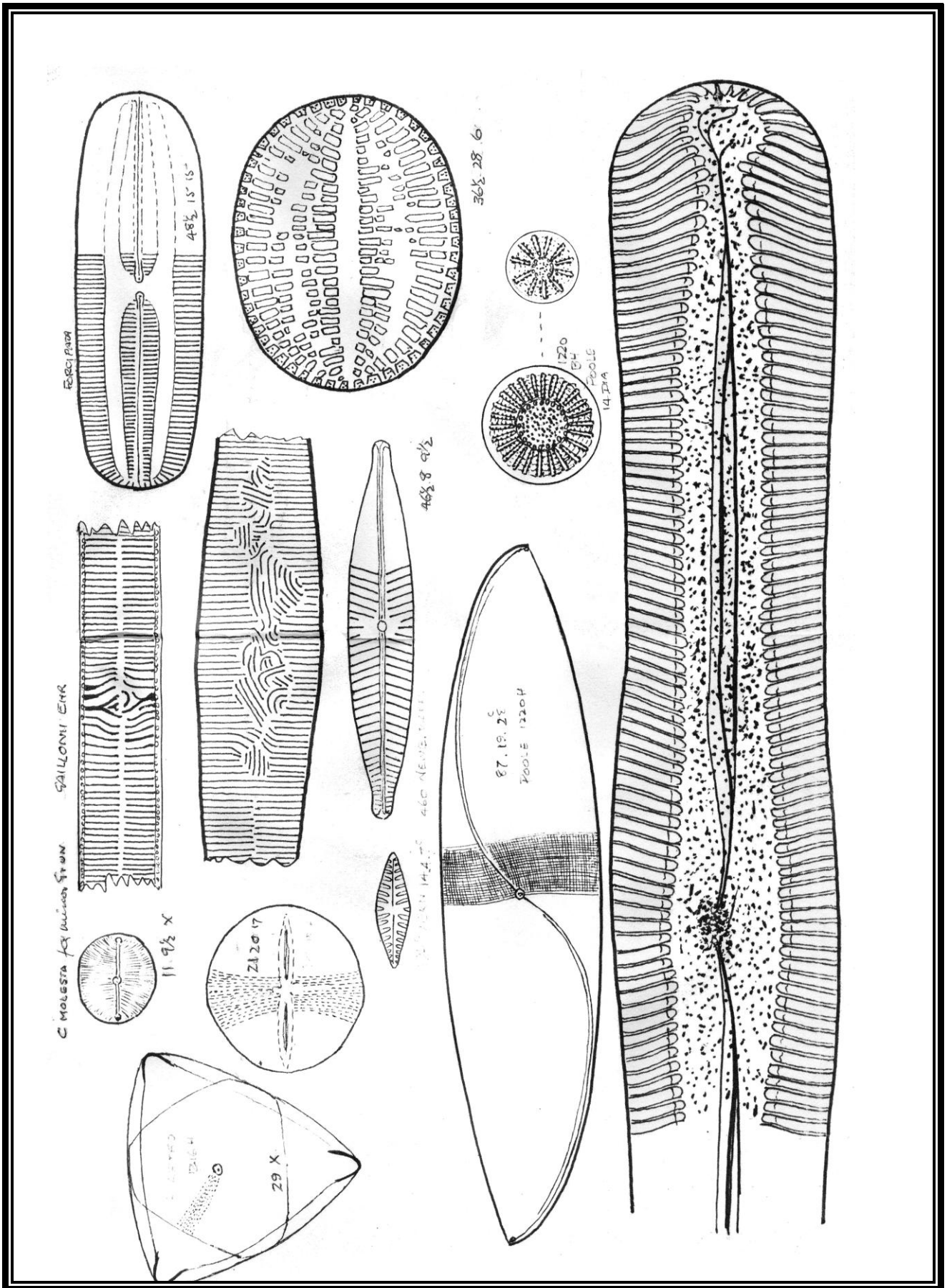


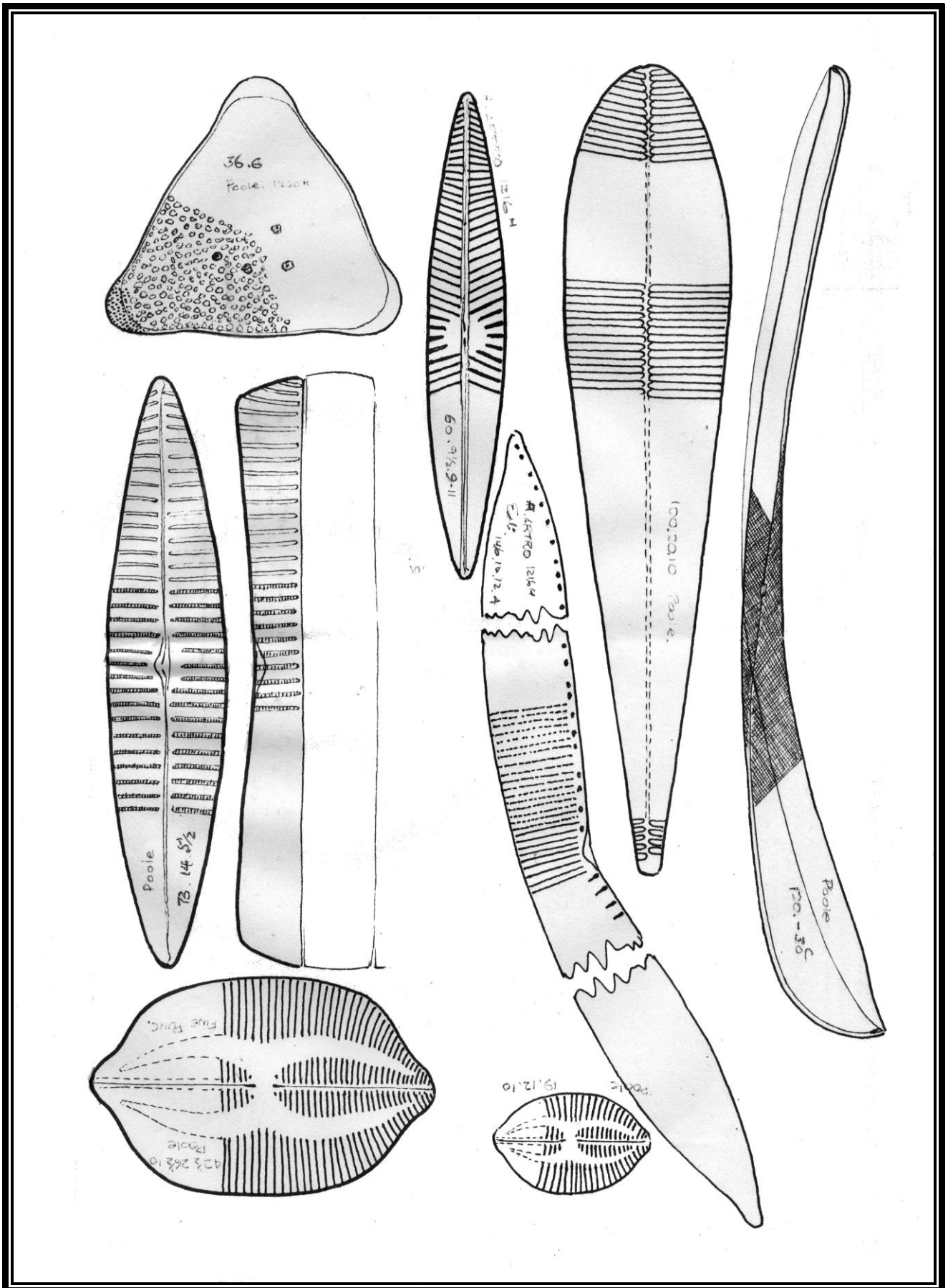
Miscellaneous Plate 417





Miscellaneous Plate 422





## Miscellaneous Plates 424 & 425 (Accompanying text)

### Some *Pinnularia* from Charlwood Rectory Pond in Wood, Charlwood R.P.

#### *Pinnularia* 103.20.6½

This form is near to type *viridis* except for the langsbands which are rather narrow. Should be about ¼ width of aereole and the raphe fold is rather short, should be longer.

#### *Pinnularia* 121.21.5

This may be *P. biclavata*. If one refers to A.Cl-Eu., her illustrations 1111 A-C are not much use and there is only one form. I have sketched an example which agrees somewhat i.e. 200.20.6½ on Plate 2, but nowhere does she give any indication of langsbands or their positions. The question of central striae interruption is not a fixed feature. May or may not be present. If you search the material you will find so.

Forms 180.74.6½ and 121.21.5. Note the langsbands positions. These are very similar, but differing raphes.

#### *Pinnularia* 96.16½.7 and 100.18½.6½

Have similar type langsbands, the former just visible at the striae ends for part of the valve. 100.18.6½ not visible at striae ends. The raphe systems here are different. 100.18.5½ is not strongly complex.

#### *Pinnularia* 180.24.6½

This form can be found with the odd central stria missing, basically the same as 200.20.6½.

The smaller forms 60.9½.10, 53.9.10, 50.9.9 are all of the same taxon, differing only in minor ways. Even 50.9.9., a case of interrupted central striae. The raphe systems are very fine and iddifficult to follow the complexities. Could be one of the *P. viridis* group, possibly "*sub-viridis*", "near to *sudetica*" and 53.9.10 "near *P. rupestris*".

60.9½.10 has the same striae radiation etc. as 53.9.10 but a raphe now close to *viridis* type.

#### *Pinnularia* 31.5½.12

In spite of what Euler says I would accept this as *P. brebissonii* var. *diminuta*.

#### *Pinnularia* 42.9.13

Although the form looks like A.Cl-Eu. 1108C *P. bipectinalis* there are some points which don't tie up! The form is fairly frequent in the gathering and fairly constant. I wouldn't like to say what.

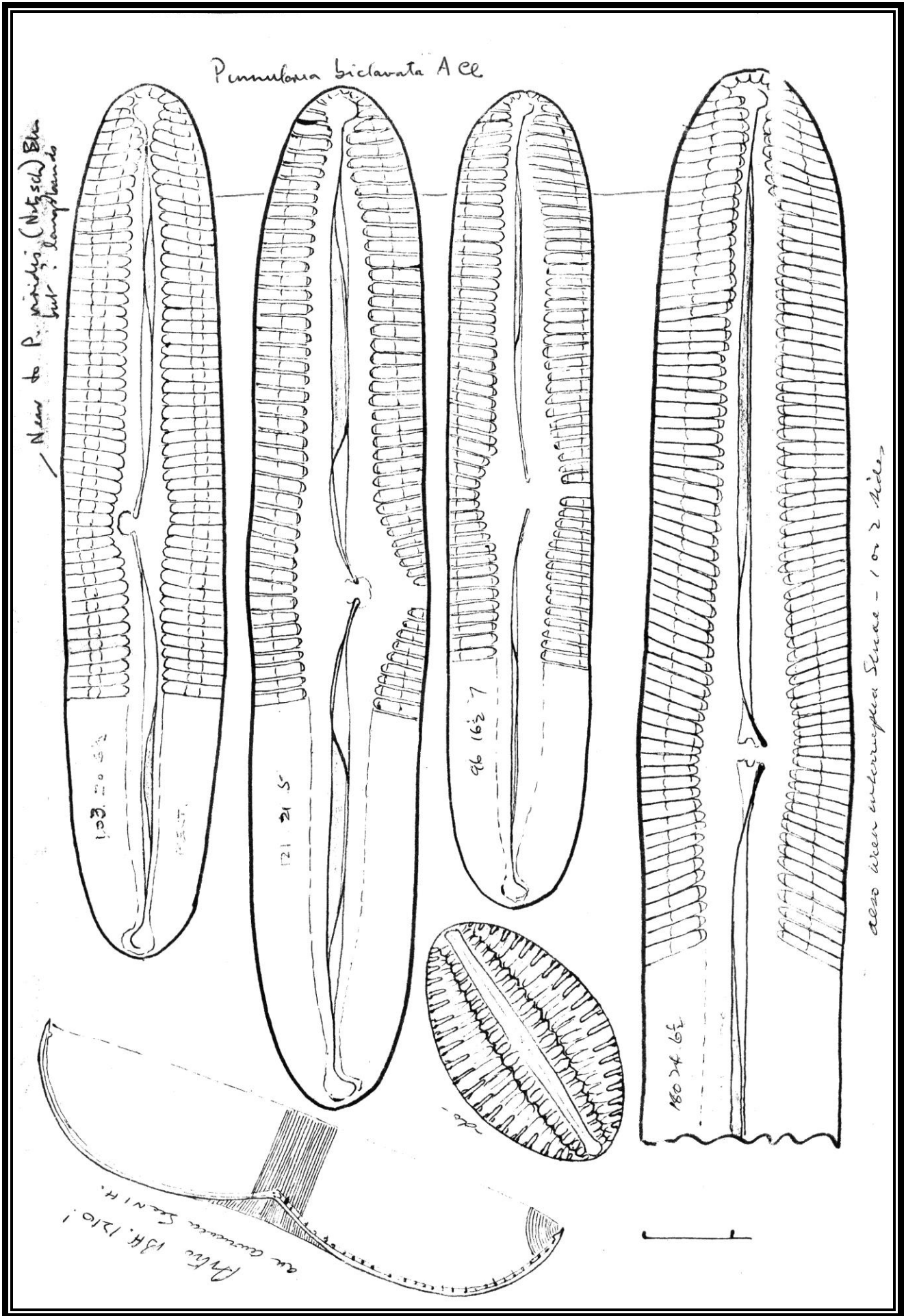
Apart from the *S. ovalis* the other two forms are from Littoral marine sites.

I have not depicted all the *Pinnularia* present in the gathering for certain reasons but I can assure you "it is not 95% pure growth of *P. biclavata*"! as you (Bernard Hartley) suggest.

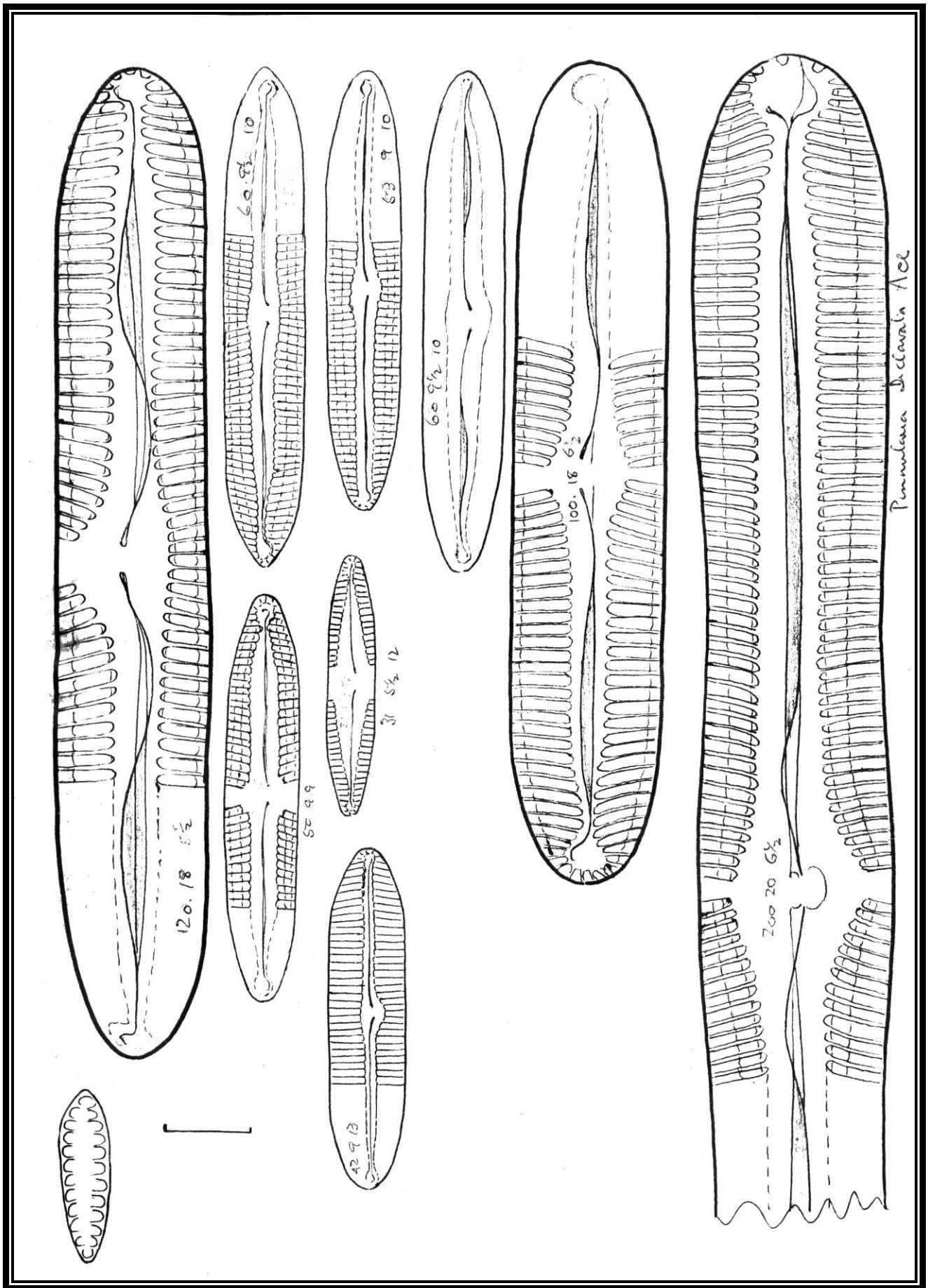
So sorry not to be more conclusive naming the forms but believe me, every gathering one makes of *Pinnularias* begins a host of troubles. Often because of poor illustrations to work to, everybody has different ideas, particular specimens do vary and habitat plays a big part in variation.

There are some features I've slowly got to understand in the *Pinnularias* and there are others I would like to know of but who can say with confidence. A fine admission after 40 years and many hundreds of drawings of the particular genus.

Horace.



Miscellaneous Plate 425





## Miscellaneous Plate 425c &amp; 425g (Accompanying text)

## Extract from Foged

## Spitzbergen (Plate 10)

Fig. 1.S	<i>N. schonfeldii</i> Hust. fa.
Fig. 2.S	<i>N. schonfeldii</i> Hust.
Fig. 3.S	<i>N. schonfeldii</i> Hust.
Fig. 4.S	<i>N. paludosa</i> Hust.
Fig. 5.S	<i>N. paludosa</i> Hust.
Fig. 6.S	<i>N. ignota</i> (Kras.) Lund var. <i>palustris</i> Lund.
Fig. 7.S	<i>N. ignota</i> (Kras.) Lund
Fig. 8.S	<i>N. paludosa</i> Hust.
Fig. 9.S	<i>N. paludosa</i> Hust. (?)

## Eire

Plate XXVIII – Figs. 12 & 13 too poor to copy (*schonfeldii*)

Plate XXIX

Fig. 30 too poor to copy

Fig. 31.E	<i>N. paludosa</i> (Fig.31 copied but raphe not visible)
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## Ghana (Plate XVI)

Fig. 4.G	<i>N. paludosa</i> Hust.
Fig. 6.G	<i>N. pseudolagerstedtii</i> Chol.

## Extract from A. Cl.-Eu.

## Sweden and Finland 1951

Fig. 795A	<i>N. schonfeldii</i> Hust. 12/25. 6/8. 12/18 (Syn. <i>N. paanaensis</i> Cl.Eu.)
Fig. 795B	<i>N. schonfeldii</i> Hust. (Syn. <i>N. paanaensis</i> Cl.Eu.)
Fig. 880A	<i>N. lagerstedtii</i> Cl. (not a good print) 29/28 6/6½
Fig. 880B	(No Quote)
Fig. 880C	<i>N. ? palustris</i> Hust.
Fig. 880D	<i>N. ? palustris</i> Hust.
Fig. 880E	<i>N. (?var. elliptica) lagerstedtii</i> var. <i>palustris</i> Hust L15 B7

## Extract from Hustedt

## Middle Europe – 1930

Fig. 520H	<i>N. schonfeldii</i> Hust.
Fig. 520H	<i>N. schonfeldii</i> Hust.

## Macklenburg, Lauenberg &amp; Nordostdeutschland Lakes (Plate XXXVII)

Fig. 31M	<i>N. lagerstedtii</i> var. <i>palustris</i> Hust. fa. <i>minores</i> Hust.
Fig. 32M	<i>N. lagerstedtii</i> var. <i>palustris</i> Hust. fa. <i>minores</i> Hust.
Fig. 33M	<i>N. lagerstedtii</i> var. <i>palustris</i> Hust. fa. <i>minores</i> Hust.
Fig. 34M	<i>N. schonfeldii</i> Hust.
Fig. 35M	<i>N. schonfeldii</i> Hust.
Fig. 36M	<i>N. schonfeldii</i> Hust.
Fig. 37M	<i>N. schonfeldii</i> Hust.

## Java &amp; Bali (Plate XVIII)

Fig. 8J.	<i>N. lagerstedtii</i> Hust.
Fig. 9J.	<i>N. lagerstedtii</i> Hust.

**Miscellaneous Plates 425c & 425g (Accompanying text) - continued**

**A. Schmidt's Atlas (Plate 400)**

Fig. 27A.S.	<i>N. lagededti</i> var. <i>palustris</i> Hust.
Fig. 28A.S.	<i>N. lagededti</i> var. <i>palustris</i> Hust.
Fig. 29A.S.	<i>N. lagededti</i> var. <i>palustris</i> Hust.
Fig. 33A.S.	<i>N. lagededti</i> Hust.
Fig. 35A.S.	<i>N. lagededti</i> Hust.
Fig. 37A.S.	<i>N. lagededti</i> Hust.

**Extract from C. Reimer (Cayler Prarie)**

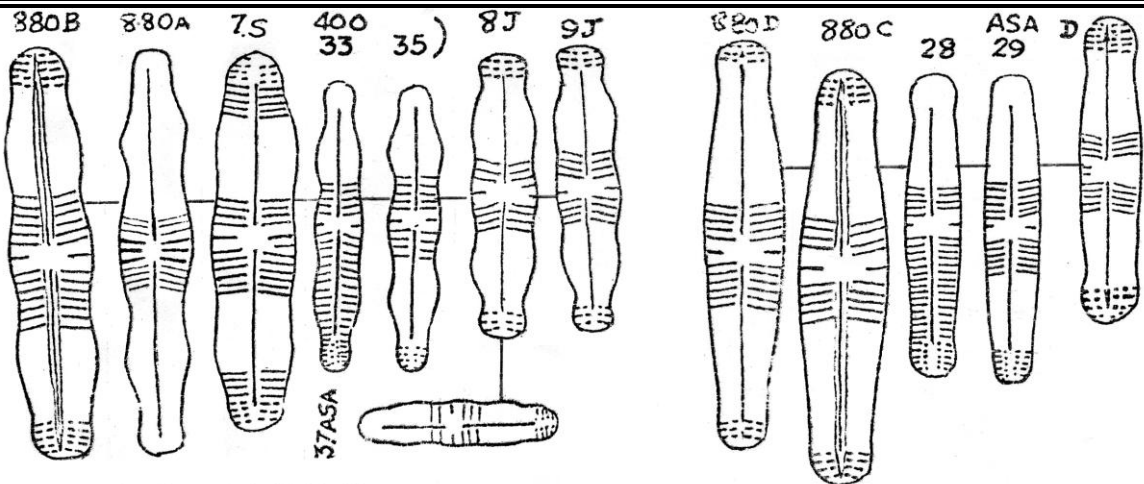
**Diatomaceae II**

Fig. 1.R.	<i>N. paludosa</i> fa. <i>rhomboidea</i> Reim. 14/22 5/5½ 14/16 (?puncta on one valve only)
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**Extract from C. Bock**

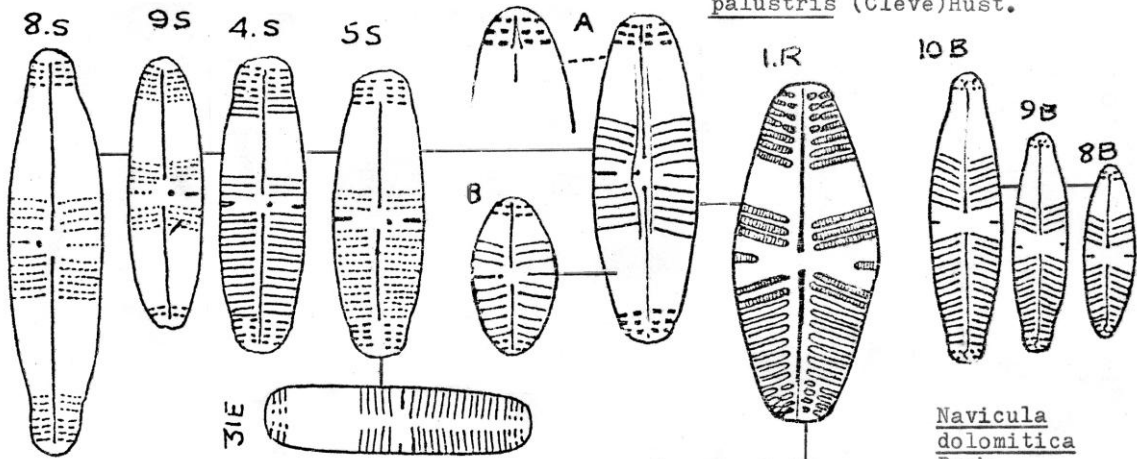
**Diatomaceae II**

Fig. 8B	<i>N. dolomitica</i> Bock 14/20 4/5 15/18
Fig. 9B	<i>N. dolomitica</i> Bock
Fig. 10B	<i>N. dolomitica</i> Bock (Note Term. Hooks)



Navicula lagerstedtii Cleve

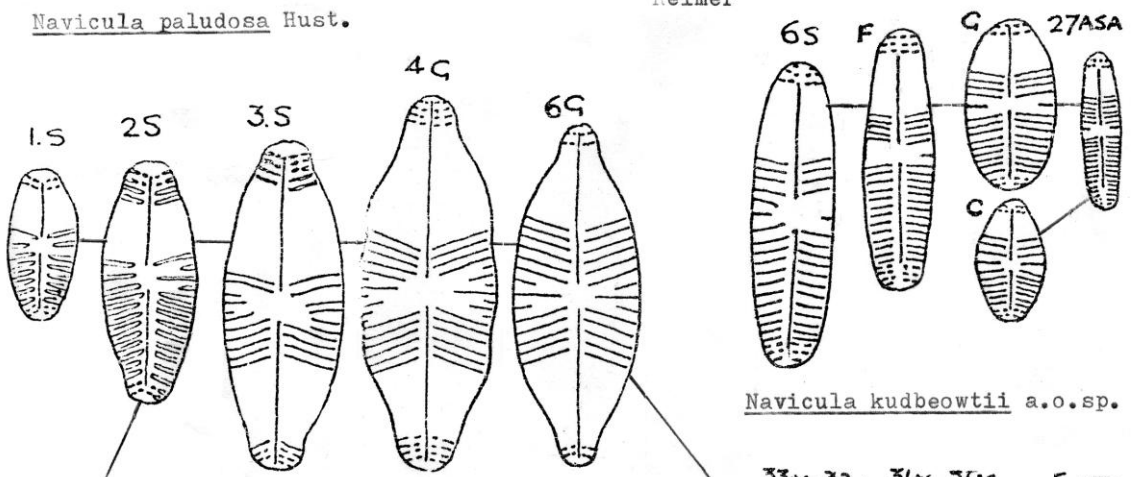
Navicula lagerstedtii var. palustris (Cleve)Hust.



