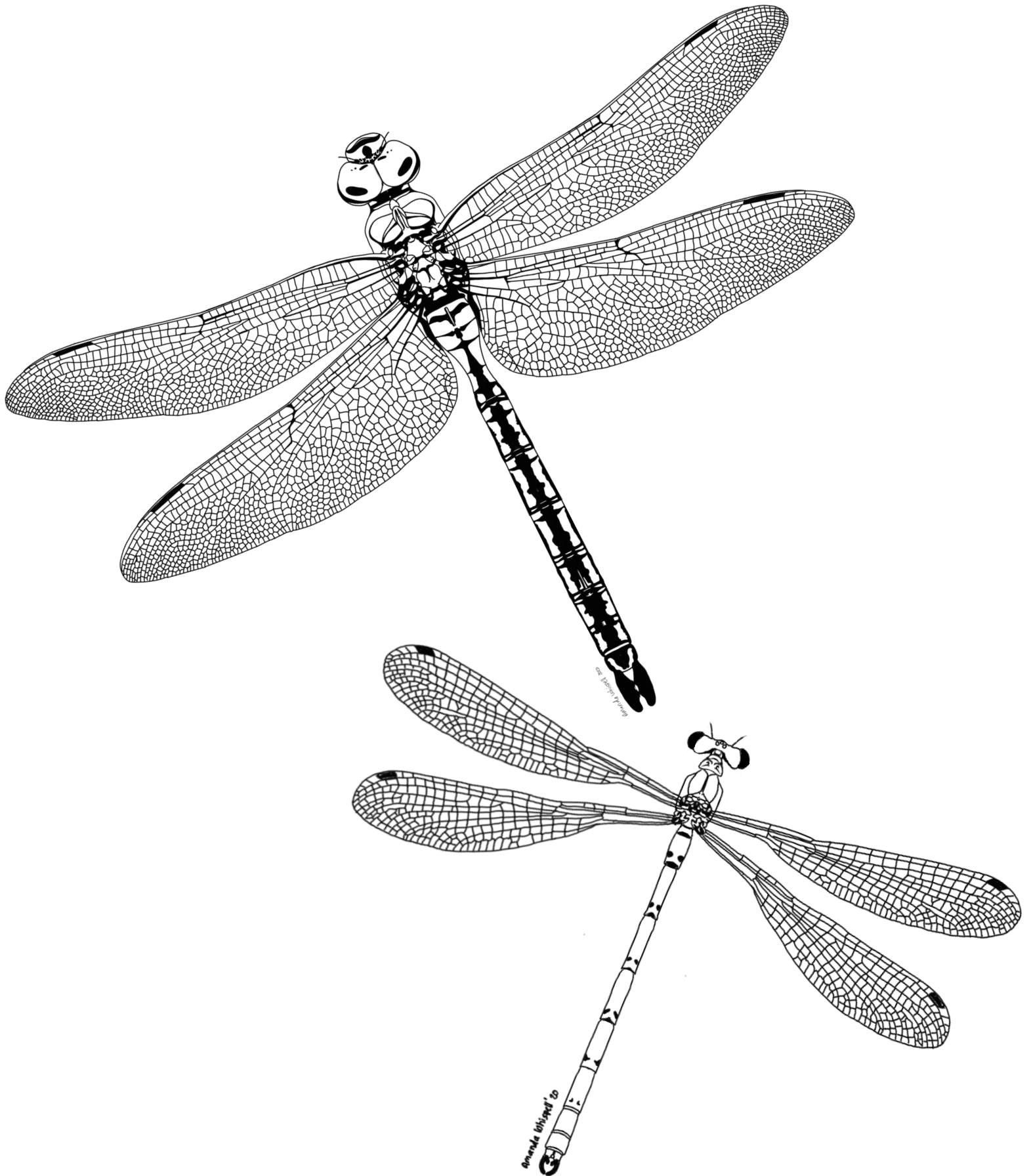


Is it a dragonfly or a damselfly??

Drawings by Amanda Whispell



Dragonflies and Damselflies

What is the difference?

Dragonflies and damselflies both belong to the same order – **Odonata**. Dragonflies belong to the suborder **Anisoptera** and damselflies **Zygoptera**.

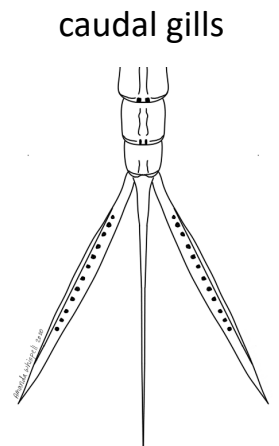
There are a lot of similarities between the two groups:

- Both lay their eggs in aquatic environments
- Both live underwater as nymphs (babies are call nymphs) and then emerge from the water with wings when they reach their adult forms
- Nymphs of both can shoot out their ‘bottom jaw’ to capture prey
- Both are carnivorous as nymphs and as adults
- Males of some dragonfly and damselfly species are territorial
- Males of both have two sets of genitalia (!!!!!!)

