Antelope Island Spider Festival

Mimicry and Camouflaging Spiders

In the natural world **mimicry** is a phenomenon encountered frequently in the natural world, and the world of spiders is no exception.

Mimicry can be used by one organism to **avoid predation** by looking or acting similar to a more dangerous organism. Such as with the scarlet king snake, which is harmless, and the eastern coral snake, which is highly venomous.

Mimicry can also be used **aggressively**, as in a **predator resembling** its prey, or a parasite its host. There are several examples of spiders performing this kind of mimicry.

There are **at least** two families of spiders with members that practice mimicry. Corinnidae (cor-in-i-dee) and Salticidae (sal-TISS-id-dee). In Utah only a few specimens from the Corinnidae family can be found.

The common names for the Corinnidae family of spiders is **antmimic spiders** and ground sac spiders.

There is over 1000 species in this family worldwide with over 120 of them in 14 genera found in the USA and Canada.

These spiders will **mimic ants** in several different ways. Anything from **moving** in the same fashion as ants to even having **altered body shapes**. One species, *Castianeira longipalpa* (kass-tee-uh-NEE-ruh lon-jih-PAHL-puh), even goes so far as to wave around its front two legs like antennae.

For the most part spiders in the Corinnidae family don't spin a web with the exception of a **small shelter**, called a **sac**, to rest in underneath a log or rock or in the leaf litter when they aren't hunting for food or looking for mates.

Corinnidae spiders tend to prey on **smaller insects**. Some common prey items include ants, ant larvae, leaf or tree hoppers, fruit flies, and micro moths.

Another phenomenon found frequently in the natural world is **camouflage**, and once again spiders utilize this as well.

Camouflage can be used by an organism to blend in with its background to **avoid predation**. It can also be used by an **ambush predator** to blend in with the background so that they can catch unsuspecting prey when it wanders to close.

One family of spiders that does this very well is the Thomisidae (thom-is-i-dee) family. Many species of this family utilize camouflage to ambush prey items by blending in with bark, rocks, or even flowers.

The Thomisidae family (Crab Spiders) get their common name from their flat shape and tendency to **hold their front legs** out and up much like a crab will hold its pinchers.

Even though they are called crab spiders, they actually can **walk sideways, forwards, or backwards** with relative ease.

Crab spiders tend to be somewhat flat bodied, with their **first two pairs** of legs being **longer and stouter** then their back two pairs. They also have eight eyes, and can come in a variety of colors. Some are **very drab** looking, usually have brown or gray colors and patterns, while others are **incredible vibrant**, almost neon, and can have yellow, green, white, orange, or even purple colors and patterns.

Crab spiders tend not to spin webs, nor do they actively hunt their prey, but instead **wait in ambush** for it to wander near. Their color helps determine where that is. Darker colored spiders tend to wait on bark or rocks, while lighter colored ones wait on flowers or leaves.

It is not uncommon for crab spiders to **remain for days**, possibly weeks, in the same spot waiting for prey to arrive.

Crab spiders tend to **specialize on flying insects**. Some of their common prey items include bees, wasps, flies, mosquitos, moths and beetles.

Despite eating a few bees, crab spiders are **considered to be beneficial** to humans because of the number of other pest insects they eat.

It is not uncommon for crab spiders that catch a lot of prey items to **hang the extras** below their hiding places to save for later.

Some scientists believe that crab spiders venom tends to be **more potent** than some other types of spider. This potency allows the crab spiders to **quickly paralyze** larger and tougher prey items, such as bees. However, crab spider's venom is still **not medically significant** to human beings.

One of the crab spiders most commonly encountered in Utah is the *Misumena vatia* (miz-YOU-men-uh VAY-tee-uh), commonly called the Goldenrod Crab Spider. This spider is often found hiding in flowers waiting for its prey to arrive.

The goldenrod crab spider can actually **change its color** to match its surroundings, going from a pale white to a bright yellow and sometimes even to a bright green. It takes the spider about 2-3 days to complete the color change.

Crab spiders eat their prey similar to cobweb weaver spiders. As in they both **vomit their digestive fluids** into the holes made by their fangs. After the digestive fluids have broken up the majority of the muscles and internal organs they **drink** the resulting soup back up with their **chelicera**. Often times all that is leftover of the prey item is a hollow shell.

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