Florida Scrub FOOD CHAIN

NASA

Our planet is full of living things.

The places where living things live are called *habitats*.

There is life in the wetlands,

in creeks and rivers,

in forests and lakes,

and prairies.

There are living things thriving
on top of mountains,

surviving the freezing winters of the north,

and making their homes in the deserts.

At Archbold Biological Station
scientists study the *ecosystems* in south-central Florida,
part of the Northern Everglades.

K. Main

Ecosystems

include all the living things and non-living things that interact in habitats.

living things + nonliving things
= ecosystem

Can you name any parts of Lake Annie's ecosystem?

Archbold scientists study the living things in Florida's pine forests,

on cattle ranches,

K. Main

in lakes,

K. Main

in the Florida dry prairie,

and the rare and endangered Florida scrub.


K. Main


D. Angell

The Florida scrub has memorable plants like palmettos,

scrub oaks, rare flowers,

and the Prickly Pear Cactus.

The Florida scrub has
Indigo Snakes, Gopher Tortoises, and American Alligators.

The Florida scrub has Florida Scrub-Jays,

Bobcats,

frogs, toads, rabbits,


R. Tucker


D. Angell


J. Layne

wolf spiders,
honey bees,
colorful beetles,


R. Tucker


D. Angell


D. Angell

mushrooms,

K. Givens

K. Givens

puffballs,

J. Layne

panthers, and many more living things!

All organisms need energy to live,
which they get from their food.

A food chain shows us
who eats who in an ecosystem.

Does anyone know the names of the categories scientists use to describe the plants and animals in food chains?

Did anybody think of . . .

Producers?

Consumers?

Decomposers?

D. Angell

Producers

Make their own food from the energy in sunlight.

All green plants are producers.

What process do they use to do this?

It is called
photosynthesis.

This is a special chemical reaction that uses sunlight, water and carbon dioxide from the air to make food molecules, right inside their own cells.

The energy from this food helps them grow, and is also stored in all the parts of their bodies.


K. Main

Can you name some living things that are Producers?

1. _____
2. _____
3. _____

D. Angell

Imagine if we could make food like the producers, using only sunlight, air, and soil.

Humans are consumers.

Consumers includes all living things that cannot make their own food, so they must eat to survive.

Every animal you can think of is a consumer.

Deer and cattle eat plants.

K. Main

Many snakes, frogs and lizards eat bugs.

J. Layne

D. Angell

D. Angell

What might this spider eat?

1. _____
2. _____
3. _____


R. Bowman

This Gopher Tortoise likes to eat which of the following?


S. Denton

Prickly Pear Cactus


N. Deyrup

Leopard Moth


N. Deyrup

Gopher Apple


R. Bowman

This Gopher Tortoise likes to eat which of the following?


S. Denton

Prickly Pear Cactus

Gopher Tortoise's are **herbivores**, so they only eat plants.


N. Deyrup

Gopher Apple

The last link in the food chain is

Decomposers.

D. Angell

Decomposers are Consumers with a very important role in ecosystems.

They take care of the dead parts of plants and animals, recycling their bodies, allowing the food chain to start again.

D. Angell

Did you ever wonder how a tree can grow and grow and grow in a forest, and the nutrients in the soil never seem to run out?

It is because decomposers, like bacteria and fungi, recycle the old leaves.

R. Lavoy

K. Givens

K. Givens

If we didn't have Decomposers, the world would be covered with the dead bodies of plants and animals.

Without decomposers, the soil would be empty sand.

If there were no nutrients for the producers to use, there would be nothing alive anywhere.

Let's work on a food chain using one of the Florida scrub's most famous animals, the Florida Scrub-Jay.