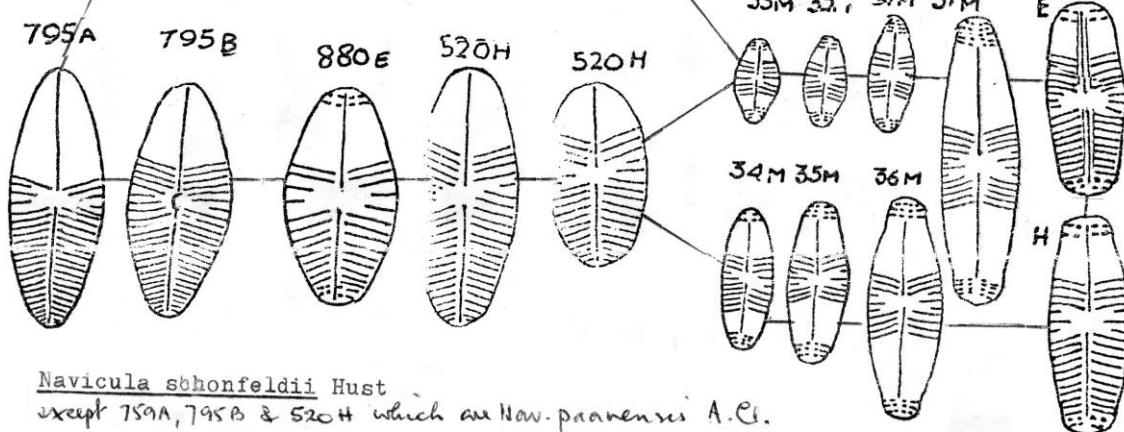
Navicula paludosa Hust.

fa. rhomboidea Reimer

Navicula dolomitica Bock.



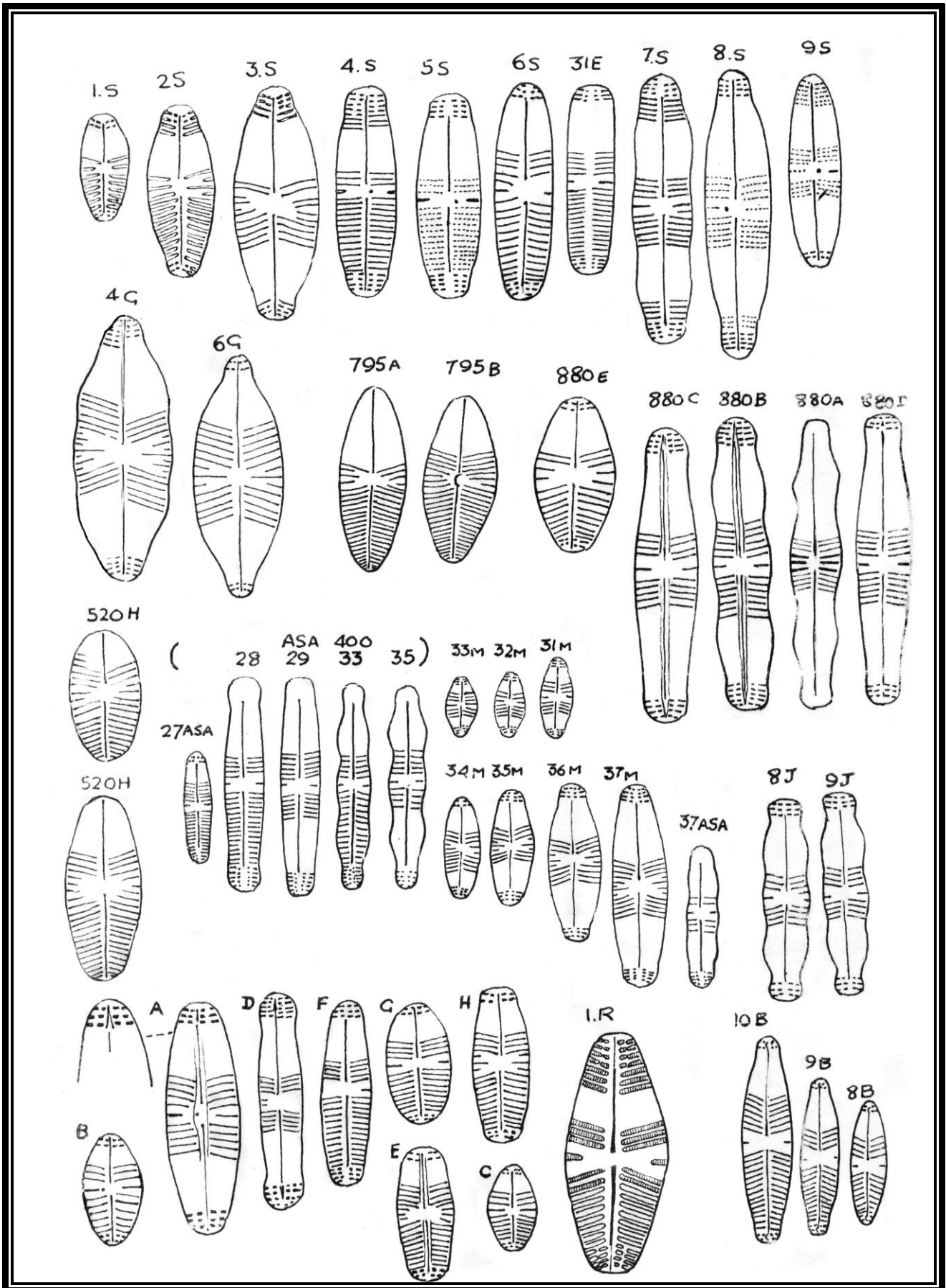
Navicula kudbeowtii a.o.sp.



Navicula schonfeldii Hust

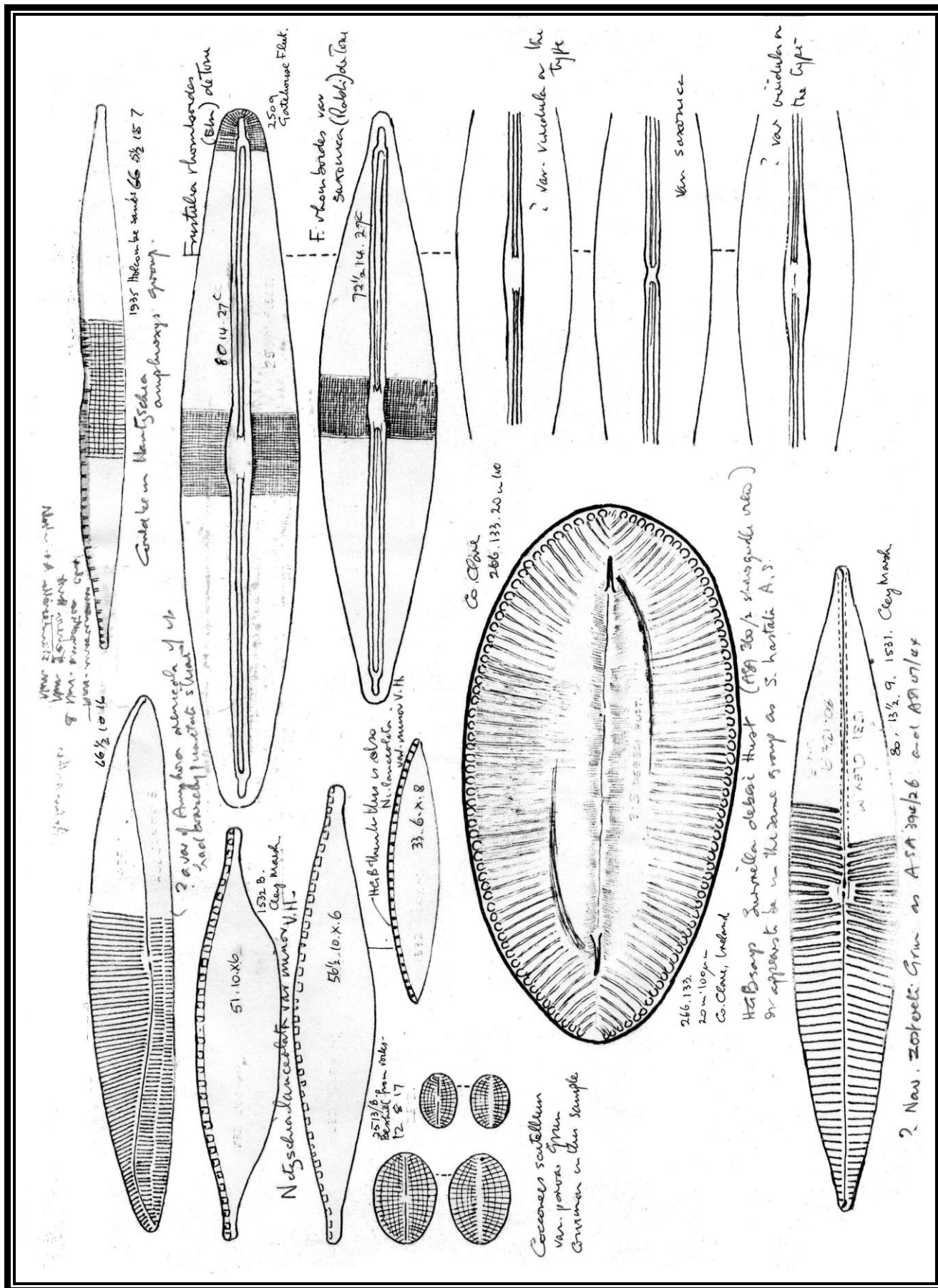
except 795A, 795B & 520H which are Nav. praenensis A.C.

Miscellaneous Plate 425g





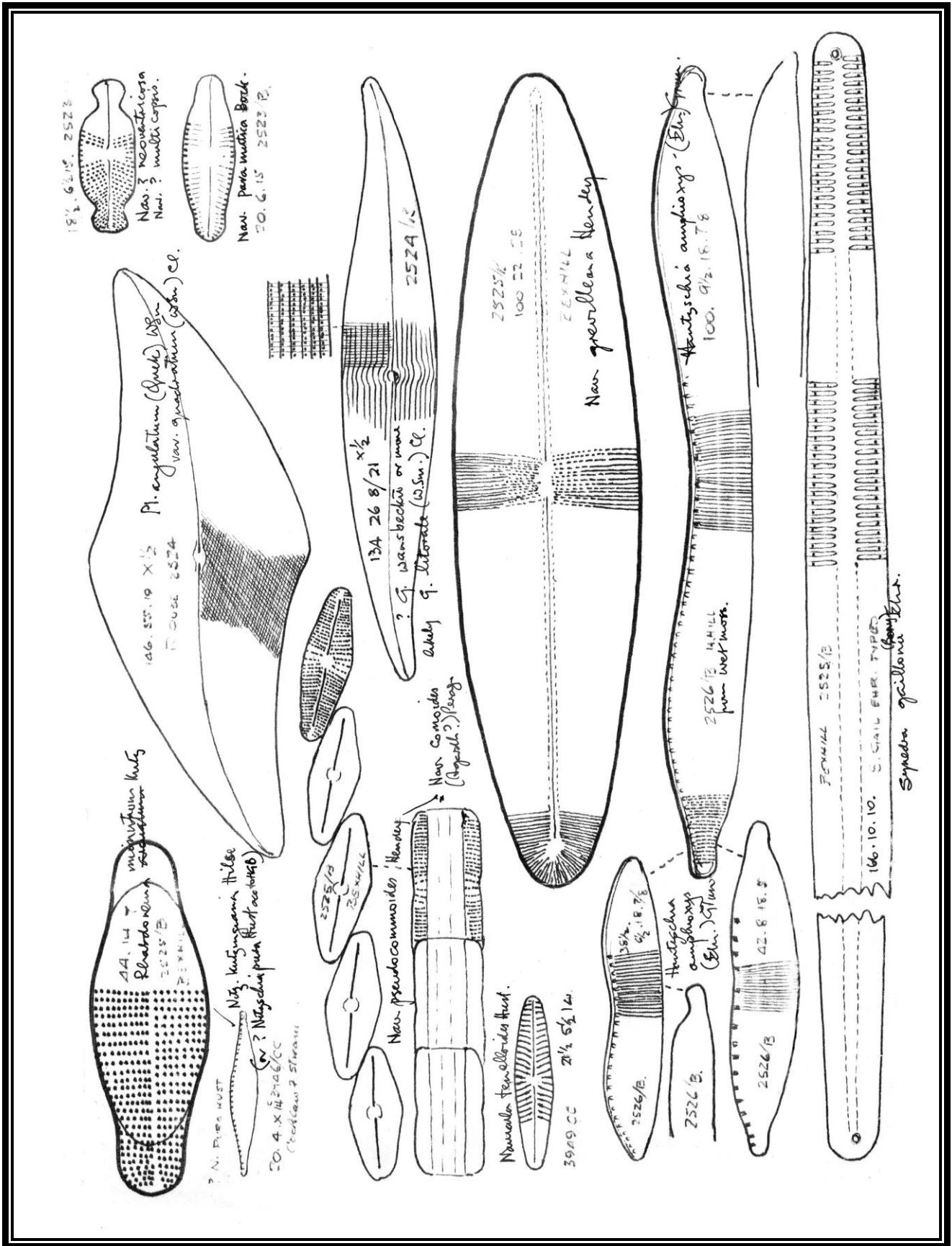
Miscellaneous Plate 427



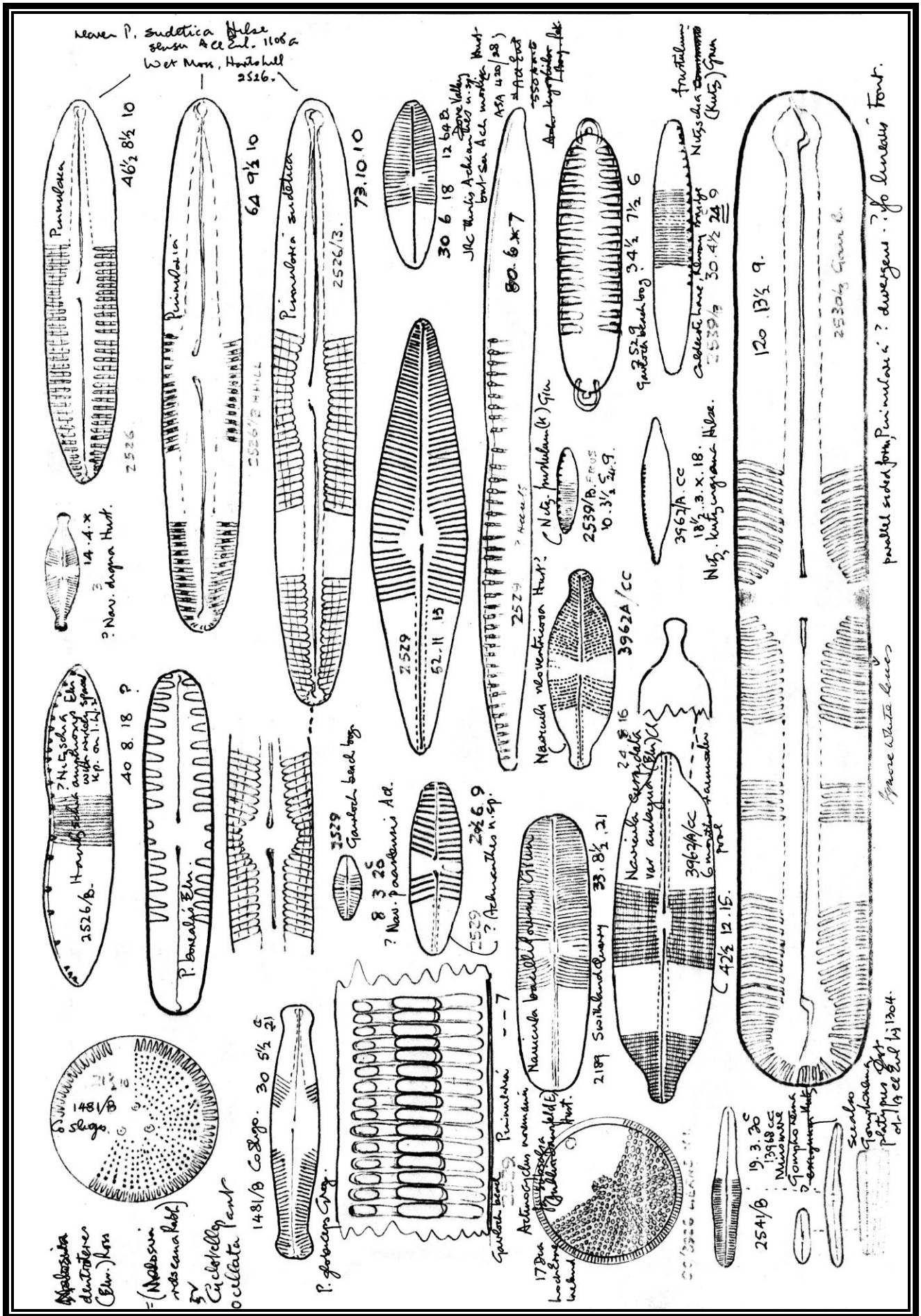








Miscellaneous Plate 431



**Miscellaneous Plate 431a & 431b (Accompanying text)**  
**An Illustrated Account of the Diatom Flora from a small Dredging – Edge of**  
**Crosemere, Shropshire**  
**9<sup>th</sup> November 1980**



The accompanying illustrated account was made from about 1.5cc of dredged material some 7 metres from the bank. I would have liked more but had not the means of a suitable container. What was obtained consisted of 95% detritus. (Plate 1. Fig. 1 is the first occasion to have noted the taxon.)

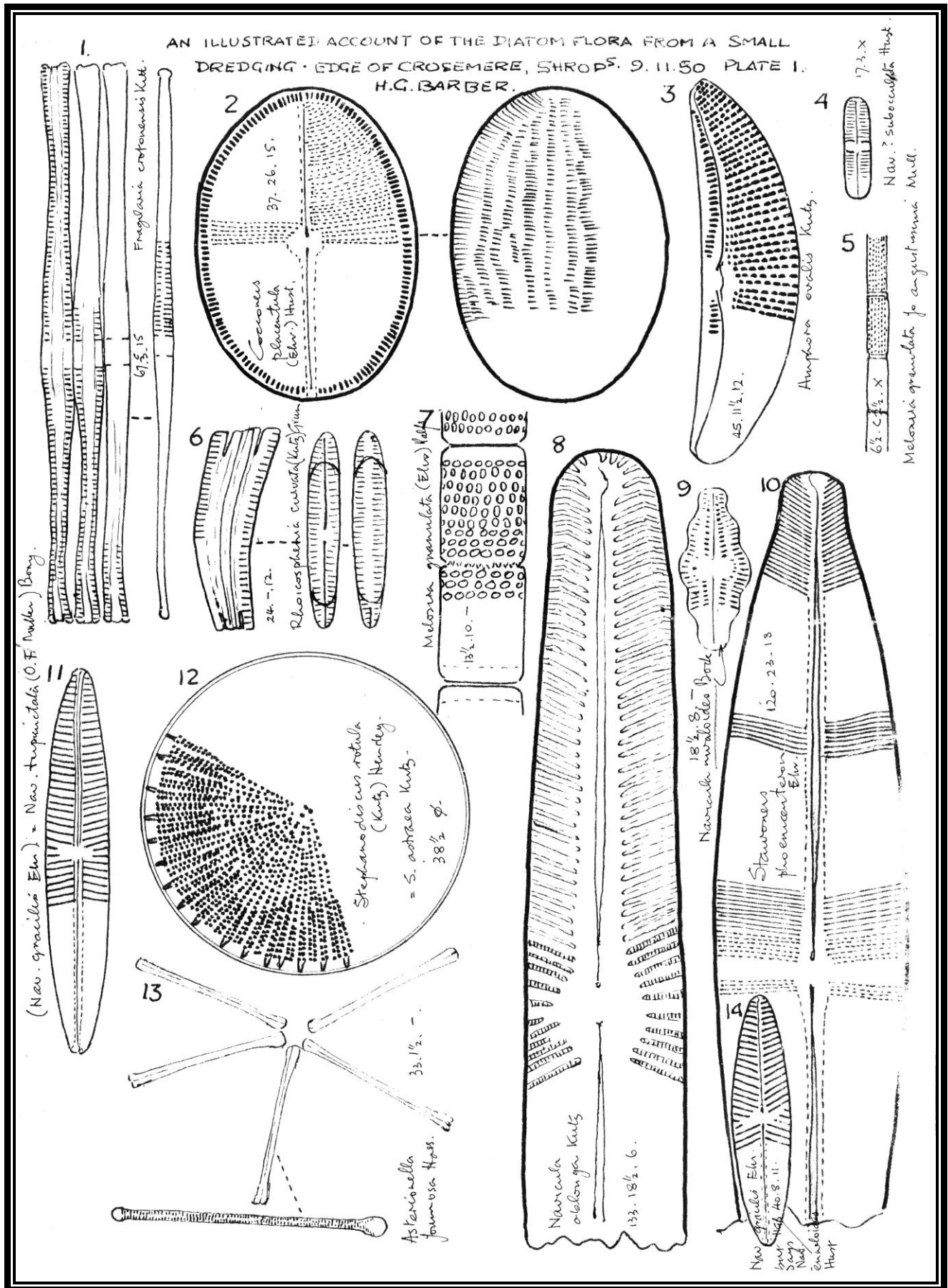
H.G. Barber

Nov. 1980

**Plate 1**

Figure/dimensions	Name
1/67.3 <sup>c</sup> .15	<i>Fragilaria crotonensis</i> Kitt. Very frequent
2/37.26.15	<i>Cocconeis placentula</i> (Ehrenberg) Hust. Frequent
3/45.11½.12	<i>Amphora ovalis</i> Kützing. Frequent
4/17.3.x	<i>Navicula ?suboculata</i> Hust. Very rare
5/6½.2½ <sup>c</sup> .x	<i>Melosira granulata</i> var. <i>angustissima</i> Mull. Fairly frequent
6/24.-.12	<i>Rhoicosphenia curvata</i> (Kützing) Grun. Fairly frequent
7/13½.10.-	<i>Melosira granulata</i> (Ehrenberg) Ralfs Very rare
8/133.18½.6	<i>Navicula oblonga</i> Kützing. Frequent
9/18½.8.-	<i>Navicula nivaloides</i> Bock. Very rare
10/120.23.18	<i>Stauroneis phoenicentron</i> Ehrenberg Very rare
11/40.8.11	<i>Navicula gracilis</i> Ehrenberg Very rare
12/38½ dia.	<i>Stephanodiscus astraea</i> (Ehrenberg) Grun. Very frequent
13/33.1½.-	<i>Asterionella formosa</i> Hass. Very frequent
14/30.6½.12	<i>Navicula bacillodes</i> Hust. Very rare

