

NASA Langley's Nature Series



To learn more about LaRC's flora and fauna, the Environmental Office publishes flyers that provide information on featured wildlife stars. **We put together this booklet of our most recent flyers as part of our 2020 Virtual Earth Day Expo!** Make sure to visit our [Natural Resources page](#) where you can learn more about other wildlife stars found at LaRC.

LaRC Nature Series

Green Treefrog

LATIN NAME: *Hyla cinerea*
CLASS: Amphibia
SPECIES STATUS: Least Concern



Found in central and southeastern **United States.**

Drinks and breathes through its thin **SKIN.**

Cold-blooded, meaning their **TEMPERATURE** changes with their surroundings.

LIVES in forested wetland areas and along the edges of lakes, ponds and streams.



Green in color with light **STRIPES** on the sides. Grows 1 to 2.5 inches long.

COLOR can change depending on temperature or lighting.

Because of their aquatic and terrestrial life stages, they are excellent **INDICATORS** of environmental health and water quality.

BREEDING occurs from March-October in southern areas and from April-September in northern areas.

The male breeding call is a nasal, bell-like "queenk" repeated **up**



to 75 times a minute.



Diet consists of **beetles, caterpillars** and other small **invertebrates.**



Breeding season:

THOUSANDS of males gather and call out to attract females.

Females can lay up to **400 EGGS** in shallow water with aquatic plants.

Tadpoles hatch in about **1 week** and become frogs in **2 months.**



Did You Know?



- Because of their specialized skin, coming into contact with **CHEMICALS**, such as pesticides, is **FATAL FOR THEM.**
- Habitat loss, exploitation and diseases are leading causes of a worldwide amphibian population **DECLINE**, where **41%** are facing **EXTINCTION.**

LaRC participates annually in **FrogWatch USA** in partnership with the Virginia Living Museum. **Find out more about conservation efforts [HERE!](#)**

For any wildlife-related concerns, please call the Environmental Office (Peter Van Dyke) at 864-7517. For more outreach items visit environmental.larc.nasa.gov

Data obtained from the National Wildlife Federation and the National Geographic.

Wild Turkey

LATIN NAME: *Meleagris gallopavo*
NUMBER OF SUBSPECIES: 6
MALE WEIGHT: 11 - 24 lbs
SPECIES STATUS: Least Concern

Turkeys DWELL in forests, savannahs, grasslands, and even wetlands.

With a WINGSPAN of up to 6 feet, turkeys are the largest birds in open forests.

Males defend a HAREM OF 4-5 FEMALES during the breeding season.

Turkeys are highly SOCIABLE animals, and can exhibit OVER 20 distinct vocalizations!

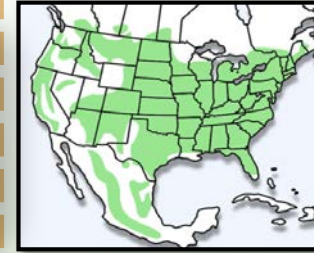
MALES are called "toms" or "gobblers"; FEMALE turkeys are called "hens".

A male's head changes color based on MOOD, turning blue, pale white, or red.

DIET consists of seeds, fruits, nuts, insects, and even small reptiles.

The distinctive "GOBBLE" is produced only by males, and can be heard a mile away.

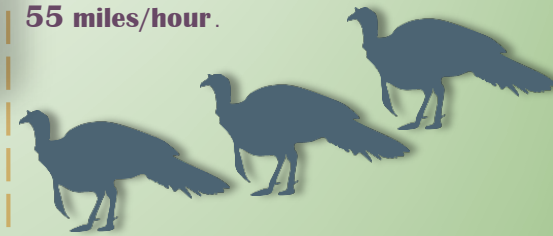
Young birds, called "POULTS", leave the nest in 24 hours to forage for insects in open areas.



Found in Canada, United States and Mexico. Introduced in Hawaii and New Zealand.



Turkeys are fast! They can RUN at speeds up to **25 miles/hour**, and FLY at **55 miles/hour**.



A GROUP of turkeys is called a "gang", "posse", or "flock" of turkeys.

Nesting:

Females lay **8 to 20 eggs** that are white or buff and covered with brown spots.



The female does all the incubation and chick-rearing. Incubation ranges from **27 to 28 days**.

- Due to hunting, wild turkeys were on the brink of extinction in the 1930s with only approximately **30,000 IN THE WILD**.
- Thanks to **CONSERVATION** efforts, there are an estimated **7 million** wild turkeys in the U.S!

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Data obtained from the National Wild Turkey Federation (NWTF) and the National Geographic



VIRGINIA OPOSSUM

LATIN NAME: *Didelphis virginiana*
SPECIES STATUS: Least Concern
SIZE (from nose to tail): Avg. 2.5 FT
LIFESPAN: Up to 2 years in the wild

ACCOMPLISHED TREE CLIMBERS-
they are aided by a **prehensile tail** that is used as an extra limb, and opposable thumbs (called **hallux**) on their rear limbs, both specialized for gripping.