There are also a lot of differences:

Nymphs Differences:

- Nymphs breathing – damselfly nymphs breathe using structures called ‘caudal gills’ (right) while dragonfly nymphs breathe through internal rectal gills



Adult Differences:

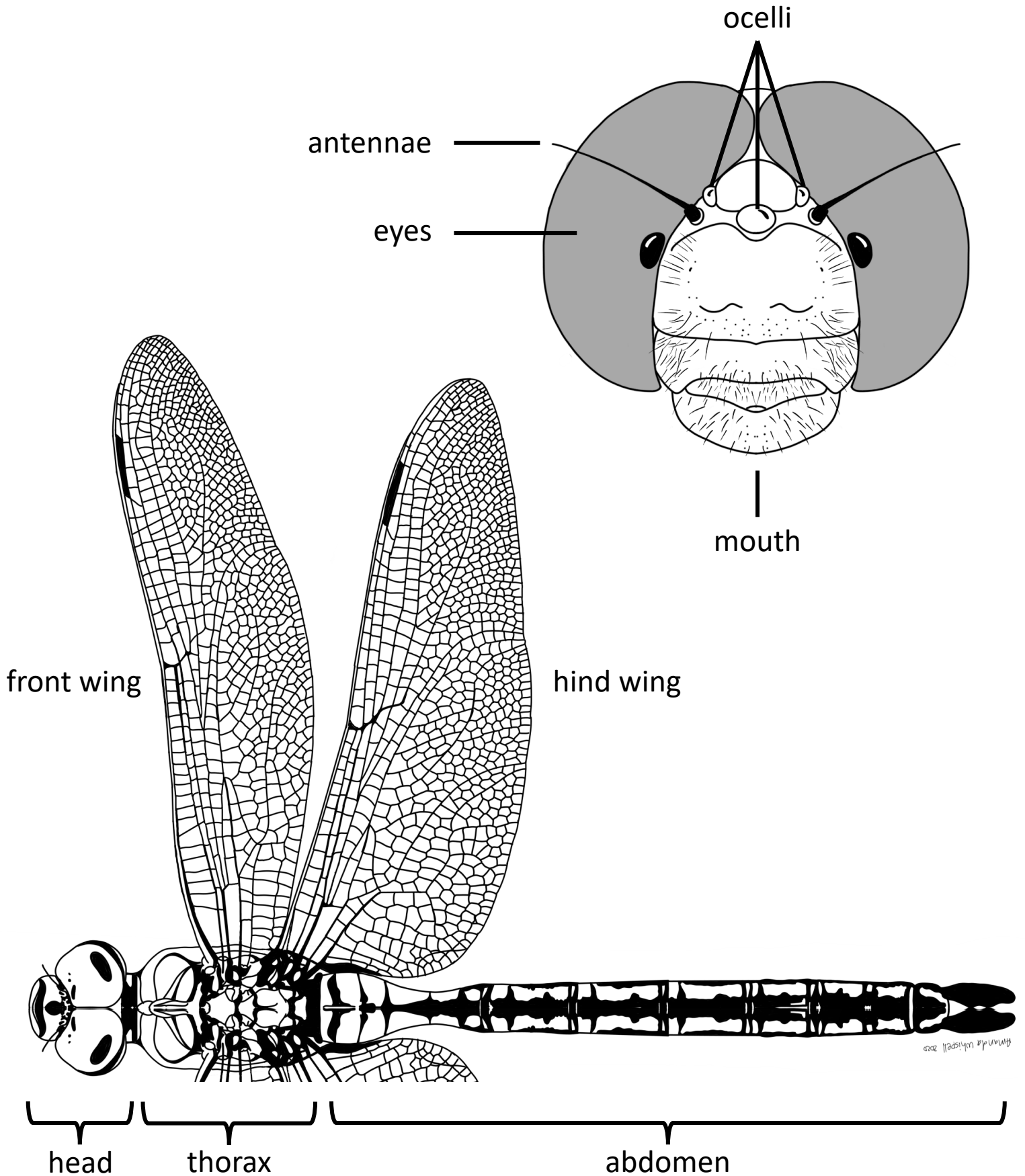
- Dragonflies tend to lay their eggs directly in the water while damselflies lay theirs inside of vegetation
- Damselflies will form large groups when laying eggs while dragonflies tend to do so as mating pairs or while solitary

Those are just a few of the similarities and differences – there are a **whole lot more** outlined in the remainder of the activity.

Go through the packet and color in the drawings to help you learn more about these two super awesome groups!

Dragonflies and Damselflies

General Anatomy



Resting / Flying Behavior



Dragonflies

Typically rest with their wings outstretched

Tend to fly very quickly and you will not be able to see their wings because they move them so fast.

