

# GO! wild

Photos - Landscape © Terry Wright/Refuge Visitor © Michael Mauro / Prairie Dogs © Ron Singer



Visit - Rocky Mountain Arsenal  
National Wildlife Refuge  
For information and hours call:  
303 289-0930  
Visit the web at:  
<http://rockymountainarsenal.fws.gov>

## ISSUE 2:

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The National Wildlife Refuge System  
is the only network of federal lands  
dedicated to wildlife conservation.



# ROCKY MOUNTAIN ARSENAL NATIONAL WILDLIFE REFUGE

part of the .....

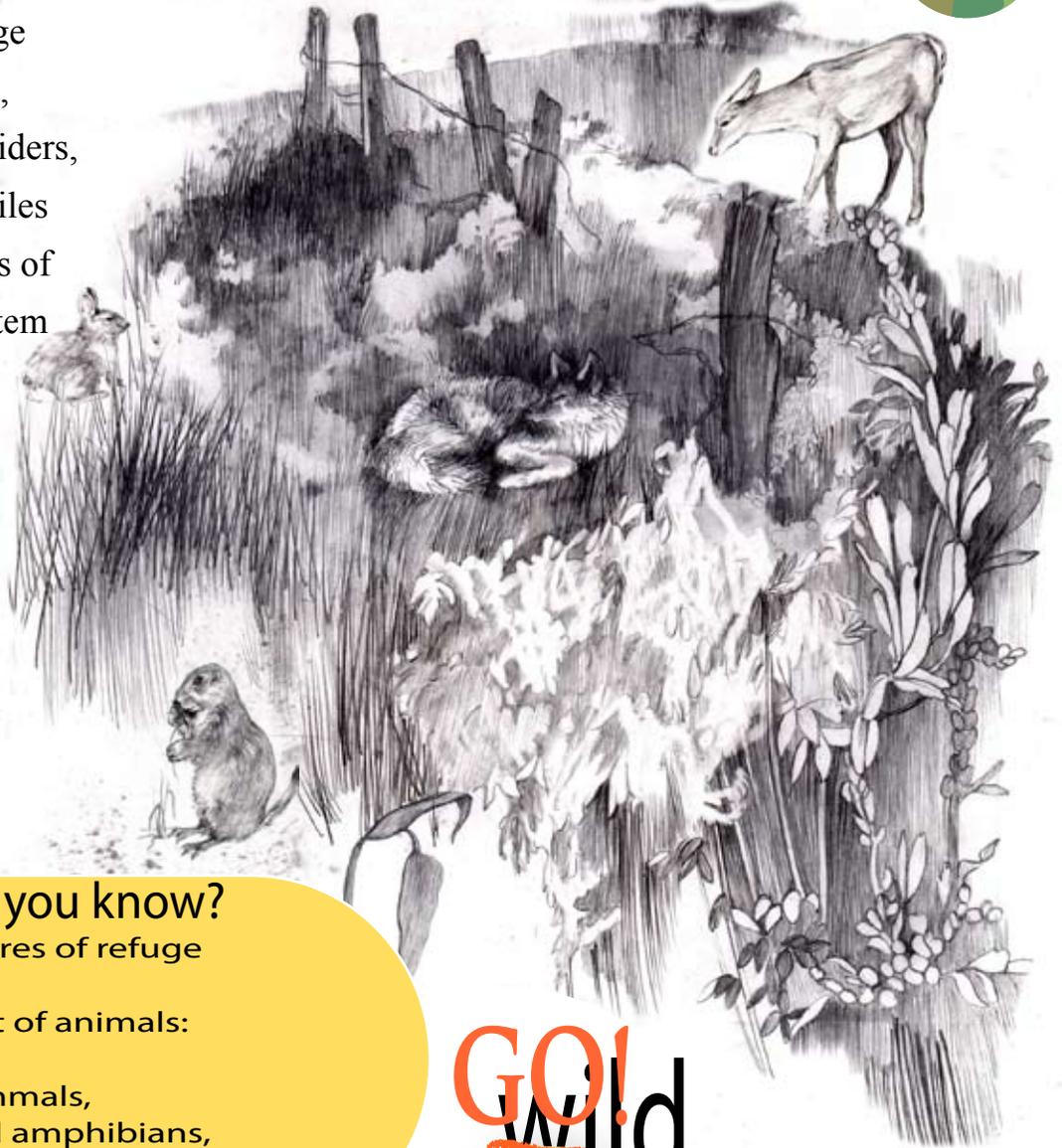
National Wildlife Refuge System

## EVERYTHING IS CONNECTED TO EVERYTHING ELSE!

The Refuge may look like nothing but a sea of grass, but its prairie ecosystem is an extraordinary place. Approximately 330 species make the Refuge their home including plants, thousands of insects and spiders, scores of birds, tons of reptiles and amphibians, and dozens of mammals. A prairie ecosystem includes all the living parts -- plants and animals-- and all the non-living parts -- sun, water, fire, soil, and nutrients.



Community Ecosystem



### Did you know?

There are 93 million acres of refuge in the U.S.

They are home to a lot of animals:

700 kinds of birds

229 kinds of mammals,

250 reptiles and amphibians,

200 fish,

and uncounted insects!