Miscellaneous Plate 431A



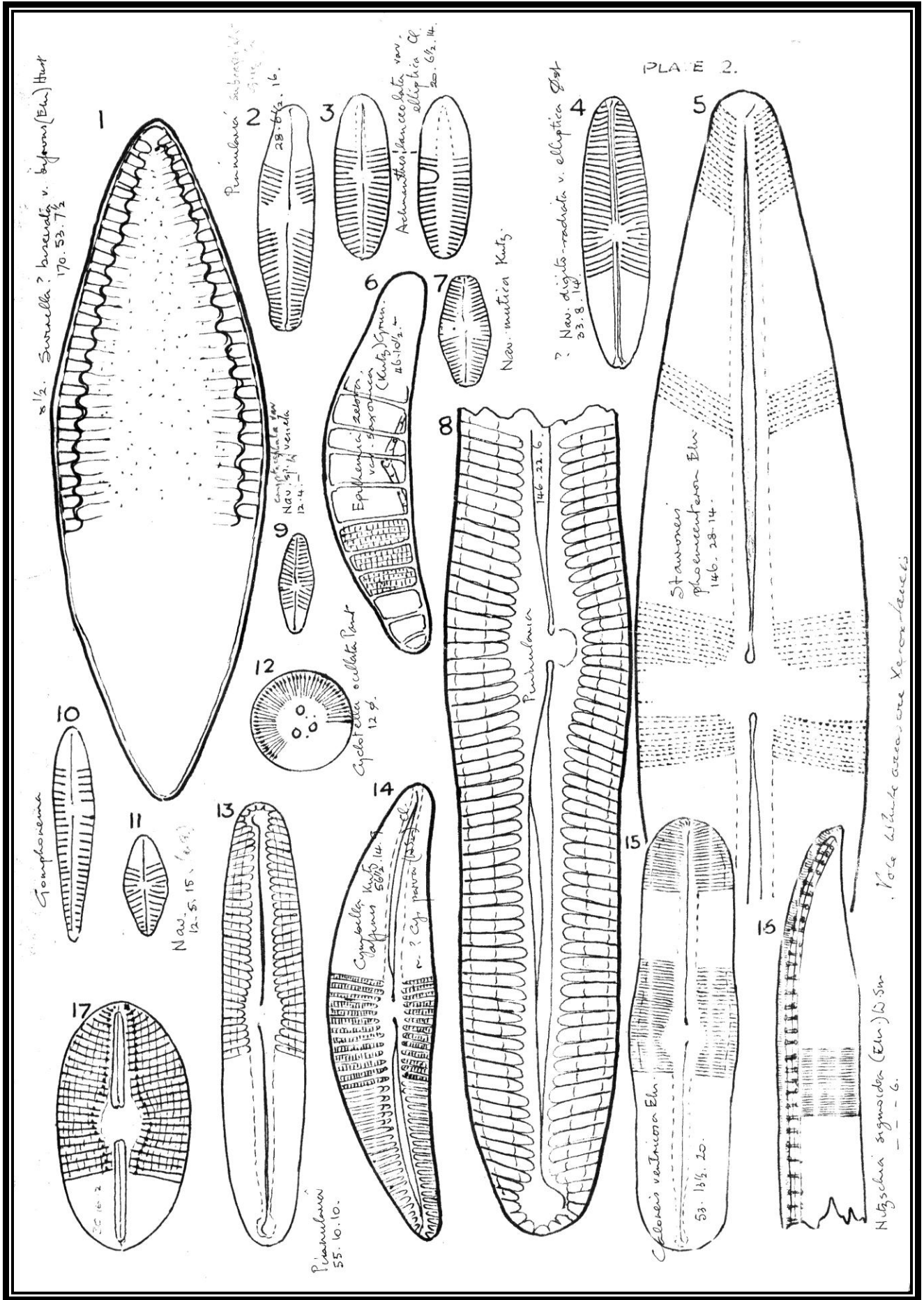
[Editor's Note - The date of collection on the plate is in error – should be 9.11.80]

## Miscellaneous Plate 431B (Accompanying text)

Figure/dimensions	Name
1/170.53.7½	<i>Surirella ?biseriata</i> var. <i>bifrons</i> (Ehrenberg) Hust.
	Rare (x½ scale)
2/28.6½.16	<i>Pinnularia subcapitata</i> Greg. fa.
	Very rare
3/20.6½.14	<i>Achnanthes lanceolata</i> var. <i>elliptica</i> Cl.
	Very rare
4/33.8.14	<i>Navicula digito-radiata</i> var. <i>elliptica</i> Oes.
	Very rare
5/146.28.14	<i>Stauroneis phoenicentron</i> Ehrenberg
	Very rare
6/46.10½.-	<i>Epithemia zebra</i> var. <i>saxonica</i> (Kützing) Grun.
	Frequent
7/13½.6.-	<i>Navicula mutica</i> Kützing.
	Very rare
8/146.22.6	<i>Pinnularia</i> sp.
	Very rare The nearest I can suggest is <i>P. neglecta</i> (Naeg) It is not <i>P. viridis</i> , <i>P. nobilis</i> . The raphe system is wrong for <i>P. dactylus</i> and <i>P. cuneata</i> is not a good fit.
9/12.4.-	<i>Navicula</i> sp. ? <i>veneta</i>
	Very rare
10/26½.5.10	<i>Gomphonema ?bohemicum</i>
	Very rare
11/12.5.15	<i>Navicula ?anglica</i> Ralfs
	Very rare
12/12 dia	<i>Cyclotella ocellata</i> Pant.
	Rare
13/55.10.10	<i>Pinnularia ?rupestris</i>
	(Near) Very rare
14/56½.14.9	<i>Cymbella affinis</i> Kützing. ? or <i>Cymbella parva</i> (W.Sm.) Cl.
	Very rare
15/53.13½.20	<i>Caloneis ventricosa</i> Ehrenberg
	Very rare
16/-.-.6	<i>Nitzschia sigmoidea</i> (Ehrenberg) Wm.Sm.
	Frequent

Note: The forms marked 'Very rare' are generally one specimen.

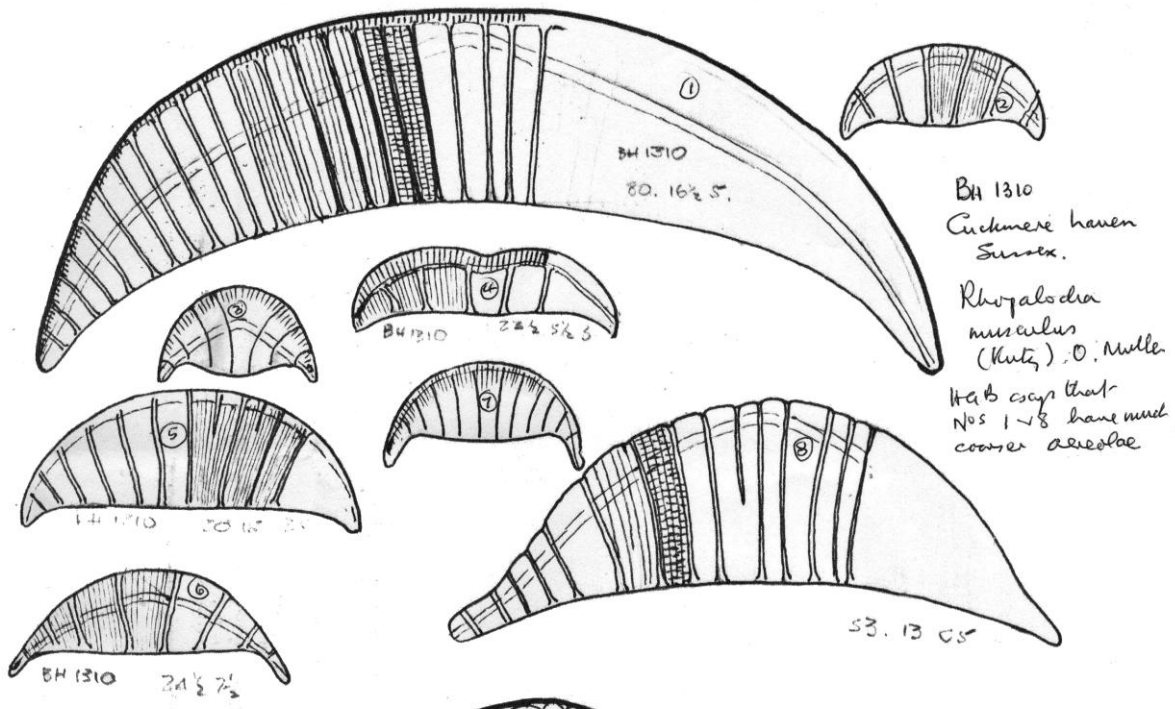
Miscellaneous Plate 431B



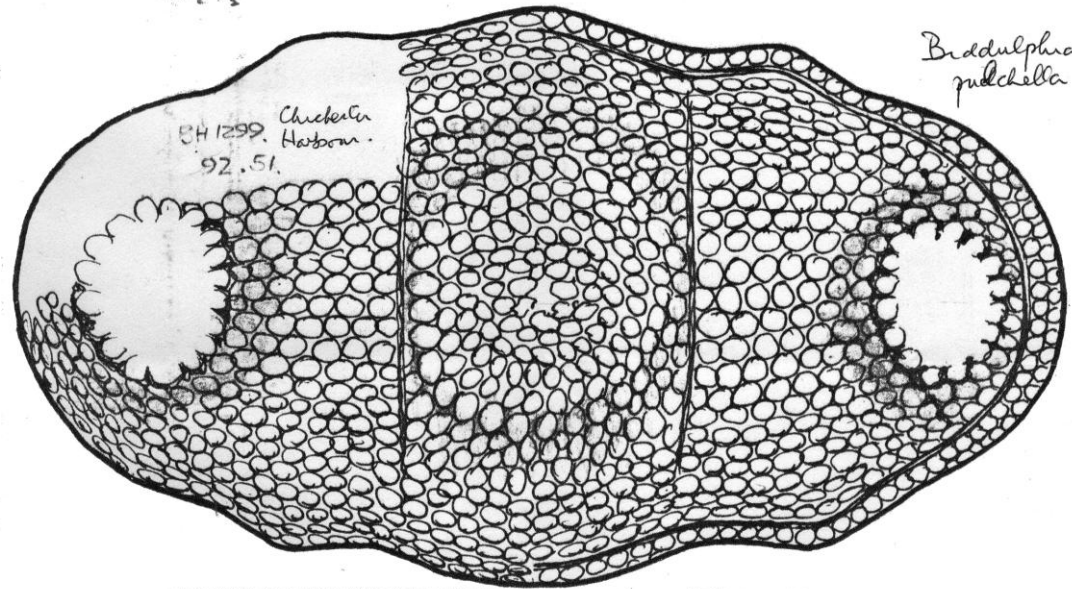




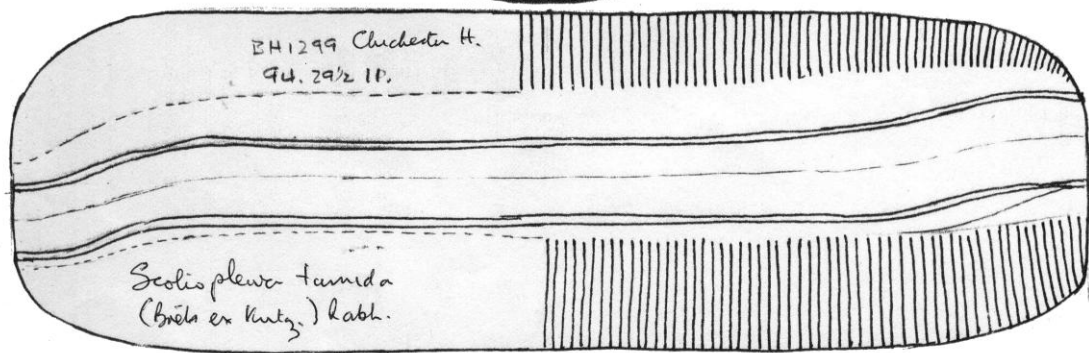




BH 1310  
Cochinese haven  
Surrex.  
Rhopalodia  
musculus  
(Kütz.) O. Mülle.  
Hab says that  
Nos 1-18 have much  
coarser areolae



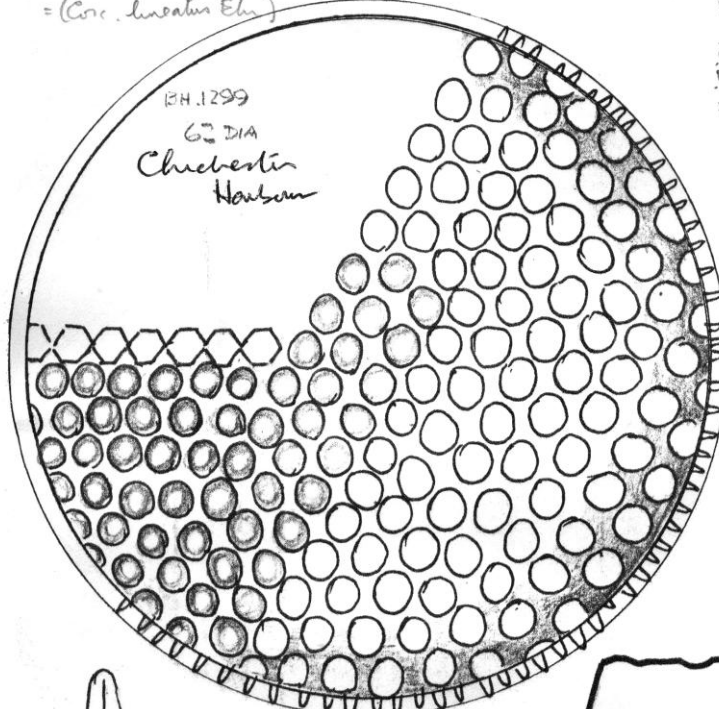
Biddulphia  
pulchella Gray



Scoliolewa farneda  
(Br&is ex Kütz.) Rabh.

Miscellaneous Plate 434

? *Thalassiosira leptopus* (Gruner V. H.) Fuzell & Husti  
= (*Coc. linearis* Ehr.)



B/481 10.3. x

B/1481 C. Clavate 26x. 4

2261 MAR. 3. 22x. 4 19c

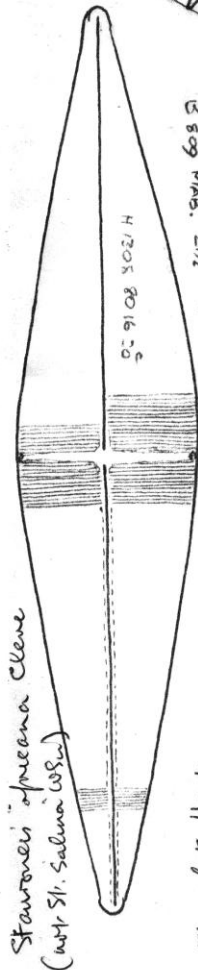
B/1481 D. D. 26x. 4

30.5. 20c



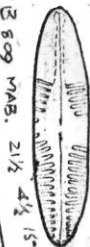
18.6. 24.

*Pylaeus* Hanson. ? a small *Hantzschia crucigera*



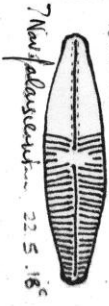
H. 1205 30.16. 20c

B/509 MAR. 21x. 4x. 15c

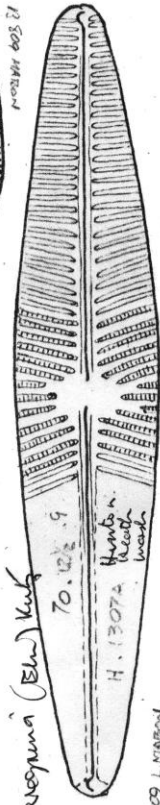


number of pores in narrow

St. elata Husti.  
See p. 1189.



? *Nav. palascentis* 22.5. 18c



12500 HANSON

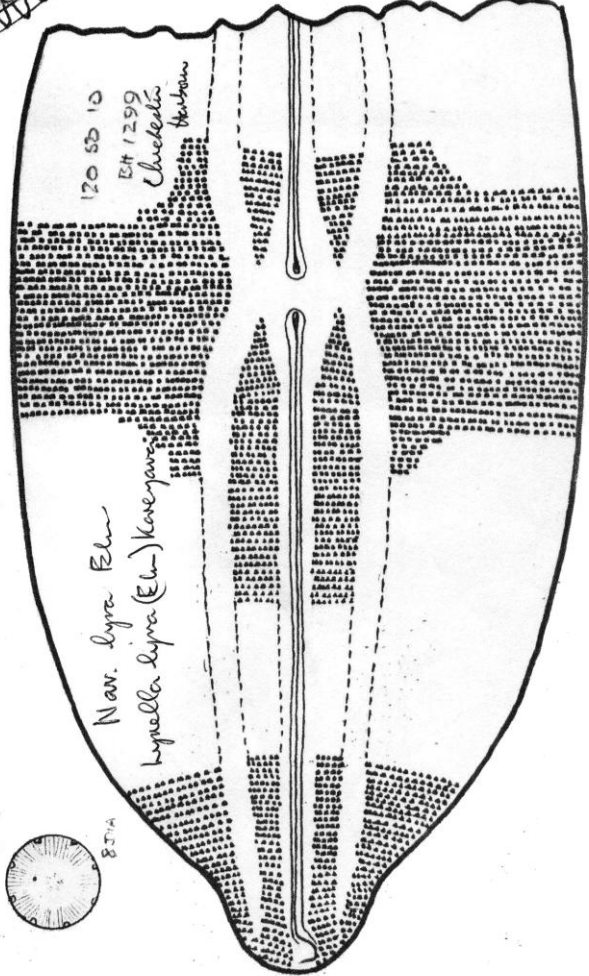
? *Nav. paropina* (Ehr.) Husti

70.12. 9

H. 13074

Hanson Wash

B/509 L. HANSON



1205 B

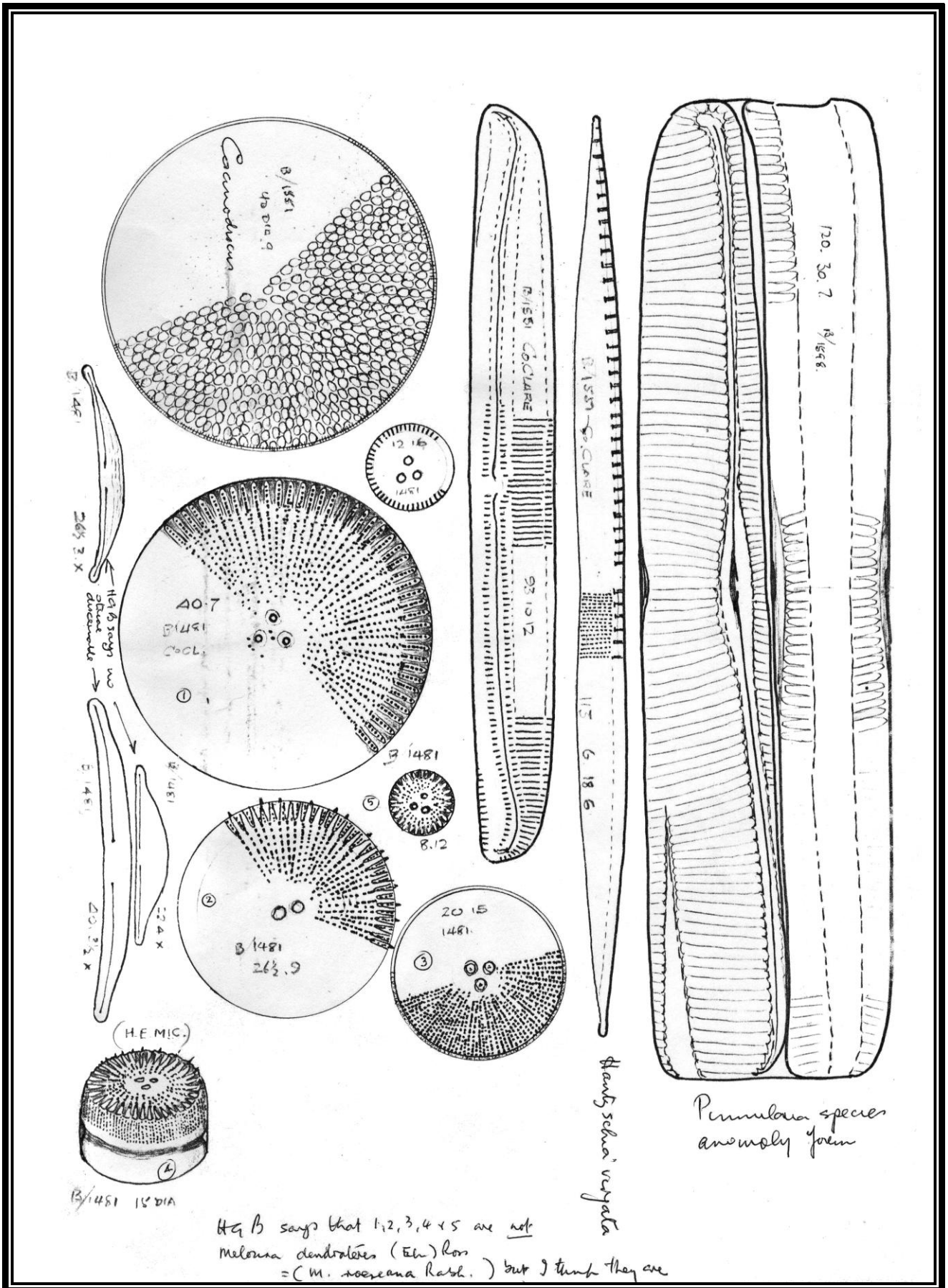
BH 1299

Chester

Hanson

Nav. Lyra Ehr.

*Lynella Lyra* (Ehr.) Kaseyana

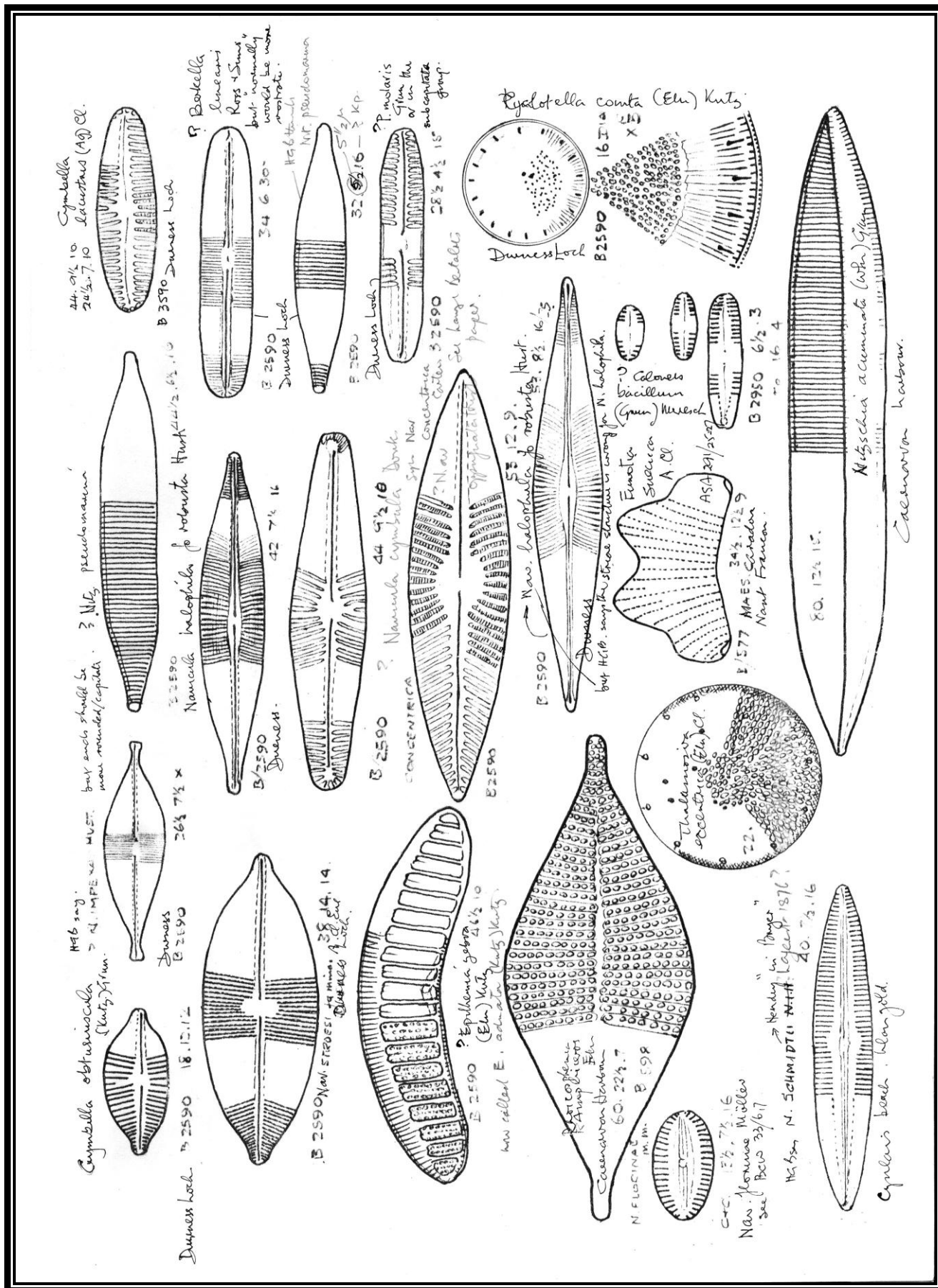


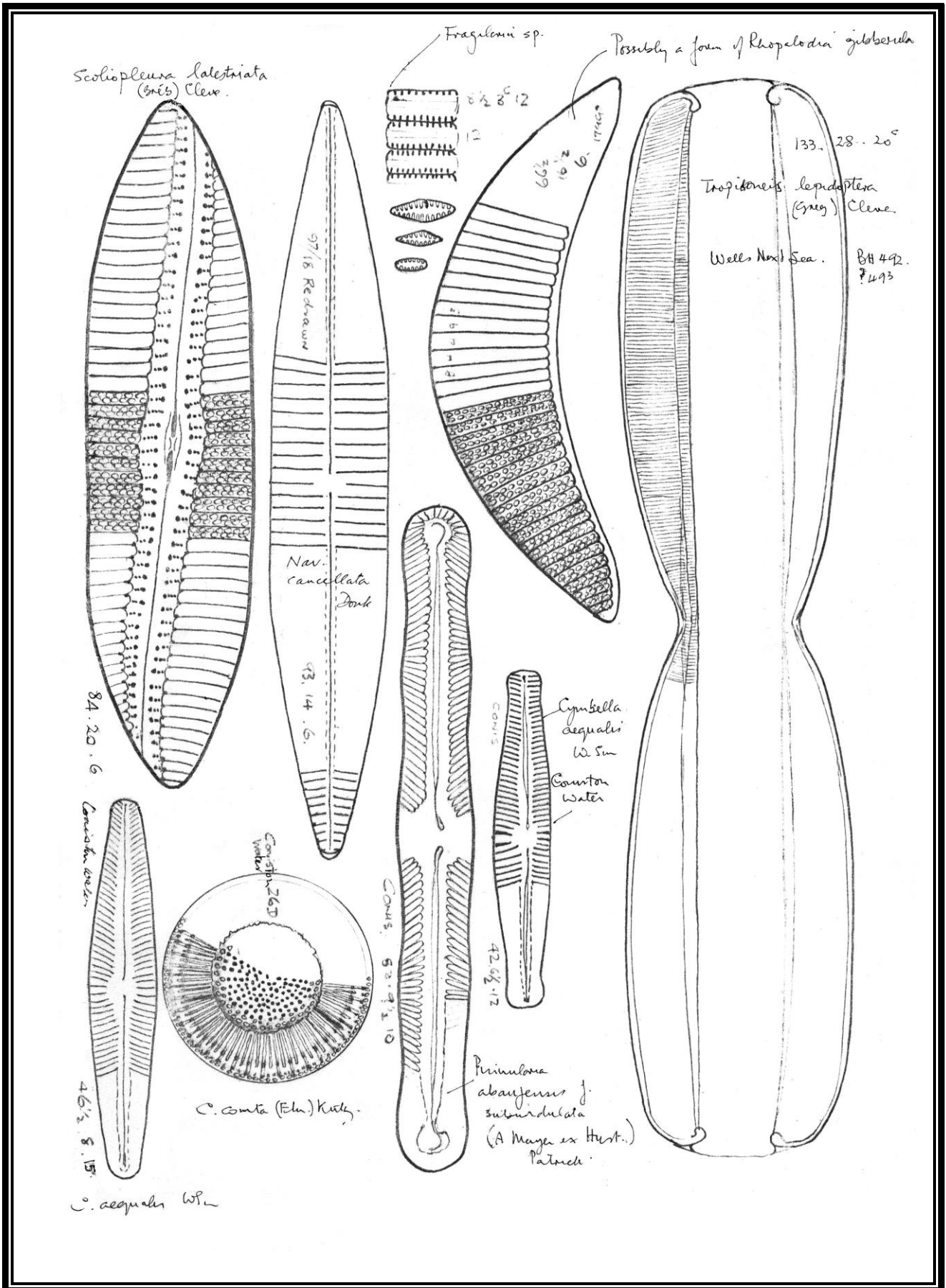
H.G.B. says that 1, 2, 3, 4 & 5 are not *Melonina dendroidea* (Ehr) Ross = (*M. roseana* Rabh.) but I think they are