Damselflies

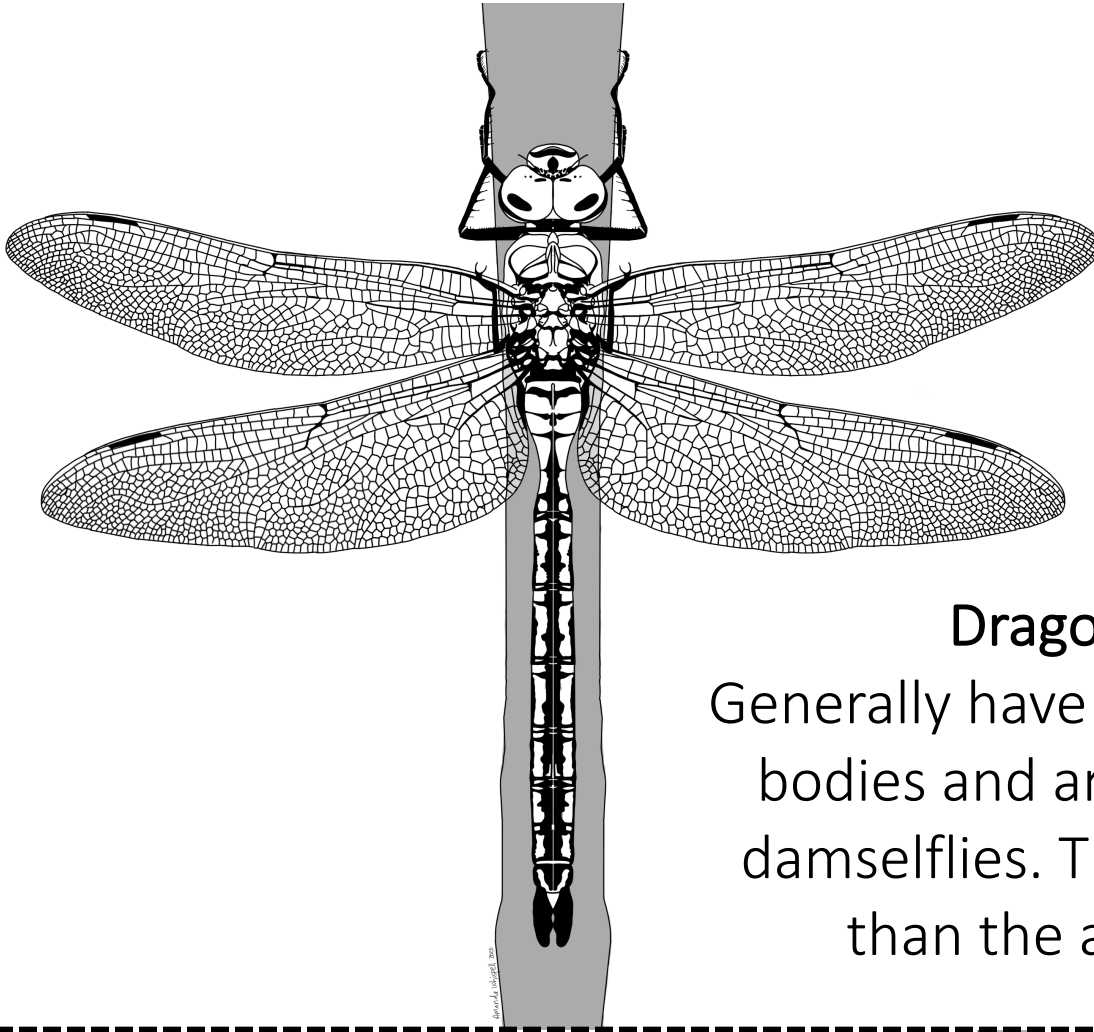
Typically rest with their wings folded together above or over their abdomens (with exceptions)

Tend to fly more slowly and you can usually see their wings fluttering.



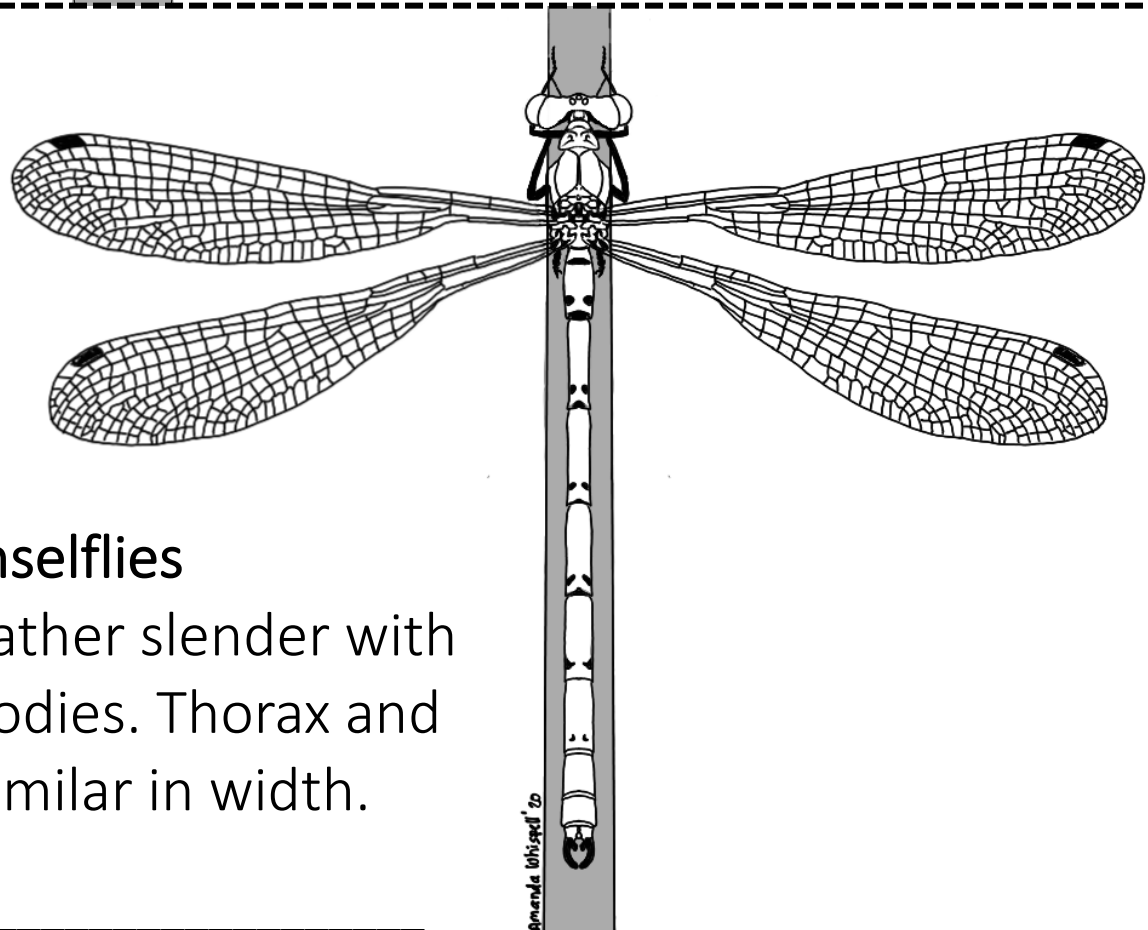
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Body Shape / Size