P. Carmichael

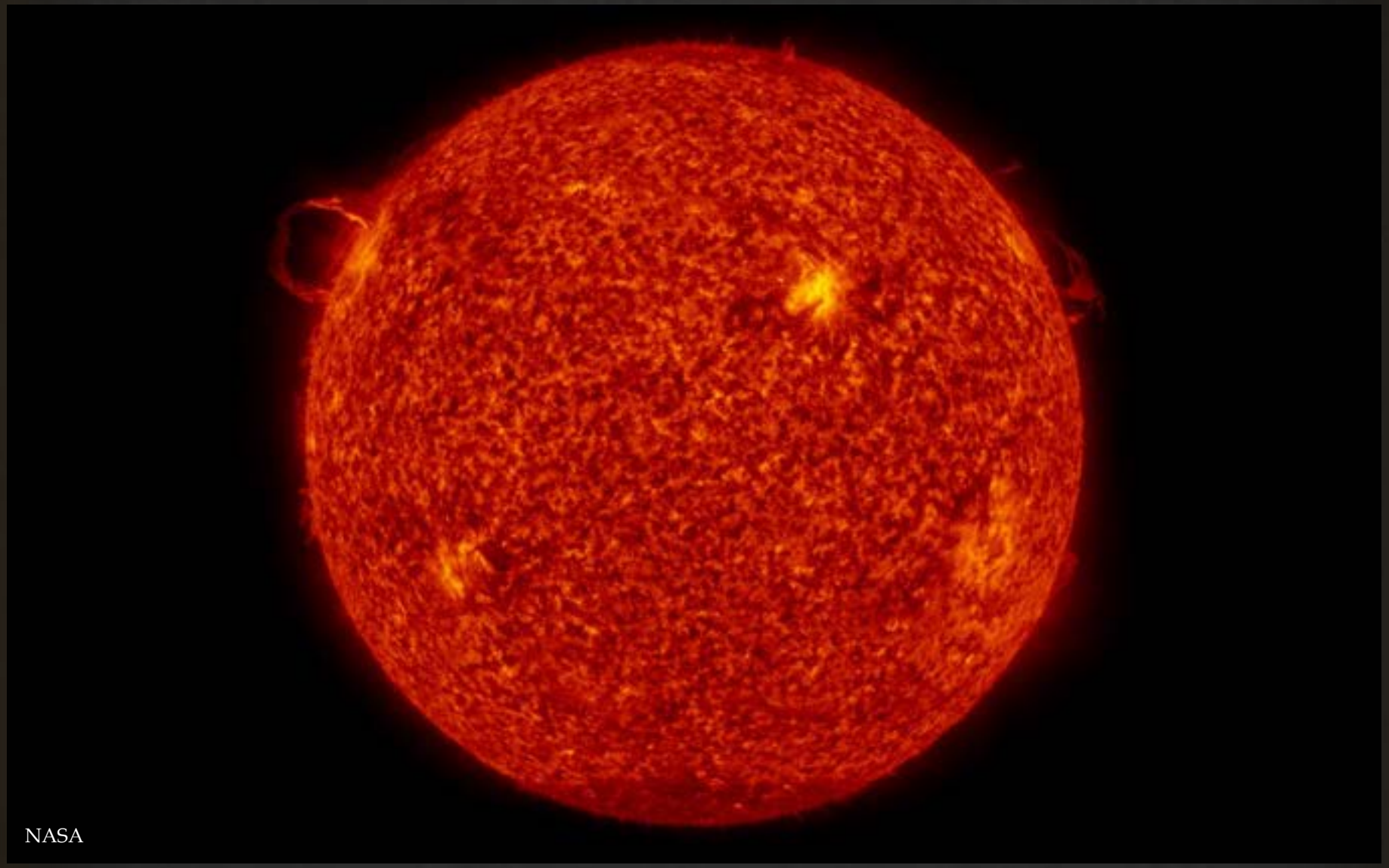
Sometimes it catches a grasshopper that is hiding in the grasses.

D. Angell

Grasshoppers and other insects give the Florida Scrub-Jay energy to stay alive, to fly from place to place, to build a nest, mate and lay eggs, to do all the things it must do to stay alive.

M. Deyrup

Where does the energy in the body of the grasshopper come from?



NASA

It comes from the sun.

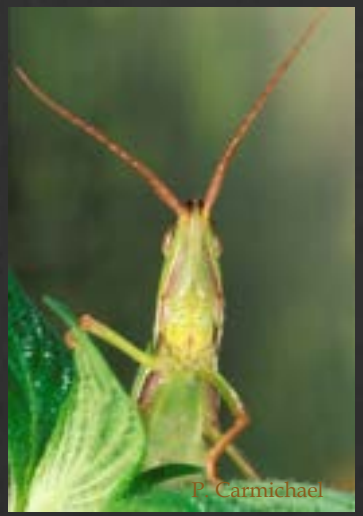
The Florida Scrub-Jay got energy from a grasshopper,
which got energy from grass,
which got energy from the sun.

If the Scrub-Jay is not alert it may become the prey of a predator like this hungry hawk.
When this happens, the food chain grows longer.

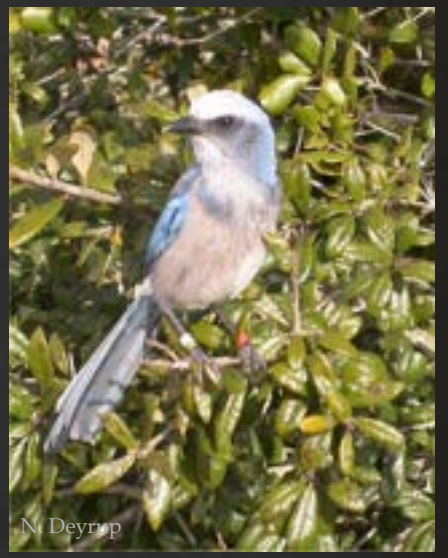
Sun

Hawk

Grass



Grasshopper



Scrub-Jay

Now that you know how food chains work, try making your own!

If you make more than one,
try connecting them to make a food web!

Soon you will see how interconnected everything is in an ecosystem.

That is why scientists have to study all of it!

Come and visit us at Archbold Biological Station
and learn more about the *ecosystems* in South-central Florida,
part of the Northern Everglades!

ARCHBOLD BIOLOGICAL STATION