NATURAL IMMUNITY-
Opossums are mostly **immune to rabies**, likely due to having low body temperature.

SHARP MEMORY-
When tested for the ability to remember where food is, opossums **scored better** than rats, rabbits, cats, dogs!

PEST CONTROL- Opossums keep **rats** and **cockroaches** at bay by competing with them for food, and often killing them.



Photo by:
L. Scott Campbell

Opossums are **NORTH AMERICA'S ONLY MARSUPIAL**-mammals that carry and nurse their young in pouches-.

LYME DISEASE CONTROL-
Each opossum can eat over **5,000 ticks/season**. Which means, the more opossums in your area, the fewer ticks you'll encounter!

Diet includes carrion, rodents, insects, snails, slugs, birds, eggs, frogs, plants, fruits, and grains. An unusually high need for **CALCIUM** incites them to eat the skeletons of what they consume.

"PLAYING 'POSSUM"-
The comatose-like state is an **involuntary** reaction triggered by stress, and can last from a minute to 6 hours!

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* Data obtained from National Geographic and Animal Diversity Web



Wide range throughout Central and North America.

First observed by English colonists in Virginia, hence the **species name**.

POISON CONTROL

A molecule in opossum blood completely **NEUTRALIZES** the venom of nearly every type of snake found in their native range!



By isolating the molecule, an **ANTIVENOM** may be developed to help treat the **5 MILLION** snakebites that occur worldwide.



DEVOTED MOTHERS

Mother opossums give birth to under-developed offspring (called **JOEYS**) that are as tiny as **honeybees!** They carry the babies in their **pouch** until they're 2 months old, and then on their **backs** until they are old enough to fend for themselves.

NOT UGLY JUST ANCIENT

- Opossum **LINEAGE** was traced back to a sister group of marsupials, the peradectids, which lived at the time of dinosaur extinction (Cretaceous–Paleogene period).
- Research shows that all living marsupials **originated** in North America before spreading south. [Click here to learn more!](#)
- The evolutionary split of opossums from other marsupials occurred about **65 MILLION YEARS** ago. They've retained their ancient 'good looks' for tens of millions of years.

LaRC's **SOUTHERN** Nature Series **FLYING SQUIRREL**

LATIN NAME: *Glaucomys volans*
LIFESPAN: 3-5 years in the wild;
10-19 years in captivity!
SPECIES STATUS: Least Concern

More commonly **FOUND** in beech-maple, oak-hickory, and poplar forests.

Strictly **NOCTURNAL**. Extremely **ACTIVE** during Autumn nights as they're busy gathering food for winter.

Breeds **TWICE** a year, during early spring (February to March) and summer (May to July).

Communicates through **ULTRASONIC** frequencies (exceeds audible limits of human ears), and a variety of high-pitched "**CHEEPS**" that sound similar to that of a bird.

❖ By modifying the angle of **SPECIALIZED HAIRS** in the patagium, they generate **LIFT** forces that allow them to glide great distances even while hauling around hefty cargo, like an enormous pine cone!

❖ The main role of Southern flying squirrels in the local ecosystem is seed dispersal of not only hardwood trees, but also fruiting bodies of subterranean fungi. The fungi mycelia are **HIGHLY BENEFICIAL** for tree growth due to association with tree roots.



Photo by: Kim Taylor

Flying squirrels do not hibernate during winter. In order to **CONSERVE HEAT**, they nest together in big groups of 10-20 squirrels.

OMNIVORE with a diverse diet including nuts, acorns, seeds, fruit, insects, young mice, carrion as well as fungus.

Characterized by a loose membrane located between the wrist of the front leg and the ankle of the hind leg, known as the **PATAGIUM**.

Common **NESTING** sites include abandoned woodpecker holes, bird and squirrel nests, nest boxes, and occasionally attics.

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Found throughout eastern United States, as far west as the Great Plains. Small, isolated populations found in Mexico and Central America.

Until recently, only 2 North American species were **RECOGNIZED** -the southern and northern (*G. sabrinus*) flying squirrels-.

	Underbelly Fur Color	Length Range (mm)	Weight Range (g)
SOUTHERN 	White/cream	200-285	38-90
NORTHERN 	Grey	250-300	70-140

In **2017**, a 3rd North American species was **RECOGNIZED!** Named **Humboldt's** flying squirrel (*G. oregonensis*), they're similar in appearance to *G. sabrinus* but generally **smaller and darker**.

MORE THAN MEETS THE EYE!

In **2019**, researchers discovered that under ultraviolet light, all 3 species **FLUORESC**E in varying intensities of **PINK**. Hypotheses for fluorescence include night-time perception and communication, and mimicry as a mechanism to avoid predation (lichens and some owls are known to fluoresce).