**GO!**  
wild

# EVERYTHING IS CONNECTED



Organism



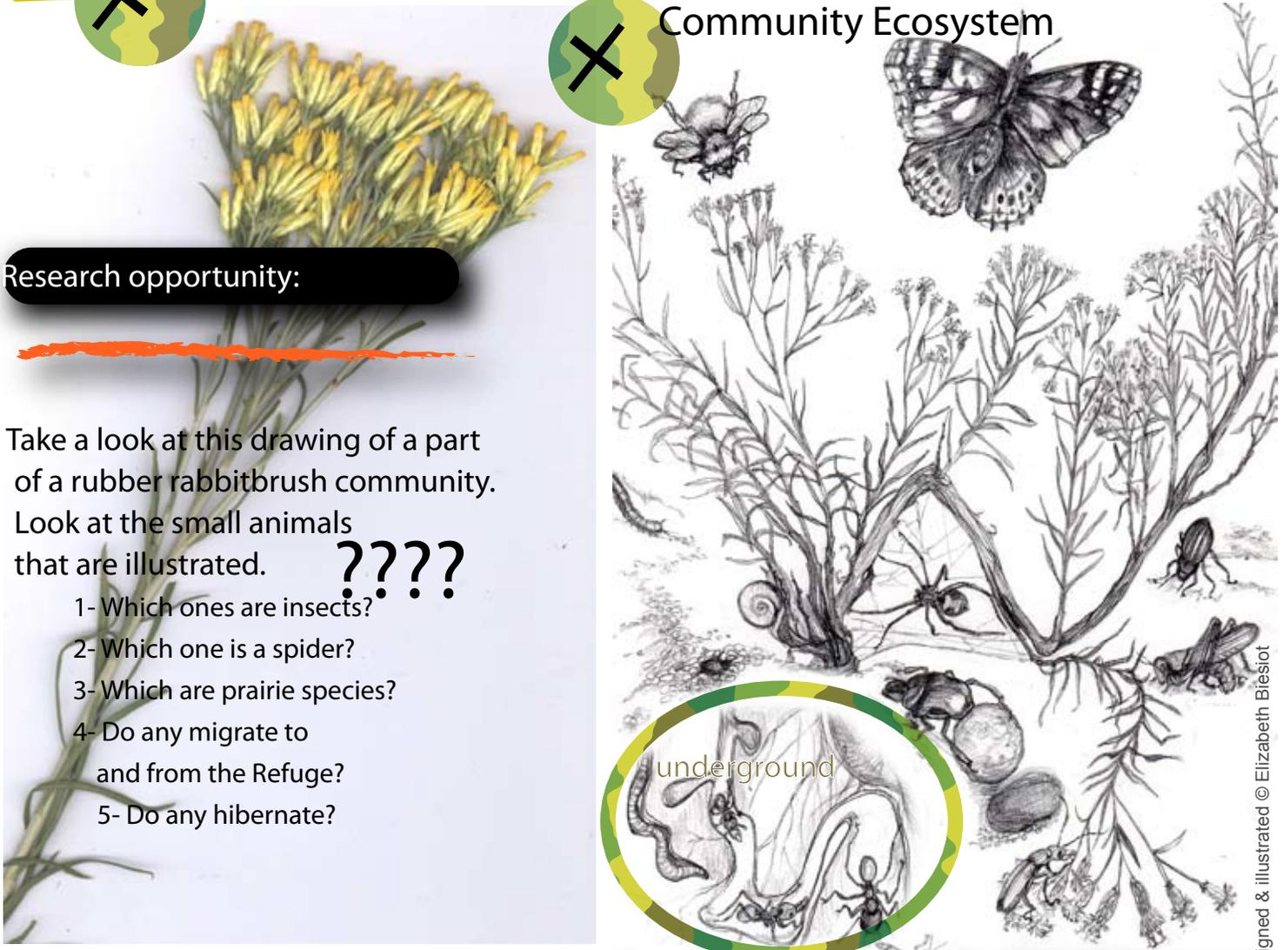
Population

Community Ecosystem

## Research opportunity:

Take a look at this drawing of a part of a rubber rabbitbrush community. Look at the small animals that are illustrated. **????**

- 1- Which ones are insects?
- 2- Which one is a spider?
- 3- Which are prairie species?
- 4- Do any migrate to and from the Refuge?
- 5- Do any hibernate?



# Black-tailed prairie dogs

There is not much rainfall or water in the shortgrass prairie, so we don't drink any! We get the water we need from the plants we eat.

are tough, social animals that live in and around burrows, deep within the prairie soil. They play a very important role in supporting other prairie organisms. Prairie dogs are what biologists call a "keystone species" because 200 other species