*Pinnularia* species anomaly form

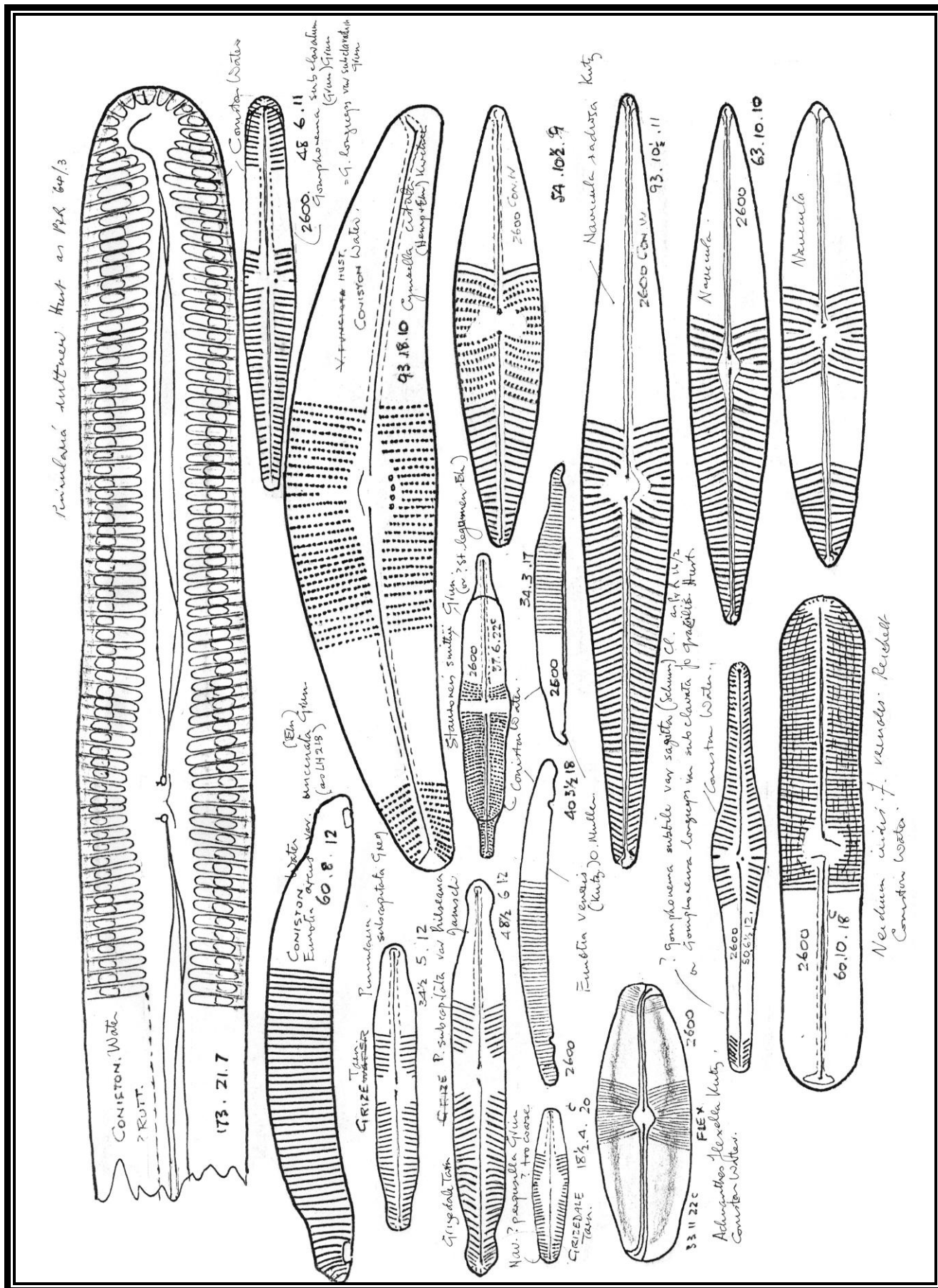
*Thalysseia virgata*

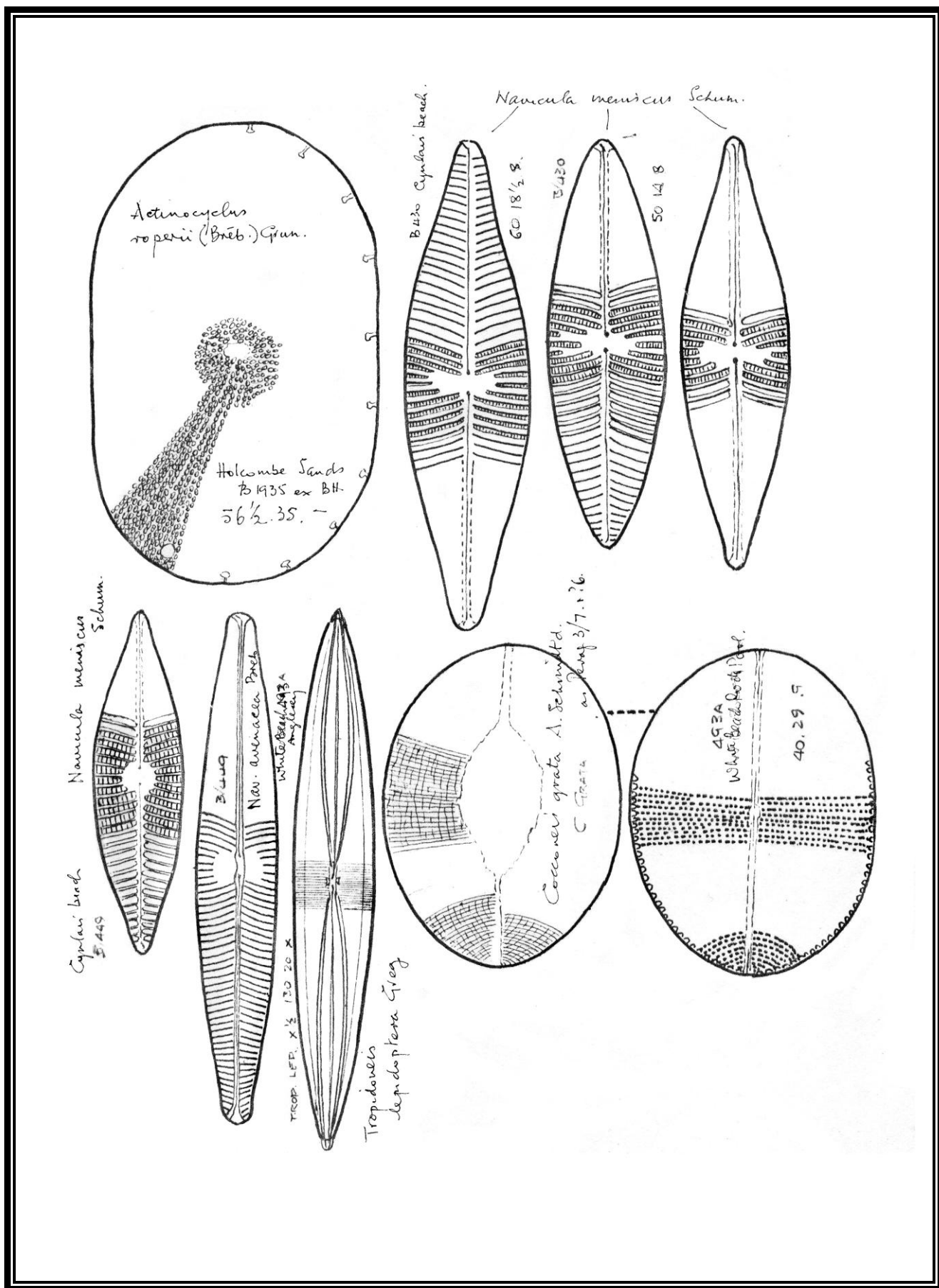
Miscellaneous Plate 436



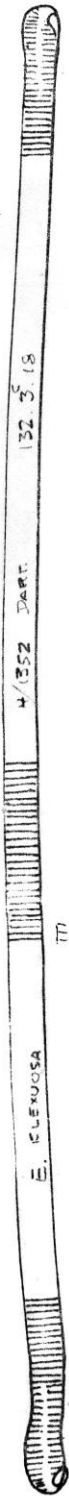


Miscellaneous Plate 438



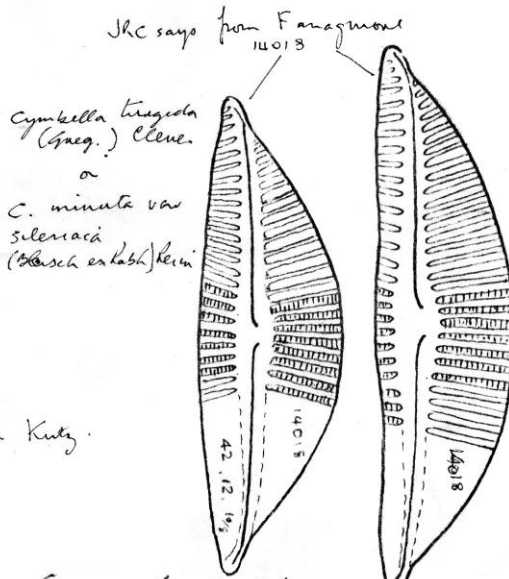
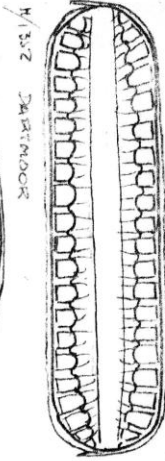
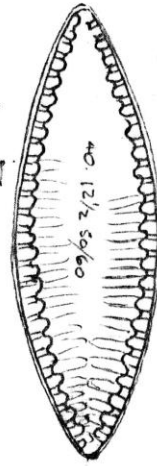


Miscellaneous Plate 440



*Eurotra flexuosa* Kütz.

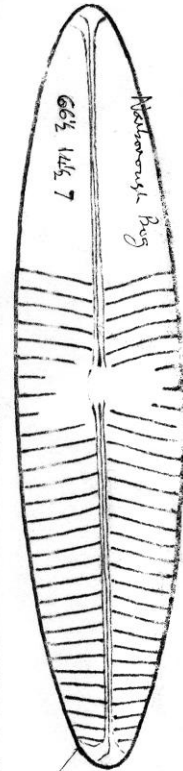
*Surnella*  
 ? *biseriata* var  
*biformis* n  
 ? *Belvelica* group



JHC says from Faragmon  
 14018  
*Cymbella truncata*  
 (Grag.) Cleve.  
 or  
*C. minuta* var  
*silenciaci*  
 (Blasch ex Labb) Klein



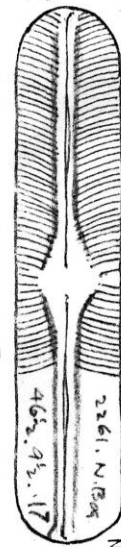
*Amphora veneta*  
 var. *capitata*  
 Harwood



See 451 for the 3 forms  
 on same sheet. 15 accompanying  
 tubes picture.

Possibilities are 1-

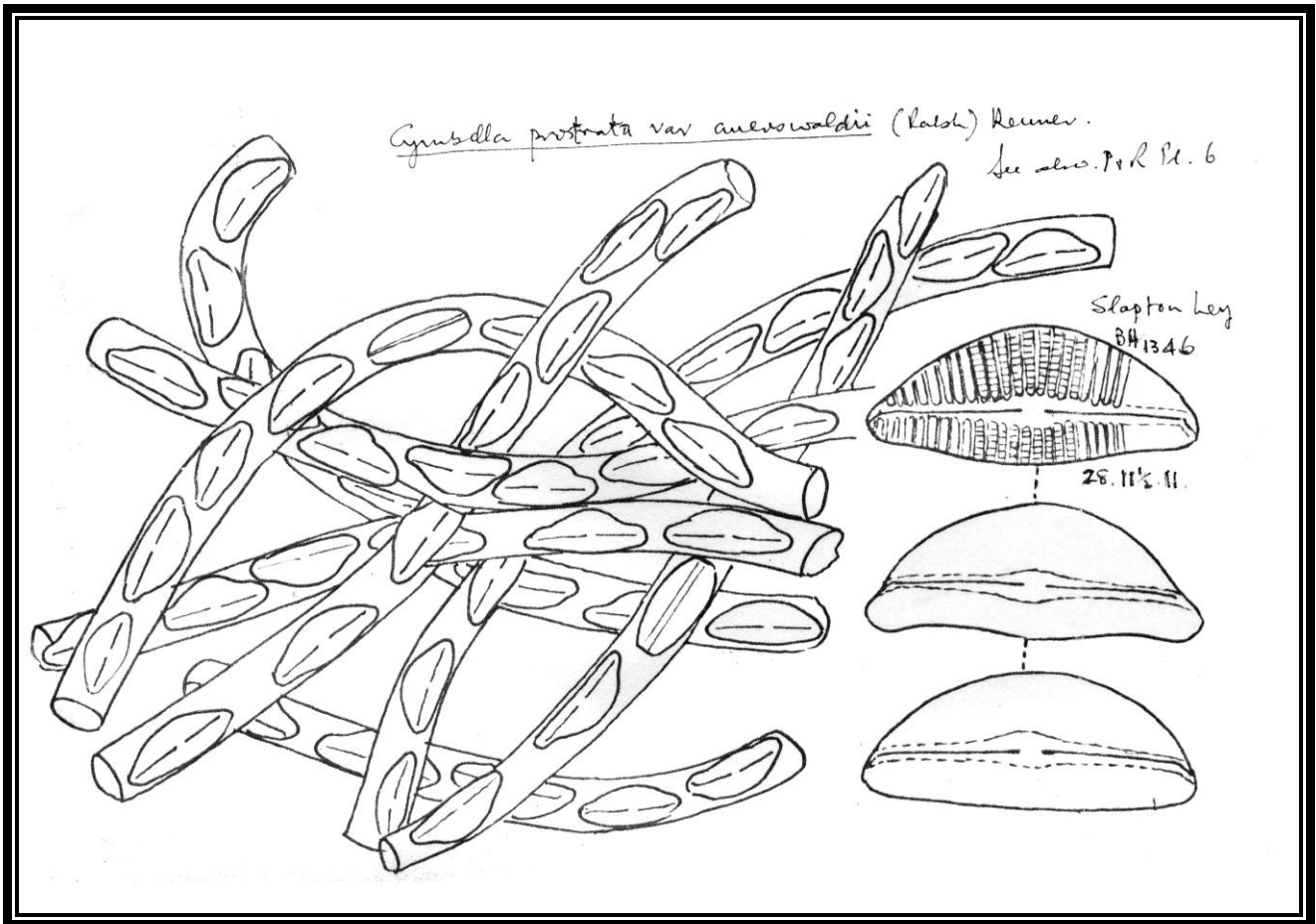
- 1) *Nav. bacillum* var  
*gregoryana* Grun (ex LH 466)
- 2) *Nav. lambda* Cl. (ex ASA 312/4-6)  
 HGB thinks :-
- 3) *Nav. wittrockii* f. *fruticulus*  
 (Det.) A.C.C.



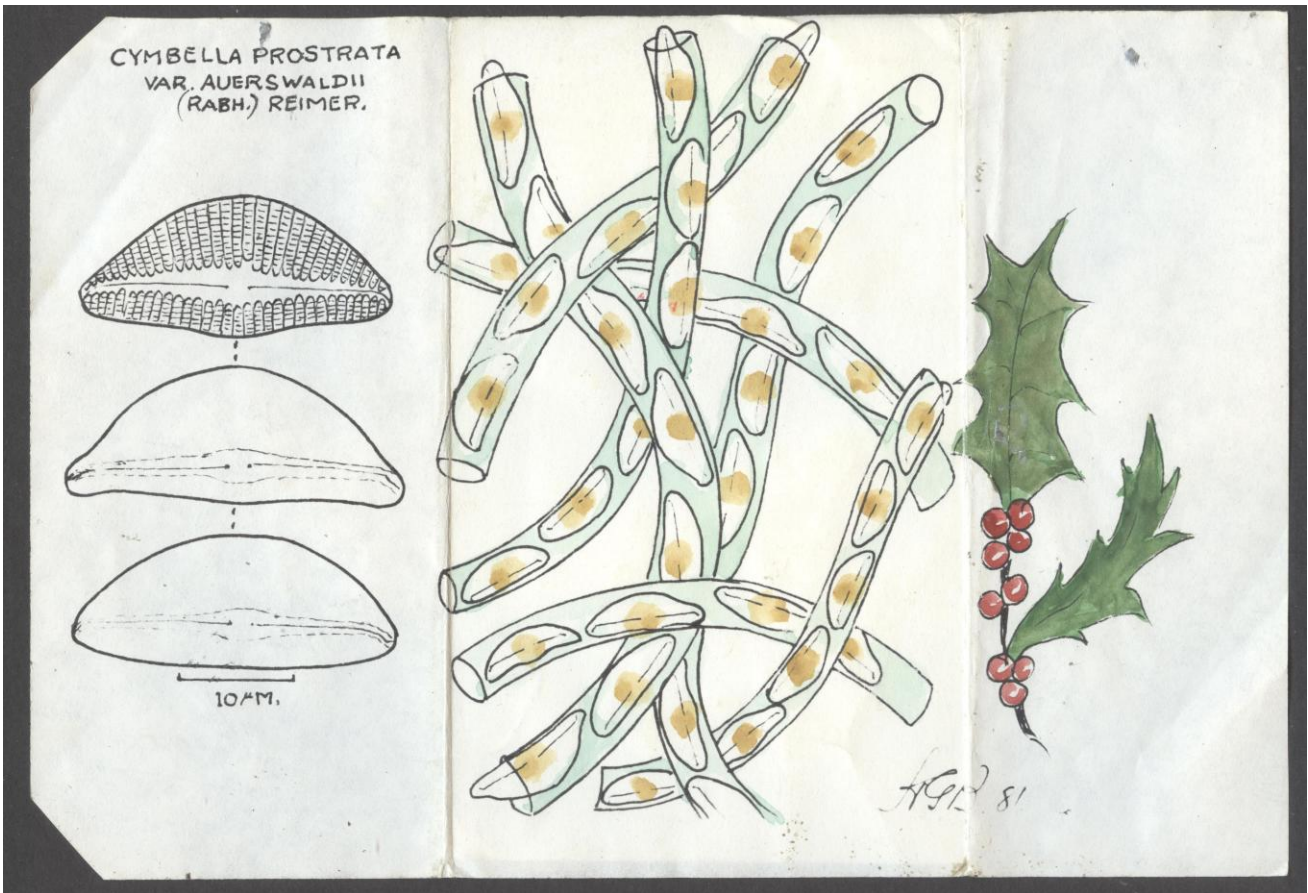
Navicula  
 (Grag)  
 2261

*Navicula*



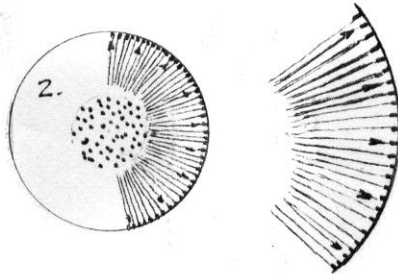
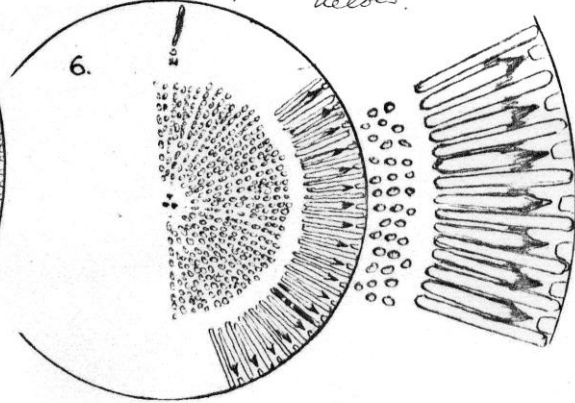
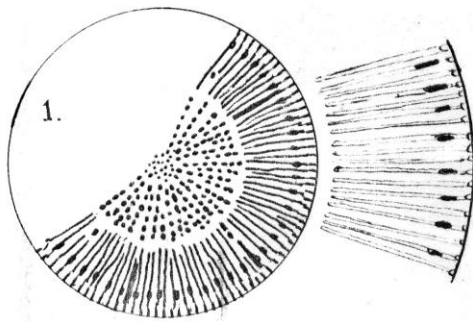


This derivative of this image was used by Horace as a Christmas greeting in 1981.



Miscellaneous Plate 442

See Explanatory notes below.



Some observations on the taxon *Cyclotella Coarctata* (Ehr) Netting.

Fig 1. - Coniston Water, Slide B/2600

peripheral spines short and usually set alternate alveoli. Central puncta generally radiate.

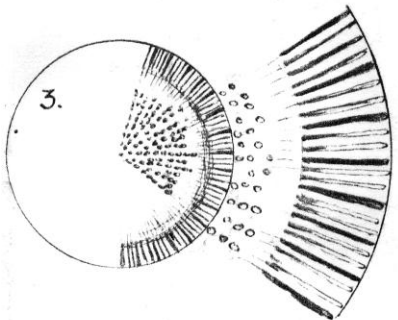


Fig 2. Loch Wattou

peripheral spines short with 3-5 intervening alveoli. Central puncta irregular.

Fig 3. Loch Na Meade Slide B/1967.

I cannot detect spine as such, peripheral alveoli dark with generally two normal ones. Central puncta radiate.

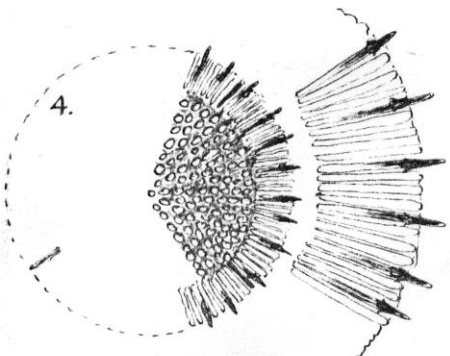


Fig 4. Loch Leven - B/1902 (from Corning)

I have seen one or two specimens where the rim has broken away revealing the peripheral spines. Two + three intervening alveoli. Puncta irregularly radiate + background dark as shown.

Fig 5. Coniston Water B/2600. A smaller form to fig 3

but central puncta generally smaller, radiate. The form occurs with No. 1, but not as frequent.

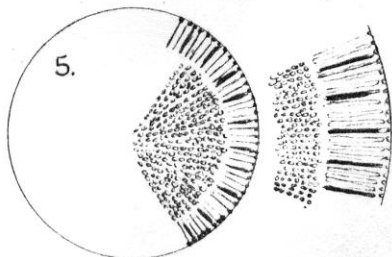


Fig 6. Wundervere Slide B/2305 (from Core)

peripheral spines quite visible, alternate with alveoli. Central puncta radiate. Specimens often with a small central area.

