

What Does this Species Look Like?

Size: 8 inches

Weight: 40-50 grams

Color: Brownish-orange above, white with large dark spots below

General: Slightly smaller than the American robin

Usually Found: Forests, riparian zones

Did You Know?

- The wood thrush (*Hyllocichla mustelina*), though one of the most common birds of the East, is suffering from population decline linked to deforestation and acid rain.
- Since 1996, the overall wood thrush population has decreased by 43%.
- The wood thrush is usually not seen outside of the deep forest.
- Thrushes have a complex song box that allows them to sing two notes at the same time and harmonize with their own voice.
- A wood thrush may return to the same breeding area each year.

What am I Observing?

The timing (date) of:

- The first time the bird is seen
- The first time the bird is heard singing

Why Collect this Data?

This species is being monitored as a part of the Eastern PA Phenology Program to determine if this animal is impacted by environmental changes.

How Do I Report this Data?

Observations can be reported as comments to the Eastern PA Phenology Blog:
<http://watchingtheseasons.blogspot.com/>
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Want to Find Out More?

Contact Diane Husic, Audubon *TogetherGreen* Fellow,
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(www.usanpn.org)

Have you seen a...

American Woodcock

What Does this Species Look Like?

Size: 11 inches

Weight: 116 - 279 grams

Color: Brown and black camouflage pattern

General: Extremely long bill; Large, bulging eyes

Usually Found: Forests, brushy swamps



Did You Know?

- The American woodcock (*Scolopax minor*) is also known as the “timberdoodle”.
- The bird uses its long bill to catch earthworms by repeatedly probing the ground.
- The bird is hunted regularly for sport.
- They nest in shallow holes in the ground in lay 1-12 eggs.
- The male woodcock performs an intricate routine to attract females, which includes spiraling up in the air, circling, and then flying back towards the ground in a zig-zag pattern.

What am I Observing?

The timing (date) of:

- The first appearance
- Peenting and courtship flight

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What Does this Species Look Like?

Size: 1.5-3.3 inches

Weight: Maximum of 8 grams

Color: Variations of tan, green, and black throughout the body with a distinct dark patch over both eyes that resembles a robber's mask

General: Prominent raised ridges along the sides of its back and the rest of the body appears smooth; it may have a light-colored stripe running down the center of its back

Usually Found: Wooded areas



Did You Know?

- The wood frog (*Rana sylvatica*) is capable of tolerating freezing conditions, (even above the Arctic Circle!), and spends the winter on land.
- A wood frog breeds in a vernal pool, a temporary body of water that is usually free of fish because the pool dries up during the summer.
- Wood frog vocalizations sound a bit like the “clucking” of chickens.
- A mature male is slightly smaller and darker than a mature female and can be recognized by a swelling at the base of the thumb.
- Tadpoles can mature into adult frogs in just 6 weeks, before their vernal pool dries up.

What am I Observing?

The timing (date) of:

- First appearance of adults in water
- First appearance of adults on land
- First time one or more is heard vocalizing

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What Does this Species Look Like?

Size: 3-40 feet tall

Color: Pale to deep yellow flowers

General: 2-5 inch oval leaves

Usually Found: Understory of trees in moist, rocky woods



Did You Know?

- American witch-hazel (*Hamamelis virginiana*) is used medicinally to cure soreness from wounds.
- Witch-hazel is also used in mouthwashes, soaps, ointments, cosmetics, and lotions.
- The fruit of the plant is an important food source to many birds.
- According to witch-craft, a forked branch of witch-hazel can be used to locate groundwater.
- American witch-hazel is the last plant to flower in our woodlands, flowering in late October, around the time of Halloween.

What am I Observing?

The timing (date) of:

- The first time breaking leaf buds appear
- The first time leaves are visible on the plant
- The first time flowers are seen on the plant in autumn

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Have you seen a...

Tree Swallow

What Does this Species Look Like?

Size: 5-6 inches

Weight: 16-25 grams

Color: Metallic blue above, white below

General: Small and slender body; small bill; long wings

Usually Found: Marshes, wooded swamps, and open fields



Did You Know?

- The tree swallow (*Tachycineta bicolor*) nests in both nest boxes and holes in trees.
- Their nests contain grass and/or pine needles and are lined with feathers from other birds, most commonly waterfowl. The feathers provide insulation and prevent parasites.
- The tree swallow eats berries and insects.
- The tree swallow is a migratory bird that spends the winter farther north than any other American swallow.
- They can often be found eating bayberries along coastal dunes during the winter months.

What am I Observing?

The timing (date) of:

- First appearance of adults
- First eggs
- First hatched young
- First fledglings out of next box/cavity
- Last sighting in summer/autumn

Why Collect this Data?

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Have you seen a...

Spring Peeper

What Does this Species Look Like?

Size: ¾ of an inch- 1.5 inches

Weight: 3 to 5 grams

Color: Shades of tan, brown, yellow, olive, or gray with a dark cross on the back that forms an X

General: Large, sticky pads on their toes that are used for climbing

Usually Found: Wooded areas and grassy lowlands near ponds and swamps



Did You Know?

