

Howling Herald



Autumn 2007

Newsletter for Northern Michigan's Young Naturalists

The Wonder of Wings!

Animals in flight have long captured the admiration and awe of people. Birds, bats, and insects seem to magically soar through the air! Wings are what make it happen.

Flying is a great way to get around! Critters with wings can fly directly to a destination instead of having to wade through streams, climb steep hills, or jump over fences, etc. Winged animals can reach food others can't and can build nests high up in trees. Flying also helps them escape many predators.



Birds' wings have muscles and bones, just like your arm, and also bend at the shoulder, elbow, and wrist. In comparison to yours, their hands are very long and some fingers are joined together. Birds have fewer bones than mammals and reptiles and their bones are lightweight, often hollow, so their muscles can lift their bodies into the air. Although most birds generally fly under 500 feet or so, birds migrating a long distance can reach heights of 20,000 feet!



Bats' wings have the same bones as a human arm, but they have four very long fingers. Their wings are made out of skin that stretch all the way from their fingertips to their ankles. Bats wings help them zoom around up to speeds of 30 mph to help them catch as many as 6,000 mosquitos in one hour!

Insect wings, both delicate and strong, have no muscle or bone and are made of the same material that makes up their hard outer skin. Their flight is powered by strong muscles in the thorax. Approximately 90% of adult insects fly and most that fly have two pairs of wings. Veins help strengthen and support the wings.

The special shape and design of a wing is called *airfoil*, which allows for the lift and propulsion required for flight. An airfoil is curved on the top and flatter on the bottom. Air moving over the top has to travel farther than the air moving across the bottom, which means it travels faster and causes a suction that pulls the wings up. See page four for a diagram of an airfoil and an activity you can do to learn how it works.



Keep an eye out for things with wings this fall and enjoy the mystery of flight!

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Club News

Summertime Fun with the Young Naturalist Club!



Alison introduces a group of young naturalists to the activities planned at Petoskey State Park for the *Explore a Shore* program on July 25th.

This Summer...

...we visited three nature preserves, a state park, and a township park. Explorations included finding terrestrial insects at the Stutsmanville Bog Preserve, catching aquatic bugs at Spring Lake Park, trekking into the woods and checking out the dunes at the Petoskey State Park, playing outdoor games at the Raven Ridge Preserve, and hiking through the woods at the McCune Preserve.



backswimmers were found in a pond



a hardwood forest was explored



sweep nets were used to catch critters in a field



stories about Great Lakes shipwrecks were read

**YOU'RE INVITED TO
PICNIC - VENTURES
FOR YOUNG NATURALISTS**

**ADVENTURE, FUN, AND FOOD THROUGH THE
SEASONS IN THE GREAT OUTDOORS!**

Join Little Traverse Conservancy
at Spring Lake Park for a
Fun Fall Picnic - Venture on
October 13, 2007.

10:00 a.m. - 12:30 p.m.



Seeds are everywhere this time of year! We'll start this excursion by hiking through Spring Lake Park, continuing on the north country trail and then through Little Traverse Conservancy's South Round Lake Preserve. We'll observe signs of autumn and collect seeds while learning about the different ways they travel. We'll return to Spring Lake Park for lunch and finish by creating a seed mosaic. Please bring a sandwich and drink. Other lunch items will be provided.

Space is Limited. Registration is required. Please contact Melissa at the Conservancy office to sign up (231-347-0991).

Save the Dates for the Next Two Outings:

Winter Picnic-Venture: February 16, 2008

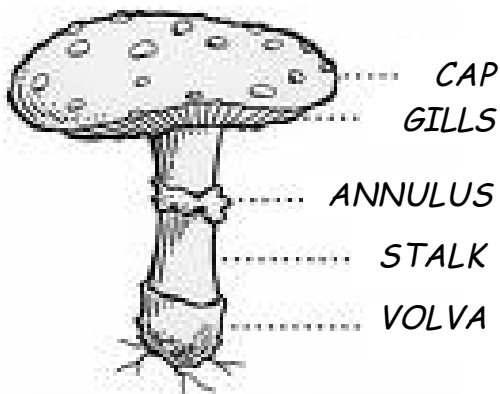
Spring Picnic-Venture: May 24, 2008

Nature Nook

Learn About It...