Dragonflies

Generally have thicker, bulkier bodies and are larger than damselflies. Thorax is wider than the abdomen.

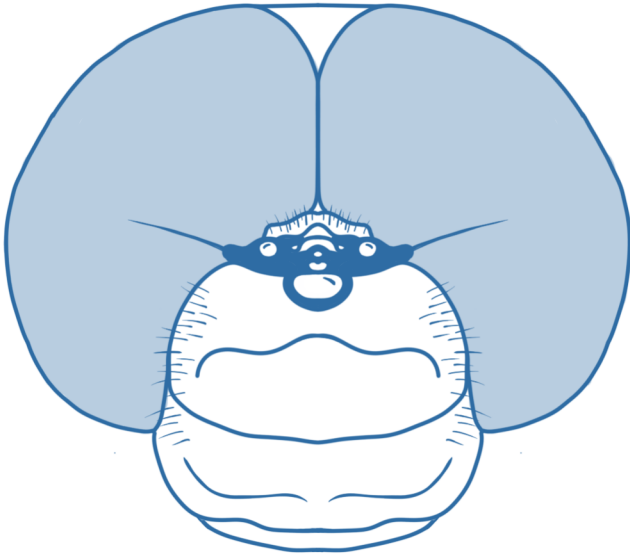


Damselflies

Are generally rather slender with long narrow bodies. Thorax and abdomen similar in width.

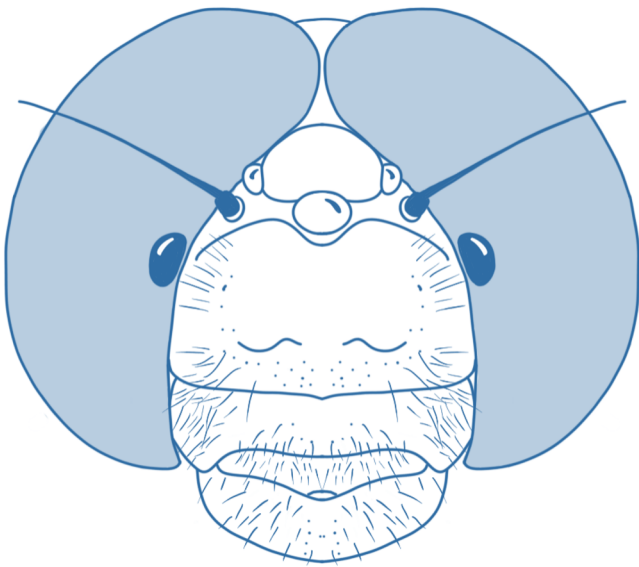
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Eye Position and Head / Face Shape



Dragonflies

Eyes are very large and generally wrap around most of the head. In most the eyes actually touch or nearly touch in the middle. Overall the head shape will be rounded.