- Spring peepers (*Pseudacris crucifer*) are nocturnal animals and a part of the tree frog family (Hylidae).
- The species name “crucifer” refers to the cross-shaped marking on its back.
- The name “spring peeper” derives from their high-pitched vocalizations, which are a harbinger of spring.
- Spring peepers “peep” in the form of a high-pitched ascending whistle and a chorus of them peeping sounds like the jingle of sleigh bells.
- They hibernate under logs or in the loose bark of trees and live through the winter, despite the cold temperatures which cause their bodies to freeze.

What am I Observing?

The timing (date) of:

- The first night their vocalizations are heard
- The last night their vocalizations are heard

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What Does this Species Look Like?

Size: 7-9 inches

Color: Black, gray, or bluish black on top with yellow or oranges spots; gray belly

General: Up to 50 spots

Usually Found: Any place dark and damp, such as woodland ponds, beneath stones or boards in moist soil, forests near floodplains



Did You Know?

- The spotted salamander (*Ambystoma maculatum*) excretes a toxic milky substance from the glands on its back and tail when it senses danger.
- Each year, spotted salamanders follow the same route to the same mating pool.
- Females lay a mass of 1-200 eggs in water.
- A spotted salamander can live up to 20 years in the wild!
- The largest spotted salamander ever recorded was just under 10 inches.

What am I Observing?

The timing (date) of:

- First appearance of the salamander
- First appearance of salamander eggs in vernal pools

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Have you seen a...

Spicebush

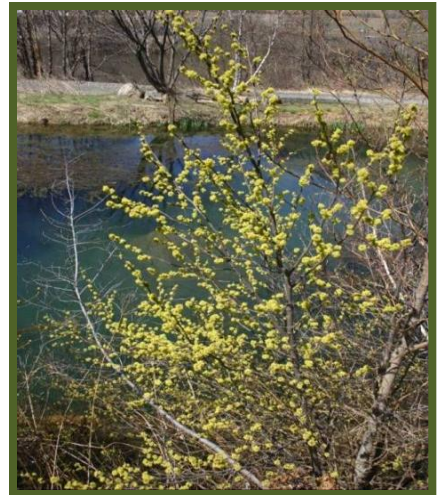
What Does this Species Look Like?

Size: Flowers are 1/8 of an inch wide; leaves are 2-6 inches; plant is 3-19 feet high

Color: Greenish-yellow flowers; bright red fruit; green leaves

General: The flowers bloom before the oval-shaped leaves appear

Usually Found: Moist woods, along streams



Did You Know?

- The spicebush (*Lindera benzoin*) flowers in March and April and the fruit appears in September and October.
- The flowers of the spicebush have a spicy scent and the fruit can be used as a spice, thus the origin of the plant's name.
- The young leaves, twigs, and bark of the plant can be boiled to create spicebush tea.
- The spicebush is used by several butterflies to lay their larvae, including the spicebush swallowtail, the promethean silk moth, and the eastern tiger swallowtail.

What am I Observing?

The timing (date) of:

- The emergence of flowers
- The emergence of leaves
- The appearance of fruit



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What Does this Species Look Like?

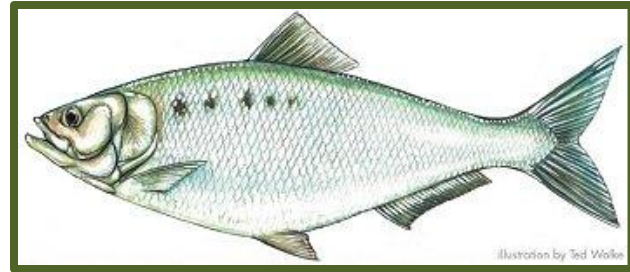
Size: 29.5 inches

Weight: 2- 5 pounds

Color: Green or blackish-blue on top, silver on the sides and belly

General: One dorsal fin; adults have no teeth

Usually Found: Atlantic Ocean for the majority of the year, the Delaware River in the spring



Did You Know?

- The American Shad (*Alosa sapidissima*) is an anadromous fish, meaning it spends most of its life in saltwater, but spawns in freshwater.
- Every spring, the shad migrates thousands of miles to spawn. This occurs at the same time as the plant the shadbush (also known as the serviceberry) blooms.
- The shad population has been affected by dams, water pollution, and overfishing. Fortunately, do to recent restoration efforts, the fish population is rebounding in many rivers.

What am I Observing?

The timing (date) of:

- Adults migrating upstream

Why Collect this Data?

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What Does this Species Look Like?

Size: Large shrub or small tree 6-50 feet tall

Color: Green leaves; white flowers; red, dark purple, or black berries

General: Flowers have five white petals with a green center

Usually Found: In moist areas such as woodland borders, swamps, bogs, along streams



Did You Know?

- The serviceberry (*Amelanchier sp.*) is also known as the shadbush, shadblow, shadrun, and juneberry.
- The name “serviceberry” derives from a time when people would wait until the winter thaw was over to conduct funeral services. The appearance of the flowering serviceberry signaled that the ground was soft enough to dig a grave.
- The serviceberry blooms every spring at the same time the shad, a migratory fish, travels from the Atlantic Ocean to the Delaware River; thus the name “shadbush”.
- The sweet and juicy fruit of the plant is edible and can be made into pie, sweetbread, jam, and wine.

