

Vestalis Luctuosa



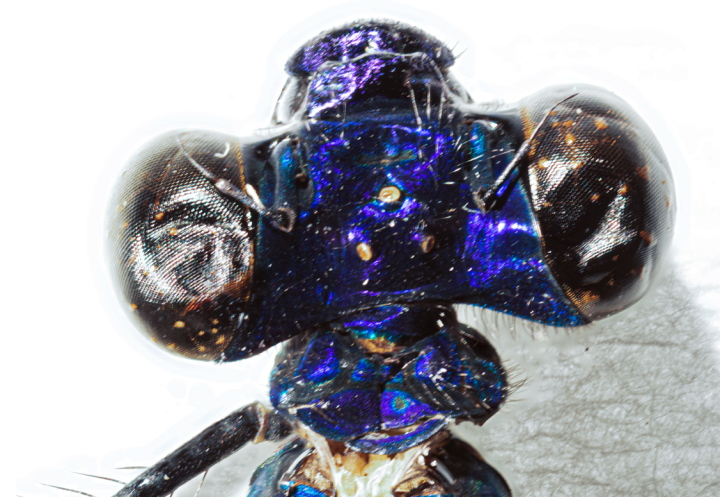
By Stephen Rinaldo

Damselflies vs Dragonflies

Damselflies are similar to dragonflies. They have the same general shape and to an untrained eye, they can appear to be the same. One noticeable difference is that damselflies are significantly smaller than dragonflies.

The resting wing positions are also different; damselflies keep their wings up, whereas dragonflies have them spread out. Another

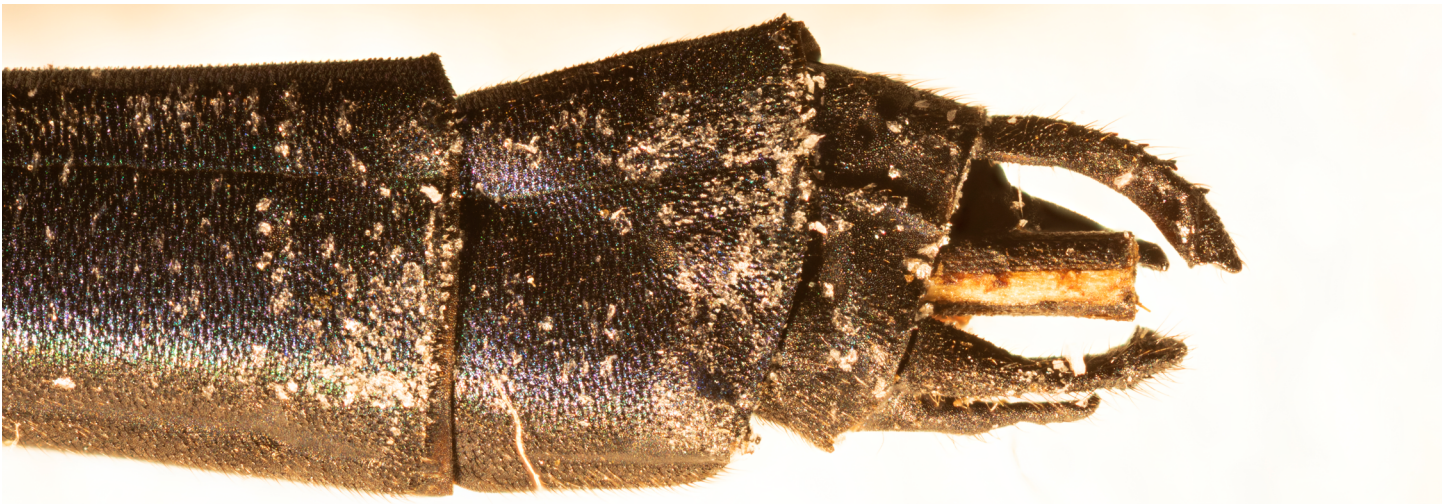
difference between damselflies and dragonflies are that damselflies have a larger gap between their eyes than dragonflies as shown to the right.



A *vestalis luctuosa* is a type of damselfly that is commonly found in Republic of Indonesia and is primarily found on the island, JAVA. The males of the species have a blue body and blue-black wings. An image of one is shown on the front page.

Damselfly's Gender

The easiest way to determine a Damselfly's gender is to base it off the colors. Male damselflies usually have brighter colors than female damselflies. This method is not always reliable though because in some cases the two appear to be identical. Another method to determine if a damselfly is male or female is to inspect the tip of the tail. Female damselflies have an ovipositor at the end. The ovipositor is the location where an animal lays eggs. Males instead have the structure shown below.



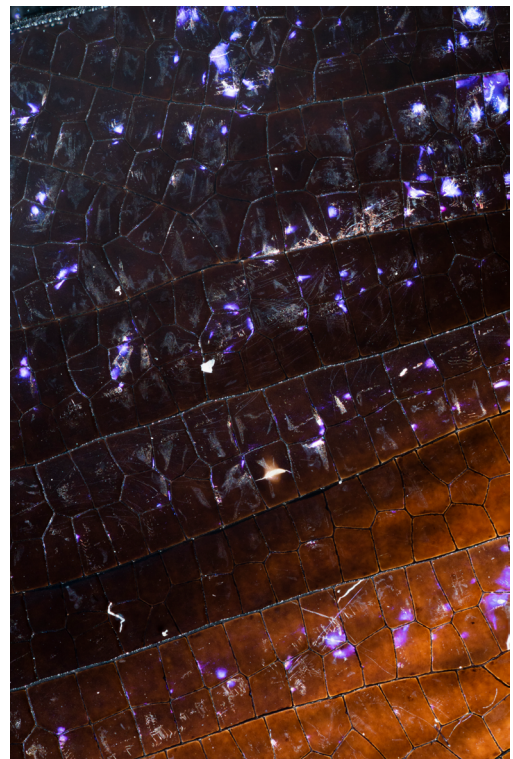
Habitat

The *vestalis lucrosa* is the third most common type of dragonfly/damselfly in Indonesia. Despite this, it is seen less than other species of dragonflies/damselflies. This is partially due to them not living near places that humans occupy.

They primarily live in forest streams. Their numbers are currently decreasing due to its habitat being changed into farmland. However, they are still in the red category of “least concern”.

Wings

The wings of the *vestalis lucosa* are a blue-black color. These wings. They have two types of wings forewings and hindwings (forewings are the ones near the head and the hindwings are the ones behind the forewings). They are both relatively similar and are made of a transparent membrane. In this sample they are both the same color, but in other damselflies, they can be different colors. The wings are held in place by a structure of longitudinal veins that have cross veins. These veins also provide hemolymph, which is akin to blood in vertebrates. The structure of these wings can be seen to the right. The veins going left and right are the longitudinal veins



and the ones that are going horizontal are the cross veins.

Resources:

<https://en.wikipedia.org/wiki/Damselfly>

<https://www.inaturalist.org/taxa/114952-Vestalis-luctuosa>

https://animaldiversity.org/accounts/Vestalis_luctuosa/classification/

<https://www.iucnredlist.org/species/163807/137392306>

http://entnemdept.ufl.edu/creatures/misc/odonata/Calopteryx_maculata.htm

<https://www.dragonfly-site.com/damselfly.html>

<https://smujo.id/psnmbi/article/view/1270/1237>

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