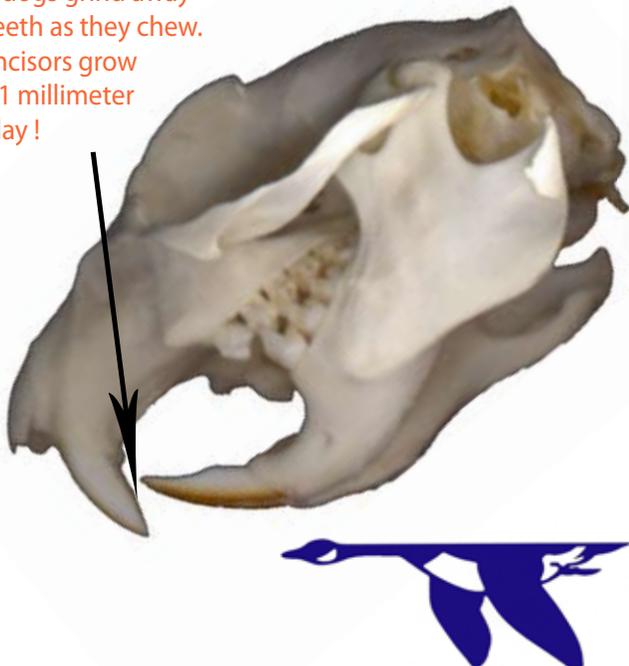
rely on them for **their** existence. In 1804, an estimated 5 billion wild prairie dogs lived throughout the North American continent's vast prairie! Today less than 2% remain, because of pollution, unnecessary hunting and trapping and destruction of the prairie habitat caused by human building and development.



RON SINGER USEFWS

- J Males & Females
- I light brown sandy color
- I black-tipped tail
- I 14 to 17 inches long
- I weigh 2 to 3 pounds
- I live from 5 to 8 years
- I sharp teeth
- I small ears

Prairie dogs grind away their teeth as they chew. Their incisors grow about 1 millimeter everyday!