What am I Observing?

The timing (date of):

- The emergence of flowers
- The emergence of leaves
- The appearance of ripe fruits

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Have you seen a...

Scarlet Tanager

What Does this Species Look Like?

Size: 7 inches

Weight: 23-38 grams

Color: Male is flaming scarlet with black wings and tail; Female is greenish above and yellow below with brown or black wings

General: Medium-sized songbird

Usually Found: Woodlands, backyards, parks



Male (females are yellowish with blackish wings)

Did You Know?

- The scarlet tanager (*Piranga olivacea*) arrives in the northern United States by May and begins its southern migration in late August.
- Females and males have a similar song during the breeding season, but the female's song tends to be shorter, softer, and smoother.
- The scarlet tanager is sensitive to forest fragmentation in parts of its range.
- When the scarlet tanager winters in South America, it shares nesting grounds with other species of birds including flycatchers, antbirds, and woodcreepers.

What am I Observing?

- The timing (date) of:
- The first appearance
- The first time the bird is heard singing (To hear the sound and calls go to <http://www.xeno-canto.org/>; search "scarlet tanager"; you will find the MP3 files for the scarlet tanager on page 3 of this search.)

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What Does this Species Look Like?

Size: 2.8-3.5 inches

Weight: 2-6 grams

Color: Bright emerald or golden green above, white with black and grey below; Males have a vibrant and iridescent red throat

General: Slender, but long bill; the vibrant colors of the body glitter in the sunlight

Usually Found: Open fields, forest edges, meadows, orchards, stream borders, backyards



Did You Know?

- Ruby-throated hummingbirds (*Archilochus colubris*) are the only breeding hummingbird found in eastern North America.
- They are fast moving and flap their wings approximately 53 times every second!
- They migrate to Central America in the early fall and many cross the Gulf of Mexico in a single flight.
- They have excellent color vision. In fact, they can see into the ultraviolet spectrum, which humans aren't capable of doing.
- They are drawn to red and orange flowers, such as honey suckle, jewelweed, and trumpet creeper, and feed on their nectar.
- The oldest known hummingbird lived to be 9 years and 1 month old!

What am I Observing?

The timing (date) of:

- The first appearance



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Have you seen a...

American Robin

What Does this Species Look Like?

Size: 9-11 inches

Weight: 77-85 grams

Color: Dark gray or brown back, brick-red breast, yellow bill

General: Long tail; Male is darker than female

Usually Found: Lawns, farms, forests, backyards, golf courses



Did You Know?

- The American Robin (*Turdus migratorius*) is one of the most well-known birds in America, because its first appearance is a harbinger of spring!
- Despite the bird being considered a “sign of spring,” some robins stay all winter without migrating.
- Its short-phrased song sounds like “tut-tut-tut” which is a sing-songy, up and down affair.
- Robins also make a “whinnying” sound, reminiscent of a horse.
- During the breeding season, robins are one of the first birds to begin singing in the morning and one of the last birds to stop singing in the evening.
- Robins are a helpful indicator of chemical pollution, because they spend much of their time on lawns and are highly susceptible pesticide poisoning.

What am I Observing?

The timing (date) of:

- First time full song is heard
- First time bird is seen
- First time bird is seen eating
- First time bird is seen nest building



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What Does this Species Look Like?

Size: 7-9.5 inches

Weight: 32-77 grams

Color: Male is black with bright red patch edged with yellow/white margin on the "shoulder" part of the wing; Female is striped in dark and light brown streaks with light stripes over the eyes

General: Hump-backed silhouette when perched

Usually Found: Marshes, meadows, hayfields, swamps, parks, golf courses, suburbs



Did You Know?

- The red-winged blackbird (*Agelaius phoeniceus*) is one of the most abundant species of native birds in North America.
- Red-winged blackbirds roost in flocks throughout the year. In the fall and winter, these flocks grow to several million birds and include different species, such as blackbirds, starlings, grackles, and cowbirds.
- The more confident the male bird is feeling, the more he exposes his red, yellow, and white shoulder patches. He is also capable of completely hiding his red shoulder patches.
- The male spends the breeding season trying to get noticed by females, all the time singing his "conk-laree!" song.
- Red-winged blackbirds are polygynous and males can have anywhere from 5 to 15 mates.

What am I Observing?

The timing (date) of:

- The first appearance
- The first time territorial singing is heard

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Have you seen a...

Eastern Phoebe

What Does this Species Look Like?

Size: 6 1/2 - 7 inches

Weight: 16 - 21 grams

Color: Dark grayish brown above;
Lighter below; Black bill

General: Small songbird

Usually Found: Woodland clearings,
backyards, parks, along streams,
bridges, farms



Did You Know?

- The Eastern Phoebe (*Sayornis phoebe*) gets its name from its repetitive and sharp call which sounds like “phee-bee”.
- The bird can be recognized by its repetitive habit of pumping its tail up and down.
- In 1804, the Eastern Phoebe became the first bird to be banded and tracked in North America when John James Audubon tied colored threads around a phoebe’s leg.
- The phoebe is an independent and solitary bird that nests in buildings and bridges.

