

NATURE AFTER DARK

Lesson developed by: Sue Worstall, Summit County Master Gardener Volunteer

ACTIVITY OVERVIEW:

A nature appreciation activity to use as a 1:1 cart activity or with small or large groups, which encourages participants to learn about nighttime in nature and to consider the use of their senses in doing so.

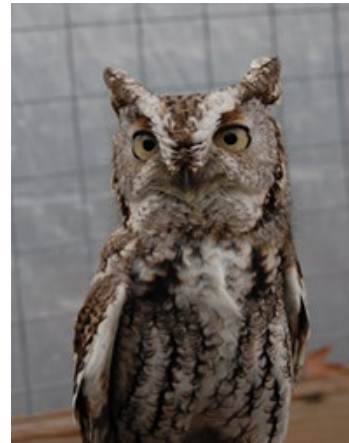
QUESTIONS:

- ❖ What does nocturnal mean? (A. Occurring or active at night)
- ❖ What animals can you think of that are nocturnal?
- ❖ Can you think of any plants that are more active at night?

THE 5 SENSES:

Animals that are active at night depend much on their senses for survival. Why do you think this is so?

- ❖ **Sight** – so the animal can see prey and hunt well in the dark. Some animals have bigger eyes or eyes that can see better. An example: the owl
- ❖ **Hearing** – to be able to hear other animals they wish to hunt or predators they wish to avoid. Their ears can be quite large, like on rabbits. Owls also have very large ears that are hidden under the feathers at the sides of their faces.
- ❖ **Touch** – Some animals, such as cats and mice, use whiskers to feel their way. Some have very soft feathers that are quiet when they fly.
- ❖ **Taste** – may not be able to see or smell well, so needs to quickly determine if what it is eating is safe. An example: the mole
- ❖ **Smell** – uses its keen sense of smell to find food in the dark. Example: raccoon. Also, snakes actually use their tongues for smelling!



Eastern Screech Owl, Blink at Quail Hollow State Park, photo by Jerry Salisbury, Summit County Master Gardener Volunteer

5 NOCTURNAL ANIMALS THAT LIVE NEAR US:

1. **Owl** – Have you ever seen or heard an owl? Many of us have seen owls at the zoo or photos of them, but we rarely see them outside because they are nocturnal. They are also camouflaged (their feathers blend into their surroundings) and they fly very quietly. We do sometimes hear them. What sound do they make? In Ohio, we mostly see Eastern screech owls, the Great Horned owl, and the Barred owl. Different types of owls have different nesting habits. Some are in tree hollows, others in abandoned buildings, but most build nests in trees where their feathers make them hard to see. They hunt insects, small animals and small birds. Some hunt fish. They swallow their prey (animals that are hunted and eaten by others) whole. They are far-sighted so usually hunt close to the ground. They have talons (very sharp claws) so they can grab and fly away with their prey.
2. **Bat** – Have you ever seen a live bat? They really are important and helpful to us because the eat mosquitoes and other insects. One small brown bat will eat up to 1,000 mosquitoes every hour! They hunt for several hours every night. This small bat can live up to 40 years. Bats use sound to find food and to avoid bumping into each other and other things while flying at night. They send out high-pitched squeaks and then listen for the echoes that bounce off nearby objects – this is called echolocation. Because they “see” in a different way, they fly higher, farther and faster than most nocturnal birds. They sleep by wrapping their wings around their bodies like a blanket.



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Photo courtesy of Ohio Wildlife Center

3. **Raccoon** - This mammal has been seen by most everyone, whether they live in a big city, suburbs or in the country. You may have even seen them out your room window! Raccoons leave their dens (homes) in hollow trees or elsewhere to rummage through trash cans, gardens for insects and pet dishes for food. They have a very good sense of smell and often find their way to food by smelling it. They have 40 teeth, some very sharp. They may also use their sense of touch to “see” what they’re doing – as when they fish by feeling around in shallow streams with their hands. In the winter, they may stay inside their homes until the weather turns warm again.



Photo courtesy of Ohio Wildlife Center

4. **Mouse** – Why do you think mice come out mostly at night? They do so because it is harder for them to be hunted by cats, fox and daytime raptors like hawks. But they are often successfully hunted at night by owls. Deer mice, the common outdoor mice, are shy and quickly find shelter if frightened. They have poor eyesight so rely on smell, touch and hearing. They are omnivores, eating plants and meat. They eat 20-30 times a night, eating a bit each time. Deer mice nest in old fence posts, tree hollows, woodpiles. They may come into garages and sheds.



Deer mouse, <https://www.inaturalist.org/photos/41190942>, no rights reserved (Randal, 2019)

Note: As an accompanying activity, there are several internet sites containing free nocturnal animal coloring pages.

5. **Earthworm** – Why do you think an earthworm is primarily a nocturnal animal? They need to stay dry so they avoid hot sunlight – the sun would dry out their bodies. The nightcrawler is the worm we usually see in the evening. Do you know why earthworms are of great help to gardeners? As they burrow or move through soil, the soil loosens and their digested materials called castings help fertilize it.



https://extension.umn.edu/sites/extension.umn.edu/files/earthworms_main.jpg, with permission

NOCTURNAL PLANTS



Evening primrose, <https://www.inaturalist.org/photos/42032121>, no rights reserved (Diana Foreman, 2019)

Do you know of any nocturnal plants? Most flowers are busy during the days. Bees, beetles, flies and other insects visit flowers to feed on them. These insects also carry pollen from one flower to another so they can reproduce and produce seeds. Many flowers actually close up their petals at night to keep their pollen dry during the damp nights. But some plants stay open day and night – or open up at dusk – to attract night pollinators such as moths and lightning bugs. These flowers are usually white or pale colors so they can be seen more easily in the dark. They may be tube-shaped so only the long tongues of the moths can reach the sweet nectar. These plants often have strong scents at night to attract pollinators. Honeysuckle, evening primrose, and nicotiana are examples.

Contact Information:

If you have any questions about this activity, please email mgsummitcounty@gmail.com. We hope you benefitted from this activity. Please let us know if you utilized this with a quick email to the above address. Please send your name, facility name, number of participants involved in this activity, and your feedback for improvement so we can measure our impact and improve this product. Thank you!