Title -  
Write the name of the animal.

GO!  
wild  
poetry:

- Line 1 - Write one word that describes the animal.
- Line 2 - Write two words that describe what it looks like.
- Line 3 - Write three words about how the animal moves.
- Line 4 - Write two words about where it lives.
- Line 5 - Write another word that describes your animal.

## How Many?

If you were born with prairie dog teeth, assuming you do not grind YOUR teeth, how long would it take for them to grow 2 centimeters ?

Hint: There are 10 mm in 1 cm.

## Did you know?

Settlers called these critters "dogs" and "sod poodles" because of their bark-like calls. In Spanish, they are called "los perros de la padera" meaning dogs of the prairie.

**P**rairie dogs are not really dogs, they are members of the squirrel family. These ground-dwelling critters burrow a series of tunnels deep into the ground – called towns. Burrows are much like your homes. They have front and back doors, toilets, listening posts, sleeping quarters, and storage rooms. Each prairie dog has a specific job to do within the town. A typical day is spent looking for food, interacting with others, maintaining burrows and scouting for predators.

**Research opportunity:**

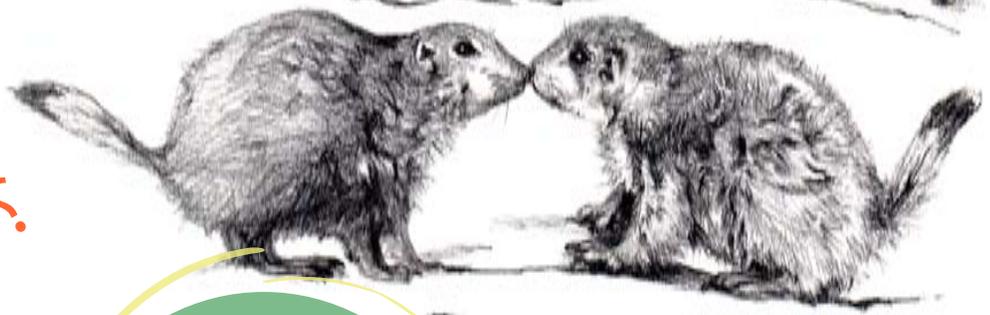
Take a trip to Rocky Mountain Arsenal National Wildlife Refuge or a nearby prairie dog town to observe the “town” residents. Discover what species rely on the prairie dog and their town for:

- Food
- Shelter
- Safety

chattering & playing ?



all clear yipping ?



kissing

Prairie dogs don't let strangers into their homes, so they "kiss" & "hug" when they meet to identify each other as family.

How do you greet YOUR family?

**10,000** black-tailed prairie dogs make the Refuge their home. They are very social and have lots of calls. They **bark, chirp, yip** and **chatter**. If danger is detected, a “lookout” barks and whistles to warn the others. All-clear is called by jumping into the air and **yipping**.

designed & illustrated by Elizabeth Biesiot



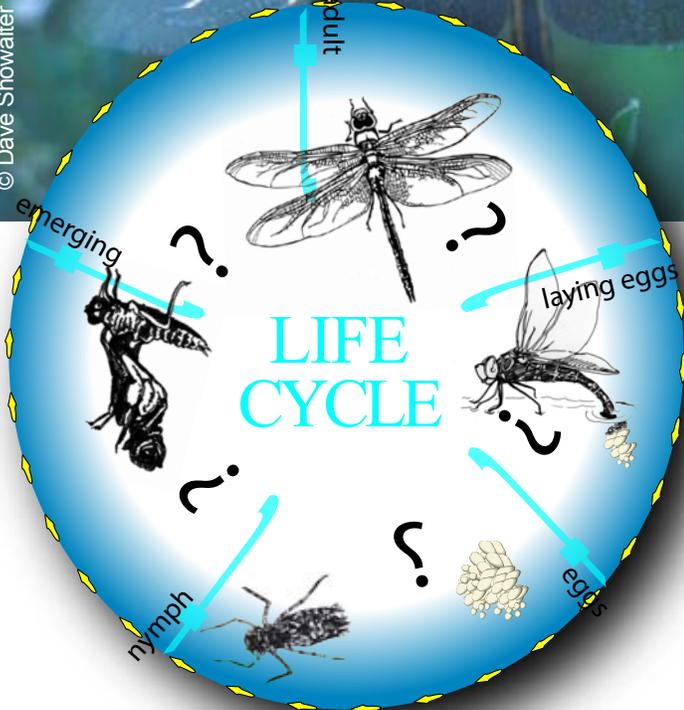
I can beat my four wings at different speeds and hold them at different angles. So - I can fly in any direction & hover in place like a helicopter.