What am I Observing?

The timing (date) of:

- First time the bird is seen
- First time the bird is heard singing
- First time bird is seen nest-building
- First time young is seen being fed
- First young fledged



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What Does this Species Look Like?

Size: 8-10 inches

Color: Black and olive shells; red and orange underbelly

General: Hard and smooth shells; yellow stripes on the head and limbs

Usually Found: Shallow water in ponds, marshes, ditches, edges of lakes, backwaters of streams, river pools



Did You Know?

- Painted turtles (*Chrysemys picta*) spend much of their time basking in the sun on hollow logs in shallow bodies of water.
- Their colorful shells are sometimes hidden by a red or brown deposit.
- Adult males are smaller than females and can be identified by the very long nails on their forefeet.
- Females dig their nests in soft soil and lay 4-10 eggs. Nests are found in open areas and can be as many several hundred meters from water.

What am I Observing?

The timing (date) of:

- The first appearance of a painted turtle on land
- The first appearance in water



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Have you seen a...

Ovenbird

What Does this Species Look Like?

Size: 6 inches

Weight: 16-28 grams

Color: Olive black-brown above; white with black stripes below

General: White eye ring

Usually Found: Forests, on or near the ground in leafy woodlands



Did You Know?

- The ovenbird (*Seiurus aurocapillus*) is more commonly heard singing than seen, because it is a small and inconspicuous bird that dwells on the forest floor.
- The ovenbird's loud song sounds like "teach-er, teach-er, teach-er"!
- Neighboring male ovenbirds often join each other in song.
- The name "ovenbird" derives from the bird's nest which resembles a Dutch oven, because it is covered on top like a dome and has a side entrance.

What am I Observing?

The timing (date) of:

- The first appearance of the bird
- The first time the bird is heard singing

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What Does this Species Look Like?

Size: 21 – 24 inches

Weight: 1400 – 2000 grams

Color: Brownish-black above;
White and black below

General: Head mostly white;
Broad black patch through the eye

Usually Found: Rivers, lakes, coasts



Did You Know?

- The osprey (*Pandion haliaetus*) is one of the largest birds of prey in North America with a wingspan that can reach 6 feet!
- The osprey is found on every continent, except Antarctica.
- 99% of the osprey's diet is comprised of fish.
- When hunting fish, an osprey dives into the water feet first and grabs the fish with its talons.
- Ospreys can lay up to four eggs at a time but they do not all hatch at once. The last chick can hatch up to five days after the first one.

What am I Observing?

The timing (date) of:

- The first time an osprey is seen
- Evidence of nest building
- Observation of fledglings (young birds leaving the nest; date and numbers).

Want to Find Out More?

Contact Diane Husic, Audubon *TogetherGreen* Fellow,
phenology@lgnc.org

Why Collect this Data?

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(www.usanpn.org)

Have you seen a...

Mourning Cloak

What Does this Species Look Like?

Size: Wing span of 2.25-4 inches

Color: Brownish black body and wings; edges of wings are yellow with blue dots above the yellow border

General: The front pair of legs is much smaller than the middle and back pairs of legs

Usually Found: Woods, parks, backyards, riparian areas, gardens, suburbs



Did You Know?

- The name mourning cloak (*Nymphalis antiopa*) derives from its resemblance to a dark cloak that a person in mourning wears.
- The mourning cloak predominantly eats tree sap, especially that of oaks. They also eat rotting fruit and occasionally feed on flower nectar.
- Eggs are laid in a circular pattern around a host plant. Caterpillars pupate and become adult butterflies in June or July.
- Only some adults migrate south for the winter, the rest overwinter under tree bark and become active in early spring.

What am I Observing?

The timing (date) of:

- The first appearance of adults in spring

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What Does this Species Look Like?

Size: 3-20 feet tall

Color: Pink or white flowers, leaves dark green

General: Shiny leaves pointed at both ends

Usually Found: Dry woods, rocky slopes

Did You Know?

- Mountain Laurel (*Kalmia latifolia*) was officially declared Pennsylvania's state flower on May 5, 1933, when Governor Gifford Pinchot signed the bill into law.
- Legend says that Governor Pinchot had to decide between two flowers, the pink azalea and the mountain laurel. While he preferred the pink azalea, he ultimately left the decision to his wife, who picked the mountain laurel.
- The Genus name *Kalmia* comes from Peter Kalm of Finland, a student of Carolus Linnaeus, who discovered the plant and sent samples to Linnaeus, who named it after him. He was also the first person to write a scientific account of Niagara Falls.
- The plant blooms from May to June and is especially abundant on rocky slopes and mountainous areas.

What am I Observing?

The timing (date) of:

- The first time the flower buds open on the plant.

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Have you seen a...

Monarch Butterfly

What Does this Species Look Like?

Size: Wingspan of a little over 3–4 inches

Color: Body is black; wings are orange with black stripes; the edges of the wings are black with white spots

General: 2 black antennae at the top of the head

Usually Found: Grasslands, gardens, open fields



Did You Know?