Damselflies

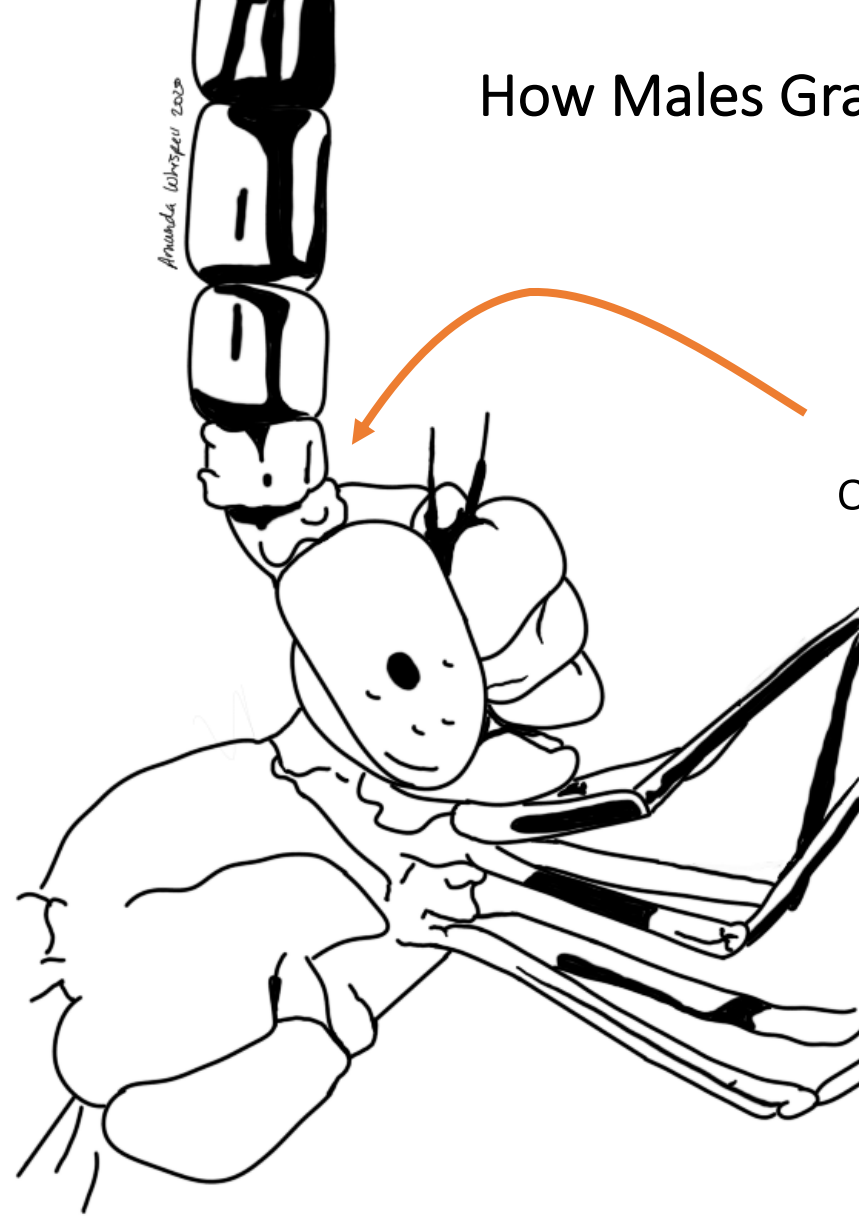
Eyes are large but never touch each other – there is always a large gap. Overall head shape will be wide and short.