**Dragonfly** eggs, laid in the water or mud, hatch and tiny alligator looking insects called nymphs emerge. The nymphs go through a series of stages, each larger than the last. When they are fully developed, nymphs will crawl out of the water and up something

like a plant stem. The back of the nymph splits open and the adult emerges. Before the adult can fly, its exoskeleton and wings must harden. For the next several hours they are lucky to escape detection by predators – like hornets and birds. If they survive, the dragonfly suddenly darts away to pursue prey including other dragonflies!



© Dave Showalter



**How Many?** If 1000 dragonfly eggs are floating at the edge of Lake Mary and a blue gill fish eats 70 eggs, a northern leopard frog devours 27 eggs and a great blue heron scoops up and eats 403, how many eggs are left for nymphs to develop from?



**Did you know?**

Very close ancestors of the dragonfly were buzzing around almost 300 million years ago!

That means they were around 100 million years before dinosaurs trooped around the earth!

How many nymphs will survive metamorphosis to become dragonflies; if 12 are eaten by hornets and 2% are eaten by red-winged black birds?

Insects are the most successful animal on earth. In the whole wide world, including Antarctica, scientists have discovered over 1 million different known species of insects and some estimate that there might be as many as 10 million, and over 5,000 are different kinds of dragonflies. Dragonflies are found in every country on the planet. In North America 450 species of dragonflies make their home and on Rocky Mountain Arsenal National Wildlife Refuge more than 20 different types have been spotted flying above Lake Mary and resting on the ropey rails of the floating boardwalk.