- Monarch butterflies (*Danaus plexippus*) are sometimes called milkweed butterflies, because they feed on the plant. After consuming milkweed, monarchs taste bitter and are poisonous if ingested by predators.
- The monarch begins as an egg that hatches after four days, and then becomes a monarch caterpillar. After two weeks, the caterpillar is transformed into a vibrant and beautiful butterfly!
- Over a one-year period of time, there are four generations of monarch butterflies that will each go through a complete life cycle and die before the next generation is born.
- The first three generations of monarchs live for two to six weeks as adult butterflies.
- The fourth generation of monarch butterflies, however, will live six to eight months, during which time they will make a 2,500 mile journey from North America to the mountains of Central Mexico. Monarchs are tougher than they look!

What am I Observing?

The timing (date) of:

- First sighting of a caterpillar on a milkweed plant
- The first sighting of a monarch butterfly



Why Collect this Data?

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Have you seen a...

Mayfly

What Does this Species Look Like?

Size: Just under 1-inch

Color: Yellow, green, white, or black depending on species

General: Transparent wings, three slim tails, short antennae

Usually Found: Flying over unpolluted streams, rivers, ponds, or lakes



Did You Know?

- There are thousands of different mayfly species (*Mayfly sp.*) around the world, including the giant mayfly, the golden mayfly, and the burrowing mayfly.
- Adult mayflies live from a few hours to a few days and spend most of their lives mating. They live for a year as a nymph in water.
- Adult females lay eggs in water and often die on the water surface.
- Immature mayflies are an important food source for fish.
- Mayflies are indicators of good water quality.

What am I Observing?

The timing (date) of:

- The first appearance of an adult mayfly



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Have you seen a...

Killdeer

What Does this Species Look Like?

Size: 9 – 11 inches

Weight: 75 – 128 grams

Color: Brown above; White below; Two black lines on the breast; Golden orange rump; White stripe on wings

General: Long bill

Usually Found: Fields, airports, lawns, river banks, shores, golf courses



Did You Know?

- The killdeer (*Charadrius vociferus*) is a very vocal bird that is also known as the “Chattering Plover” and the “Noisy Plover”.
- The name “killdeer” derives from their shrill and repetitive call which sounds like “kill-deeah”.
- Killdeer can be seen on the ground walking or running in quick spurts, stopping for a bit to look around and eat, and then walking or running again.
- While the killdeer lives on dry land, it is a capable swimmer.

What am I Observing?

The timing (date) of:

- The first time a killdeer is seen.
- Nestling (eggs)
- Fledglings

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Have you seen a...

Dark-eyed Junco

What Does this Species Look Like?

Size: 5 1/2-6 inches

Weight: 18-30 grams

Color: Slate-gray above, white belly

General: Rounded head, short bill, long tail

Usually Found: Forests, woodlands, fields, parks, backyards



Did You Know?

- Dark-eyed juncos (*Junco hyemalis*) are members of the sparrow family.
- They are one of the most common birds in North America with a population currently reaching 630 million.
- They are often seen hopping along lawns and near bases of trees and shrubs looking for fallen seeds.
- It takes 3-7 days for dark-eyed juncos to build their nests.
- The oldest recorded junco was 11 years and 4 months old!



What am I Observing?

The timing (date) of:

- Last junco seen in spring
- First junco seen in autumn

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What Does this Species Look Like?

Size: 4-7 inches long

Color: Dark brown or gray above, paler belly; occasionally with small bluish flecks on limbs and lower sides of the body

General: Long toes and snout and a slim-build

Usually Found: In forests under leaf litter, loose soil, rocks, and logs

Did You Know?

- The Jefferson Salamander (*Ambystoma jeffersonianum*) is named for Jefferson College in Pennsylvania, which was named after Thomas Jefferson.
- They hibernate underground through the winter months.
- Their breeding season can be as early as February, but usually takes place in March or April.
- They mate in ponds and can travel up to 900 feet to get there!
- The Jefferson salamander is nocturnal and stays in a burrow or under leaf litter, rocks, and logs during the day.

What am I Observing?

The timing (date) of:

- Their first appearance as adults
- The first time their eggs are seen in a pond

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Have you seen a...

House Wren

What Does this Species Look Like?

Size: 4 1/2 -5 inches

Weight: 10-12 grams

Color: Brownish above, white-grey belly

General: Dark bars on wings and tail

Usually Found: Wooded clearings, parks, gardens, farms, orchards, backyards



Did You Know?

- The house wren (*Troglodytes aedon*) nests inside holes in trees and nest boxes and often reuses its nest cavity from year to year.
- The male wren builds several “nests” out of sticks in various cavities. His mate selects one of these and completes a grass nest on top of the sticks.
- They can be aggressive if competing for nest holes and may even attack larger birds if they are interested in taking over their nest.
- House wrens have one of the largest ranges of any songbird, breeding from Canada through the West Indies and Central America, to the southernmost point of South America.
- House wrens have a loud, complex song, which is surprising coming from such a small bird!

What am I Observing?

The timing (date) of:

- The first time the bird is seen
- The first time the bird is heard singing

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What Does this Species Look Like?