Note: It must be understood the illustrations are as seen by me with my optics!

H.G.B. 7-81.

## Miscellaneous Plates 443, 444 &amp; 445 (Accompanying text)

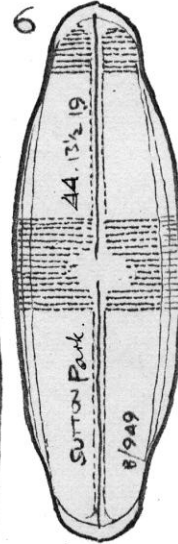
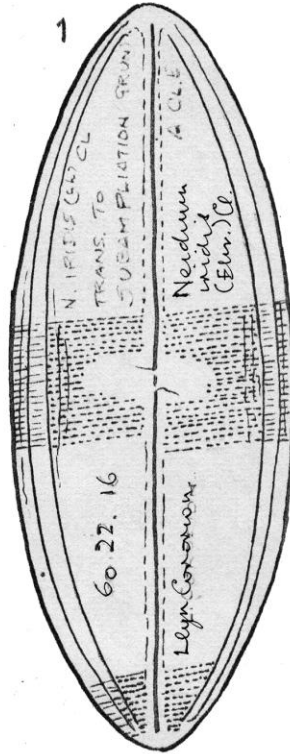
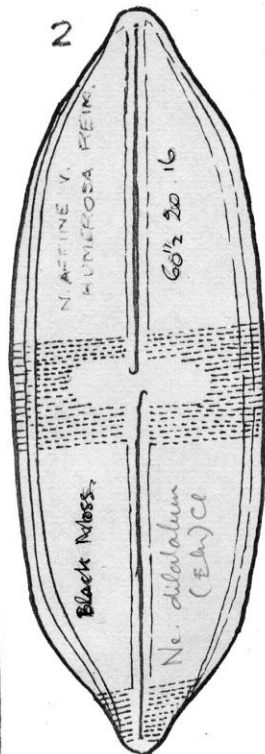
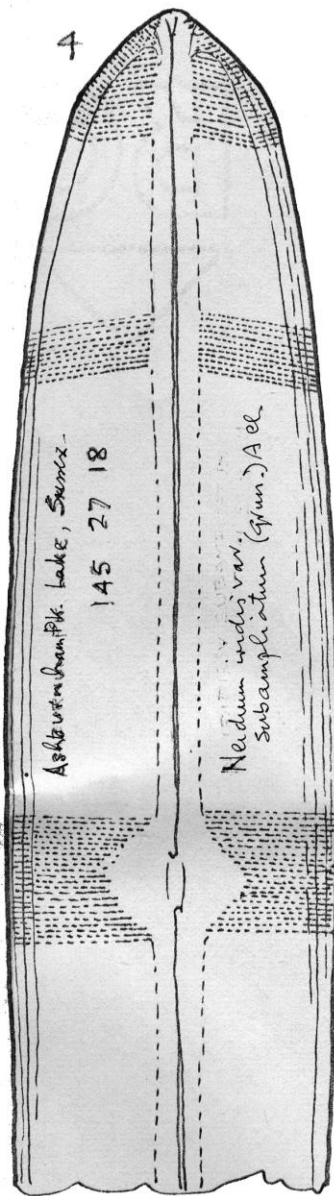
**Delineation of the Genus *Neidium* forms from the Firth-Hartley Collection and other slides**  
**August 1981**

**Plate Misc. 443**

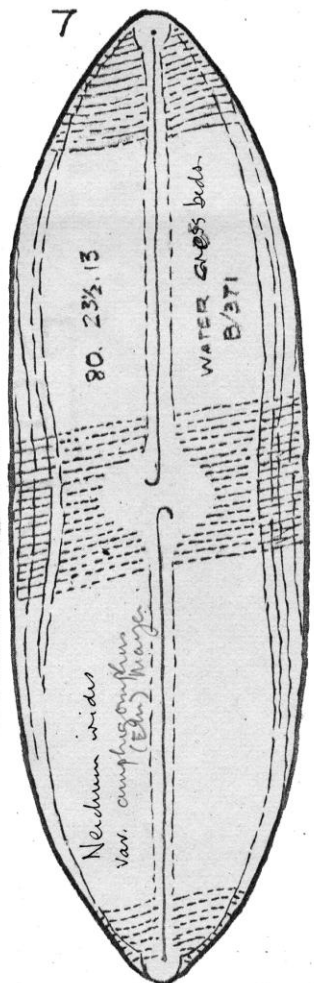
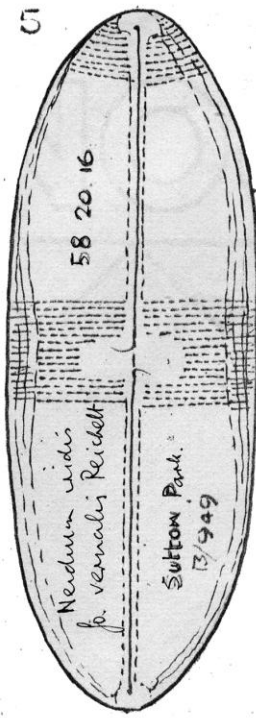
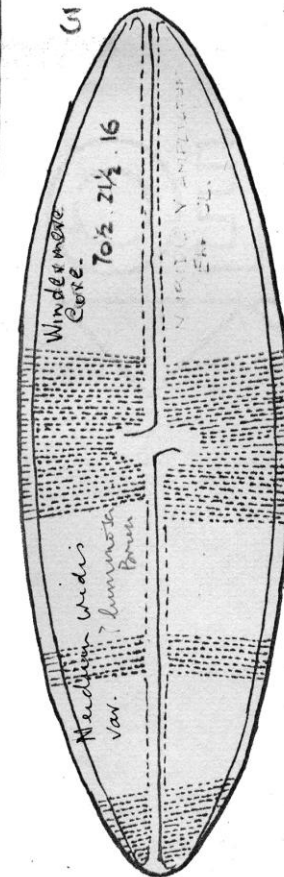
Figure/dimensions	Name (according to slide label)
1/60.22.16	<i>Neidium iridis</i>
	Transferred to <i>subampliatum</i> (Grun.) Cleve Site:- L. Cororion
2/60½.20.16	<i>Neidium affine</i> var. <i>humerosa</i> Reimer
	Site:- Black Moss
3/70½.21½.16	<i>Neidium iridis</i> var. <i>ampliatum</i> (Ehrenberg) Cl.
	Site:- Windermere Core
4/145.27.18	<i>Neidium iridis</i> var. <i>subampliatum</i> (Grun.) Cl.-Eu.
	Site:- Ashburton Park Lake
5/58.20.16	-
	Site:- Sutton Coldfield Park HGB Slide 949
6/44.13½.19	-
	I am unable to resolve the type of central terminals other than depicted. Site:- Sutton Coldfield Park
7/80.23½.13	-
	Site:- Water Cress Beds, Hartshill, Nuneaton, Warwickshire HGB Slide 371

Miscellaneous Plate 443

MISC. 443.



No. affine var amphibryochus (Ehr.) Cl

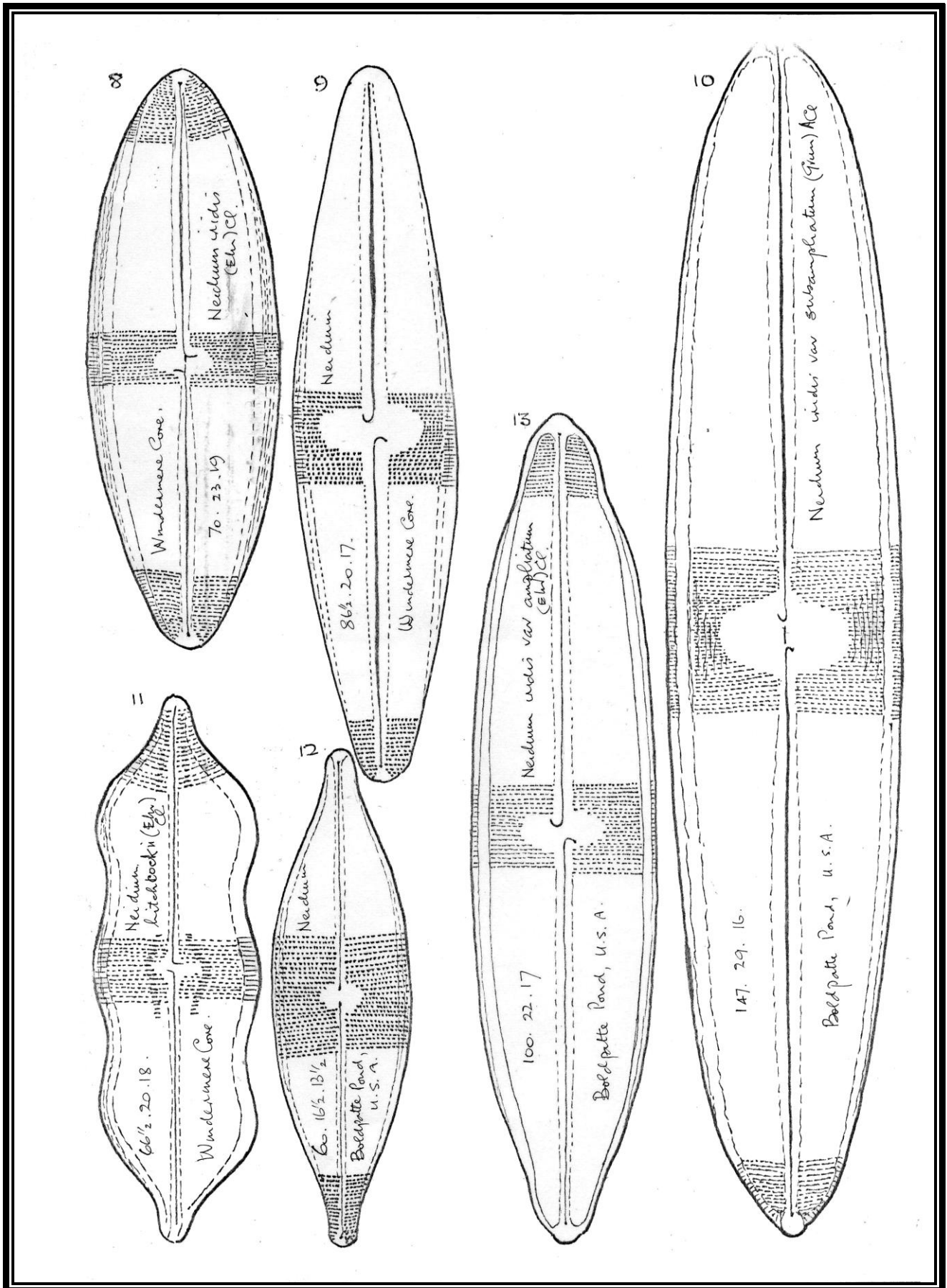


FIVE FIGURES OF THE GENUS NERIDIUM - FIRTH-HARTLEY COLLECTION AND TWO OTHER FORMS.

**Miscellaneous Plate 444 (Accompanying text)**

<b>Figure/dimensions</b>	<b>Name (according to slide label)</b>
<b>8/70.23.19</b>	-
	Site:- Windermere Core HGB Slide 2305
<b>9/86½.20.17</b>	-
	Site:- Windermere Core HGB Slide 2305
<b>10/147.29.16</b>	-
	Site:- Boldplatte RIF Slide
<b>11/66½.20.18</b>	<i>Neidum hitchcockii</i> (Ehrenberg) Cl.
	Site:- Windermere Core HGB Slide 2305
<b>12/60.16½.13½</b>	-
	I am unable to resolve the type of central terminals other than depicted. Site:- Boldplatte RIF Slide
<b>13/100.22.17</b>	-
	Site:- Boldplatte RIF Slide

Miscellaneous Plate 444



## Miscellaneous Plate 445 (Accompanying text)

Figure/dimensions	Name (according to slide label)
14/142.36.15	<i>Neidium iridis</i> var. <i>subampliatum</i> (Grun.) Cl.
	Site:- Toombe Bridge RIF Slide
15/113½.26½.13½	<i>Neidium iridis</i>
	Site:- L. Cororion RIF Slide
16/106.23½.15	<i>Neidium iridis</i> var. <i>ampliatum</i> (Ehrenberg) Cl.
	Site:- Burton Pond RIF Slide
17/72.22.15	<i>Neidium iridis</i> var. <i>ampliatum</i> (Ehrenberg) Cl.
	Site:- Black Moss RIF Slide

**Criticism of sketches:-**

Outlines are fairly accurate to the form depicted, as are also striae directions, central terminal hooks, axial and central areas. With regard to the peripheral 'långsbands' these are more or less an impression.

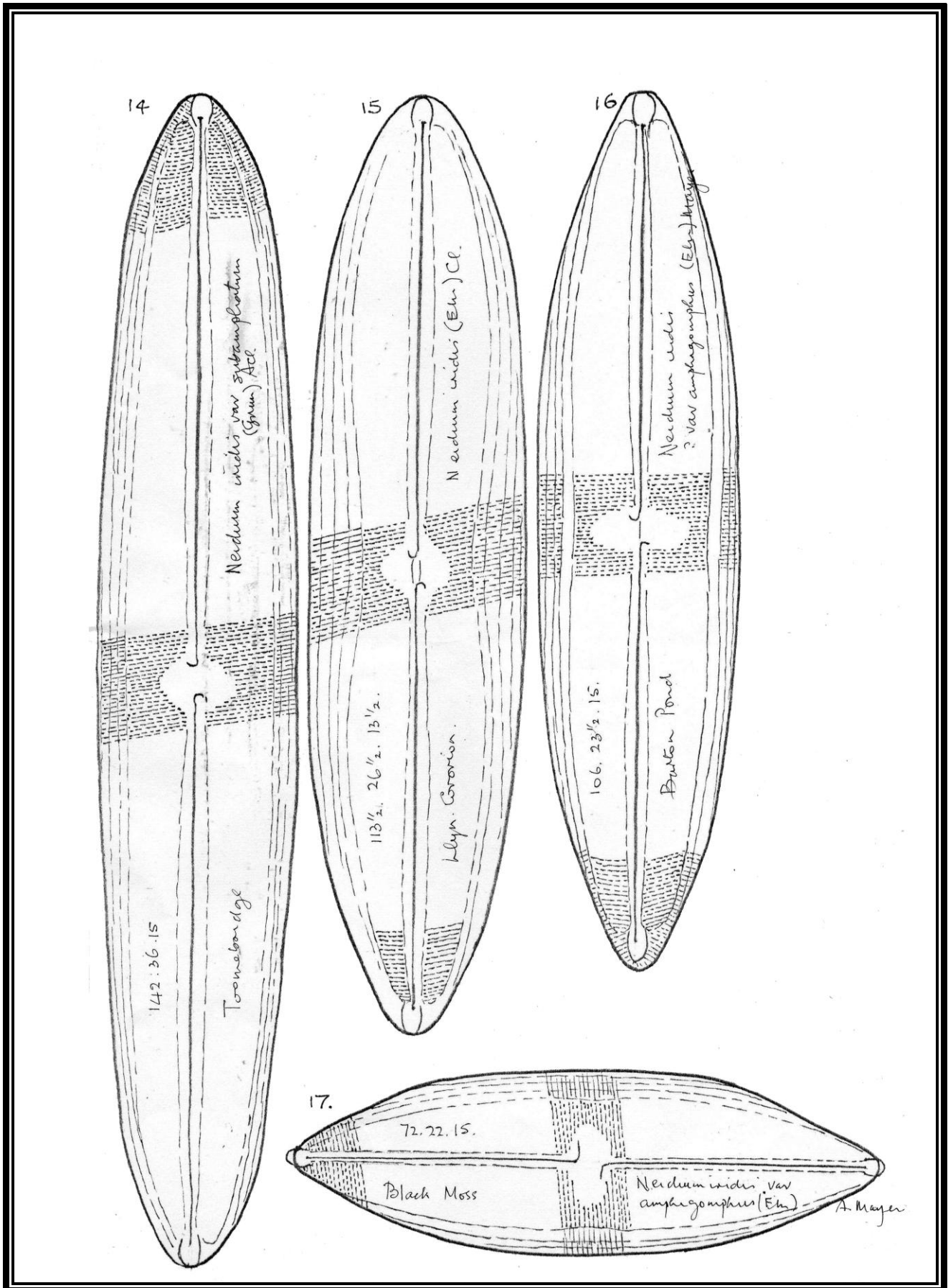
The weak points are punctae often dashes and should be round, striae not to scale, polar terminals not depicted, unable to resolve these so have not guessed. It would appear the ends of the valve are as a raised boss and difficult to portray. On some of the slides are a number of forms but have only depicted certain ones which I think are typical.

I admit to uncertainty regarding the variety status of *ampliatum* and *subampliatum* and would like to know the specific points determining same. What bearing on identity do the hooks or otherwise have? To my mind *N. iridis* is a polymorphic diatom and its variations have too many names by various authors.

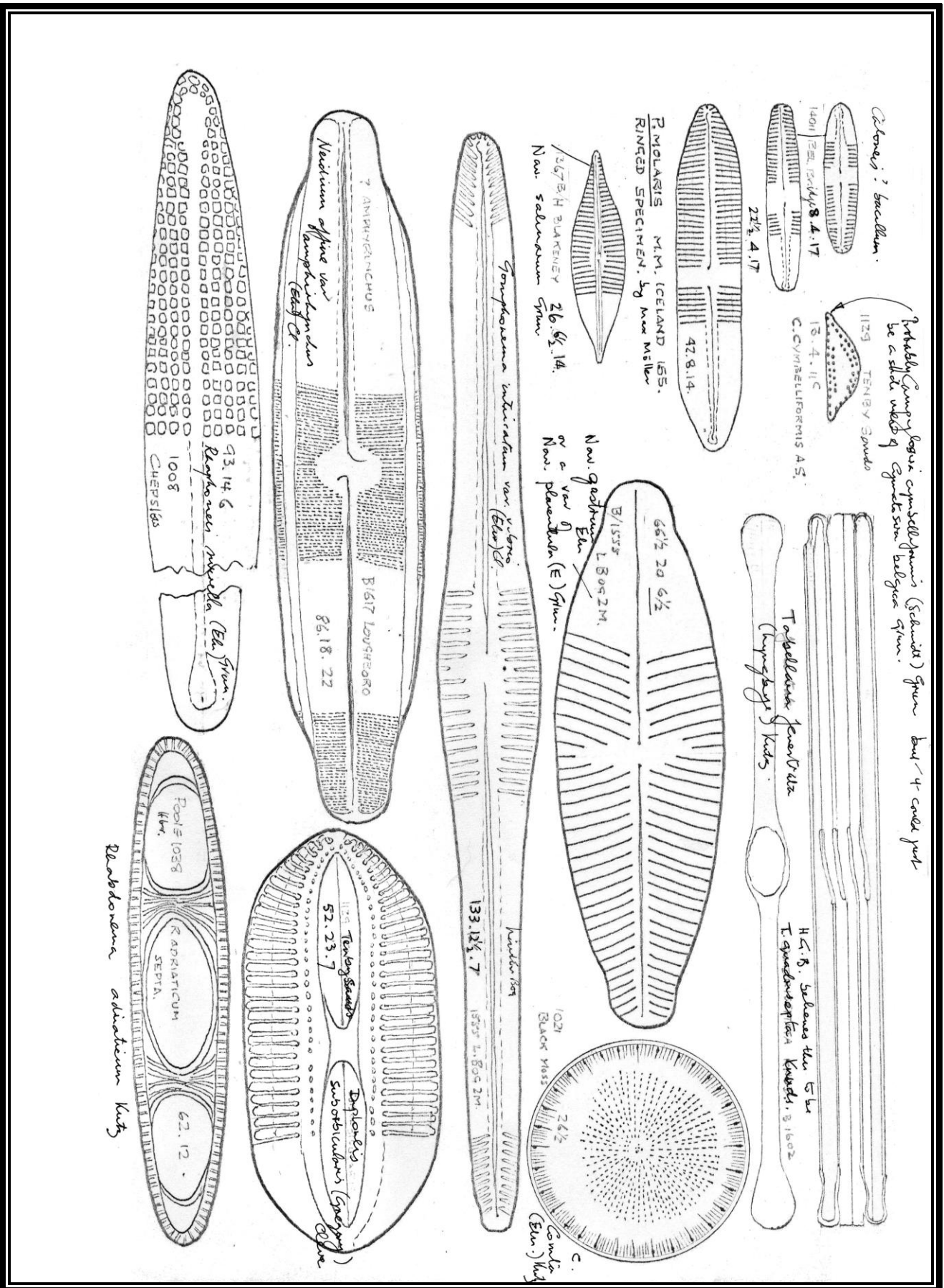
H.G.B.