**Research opportunity:**

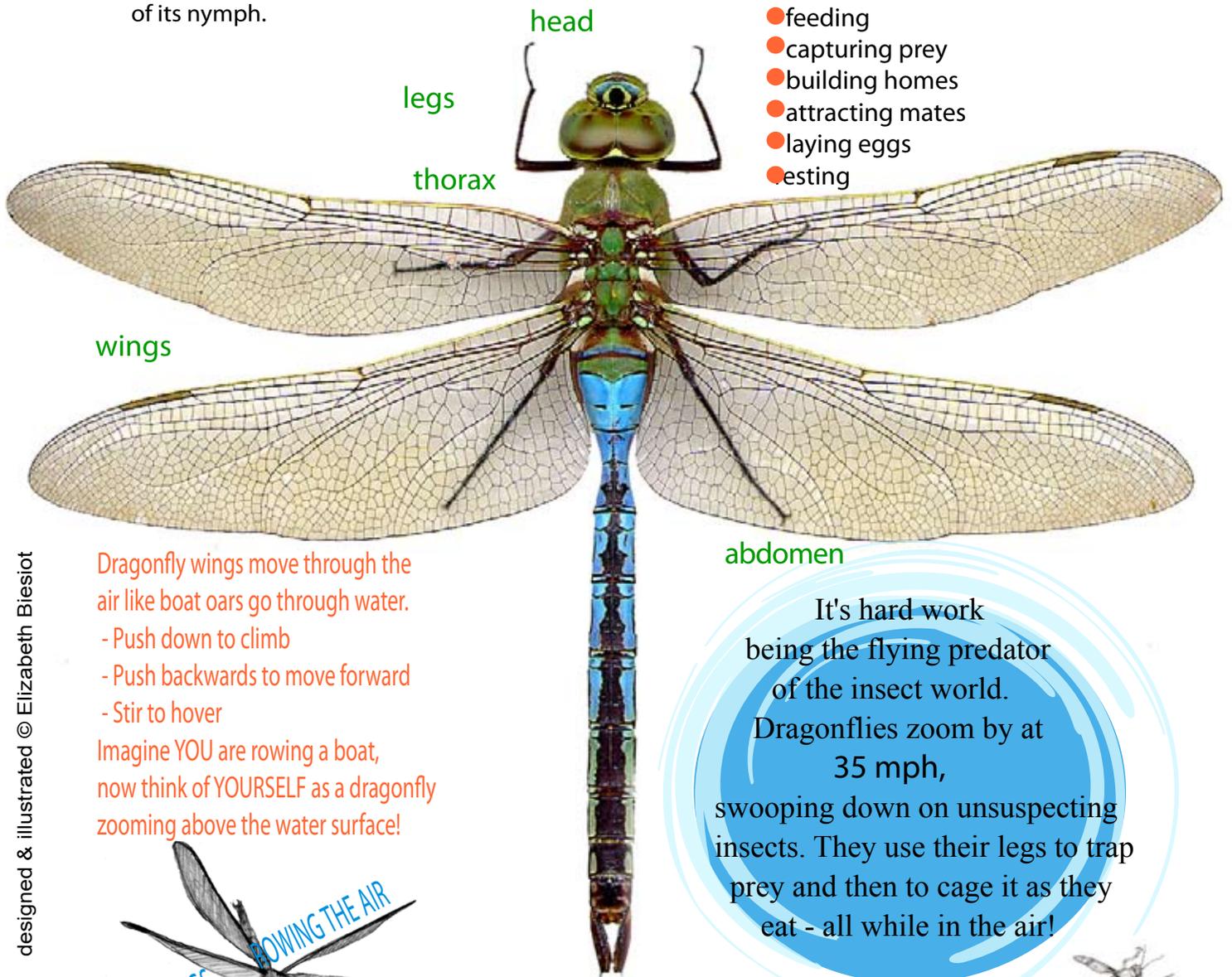
Check out this awesome website:  
[stephenville.tamu.edu/~fmitchel/dragonfly/emergen/index.html](http://stephenville.tamu.edu/~fmitchel/dragonfly/emergen/index.html)

See pictures of a dragonfly emerging from the exoskeleton of its nymph.

Go outside and observe the busy world of insects!

Look for insects:

- feeding
- capturing prey
- building homes
- attracting mates
- laying eggs
- resting



Dragonfly wings move through the air like boat oars go through water.

- Push down to climb
- Push backwards to move forward
- Stir to hover

Imagine YOU are rowing a boat, now think of YOURSELF as a dragonfly zooming above the water surface!

**abdomen**

It's hard work being the flying predator of the insect world. Dragonflies zoom by at 35 mph, swooping down on unsuspecting insects. They use their legs to trap prey and then to cage it as they eat - all while in the air!