Size: Head and body- 16-24 inches;
Tail- 7-9 inches

Weight: 4.5-14 pounds

Color: Grizzled brown/gray

General: Dark feet, bushy tail, and small ears

Usually Found: Wooded areas, parks, backyards, gardens, roadsides



Did You Know?

- The groundhog (*Marmota monax*) is also known as the woodchuck, marmot, and whistle pig.
- Groundhogs are the largest members of the squirrel family.
- Groundhogs can climb trees, swim, and run as fast as a human.
- Groundhogs dig dens up to 5 feet deep and 30 feet long.
- While “Groundhog Day” is observed on February 2nd, groundhogs do not typically emerge from hibernation until the spring.

What am I Observing?

- First appearance of the groundhog in spring
- Any time young are seen with a parent

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What Does this Species Look Like?

Size: 1/2 inch

Color: Black body with yellow stripes; red, yellow, and black head

General: Long, flat bodies and long antennae

Usually Found: Gardens, parks, meadows, woodland edges, backyards

Did You Know?

- The firefly (*Photuris pennsylvanica*) is the official insect of Pennsylvania.
- The firefly is also known as the lightning bug. Firefly larvae are called glowworms.
- Fireflies have chemicals in their abdomens that help to produce their yellowish green light.
- Fireflies use their flashing light patterns to attract mates.
- They are helpful at preventing pests in your garden, because they eat slugs, snails, and aphids.
- Fireflies are fun to chase and catch on warm summer nights. If you catch one and keep it in a jar, please don't forget to release it after a little while so it can go back to protecting your garden!

What am I Observing?

The timing (date) of:

- The first time a firefly is seen.

Why Collect this Data?

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What Does this Species Look Like?

Size: About 1 inch

Color: Black to dark reddish brown

General: Large back legs, two antennae

Usually Found: Grassy habitats, fields, pastures, lawns, woods, forest edges

Did You Know?

- Field crickets (*Gryllus pennsylvanicus*) are often heard chirping on warm nights. It is possible to estimate the temperature based on the frequency of their chirps.
- Males chirp 2-3 times per second to attract a mate. They do this by rubbing their front wings together.
- Once a female is drawn to a male, the male moves back in forth in a type of courtship “dance”.
- Crickets can invade homes and become a nuisance, chirping from underneath appliances and inside walls.
- Crickets can also be helpful to humans. They eat the eggs and pupae of pest insects and the seeds of some weeds, such as crabgrass and pigweed.

What am I Observing?

The timing (date) of:

- The first time a cricket is seen
- The first time a cricket is heard chirping

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What Does this Species Look Like?

Size: 1.9-6.5 feet tall

Color: Small green to purple flowers;
green, gray, or light brown seed pods

General: Tall stem covered in leaves
with a green to purple flower or a
green, gray, or light brown seed pod
on the top

Usually Found: Fields, prairies,
forest margins, roadsides, waste
ground, and floodplains of lakes,
ponds, and waterways



Did You Know?

- Milkweed (*Asclepias syriaca*), is also known as broadleaf milkweed.
- Milkweed flowers from late May to early August.
- Milkweed is a vital part of the monarch butterfly's diet and survival. Ingesting the nectar causes the monarch's flesh to taste bitter and the foul taste dissuades predators from consuming the butterflies.

What am I Observing?

The timing (date) of:

- The appearance of flowers
- Seed pods forming
- Seed pods opening and seeds dispersing

Why Collect this Data?

This species is being monitored as a part of the Eastern PA Phenology Program to determine if this plant is impacted by environmental changes.

How Do I Report this Data?

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What Does this Species Look Like?

Size: Flower heads 1-2 inches wide

Flower is 2-30 inches high

Color: Yellow flower

General: Group of leaves at the base of single stem with a yellow flower on the top

Usually Found: Lawns, fields, roadsides, waste sites



Did you know?

- The common dandelion (*Taraxacum officinale*) is also known as the “blowball” and “faceclock”.
- Dandelion originates from the French word “*dent de lion.*” This can be translated to “lion’s foot” which is a reference to the leaves of the plant.
- The leaves of dandelions are edible and highly nutritious.

What am I Observing?

The timing (date) of:

- The first emergence of leaves
- The first flower heads opening
- The first mature white seed heads observed



Why collect this data?

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What Does this Species Look Like?

- Size:** Flower heads 1 inch wide;
Stalk is 3-18 inches tall
- Color:** Yellow
- General:** Often mistaken for a dandelion;
Flower has a yellow bud in the center with thin yellow petals;
Leaves are round to hoof-shaped
- Usually Found:** Roadsides, stream banks, waste places



Did You Know?

- Coltsfoot in Latin is *Tussilago farfara*, which literally translates to “to drive away coughs,” a reference to its medicinal properties.
- It is a perennial herb that is used in teas and formulas to treat bronchitis, pneumonia, laryngitis, asthma, burns, swelling, skin ulcers, and insect bites.
- The leaves of the coltsfoot are hoof-shaped (thus the other common name “horsehoof”) and appear only after the flowering has ceased.
- One of the first flowers to bloom in spring, these plants can be considered weedy and invasive.
- Scottish highlanders used to use the soft seeds of the coltsfoot to fill pillows.

What am I Observing?