8/81

Miscellaneous Plate 445













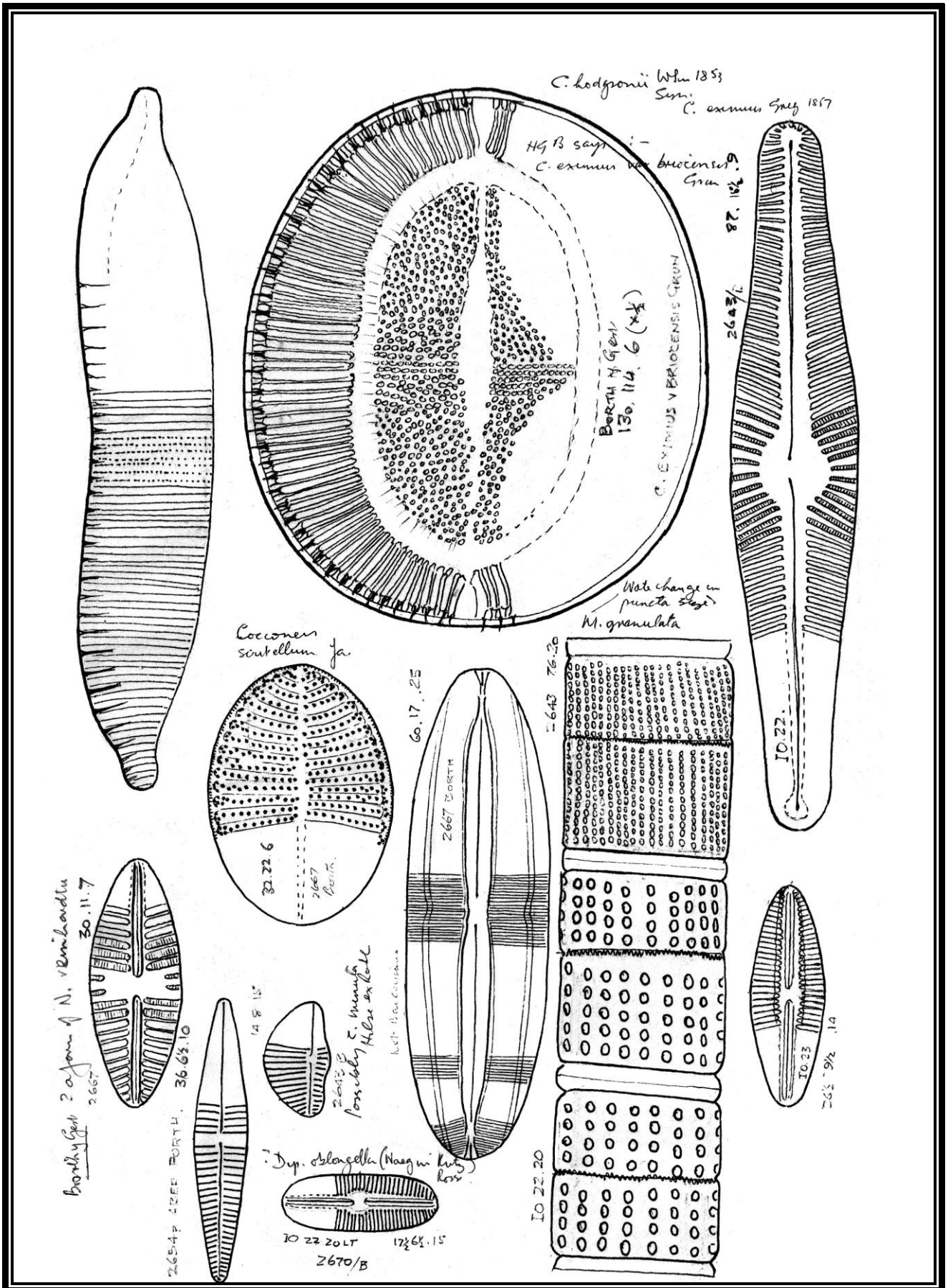




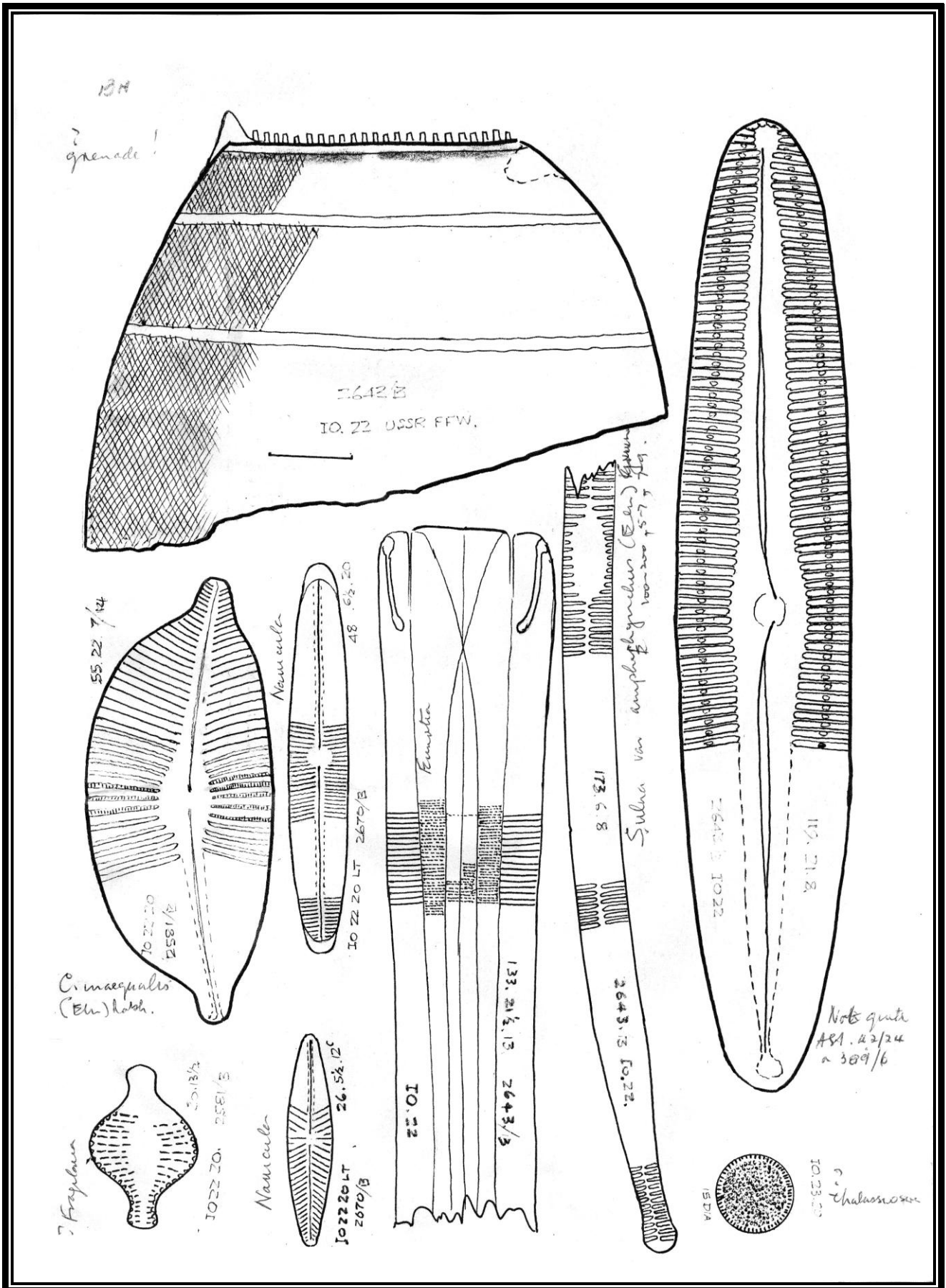


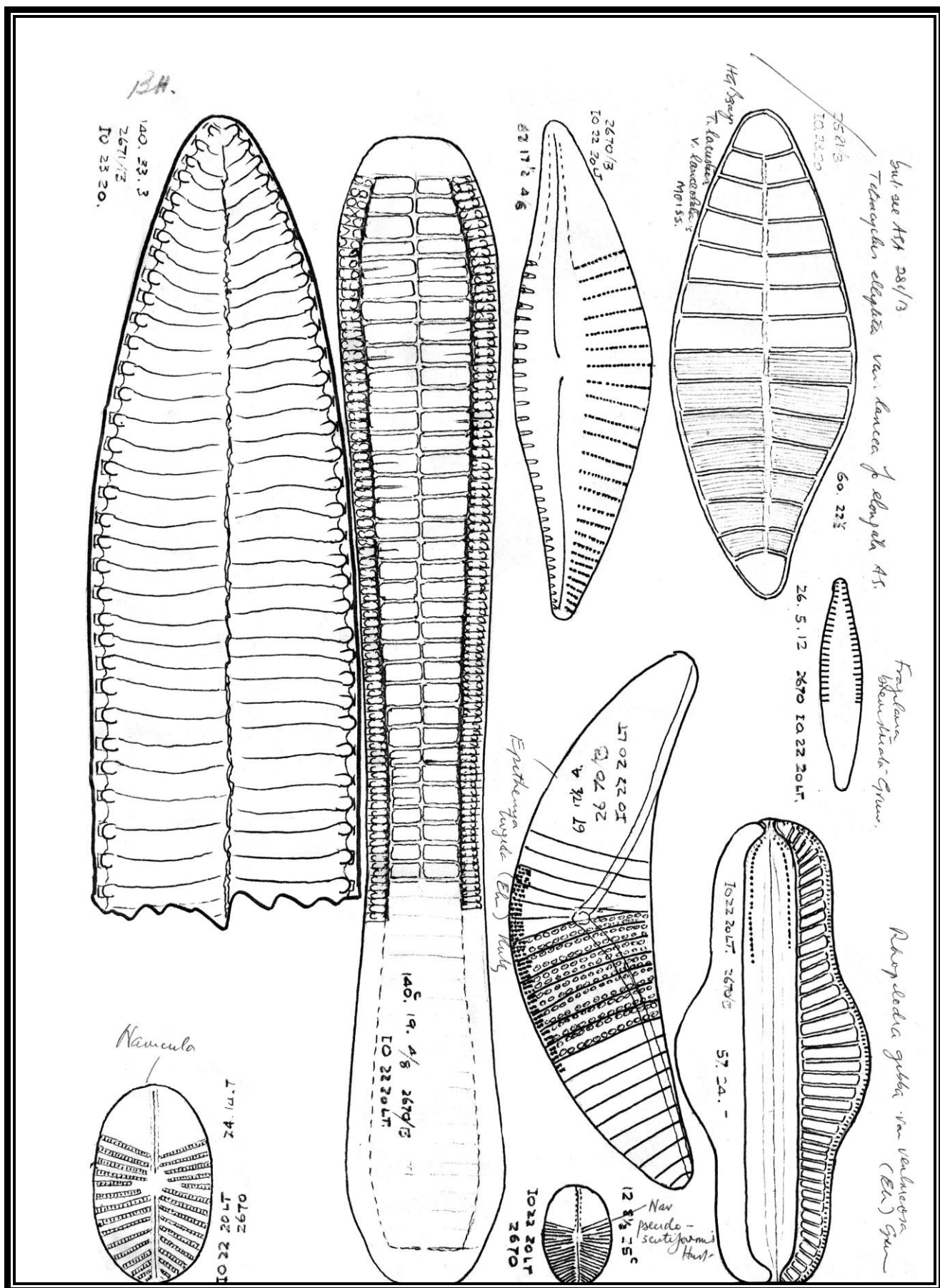




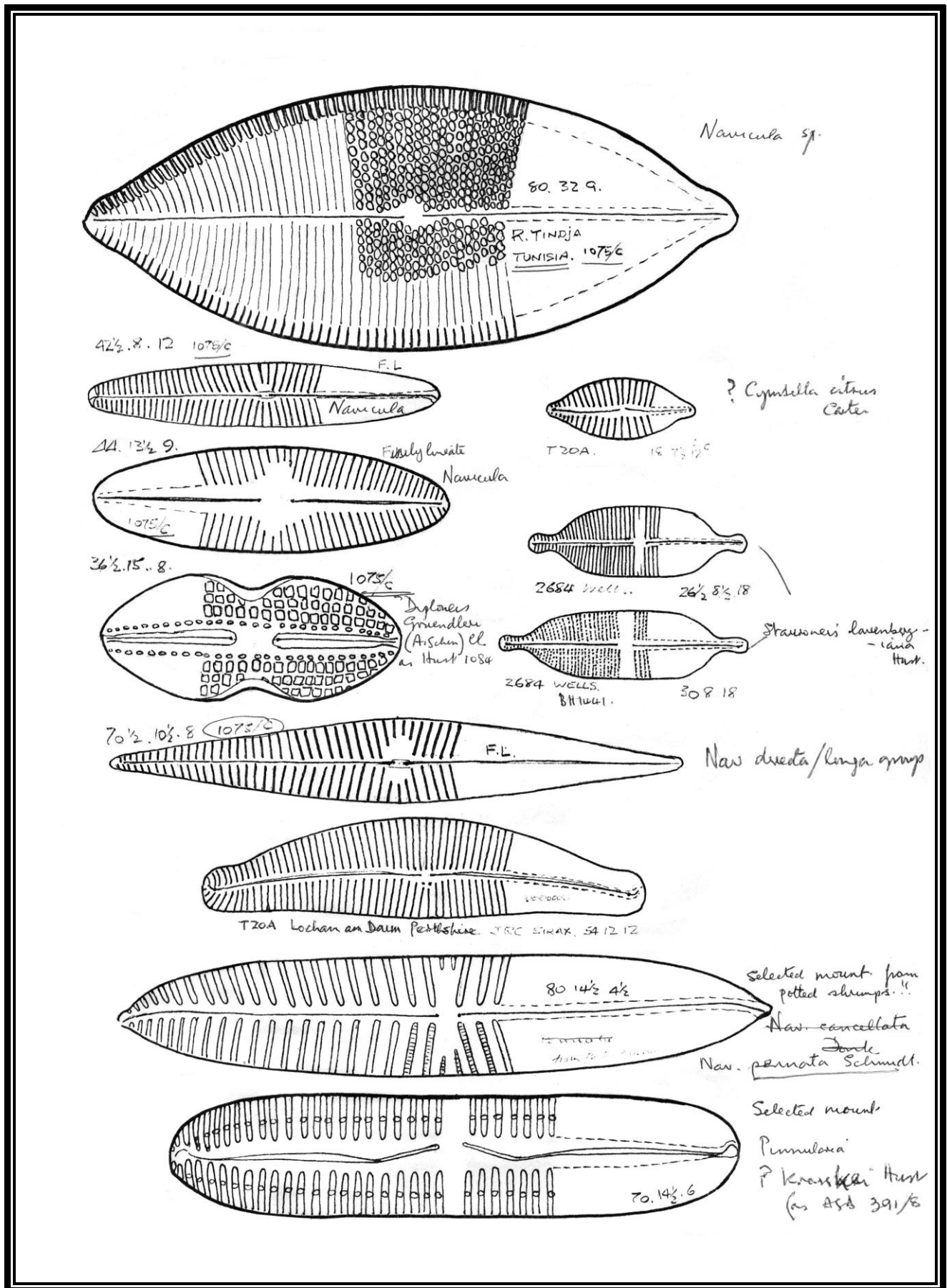


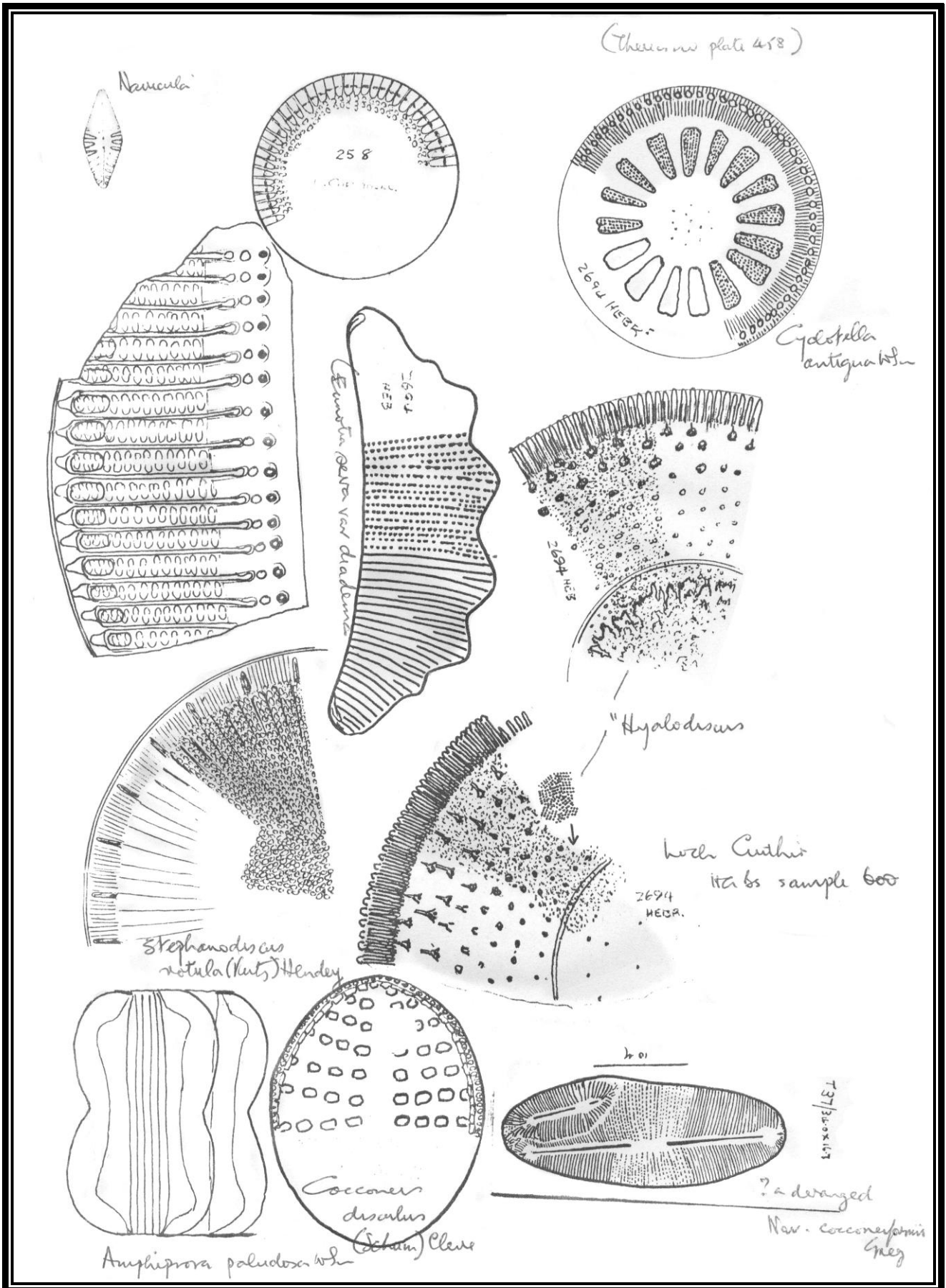
Miscellaneous Plate 455



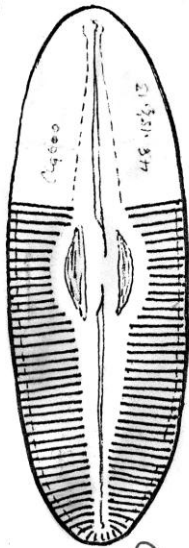
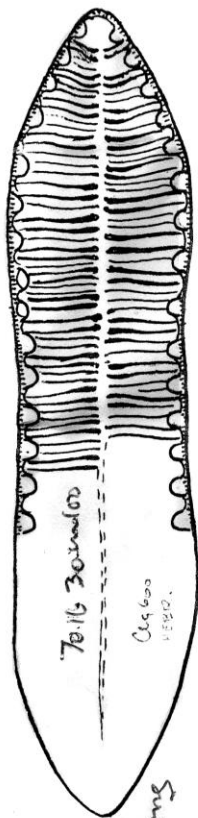


Miscellaneous Plate 457



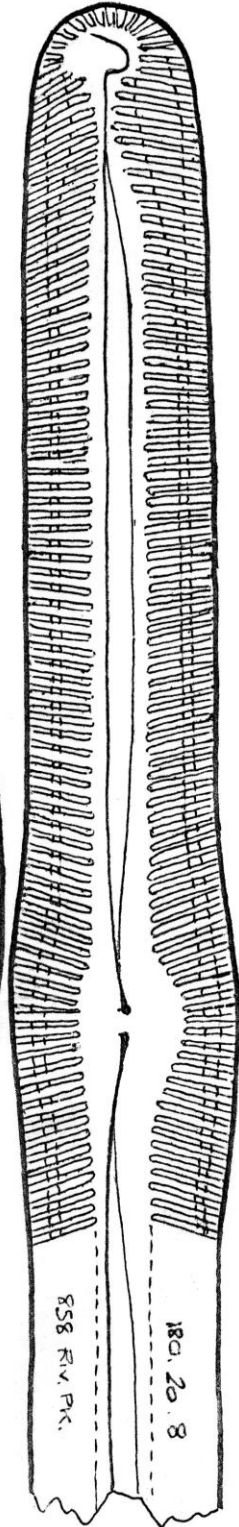
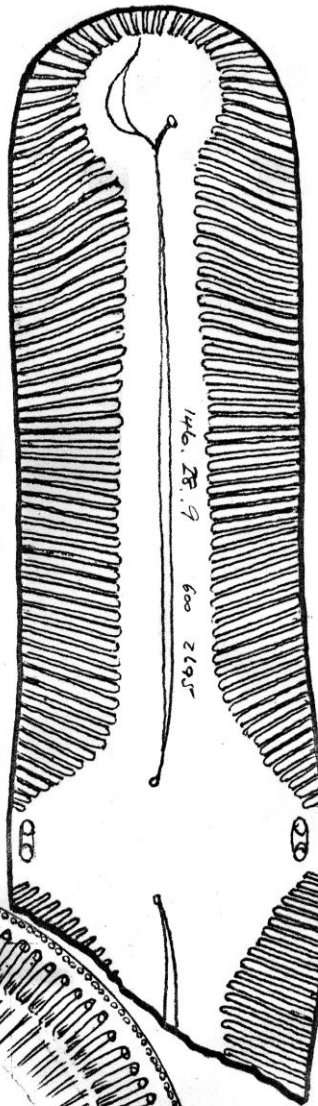


Miscellaneous Plate 460

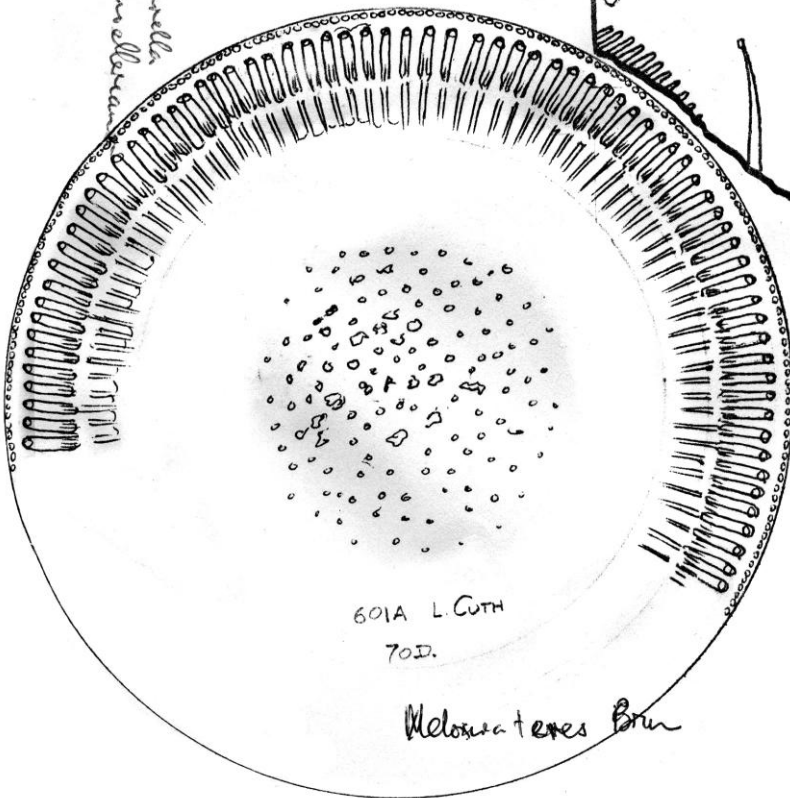


*Calanus Robes Vallis*  
*Cal. strata (Vallis)*

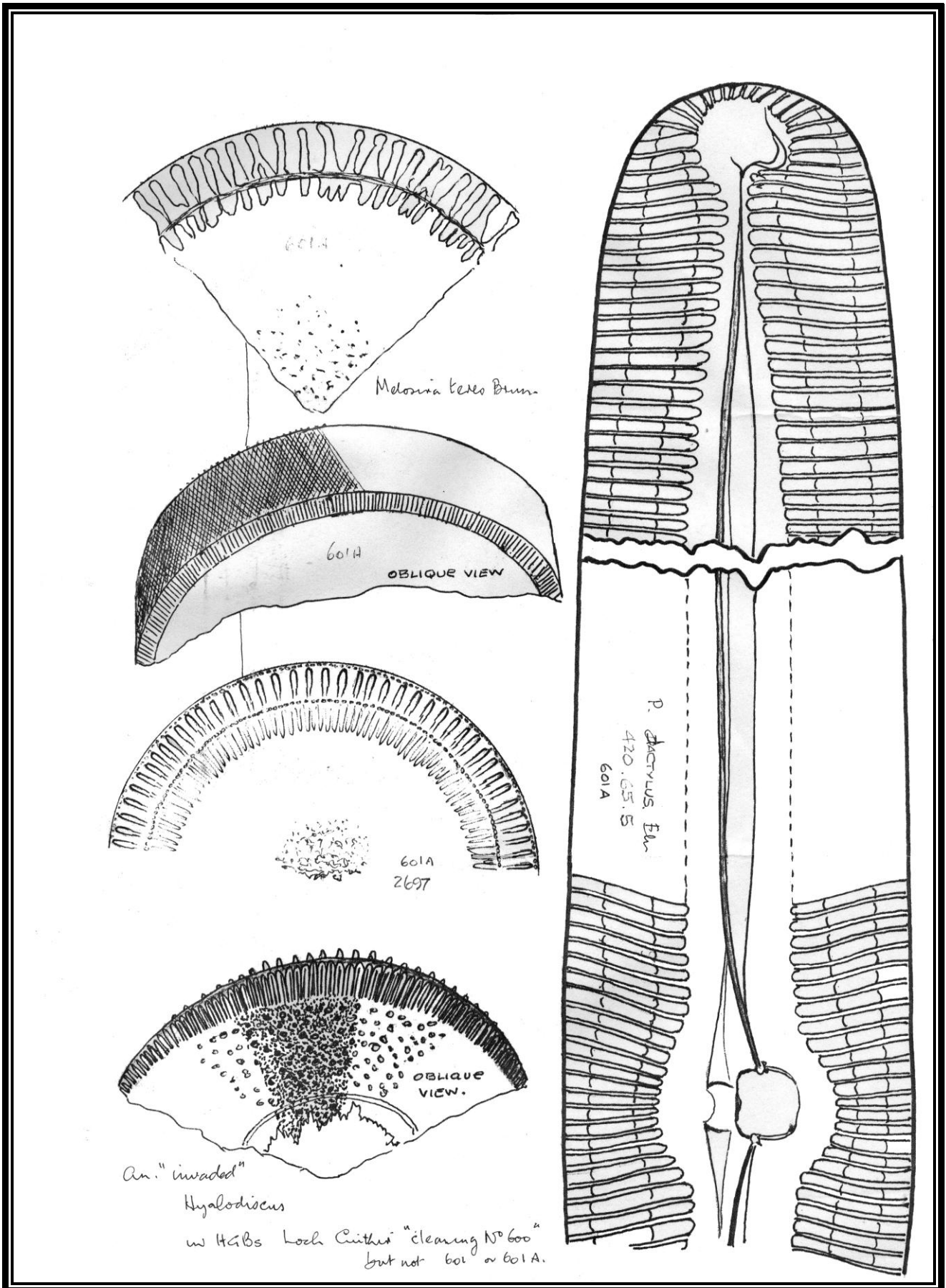
*Pinnularia dumigreni* var.  
*brevistriata* A. Gr.  
narrow than a var. of *P. principalis*



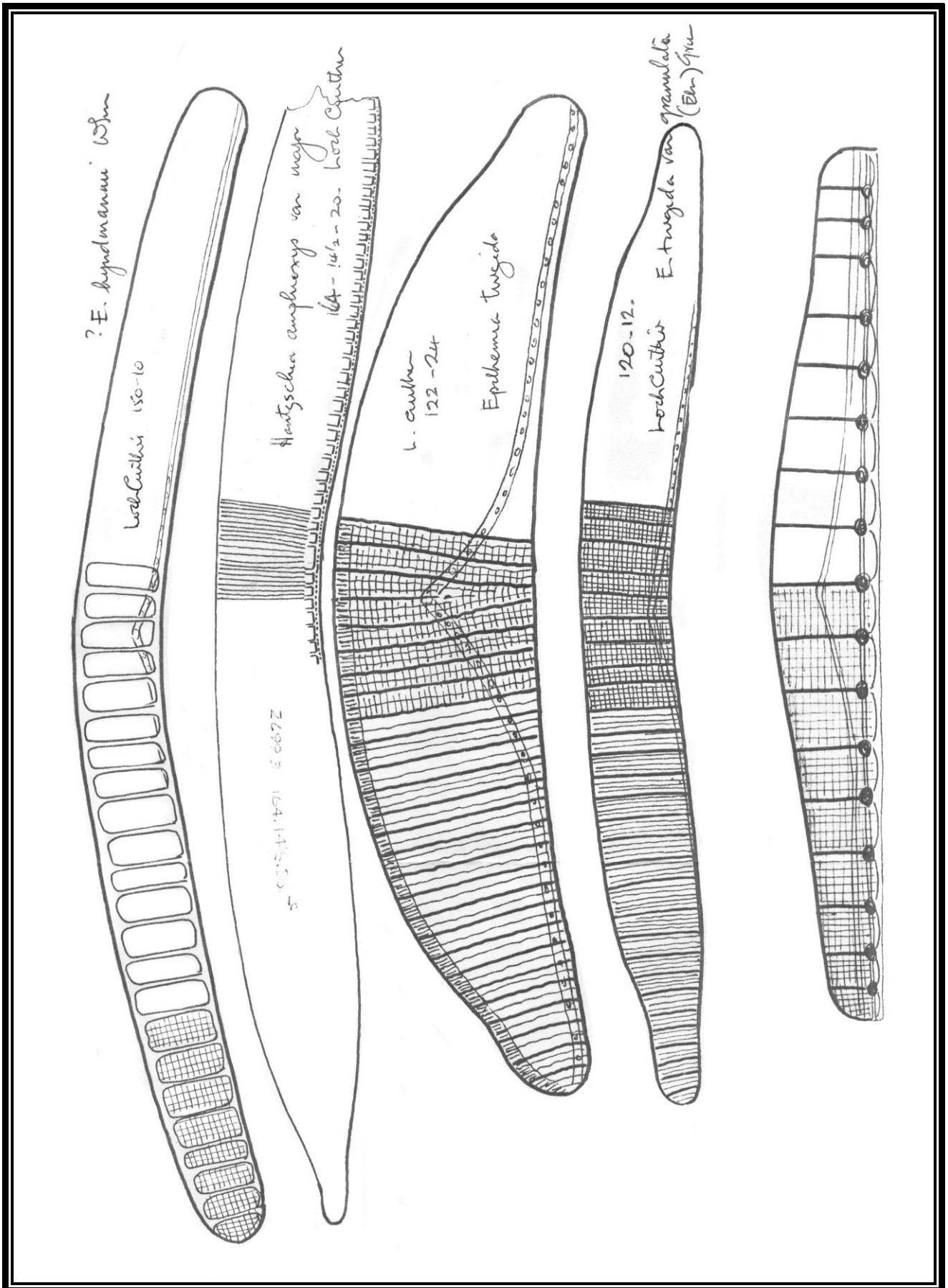
*Pinnularia*  
*transversa*  
(Schum) A. Mayr  
(See slide No 920<sup>844</sup>)