How Males Grasp Females

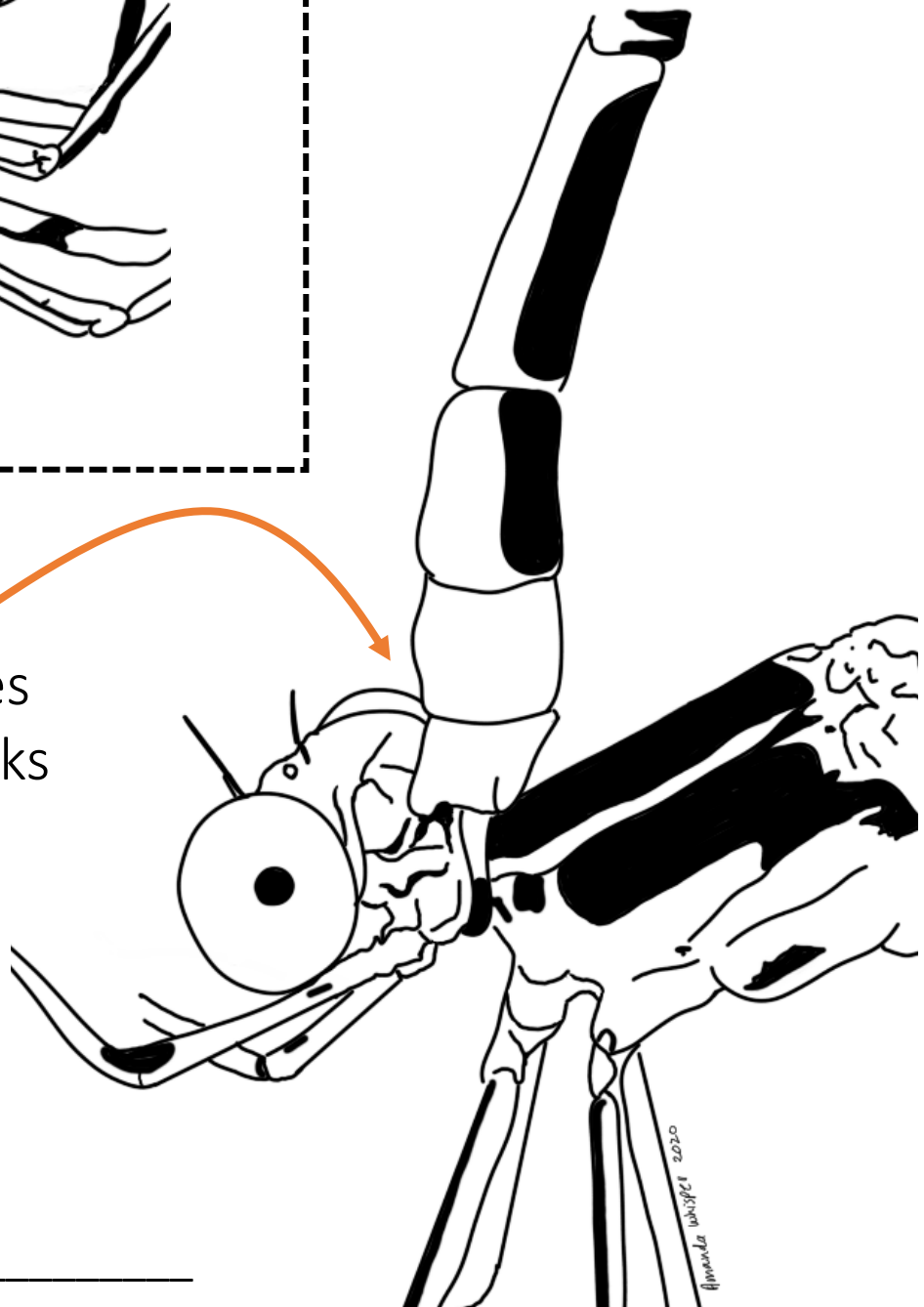
Dragonflies

Males grasp the females on the back of their heads when mating.



Damselflies

Males grasp the females on the back of their necks (on the front part of thorax) when mating.