The timing (date) of:

- The emergence of the flower
- The emergence of the leaves
- The maturation of seed heads

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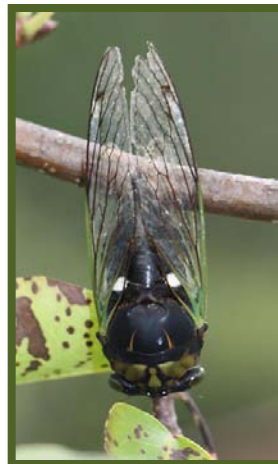
What Does this Species Look Like?

Size: 1-2 inches

Color: Black with green markings,
transparent wings

General: Wings extend past the body

Usually Found: Suburban
neighborhoods, parks, woodlands,
forests



Did You Know?

- Annual cicadas (*Tibicen sp.*) are more often heard than seen. Males make a loud, pulsating, sawlike buzz to attract females on late spring and summer days.
- Males produce their buzzing song by using special structures found on their abdomen, called tymbals.
- There are seven species of periodical cicadas, which appear every 13 or 17 years. All other cicadas are called annual cicadas, because they reappear every spring.
- The annual cicada is a flying insect with a lifespan of 2-8 years.

What am I Observing?

The timing (date) of:

- The first time a cicada is seen
- The first time a cicada is heard

Why Collect this Data?

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What Does this Species Look Like?

Size: Head and body is 5-7 inches;
Tail is 3-4 inches

Weight: 80-92 grams

Color: Reddish-brown with a black stripe down the middle, white stripe above and below each eye, and 2 black stripes surrounding a white stripe on each side

General: Long bushy tail; high, cropped ears

Usually Found: Woodlands, scrubs, parks, gardens, backyards



Did You Know?

- The eastern chipmunk (*Tamias striatus*) can carry nine nuts at a time- four in each cheek pouch, and one between its teeth!
- Chipmunks are active from late April to December. During the winter months, they stay in their burrows in a state of temporary hibernation where they sometimes rouse to eat food that they stored in the fall.
- Chipmunks dig burrows 12-30 feet long and 2 inches wide.
- A chipmunk may store up to 8 pounds of food in its burrow!
- They have two breeding periods: one in late winter or early spring and one in the summer.

What am I Observing?

The timing (date) of:

- The first appearance of chipmunks
- The first appearance of young chipmunks
- The first time the animal is seen consuming nuts and seeds
- The first time the animal is seen collecting and storing food

Why Collect this Data?

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Have you seen a...

Carpenter Bee

What Does this Species Look Like?

Size: About 1 inch

Color: Yellow and black

General: Shiny, black abdomen

Usually Found: Forests, woodlands, gardens, parks



Did You Know?

- Carpenter bees (*Xylocopa virginica*) are native to Pennsylvania and feed on flower nectar.
- They are not social insects. Females make separate nests and feed their own offspring.
- Many people consider carpenter bees pests, because they can be destructive to human property. They make their nests by boring round holes 1/2 inch in diameter in dead, soft wood found in old barns, homes, and decks.
- Female carpenter bees lay their eggs in cells made in branches of their nest tunnels.
- Carpenter bees are often mistaken for bumblebees. A good way to tell them apart is that carpenter bees have shiny abdomens, whereas bumblebees have hairy abdomens.

What am I Observing?

The timing (date) of:

- The first time a carpenter bee is seen

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What Does this Species Look Like?

Size: 1-inch or less

Color: Dull cream, brown, and black

General: Long, hair-like antennae;
4 wings of nearly equal length that are covered in hairs and form a V-shape over the abdomen

Usually Found: On foliage, flying near unpolluted streams and rivers



Did You Know?

- There are at least 320 different species of Caddisflies (*Caddisfly sp.*), including the ash-winged large caddisfly, the silverstreak caddisfly, and the zebra caddisfly.
- Caddisfly larvae develop in four stages over several months.
- The larvae build homes from tiny sticks, pebbles, or pieces of leaves knit together with silk.
- The adults are moth-like creatures that spend most of their one to four week life cycle mating or laying eggs
- Caddisflies are indicators of good water quality.

What am I Observing?

The timing (date) of:

- The first appearance of the adult caddisfly

Why Collect this Data?

This species is being monitored as a part of the Eastern PA Phenology Program to determine if this insect is impacted by environmental changes.

How Do I Report this Data?

Observations can be reported as comments to the Eastern PA Phenology Blog:
<http://watchingtheseasons.blogspot.com/>
or sent to phenology@lgnc.org

Want to Find Out More?

Contact Diane Husic, Audubon *TogetherGreen* Fellow,
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(www.usanpn.org)

What Does this Species Look Like?

Size: Wingspan of 2 inches

Color: Wings are white on top and yellowish-green below with black markings on the tips

General: Females have two black spots on their wings, males have one

Usually Found: Open fields, roadsides, parks, cities, gardens



Did You Know?

- Cabbage whites (*Pieris rapae*) are one of the first butterflies to be seen in the spring and one of the last butterflies seen in the fall.
- In the 19th Century, they were introduced to North America from Europe.
- They are considered a pest to many people with gardens, because they feed on cabbage, broccoli, and other vegetables.
- Cabbage whites begin their lives as caterpillars, but hibernate over the winter as chrysalids. By the time spring comes, they emerge from the chrysalis as an adult butterfly.