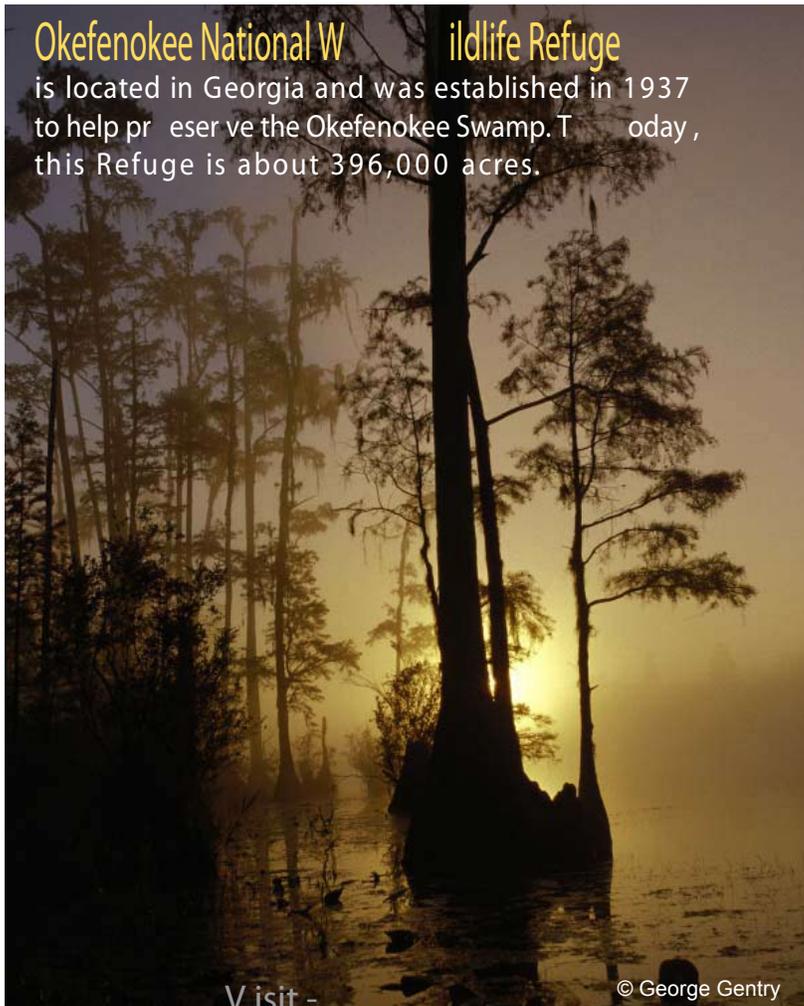
carnivore - exoskeleton - abdomen - thorax - antenna



Like Rocky Mountain Arsenal National Wildlife Refuge, Okefenokee has open prairie habitat. But it is a swamp and its "prairies" are wet year-round. Carnivorous (meat-eating) plants, wading birds, ducks, alligators and other reptiles, lots of amphibians, bobcats, raptors, white-tailed deer, black bears, songbirds and many more neat animals and plants depend on this swamp for their survival.

### Okefenokee National Wildlife Refuge

is located in Georgia and was established in 1937 to help preserve the Okefenokee Swamp. Today, this Refuge is about 396,000 acres.



Visit -

© George Gentry

<http://okefenokee.fws.gov/>

discover

Okefenokee

National Wildlife Refuge



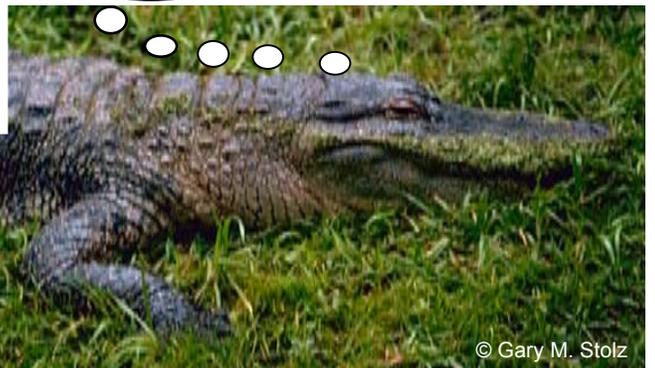
© James Henderson

We are a plant that can trap and digest insects!



© David Linden

How can you tell if I'm an alligator or a crocodile?



© Gary M. Stolz

## TEACHERS Take a walk on the wild side!

Learn how to use the "Home is Habitat" curriculum to lead your own field trips at Rocky Mountain Arsenal National Wildlife Refuge. Each activity is correlated to the Colorado Model Content Standards.