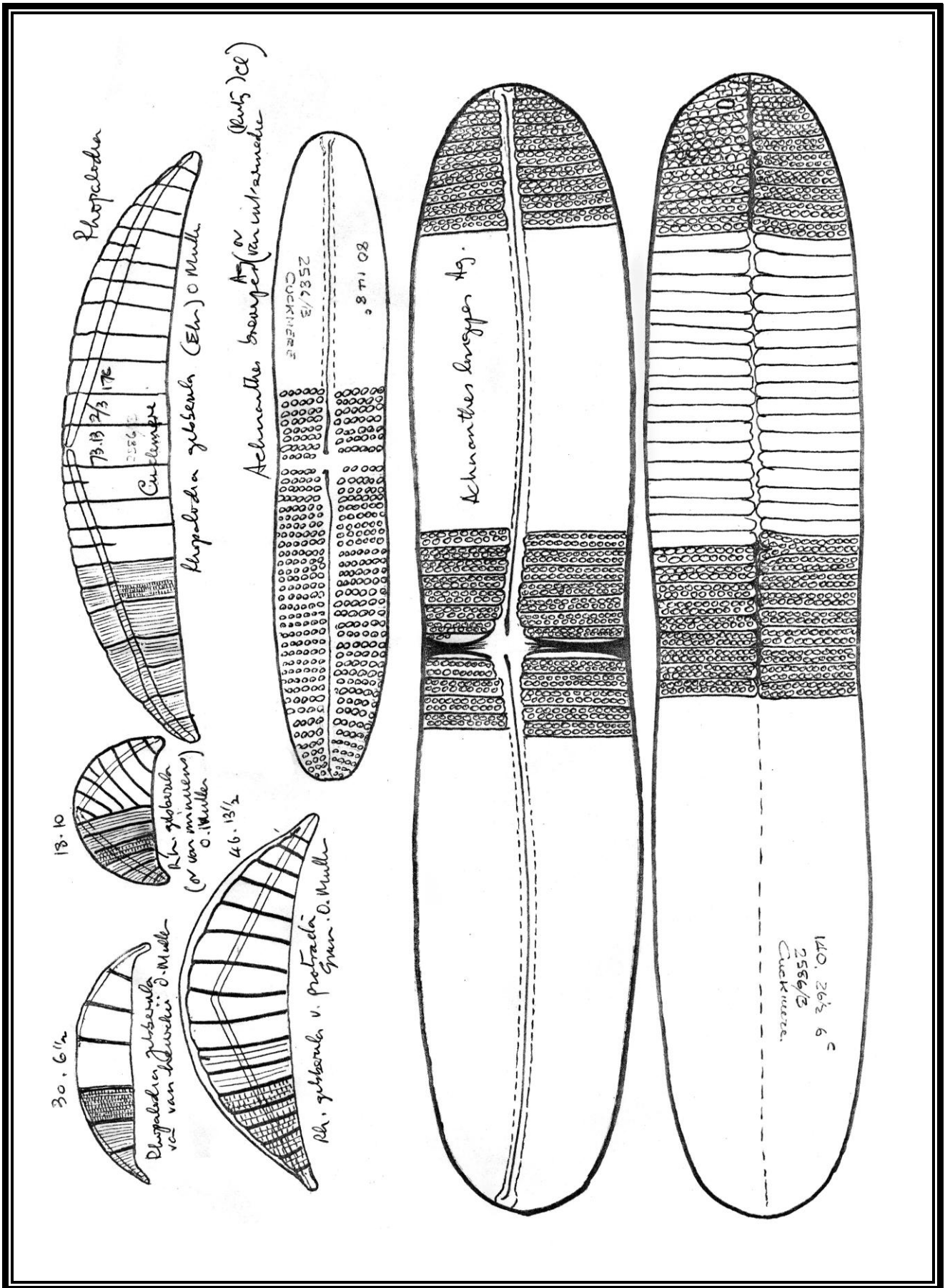
*Melosira tenes* Brun



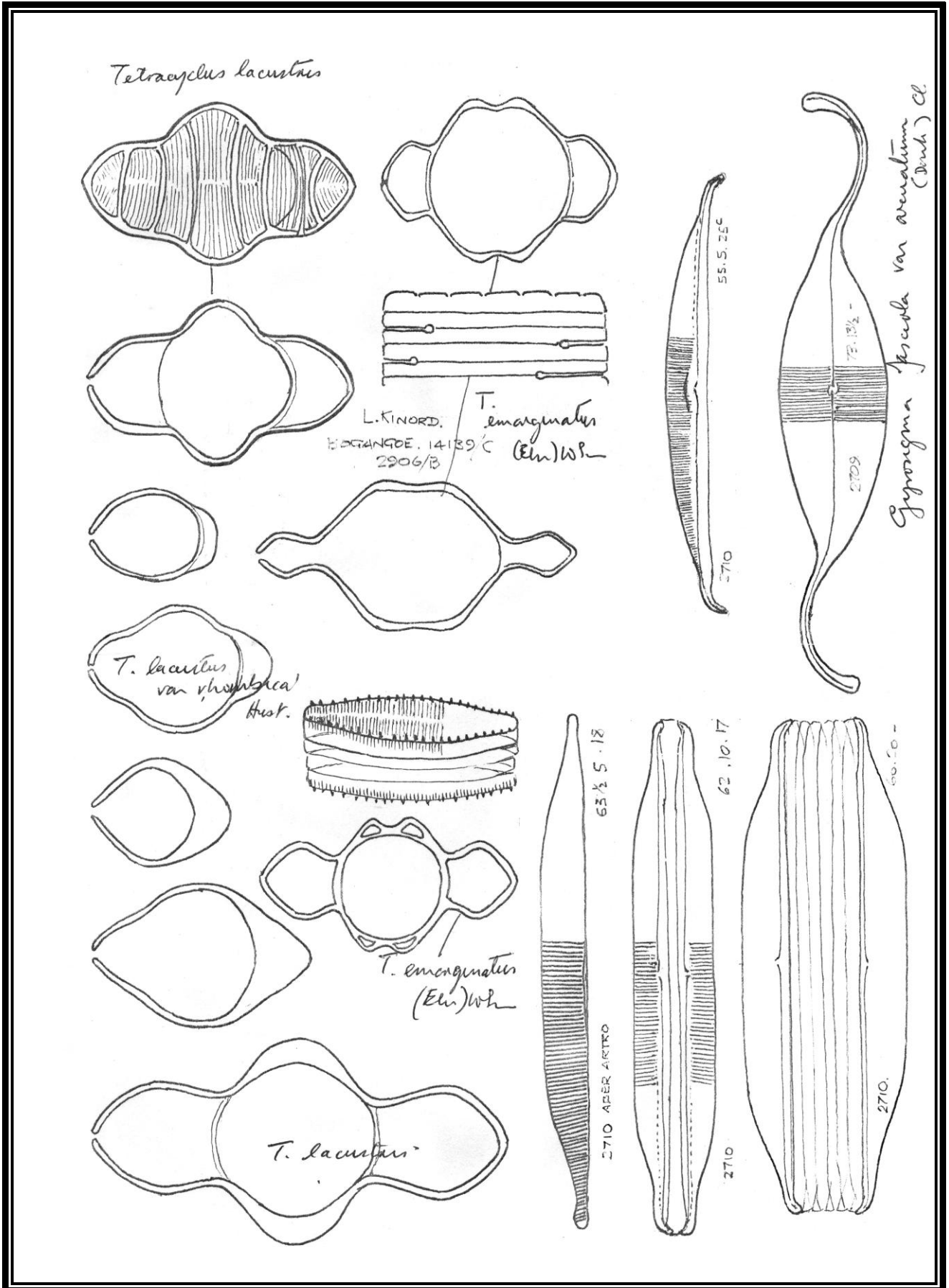
Miscellaneous Plate 462

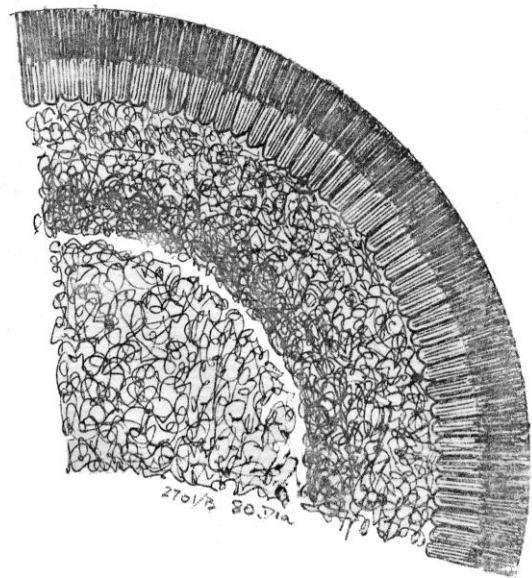
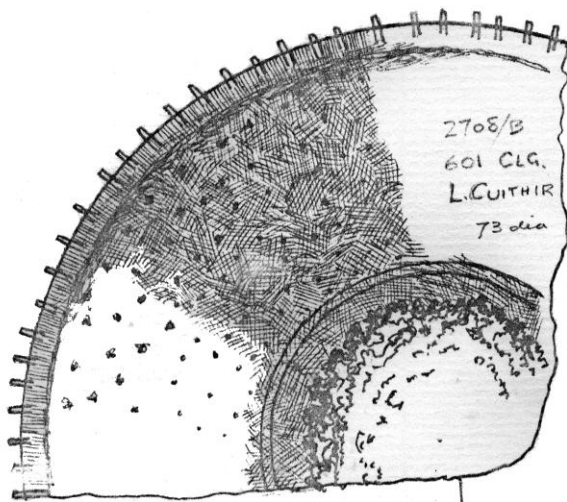




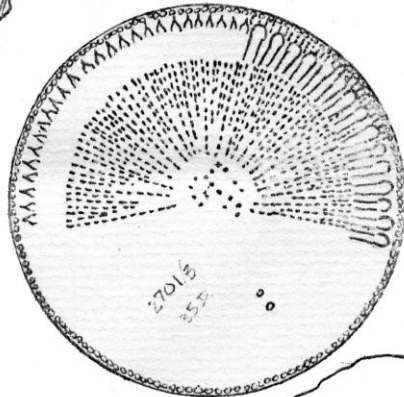
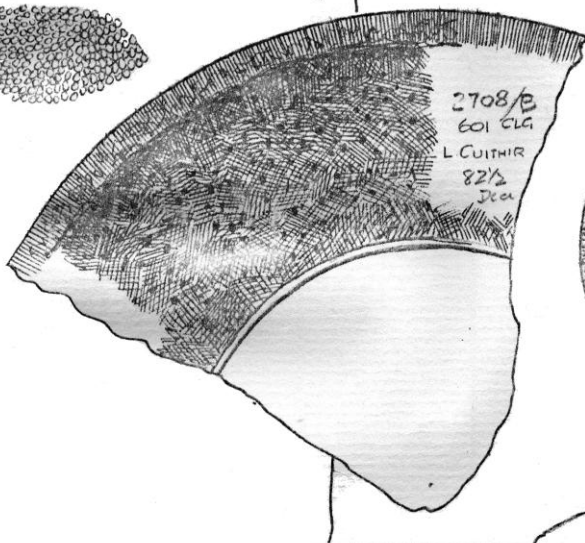
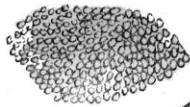


Miscellaneous Plate 464

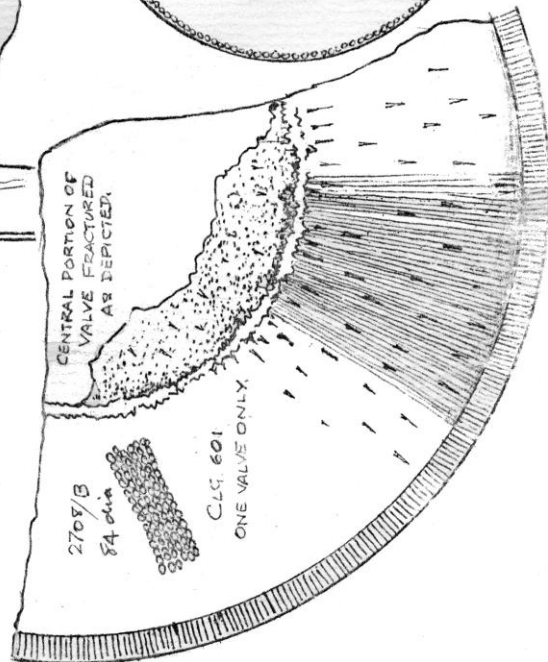




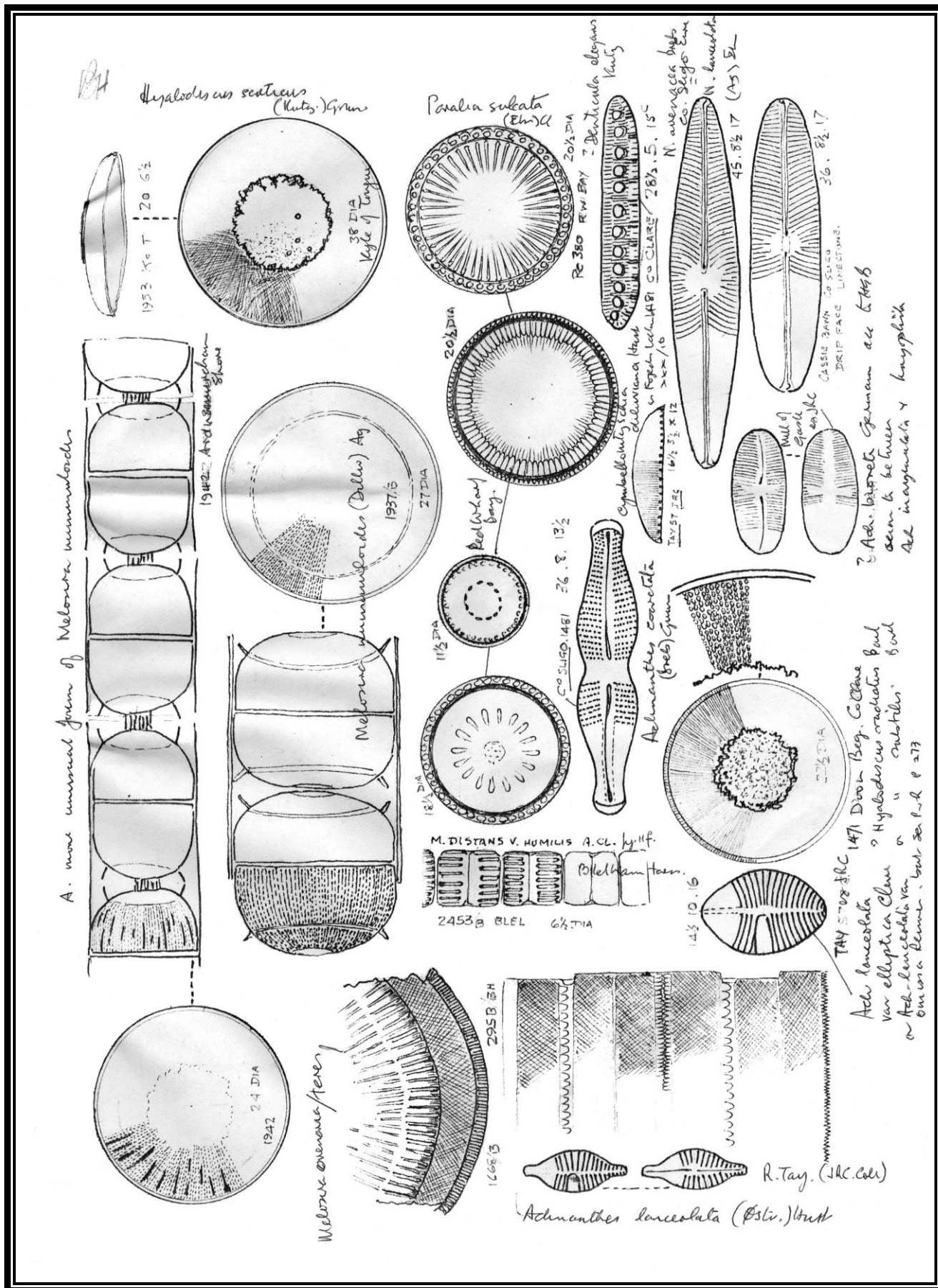
73  $\mu$   $\phi$   
? *Hyalodiscus* or new species



this side view is of  
the top 73  $\mu$  specimen



Miscellaneous Plate 466



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<i>Navicula elginensis</i>	340
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<i>Navicula eta</i>	3
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<i>Navicula explanata</i>	340, 404
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<i>Navicula keeleyi</i>	264
<i>Navicula kreigeri</i>	347
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<i>Navicula lagerstedtii</i>	425g, 425c
<i>Navicula lagerstedtii</i> var. <i>palustris</i>	425g, 428, 425c
<i>Navicula lagerstedtii</i> var. <i>palustris</i> ?fa. <i>minores</i> (Mecklenburg)	425g
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<i>Navicula lanceolata</i>	364, 392, 466
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<i>Navicula peregrina</i> var. <i>kefvingensis</i>	339
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<i>Navicula placentula</i> fo. <i>latissima</i> ( <i>latiuscula?</i> )	61
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<i>Navicula schonfeldii</i> fa.	425g
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459	Carrig and Cynlais Beaches	83
479	Tyn y Maes, Blaenau Ffestiniog, Wales	17
480	Llanberis, Snowdonia	17, 355
485	Calbeck, Shetland	412
487	Llyn Rhos-ddu, Anglesey	17, 25
492	Wern	24
493	White Beach (Rock Pool), Llangoed, Anglesey	22, 25, 402, 403, 439
495		83, 84
498	Rhosneigr, Anglesey	23, 24, 339
499	Rhosneigr, Anglesey	23, 401
502	The Cob	23, 24
505	The Cob	364
510	Glen Llangoed, Anglesey	305

## Horace George Barber's Miscellaneous Diatom Plates

Slide/Sample	Location	Plate
512	Lleiniog, Llangoed	236
513	Aber Lleniog	339
516	Llyn Ogwen, Gynedd, Wales	83
521	Llyn	212
522	Llyn Ogwen, Gynedd, Wales	171
523	Aber (Llyn) Ogwen, Bangor, Gwynedd (Caernarvonshire)	170, 303
527		317
528	Cynlais (Beach), Llangoed, Anglesey	16, 317, 305
528	Aber Ogwen, Bangor, Gwynedd (Caernarvonshire)	306
531	Red Wharf Bay, Anglesey	409, 410
532	Red Wharf Bay, Anglesey	82, 84, 85, 312
535	Cadnant Beach, Anglesey	1, 3, 6
537	Cynlais, Llangoed, Anglesey	314
538	Aber Ogwen, Bangor, Gwynedd (Caernarvonshire)	303, 305
539	Aber Ogwen, Bangor, Gwynedd (Caernarvonshire)	314, 383
540		303
546	Red Wharf Bay, Anglesey	318, 319, 320, 321
551	Newborough Warren, Anglesey	343
552	Afon Braint, N.W.	343
556	Red Wharf Bay, Anglesey	46
562	Newborough Warren, Warren, Anglesey	85, 306
563	N. War.	321
565	Newborough Warren, Anglesey	380
568	Llan Beach	380
577	Maes Caradon, Nant Francon	372, 436
581	Maes Caradon	74
596	Din.	364
598	Caernarvon Harbour (Quay)	312A, 436
599	Llyn Cororion	399
603		398
605	Llyn Cororion, Gwynedd, Wales	209, 399
613		230
615		209
617	Llyn Dinas, nr. Beddgelert, Gwynedd, Wales	34, 35
620	Llyn Cororion, Gwynedd, Wales	32
624	East of Roer, Shetland	412
639	Skye	98
670	Llyn Cororion, Gwynedd, Wales	34
673	Upper Witmuir	373
703	Toome Bridge	7
725		260
742	Heys	352
754	Hartshill Hayes, Nuneaton	398
774	Anchrum Road	73, 308
776	Anchrum	394
783	Linton Bog	399
801	Sutton Park	51, 214
809	Loch Mabon	66, 434
848	Spr. Wood, Nton	209
856	Riversley Park, Nuneaton	46
858	Riversley Park, Nuneaton	460
862	Linton Bog	363
868	Linton Bog	343, 394
869	Linton Bog, Scottish Borders	277, 400, 414
870	Linton Bog, Isle of Man	343

## Horace George Barber's Miscellaneous Diatom Plates

Slide/Sample	Location	Plate
872	Linton Bog	363
873	Linton Bog, Scottish Borders	70
877	Llandanwg	333
880	R. Anker, Nuneaton	211A
886		334, 335, 336
901	Llandanwg	335
905	Woodhead Loch	66
919	Melrose	66
927	UWO	230
929	Lochlain	33
949	Sutton Park	443
953	Northampton	429
955	R. Ogwen	3, 5
962		391
971	Rye Harbour, East Sussex	37, 43
972	Pevensy	50
973	Dee Estuary	43
973	Rye Harbour, East Sussex	43
975	Battle, Sussex	6
976	Battle, Sussex	43
1003	Tewks.	6, 209
1008	Chepstow	446
1020	Thames	43
1021	Black Moss, Aberdeen	209, 446
1027	Devils Hole Cave	408
1030	Llanfihangel y Traethau	392
1036	Llandanwg	390(2)
1037	Devils Hole Cave	408
1037	Din.	391
1038	Poole Harbour	244, 307, 308, 309, 446
1039	Co. Antrim	66
1039	Shillanogg, N.I.	213
1043	Ben Lawers	42
1063	Kilnsey Crag, Yorkshire	44
1075	R Tindja, Tunisia	457
1087	Din.	391
1103	River Leam, Leamington Spa	72
1108	River Leam, Leamington Spa	373, 374, 375
1111	Sheepy Mill, Leicestershire	72
1126	Tenby, Wales	278
1128	Southeast	401
1128	Tenby, Wales	277, 278, 279, 360
1129	Tenby Sands	446
1132	Caldey Island	39
1134	Trefadog	405
1136		310
1144	Cernais Bay	405
1148		101
1150	Alvecote Nature Reserve, near Tamworth	340
1157		299
1159	Trefadog	405
1208	Cororion Bay	398
1208	River Windrush	428
1264	River Dove Valley	309, 429, 434
1267	Blakeney	446
1278	Hough Heath, nr. Crewe	308

## Horace George Barber's Miscellaneous Diatom Plates

Slide/Sample	Location	Plate
1295	Newborough Warren, Anglesey	380
1305	Pagham Harbour	434
1307	Heath Marsh, Hints.	434
1326	R. Ogwen	82, 299
1334	Newborough Warren, Anglesey	390(2)
1338	Newborough Warren, Warren, Anglesey	323
1342	Cosby	395
1344		14
1352	Dartmoor	440
1387	Nant Francon	173
1389	Red Wharf Bay, Anglesey	3, 5, 6. 88, 211A
1395	Avonmouth Docks	448
1404	Bel. Bridge	446
1404	New Ferry	312, 323
1431	Sligo	255
1432	Co. Donegal	41
1432	Fort William	42
1433	Fort William	237
1442	Co. Donegal	41
1456	Fort William	42, 47
1460	Owen Verge River, Co. Donegal	4, 7
1461	Co. Sligo	370
1462	Co. Donegal	248, 256
1468	R. Collaun, Co. Clare	408
1469	Co. Donegal	408
1471	Doon Beg (Doonbeg), Co. Clare	2, 8, 466
1475	Bridge of Ross, Co. Clare	66
1481	Co. Sligo	370, 431, 435, 466
1481	Co. Clare	434
1517	Comber, Sussex	38
1526	Buckenham Ferry, Norfolk	36
1529	Lewes, Sussex	36
1531	Cley Marsh	427
1532	Cley Marsh	427
1538	Newbourne Road Bridge, Ipswich	426
1545	Toome Bridge	4, 286, 293, 295, 296, 297, 323
1551	Co. Clare	435
1554	Linton Bog, Scottish Borders	47, 52
1555	Linton Bog	446
1557	Everit Moss	52
1563	Yetholm	428
1568	Piddinghoe, Lewes, East Sussex	2
1571	L. Morlich	433
1589	L. Linne	397
1597	Loch Crocain	173
1606		306
1617	Loughborough	446
1619	River Thames	311
1620	Toome Bridge	1, 7, 8, 30
1621	Toome Bridge	313, 315, 316, 426
1622	Ynys Lake	322
1625	Ynys Lake	322
1640	L. Tay	397
1647	Beddingham	171
1658	Piddinghoe, Lewes, East Sussex	2, 7, 8, 12
1660	Landport, Portsmouth	11, 12