What am I Observing?

The timing (date) of:

- The first appearance of the adult butterfly in spring
- The last time the butterfly is seen in autumn

Why Collect this Data?

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Have you seen a...

Bumblebee

What Does this Species Look Like?

Size: Just under 1 inch

Color: Yellow and black

General: Fuzzy body, two sets of transparent wings with black veins; Females have pollen baskets on their hind legs

Usually Found: Gardens, grasslands, backyards



Did You Know?

- Bumblebees (*Bombus spp.*) are native to every continent, except Antarctica and Australia.
- Bumblebees feed on the nectar and pollen of flowers. Once they have eaten all the nectar, they use their feet to leave a scent that alerts other bees to avoid the nectar-drained flower.
- Bumblebees are often mistaken for carpenter bees, which can be destructive to human property. A good way to tell them apart is that bumblebees have hairy abdomens, whereas the abdomens of carpenter bees are shiny.
- They rarely sting; only in self-defense or when their nest is threatened.
- Several bumblebee species are becoming very rare, but you can help by planting native flowering species in your garden.

What am I Observing?

The timing (date) of:

- The first sighting of bumblebees
- The first sighting of a bumblebee on a flower
- The last sighting of the bumblebee

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Have you seen a...

Barn Swallow

What Does this Species Look Like?

Size: 6-7.5 inches

Weight: 17-20 grams

Color: Blue-black above, cinnamon below with a darker cinnamon throat, white spots on the tail

General: Tail forms a very large and distinct v-shape

Usually Found: Farms, fields, marshes, ponds



Did You Know?

- The barn swallow (*Hirundo rustica*) is more abundant and widely distributed than any other swallow species in the world.
- The barn swallow once bred in caves, but is now more frequently found in barns, under bridges, and other man-made structures.
- Due to its dependence on man-made structures for nesting, this species has actually benefited greatly from human activity!
- Females are more likely to breed with males with dark red chests and longer, more symmetrical tails.

What am I Observing?

The timing (date) of:

- First appearance
- Evidence of nest building
- Incubation of eggs
- Feeding young
- Last sighting of bird in summer or autumn

Why Collect this Data?

This species is being monitored as a part of the Eastern PA Phenology Program to determine if this bird is impacted by environmental changes.

How Do I Report this Data?

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Have you seen a...

Baltimore Oriole

What Does this Species Look Like?

Size: 7-8 inches

Weight: 30-40 grams

Color: Male is black and bright orange;
Female is mainly yellow with white wing bars

General: Males have a solid black head; Females have 2 white wing bars

Usually Found: Open woodlands, tall shade trees, parks, suburban areas



Did You Know?

- The Baltimore Oriole (*Icterus galbula*) arrives in the northern United States by April or May.
- Orioles are closely related to blackbirds and meadowlarks.
- Baltimore Orioles build hanging basket nests in trees and lay 3-7 eggs at a time.
- Yearling males resemble adult females.
- Young male orioles do not achieve adult plumage until the fall of their second year.

What am I Observing?

The timing (date) of:

- The first time the bird is seen
- The first time the bird is heard singing
- The first time adult oriole is seen sitting on eggs in the nest

Why Collect this Data?

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Have you seen a...

Spring Azure

What Does this Species Look Like?

Size: Wingspan of a little under or over 1 inch

Color: Bright pale blue above, off-white below with small, black spots

General: Females have wide, black margins on all 4 wings and a row of spots on the hind wings

Usually Found: Deciduous woods, old fields, gardens, wooded freshwater marshes and swamps



Did You Know?

- The Spring Azure (*Celastrina ladon*) is also known as the American holly azure, dogwood azure, Edward's azure, northern spring azure, and the purple azure.
- This butterfly appears in the early spring and has a high tolerance for cold temperatures.
- Adult spring azures can survive being buried in snow!
- They appear in every state, except Hawaii.
- In parts of America the phenology of this butterfly has already started to change. One possible explanation is climate change.

What am I Observing?

The timing (date) of:

- The first appearance of an adult butterfly
- The first time a butterfly is seen visiting flowers

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Why Collect this Data?

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What Does this Species Look Like?

Size: 2-4 inches

Weight: 21.77 grams

Color: Olive with dusty grey, brown, and black

General: One or two large warts in the largest dark spots; large warts on their lower hind legs; dark spots on chest and belly

Usually Found: Moist woodlands, gardens, backyards, agricultural fields



Did You Know?

- The American Toad (*Bufo americanus*) is dormant during the winter, awakes in the spring to breed in water, and lives the rest of the year in moist areas close to a water source.
- The toad's warts contain glands which produce a poisonous milky-fluid that protects them from predation.
- Toads vocalize frequently in 6-30 second-long trills. Males use this trill as a way to attract mates during the breeding season.
- Females lay 4,000-8,000 eggs in rows which, when stretched, can measure up to 66 feet long!

What am I Observing?

The timing (date) of:

- First appearance of the toad on land
- First appearance on water
- First time one or more individuals are heard vocalizing

Why Collect this Data?

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