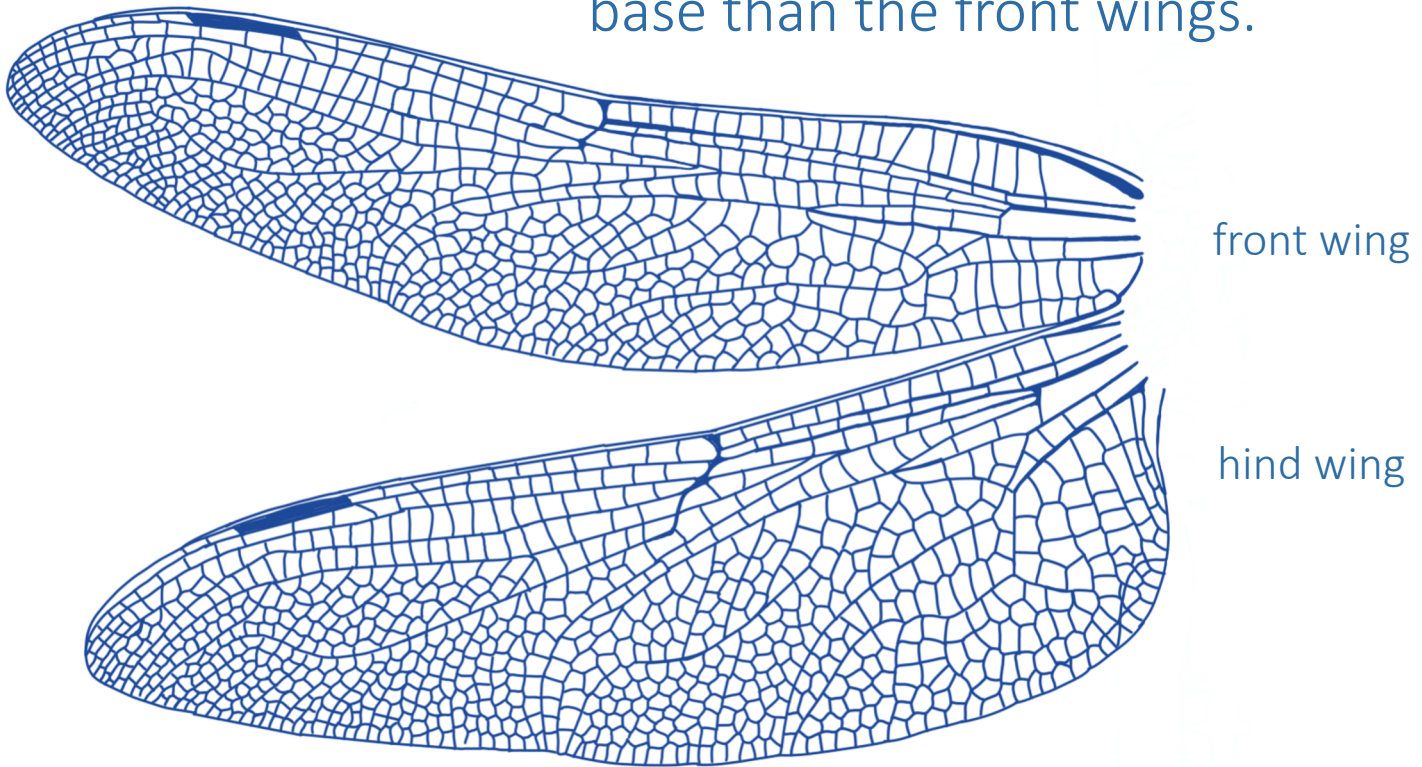


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Wing Shape / Size

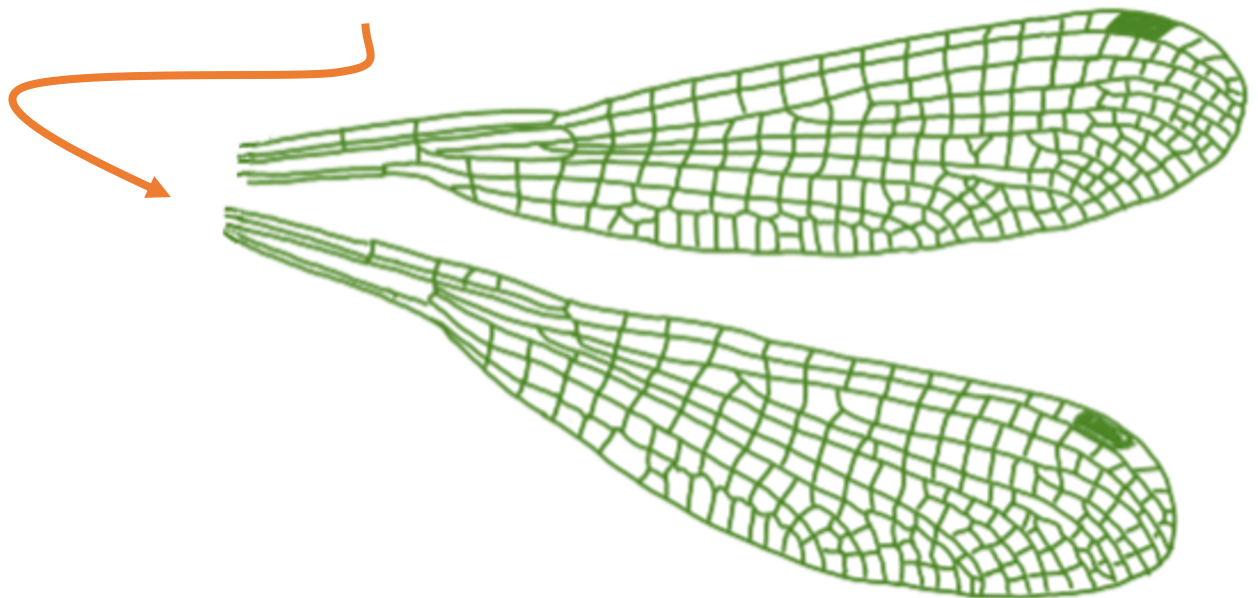
Dragonflies

Front and hind wings differ in size and shape – the hind wings is larger and broader at the base than the front wings.