## Horace George Barber's Miscellaneous Diatom Plates

Slide/Sample	Location	Plate
1661	Dunnet Head, Caithness	16, 19
1663	Toomebridge, Mourne, N.I.	18, 26, 27, 29, 385
1664	Mourne, N.I.	213, 230, 231
1665	Toomebridge Mourne, N.I.	26, 27, 28
1666	Cuithir, Skye	30, 31, 370
1672	Bamburgh, Northumberland	48
1700	Scottish Loch	51
1700	Sutton Park	49
1702	Bamburgh, Northumberland	40, 41, 61, 67
1703	Ashton P. Wirr.	54
1705	West Kirby	53, 54
1706	West Kirby	53, 54
1707	West Kirby Sands	54
1708	West Kirby	53, 395
1717	Loch Watton, Caithness	59, 60, 61, 62, 63, 85, 87
1718	S'ley	96
1719	Sing. (Singiliewsky)	97, 99
1720	Seng.	98
1721	Seng.	98
1726	Camphill Pool, Nuneaton	70
1728	Cynlais (Cerrig), Anglesey	63, 64
1729	Cerrig Beach	63
1735	Llangoed	396
1739	Tremadog	406
1742	L. Mabon	397
1746		100
1748	Skye	101
1771	L.S.W.	73
1772	G.M. Tail	73
1773	Kidd Park	71, 73
1793	Beckett Pond	72
1796	Riversley Park, Nuneaton	72
1797		71
1798	Holcombe Beach, Norfolk	76, 79
1799	Abraham's Bosom, Wells-next-the-Sea, Norfolk	75, 76, 437
1800	Blakeney	75, 77, 85, 89, 90
1802	Charlwood, Surrey	77
1807	Kirkadey Bay	343
1807	Boat	78
1809	Quanterness, Skerry, Orkney	75, 76, 77, 78, 79, 91, 343, 399, 400
1815	Ynys	379
1817	Afon Banwy	406
1818	Ynys	380
1820	River Usk	403
1843		94
1845	Toome Bridge	232
1846	Bay Strand	93
1851	Sandown	95
1853		94
1854	Westcliffe	95
1857	L.na.M	91, 92
1858	L.na.M	93
1859	Bodmin Moor	92, 93
1862	L. Tav.	369(2)
1866	Kyle of Tongue, Sutherland	369(2), 370, 397



## Horace George Barber's Miscellaneous Diatom Plates

Slide/Sample	Location	Plate
1877	Kyle of Tongue, Sutherland	369(2)
1878	Kyle of Tongue	432
1879		237
1882	Kerra Sound	344
1892	Quanterness, Skerry, Orkney	162, 163, 170, 171, 174, 181, 281, 364, 367, 397, 398, 407
1895	Rhosneigr	400
1897	Quanterness, Skerry, Orkney	405, 406
1898	Quanterness, Skerry, Orkney	405, 435
1905	Fleet	369(2)
1908		244
1909	Afon Lynfnant	401
1935	Holcombe Sands	427, 439
1942	Ardnamurchan Shore	466
1953	Kyle of Tongue	466
1957	Aberfran, Anglesey	405
1959	Aberfran, Anglesey	406
1962	Col. Bay	400
1986	Rhosneigr, Anglesey	402
1987	Newborough Warren, Anglesey	378
1988	Isle of Wight	200A
1991	Yinstay Head, Orkney	191, 193, 275, 373
1992	Yinstay Head, Orkney	407, 428
1994	Yinstay Head, Orkney	269, 270, 407
1999	Sandside Bay, Deerness, Orkney	344
2003	Kirkwall, Orkney	194, 195
2004	Kirkwall	392
2005	Quanterness, Skerry, Orkney	194
2005	Stye Farm, Deerness	280, 407
2007	Quanterness, Skerry, Orkney	193, 194, 280, 428
2008	Quanterness, Skerry, Orkney	200A, 279, 391, 392
2009	Quanterness, Skerry, Orkney	197, 198, 199, 344, 345, 345, 346, 391
2010	Quanterness, Skerry, Orkney	197
2013	Quanterness, Skerry, Orkney	200, 202, 203, 346, 346
2014	Quanterness, Skerry, Orkney	279
2015	Quanterness, Skerry, Orkney	191, 193, 194, 195, 196, 197, 199, 280, 428
2016	Kirkwall Harbour, Orkney	193
2017	Copinsay, Orkney	392
2050	Stromness	395, 407
2050	Kyle of Durness, Sutherland	356
2051	Stromness	366
2061	Blelham Tarn	395
2061	Rub. Law.	395
2063	Llan M.	244
2064	Llyn Cororion, Gwynedd, Wales	244
2077	Ardtoe Bog	399, 400
2080	Padstow, Cornwall	213, 235
2080	Strom, Shetland	356
2083	Buster Ponds	373
2091	Moshela	400, 447
2094	Graven, Shetland	279, 280, 391
2101	Co. Down	395
2103	Cliff, Watwick Bay	265

## Horace George Barber's Miscellaneous Diatom Plates

Slide/Sample	Location	Plate
2112	Ynys Las	397
2117	Bexhill, Sussex	258
2120		260
2123	Ostrand, I.O.W.	267
2123	Shanklin	266
2124	Cynlais (Beach), Llangoed, Anglesey	264, 267
2125	Bexhill Sands	429
2134	Dale	265, 266
2137	Dale Mud	265
2139	Tid. L. Dale	265
2142	R. Fal.	273
2144	Norfolk	275, 276
2146	Traeth Bach, Anglesey	378, 379, 380, 397
2152	Walberswick, Suffolk	287
2157		278
2158	Houlma Loch, Shetland	285
2161	Loch of Cliff, Shetland	286
2169	Bryher, Isles of Scilly	289, 291
2170	Bryher, Isles of Scilly	290
2171	Trevone, Padstow, Cornwall	367
2176	N. Cornwall	360
2178	N. Cornwall	360
2181	N. Cornwall	360
2184	N. Cornwall	362
2188	Cornwall	287
2189	Swithland Quarry	431
2225		299
2229	R. Ae.	299
2235	Clonfill Lough	366, 373, 393
2236	Narborough Bog, Leicestershire	300
2237	River Stour, Essex	301
2251	S. Ambersham	384
2252	Isle of Mull	384
2261	Narborough Bog, Leicestershire	337, 339, 434, 440
2262	Narborough Bog, Leicestershire	339
2262	Narborough Bog, Leicestershire	337, 338, 339
2263	Narborough Bog, (Ox Bow) Leicestershire	337, 338, 390(2)
2264	Kyle of Durness, Sutherland	340, 355
2265	Kyle of Durness, Sutherland	340
2268	Southport lagoon	392
2270	Trevone, Padstow, Cornwall	348
2274	Windermere	351, 352, 355, 363
2279		351
2280		404
2280	Barr.	363
2280	Gough	354
2291	Sheen	353
2292	L. Durh	353
2293	L. Long	353, 354
2295	Nor. Bay.	362
2296	Horston Grange Moat, Nuneaton	385
2296	Llanndanwg	354
2298	W.O.T.	355
2304	Ballyscullis	357
2305	Windermere	357, 358, 363
2307	Largy	358

Horace George Barber's Miscellaneous Diatom Plates

Slide/Sample	Location	Plate
2310	Toome Bridge	403, 404, 428
2312	Trevone, Padstow, Cornwall	362
2314	Kyle of Durness, Sutherland	361, 362
2315	Kyle of Durness, Sutherland	364, 366
2318	App. Brack	372
2325	Skegness	372
2326	Glantora, Eire	370, 371, 372
2327	Premnay Peat (Aberdeenshire)	373
2328	Premnay Peat (Aberdeenshire)	376, 377
2329	Gaerloch Beach Bog	431
2336	Steepholm	381
2337	Steepholm	381, 382
2346	E. Suffolk	382
2346	Llandwyn, Anglesey	426
2349	Borth y Gest	449
2350	Borth y Gest	448, 450, 451
2360	Walberswick	426
2363	Mull	391
2364	Dervaig, Isle of Mull	391, 426
2368	Walberswick, Suffolk	408
2369	Loch Sunart, Scotland	391, 408
2370	Caolisport, Argyllshire, Scotland	391, 426
2386	Horeston Grange, Nuneaton	386
2395	Ambersham Common, West Sussex	385
2395	Llan Dolwyn	385
2397	Ambersham Common, West Sussex	390
2398	Ambersham Common, West Sussex	386, 390, 390(2)
2399		386
2400	Ambersham Common, West Sussex	395, 396
2410	Inch na Damph, Assynt, Sutherland, Scotland	282, 286
2439		395
2440	South Bay	392
2453	Blelham Tarn	395, 466
2455	Gannel Estuary	396
2466	Silverdale Wood, Well	403
2467	Burton-in-Kendal, Yorkshire	404
2476	"Three Pipes", River Anker, Nuneaton	409
2477	Roman Road, Wensleydale	409
2489	Barra Forest, Ireland	417
2499	Barra Forest, Ireland	416, 417
2502	Aber Artro	432
2506	Elm Bank Close	21
2509	Gatehouse, Fleet	426
2513	Bexhill	427
2514	Ambersham Common	428
2515	River Anker, Nuneaton	428
2516	Hartshill, Nuneaton	429
2517	Bexhill, Normans Bay	429
2518	Bexhill, Normans Bay	429
2518	Glynde Gap, Bexhill	429
2520	Caldecote Lane, Nuneaton (Railway Bridge)	429, 431
2522	Pagham	429
2523		430
2524	River Ouse	430
2525	Bexhill	430
2526	Harsthill, Nuneaton	430, 431

## Horace George Barber's Miscellaneous Diatom Plates

Slide/Sample	Location	Plate
2539	Caldecote Lane, Nuneaton	431
2541	Minsmere	431
2545	Oaston Road, Flood Channel	432
2546	Oaston Road, Flood Channel	432
2549	Llandwyn Sands	453
2554		432
2557	River Yare	433, 450
2579		433
2581		455, 456
2586	Cuckmere	463
2590	Durness Loch	436
2600	Coniston Water	438
2603	Fanagmor, Sutherland	447
2608		447, 448
2612	Piets Well, Burghead	447
2615	Alv.	448
2626	Glen Trool	21
2627	Durn	449
2631	Rutland Water	449
2643	USSR	454, 455
2654	Aber Porth	454
2659	Borth y Gest	451
2660	Borth y Gest	451, 452, 453
2661	Borth y Gest	452
2663	Loch Eil	453
2664	Loch Eil	453
2667	Borth y Gest	454
2670	Borth y Gest	454, 455, 456
2684	Wells	457
2694	Loch Cuithir	459
2695		460
2708	Loch Cuithir	465
2709		464
2716	Dev. Hole	303, 309
3003	L'Assynt	355
3016		21
3022	Co. Clare	393
3094	Rowan Tree Ditch	21
3124	Slapestone Sike (Syke)	46, 48
3124	Carter Collection	46
3124	Fort William	47
3159	Loch na Cuilc, Lewis	87, 88
3248	Arkingarthdale	71
3261	Branston Pit Bing Pool	86
3446	Ale Water	448
3459		174
3461		174
3485	Loch Duick	174
3541	Nenthead, Cumbria	248
3547	R. Teviot	244A
3555		256
3558	Blelham Tarn, Ambleside	259, 260
3566	Sunbiggin Tarn	429
3571	N. Warr.	48
3580	Strontian, Lochaber, Scotland	265, 266, 273
3590	Durness Loch	436

## Horace George Barber's Miscellaneous Diatom Plates

Slide/Sample	Location	Plate
3596	L. Crannaig	262
3606	R. Moidart	267
3660	Applecross	286
3719	R. Goonhilly	299
3799	Sninort, Skye	355
3943	Hawick Park	428
3949	Hartshill, Nuneaton	429, 430
3962		431
4038		449
4074		450
4670	Aber Ogwen, Bangor, Gwynedd (Caernarvonshire)	84
11029		276
12212	Loch Mabon	61
12213	Loch Mabon	61
12393	Dallow Ghyl	365
12651	Lancing (in ditch)	288
13035		368
13201	Kilnsey Crag, Yorkshire	44, 45
13202	Slapestone	45
13211		51
13213	Loch Mabon	52, 53
13226	Grassington, Yorkshire	56
13249		73
13261	Branston Pit - Bing Pool	90
13430	Loch Cranaig	170, 211, 211A
13435	Sanna, Scotland	171
13439	River Teviot	365
13449	Carter Collection	46
13515	Surrey	236, 237
13520	Nenthead, Cumbria	237
13520	Surrey	237
13588	Inverkirkaig, Assynt, Sutherland, Scotland	264
13596	Cranaig	262, 263, 264
13655	Scourie	365
13665	Ardis	289
13733	Loch-na-Orden	301
13786	Loch Mabon	347
13818	Applecross Bay, N.W. Scotland	354, 355, 361
13878	Morwellan Copper Mine	390, 390(2)
14018	Fanagmoor	440
14084		449
14087	Malham	453
14107	Loch Eil	453
14139	Loch Kinnord, Bogangoe	464
38433	Hawick Park	428
BCH/6	Quanterness, Skerry, Shetland	185
BCH/C	Quanterness, Skerry, Shetland	184, 185, 186, 187
BCH/C	Yinstay Head, Orkney	183, 184, 187, 187, 188, 189, 190

The following Bernard Hartley samples have been augmented by the description of the sample from the Hartley Index. This appears in blue.

## Horace George Barber's Miscellaneous Diatom Plates

Slide/Sample	Location	Plate
BH117	Howroyd Clough Howroyd Clough. Squeezing from algae in the spring water discharge from the water supply which feeds the waterman's bungalow. 5 <sup>th</sup> Aril 1970. Passed to R.I. Firth for cleaning.	392
BH206	Wells, Norfolk Not BH206	206
BH270	Kentmere Kentmere, near Kendal. (R.I. Firth says ex. D. Thomas) Bulk earth as processed by Case Asbestos. A lump of dark brown fibrous clay 'puddle' from the workings, now under water.	200, 203
BH280	Clent Clent, Worcestershire National Grid Reference SO-933-797 Collected 16 <sup>th</sup> May 1971 <i>S. capronii</i> , <i>C. solea</i> , etc. From uppermost private lake.	261
BH456	Salthouse, Norfolk Salthouse, Norfolk 6 <sup>th</sup> September 1972 Scum on ditch further into the saltmarshes.	54
BH492/3	Wells next the Sea 492 - Ditch near beach at Holkham, Norfolk 5 <sup>th</sup> May 1973 At head of Lady Anne's drive ( <i>Naviculae</i> in tubes) Part in CuNi acetate. 493 - Floating algae including diatoms in tubes at Abraham's Bosom (Lake) at Wells-next-the-Sea, Norfolk. 5 <sup>th</sup> May 1973 Also in CuNi acetate.	437
BH502	Waddington Fell, Lancashire Wallop Well, Waddington Fells, Yorkshire 14 <sup>th</sup> June 1973 Also in CuNi acetate (very green)	88, 93, 94
BH594	Toome Bridge Toomebridge TB.6. Good but very small	404
BH627	Southwold Harbour Southwold Harbour, Suffolk From pools on the bank at the upper end of the harbour. Collected by H.H. Gleave Received 18 <sup>th</sup> November 1974	207
BH659	Wash Mud from a drain into the Wash, Lincolnshire October 1927	254, 255, 256, 271, 272
BH711	Traeth Bach, Anglesey Scum on saltmarsh pool at Traeth Bach, West of Ynys, Gwynedd, N. Wales	256, 274, 378, 393
BH711L	North West of Traeth Bach Scum on saltmarsh pool at Traeth Bach, West of Ynys, Gwynedd, N. Wales	272
BH714	On marine seaweed, Orkney Slide from A.G. Greenfield	254
BH725	<i>Nitzschia linearis</i> W.Sm. Near Kingsswear from sample loaned by W. Marshall	278
BH729	Carlova Carlova, Russia From a sample loaned by W. Marshall	271, 273
BH745	Saltmarsh Pool, Traeth Bach Not BH745	274

## Horace George Barber's Miscellaneous Diatom Plates

Slide/Sample	Location	Plate
<b>BH748</b>	Holme-next-the-Sea, Norfolk Holme-next-the-Sea, N. Norfolk Dry sand taken on Betty's advice from troughs in sand ripples on beach. V.G. flora and range of species inc. <i>Surirella strigosum</i>	268, 269, 360
<b>BH752</b>	Windermere Core from Windermere Taken by the Liverpool University team under Rodger Padgham (upper recent) ex Ron Darby	347
<b>BH775</b>	Walberswick Walberswick, Suffolk Stagnant pool on saltmarsh near harbour Per H.H. Gleave January 1976	268
<b>BH777</b>	Charlwood, Surrey Not BH777	333
<b>BH797</b>	Charlwood, Surrey Westlands Farm, Charlwood, Surrey Bottom of a pond 18" deep. Mud/Algae squeeze. Eutrophic. March 1976 ex A.G. Greenfield	347
<b>BH887</b>	Black Moss, Dinnet Black Moss, Dinnet, Aberdeenshire Fossil F/W dark brown diatomite Per R.I. Firth April 1977 Between Ballater and Arboyne	340, 341
<b>BH901</b>	Llandanwg Patch of diatoms on sandy surface of Llandanwg beach at high water mark. 25 <sup>th</sup> April 1977 <i>Pinnularia stauntonii</i> (Grun) Cleve, pure.	333
<b>BH906</b>	Yeovil Mixture of upper and lower ponds at Nine-Springs woodland, Yeovil, Somerset 23 <sup>rd</sup> May 1977	341
<b>BH908</b>	The Lagoon, Southport The Lagoon, Southport, Lancs Collected by R.I. Firth in the 1950s. <i>Biddulphia aurita</i> var. <i>obtusa</i> (Kütz.) Hust. See also further sample 908A which is as 908 but without contamination. Note: 908 was contaminated by an unknown freshwater sample.	340, 341
<b>BH917</b>	Thorpe Bay, Thames Estuary, Essex River Thames estuary, Thorpe Bay, East of Southend on Sea, Essex Collected 15 <sup>th</sup> April 1976 by R. Hare of 15 Lime Avenue, Upminster, Essex	346
<b>BH956</b>	Sartil, Skye Sartil, Digg, Isle of Skye Uncleaned sample collected by Klaus Kemp.	390(2)
<b>BH968</b>	Exmouth Exmouth Beach, Devon. Yellow brown thick film of jelly on percolating ground water on the seaward face of red Devonian sandstone rock face – rarely if ever in seawater.	384
<b>BH1001</b>	Budleigh Salterton Buddleigh Salterton, Devon Sample of macro algae collected by K-D. Kemp 23 <sup>rd</sup> August 1970	385

## Horace George Barber's Miscellaneous Diatom Plates

Slide/Sample	Location	Plate
<b>BH1030</b>	Llanfihangel y Traethau Llanfihangel y Traeth, near Harlech National Grid Reference SH(23) 655-377 25 <sup>th</sup> October 1978 Sent to A.G. Greenfield 28 <sup>th</sup> October 1978 and returned 7 <sup>th</sup> February 1979	392, 393
<b>BH1127</b>	Ambersham Common, West Sussex Ambersham Common, West Sussex Collected by L.V. Martin on 17 <sup>th</sup> May 1979 – R.I. Firth No. 567 1127a cleaned by A.G. Greenfield and sieved and finished by B. Hartley 1127b cleaned by B. Hartley and sieved and finished by B. Hartley	401
<b>BH1130</b>	Wallop Well Wallop Wall, Waddington Fells, near Clitheroe 1 <sup>st</sup> June 1979	402, 403
<b>BH1141</b>	Maenporth, Cornwall Maenporth, Cornwall Brackish pool, behind the sea bank Collected by K-D. Kemp 18 <sup>th</sup> July 1979	401
<b>BH1144</b>	Cernais Bay Cernais Bay, Anglesey 6 <sup>th</sup> May 1979 Sand scraped from several places on the beach. (No obvious signs of diatoms)	406
<b>BH1160</b>	West Bay, Dorset West Bay, Dorset 12 <sup>th</sup> September 1979 Scraped from steel and wooden piles in the harbour.	417
<b>BH1220</b>	Poole Poole Harbour, Dorset R.I. Firth sample 614 > and < 600 mesh ex N.I. Hendey Badly contaminated with hairs.	422
<b>BH1299</b>	Chichester Harbour Chichester Harbour R.I. Firth ref. 642 December 1980 One strewn slide and small sample	433A, 434
<b>BH1310</b>	Cuckmere Haven, Sussex Cuckmere Haven, Sussex Collected by A.G. Greenfield January 1981 <i>Rhopalodia musculus</i> and <i>Mastogloia pumila</i>	433A
<b>BH1346</b>	Slapton Ley Slapton Ley, Devon 12 <sup>th</sup> May 1981 (My [Bernard Hartley's] birthday!) Mats of <i>Cymbella</i> in tubes on the stone paving at the Torcross outlet of the lake. Fast flowing water some 12 inches deep and fifteen feet wide all covered with the diatom 'jelly'.	441
<b>BH1432</b>	Pevensy Brackish stream by road between Pevensy and Norman's Bay, Sussex Slide ex H.H. Gleave Collected 31 <sup>st</sup> August 1981	452
<b>BHC/C</b>	Yinstay Head, Orkney	187
<b>BM</b>		405
<b>BM</b>	Loch Frisa, Mull	183
<b>BM</b>	Mull	410
<b>C/3151</b>	Billingham Peat Ditch	55



Horace George Barber's Miscellaneous Diatom Plates

<b>Slide/Sample</b>	<b>Location</b>	<b>Plate</b>
<b>EGW315</b>	Eaton Park, Chester BH 1377 - Serpentine Lake, Chester at Eaton Park 22 <sup>nd</sup> March 1972 Slide by E.G. Williams	14
<b>Re380/B</b>	Red Wharf Bay, Anglesey	15, 20
<b>RIF</b>		449
<b>RIF1659/B</b>	Landport, Portsmouth	9, 10

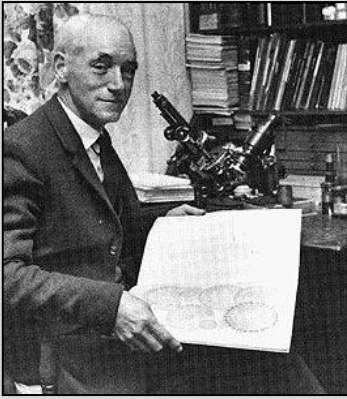
## Horace George Barber's Miscellaneous Diatom Plates

Once again we are indebted to Alan George Barber for his permission to reproduce his father's work.



*Alan George and Judith Ann Barber*





**Horace George Barber** b. 1<sup>st</sup> September 1908 d. 1982

(from the obituary by H.H. Gleave)

Born in Crewe, he joined the staff of the old London and Midland Railway in 1922 and remained with them until his retirement in 1966 having held various positions in their Control Office. In his younger days he was a keen long-distance cyclist and mountaineer and he retained his interest and activity in cycling until the day of his death when he was out riding in the morning. In 1930 he became a microscopist largely because of his interest in the local natural history society. Very quickly his work crystallized round the study of diatoms. He joined the Quekett Microscopical Club in 1946.



**John Ripley Carter** b. 1908 d. 1993

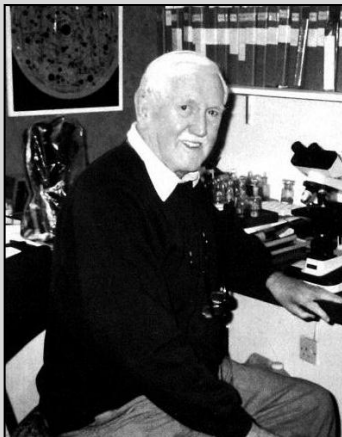
(from the obituary by J. Eric Marson)

John Carter was born and educated in Bradford, Yorkshire where he studied botany and zoology at the technical college evening classes. The famous diatomist Rev. Dingley P. Fuge lived locally, and under his influence and encouragement he soon became interested in diatoms.

Shortly after the war, he and his wife Marjorie moved to Denholm in Scotland and remained there all their lives.

His main interest was the freshwater diatom species, and he collected over a wide area of Scotland and the outer islands.

He was a gifted artist and developed the ability to draw diatoms with all their intricate detail to perfection.



**Bernard Hartley** b. 12<sup>th</sup> May 1917 d. 22<sup>nd</sup> April 2007

(from the obituary by Dr. B. Bracegirdle)

Bernard Hartley was born in Burnley and was educated at Burnley Grammar School and Burnley Municipal College.

It was a fascination with pond life which first led him into microscopy, and it was a chance meeting with R. I. Firth in 1860 which introduced him to algae and above all diatoms. Over the next twenty years they worked together on collecting, preparing and identifying British diatoms.

After Horace Barber's death, John Carter, Barry Paddock and Klaus Kemp discussed with Bernard what might best be done with all the drawings by Horace, and Bernard agreed to assemble this resource, with John Carter filling in some gaps. The outcome was the large work 'Atlas of British Diatoms' which remains of the greatest importance to diatomists.