What is neither plant nor animal, can be harmful or helpful, appears above ground though its main parts are underground, and some of its kind are used by chefs around the world? If you guessed **MUSHROOMS**, you're right! Mushrooms are actually the fruiting body of FUNGI. (Fungi are in a kingdom all their own and are multicellular organisms that mostly absorb food from dead plant material and sometimes dead animal matter. They recycle nutrients by breaking down these dead organisms and helping them turn into soil). Mushrooms are the reproductive part of fungi that we see above ground and they come in many shapes, sizes, and colors. They produce spores, which serve the same purpose as seeds in plants, allowing more fungi to be created.



CHECK THIS OUT!

The world's largest living thing is a honey mushroom found in the Malheur National Forest of eastern Oregon. It is 3 feet underground, thought to be 2,400 years old and covers 2,200 acres, which is about the size of 1,665 football fields!

Mushrooms are fun to find and observe, but have you heard of portabellas, shitakes, or morels, which are some choice mushrooms many people love to eat? They are found in grocery stores or out in the wild. While the store bought mushrooms are safe to eat, you have to be very careful when picking mushrooms outdoors. Many are edible, but some are also poisonous and can cause sickness or even death. So always make sure an expert has identified a mushroom as safe before you eat one from your backyard, nearby park, or local natural area!

Amanita

Turkey-tail



Waxy caps



Puffball



Chanterelle





into some Fun!

Things to Look For:

autumn wildflowers
monarch butterflies on the move
squirrels collecting food seeds
birds heading south
colorful leaves

Activity Corner

Things to Do:

-  Visit an orchard or farm market with your family and collect some apples.
-  Rake leaves into a big pile and jump into them.
-  Find a new trail to take a hike on. Bring family or friends with you.



Make a Mushroom Spore Print

Mushrooms produce spores, which are very tiny. You can collect a bunch of spores that make a pattern by making a spore print from a mushroom. Scientists use spore prints to help identify mushrooms.

Do this project with adult supervision. Please be very careful when collecting or using mushrooms. Do not taste or eat any mushroom unless an EXPERT has identified it as safe. Also, always wash your hands after handling mushrooms.



- Find a gilled mushroom.
- Remove the stem and place the mushroom flat side down on a sheet of dark construction paper.
- Cover the cap with a small bowl or container.
- Leave the covered mushroom for several hours.
- Remove cover carefully and check out the pattern left on the paper.

To help understand how an airfoil works and wings fly, try this simple activity:

- › Find a small piece of notebook paper or cut a piece of paper approximately 2" x 8".
- › Hold the top two corners of the strip of paper between the thumb and first finger of each of your hands.
- › Hold the paper about 4" - 6" in front of your mouth.
- › Blow towards the paper until the free end lifts up.

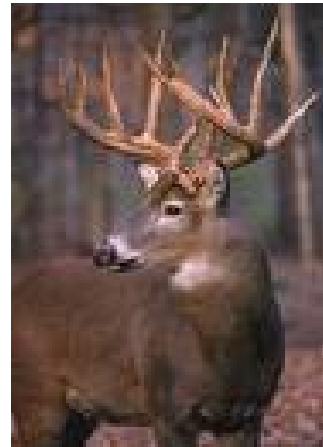


In the airfoil diagram, the blue arrows represent *air flow* the orange arrows represent *lift*.



Antlers versus Horns

Sometimes thought of as the same thing, antlers and horns are actually quite different. Antlers are bony outgrowths from the head. They are covered with highly vascular skin called velvet, which supplies oxygen and nutrients to the growing bone. Antlers are solid, have branches, and are shed each year. Animals with antlers include deer, elk, and moose. Horns are stiff, pointed projections of skin that are often spiral shaped. Horns are hollow, do not branch, and are grown once in an animal's lifetime. Animals with horns include cows, sheep, goats, and buffalo.



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