

Dragonflies and Damselflies (the insect order Odonata, or Odonates) are two of the most interesting and beautiful insects found along the Verde River @ Clarkdale. This area is blessed with more than 35 species of these fascinating creatures.

What's the Difference?

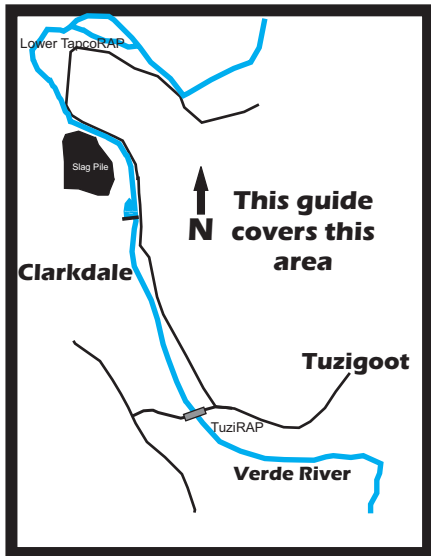
Dragonflies are generally the larger of these two. They are heavy-bodied and they rest with their wings held out to the side. Damselflies are smaller, much more delicate and slender, and when at rest, their wings are held together over their backs.

Why Do We Care About Dragons and Damsels?

Dragonflies and Damselflies are one of the key groups of insects in the Verde River riparian zone. Their numbers and the diversity we observe indicate the health of our ecosystem. The more species we see, the healthier and more diverse we know their habitat is.

Ancient Predators

Dragonflies have been around for about 300 million years, and except for some changes in their size (there have been dragonfly-like insects in the distant past with wingspreads over 30 inches!), they have remained almost unchanged in all that time. Both dragons and damsels feed on other insects (even other dragons and damsels), which they catch on the wing. Some say that dragonflies are the most successful predators on the planet – they catch what they go after a higher percentage of the time than any other hunter.



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 compiled by
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For a checklist of the dragons and damsels of Yavapai County, visit
<http://tinyurl.com/dragonsanddamsels>



Twelve-spotted Skimmer



Painted Damsel

Damsels and Dragons the Most Common Odonates of the Verde River @ Clarkdale

Dragonflies



Widow Skimmer



Comanche Skimmer



Flame Skimmer



Pale-faced Clubskimmer



Western Pondhawk



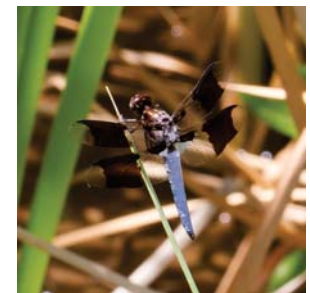
Blue Dasher



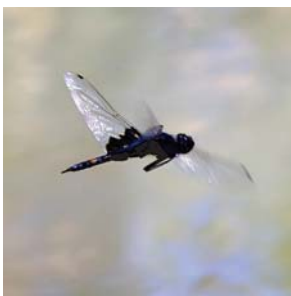
Common Green Darner



Blue-eyed Darner



Common Whitetail



Black Saddlebags



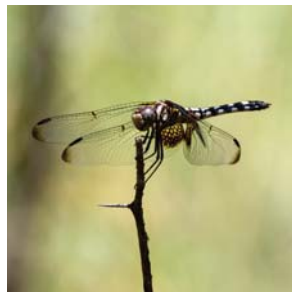
Red Saddlebags



Serpent Ringtail



Eight-spotted Skimmer



Checkered Setwing



Plateau Dragonlet

Damselflies



Blue-ringed Dancer



Aztec Dancer



American Rubyspot



Dusky Dancer



Arroyo Bluet



Painted Damsel



Mexican Forktail



Springwater Dancer



Powdered Dancer



Familiar Bluet



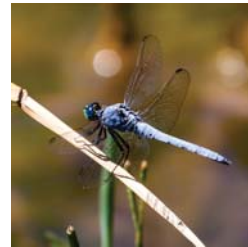
Desert Firetail



Double-striped Bluet in tandem

Damself and Dragon Facts

Odonates, like birds, are usually sexually dimorphic - the males and females look different. Also like birds, the males are generally more brightly colored and distinctly patterned. Females are usually more "camouflaged" and tend to stay more hidden than males. The photos shown here are mostly males, which are the more obvious of the sexes.



Western Pondhawk Male



Western Pondhawk Female



Serpent Ringtail Female

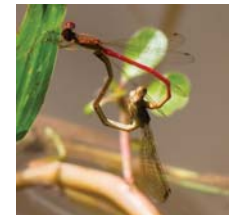


Serpent Ringtail Male

You'll often see both Damsels and Dragons flying or resting while attached together. It's called flying "in tandem" when the male is simply holding onto a female that he's reserving for himself. When they are actually mating, which they often do in flight, it's called being in a "wheel."



Dusky Dancers in Tandem



Desert Firetails in a Wheel

Dragonflies and Damselflies live most of their lives as an aquatic form called a "nymph." Nymphs are voracious predators under the water, eating just about any live prey they can catch, including fish and tadpoles! Some Odonates live several years as nymphs before they emerge from the water and fly about, but nearly all only live a few months as adults.

As adults, they eat insects which they usually catch on the wing, sometimes they even eat other dragonflies and damselflies.



Odonate wings are marvels of bioengineering, comprised of clear cells and dark veins to provide rigidity. Each family has its own pattern of cells. Look for the filled cell called a "stigma" near the outer front of each wing.



Their eyes are actually made of thousands of smaller eyes, large ones on top to see motion, and smaller ones on the bottom to better see details.



Odonates engage in lots of fascinating behaviors - like these Rubyspots displaying their spots in order to attract a mate. Take your time and watch them!