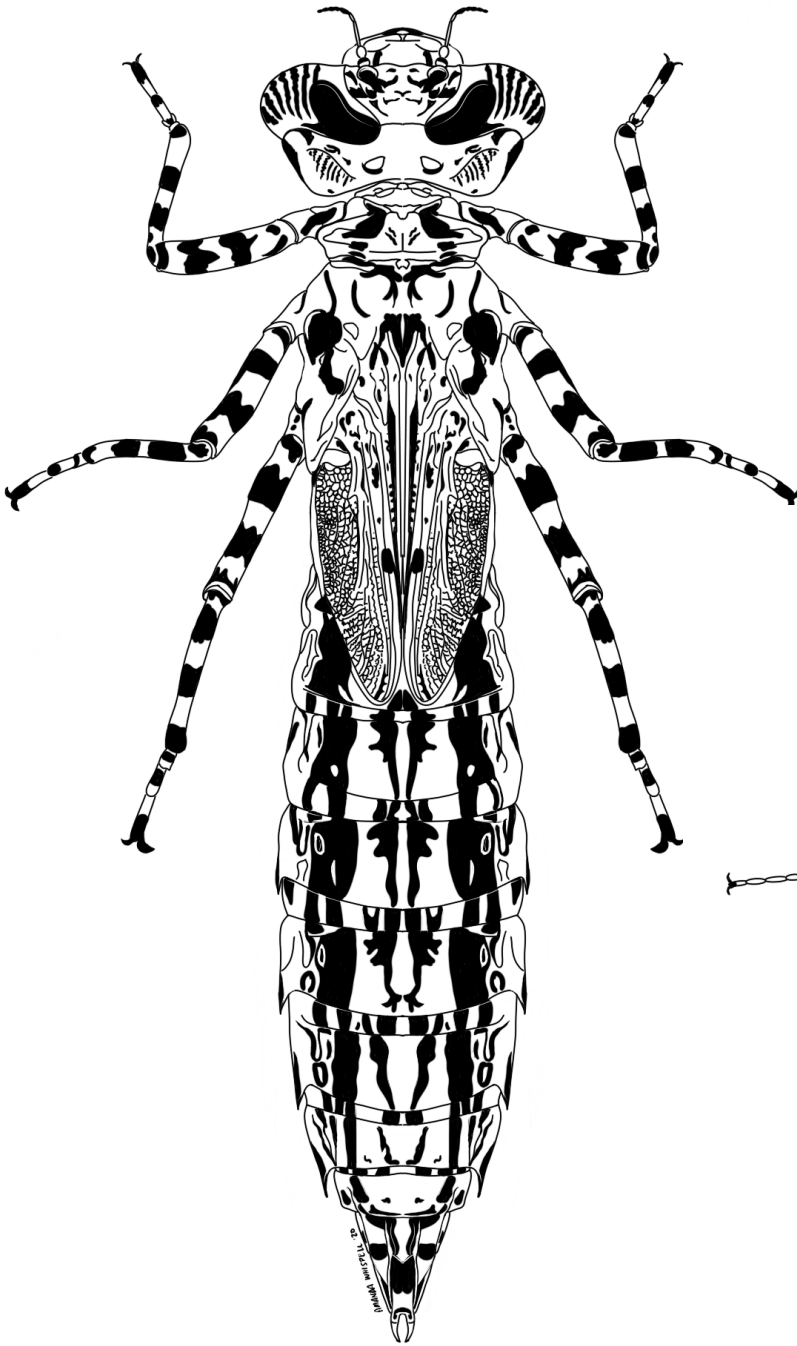
Damselflies

Front and hind wings are equal in size and shape. Both wings are more narrow at the base.



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Nymph (aka Naiad) Body Form

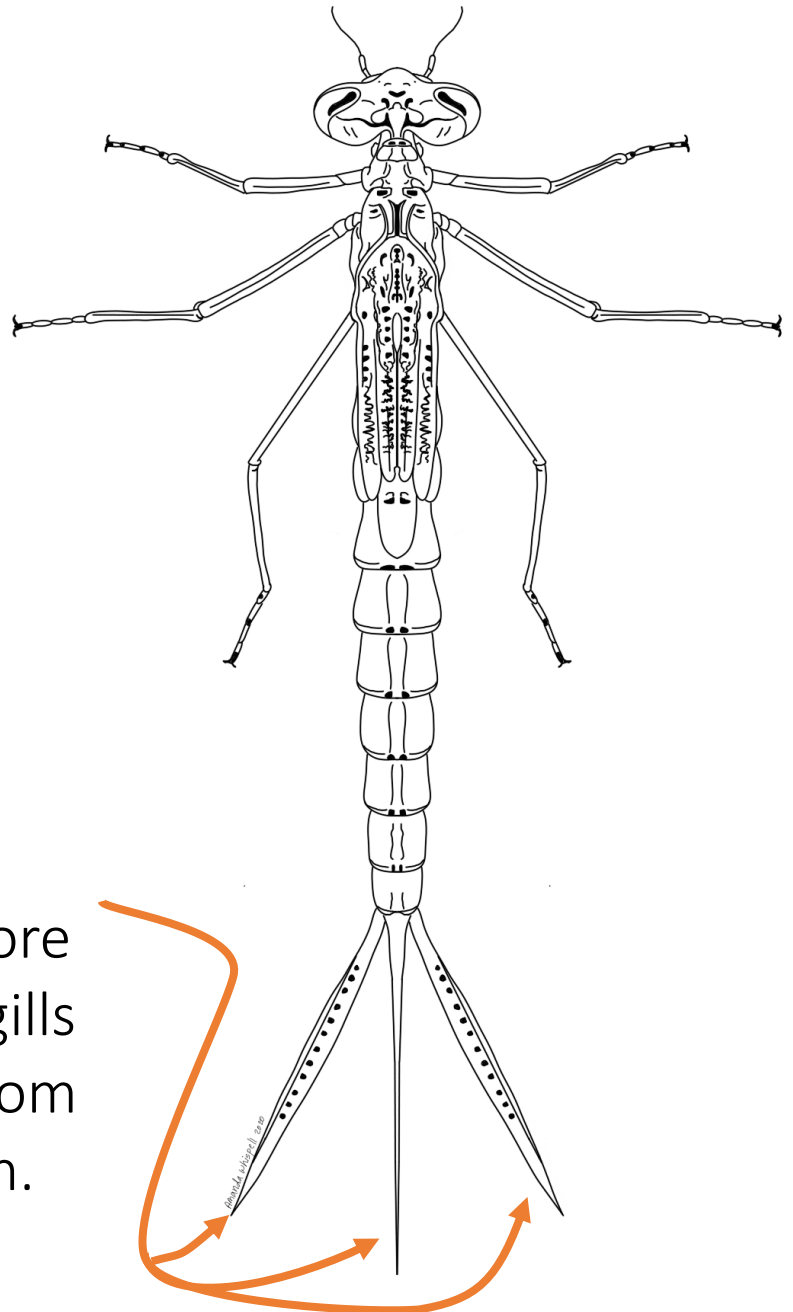


Damselflies

Nymphs are smaller and more narrow. They possess long gills (caudal gills) that emerge from the back of their abdomen.

Dragonflies

Nymphs are thicker and more substantial. They do not have caudal gills. Can move very quickly.



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