

YELLOW-BELLIED SAPSUCKER - SPHYRAPICUS VARIUS

Taxonomy: Kingdom: Animalia Phylum: Chordata Class: Aves Order: Piciformes Family: Picidae Genus: Sphyrapicus
Species: S. varius

Habitat:

Biomes: In spring and summer, Yellow-bellied Sapsuckers favor young forests and edge habitat, especially areas regenerating from timber harvesting. There they find lots of fast-growing trees ripe for sapwells (and since they can spend half their time or more tending to or feeding from their sapwells, sapsuckers need lots of trees for tapping). So unlike most woodpecker species, sapsuckers don't rely on dead trees for feeding, although they do search for trees with decayed heartwood or dead limbs for their cavity nests. On their wintering grounds, Yellow-bellied Sapsuckers aren't as selective in habitat, as they're found from bottomland hardwood forests to as high as 10,000 feet, though never in pure conifer stands. In winter, Yellow-bellied Sapsuckers can be found in forests of hickory or pines and oaks.

Distribution:

In US: The yellow-bellied sapsucker is found across Canada, eastern Alaska and the northeastern United States. These birds winter in the eastern United States, West Indies and Central America. This species has occurred as a very rare vagrant to Ireland and Great Britain.

In Other Countries: When this sapsucker is breeding, it is generally found in deciduous and mixed coniferous forests up to 2,000 metres (6,600 ft) in height. During the non-breeding season, on the other hand, it usually inhabits forests, but the edge of the forest, open woodland, and semi-open habitats are sometimes utilized. It is also seen at larger trees in pastures, clearings, and suburban areas, in addition to the occasional appearance in palm groves. During this time, the yellow-bellied sapsucker ranges from sea level to elevations of 3,200 metres (10,500 ft), and even 3,400 metres (11,200 ft) in some areas, although the bird normally stays between altitudes of 900 and 3,000 metres (3,000 and 9,800 ft).

Holistic Description: On a walk through the forest you might spot rows of shallow holes in tree bark. In the East, this is the work of the Yellow-bellied Sapsucker, an enterprising woodpecker that laps up the leaking sap and any trapped insects with its specialized, brush-tipped tongue. Attired sharply in barred black-and-white, with a red cap and (in males) throat, they sit still on tree trunks for long intervals while feeding. To find one, listen for their loud mewing calls or stuttered drumming.

Species Richness: NO SUBSPECIES

Population Dynamic: The yellow-bellied sapsucker is considered to be least concern by the IUCN, even though it has a decreasing population. This is because of its large range of about 7,830,000 square kilometres (3,020,000 sq mi). In addition, it has a large population, being common in its range, although it is not easily seen when not breeding. It has low genetic diversity; about half of that of most birds.

Evolution and Systematics:

Evolution: Proximal end of a right humerus from Vero Beach, FL, dated <3,500 yr before present identified as Sphyrapicus.

Systematics: Generally considered monotypic and treated so here. Individuals from s. Appalachians tend to be smaller and darker than individuals farther north.

Number of Species: NO SUBSPECIES

Number of Genera: NO SUBSPECIES

Physical Characteristics:

Size and Length: Length: 7.1-8.7 in (18-22 cm) Weight: 1.5-1.9 oz (43-55 g)

Wingspan: 13.4-15.8 in (34-40 cm)

Coloration: Yellow-bellied Sapsuckers are mostly black and white with boldly patterned faces. Both sexes have red foreheads, and males also have red throats. Look for a long white stripe along the folded wing. Bold black-and-white stripes curve from the face toward a black chest shield and white or yellowish underparts.

General Body Features: Yellow-bellied Sapsuckers are fairly small woodpeckers with stout, straight bills. The long wings extend about halfway to the tip of the stiff, pointed tail at rest. Often, sapsuckers hold their crown feathers up to form a peak at the back of the head.

Special Features of the Body: The woodpecker's beak is strong and sturdy, with a chisel-like tip for drilling holes in wood. Woodpeckers use their stiff tail as a prop while climbing in order to balance themselves.

Special Features of the Head and Sensory Organs: Yellow-bellied Sapsuckers, which are also woodpeckers, are an exception because they don't have a long tongue and they don't eat insects. Although they are called "sapsuckers," they don't actually suck up sap. Instead they use their short, bristly tongues to lap up sap from the short holes they drill in trees. Woodpecker tongues, however, vary based on their diet. Some species have a tongue that is longer than their bill in order to extract insects from a hole. Woodpeckers also have a lengthened hyoid apparatus (bones, muscle, cartilage connected to the tongue),

allowing their tongue to extend incredible lengths. Woodpeckers have bristly feathers over their nostrils to prevent inhalation of wood particles as they chisel.

Dentition: BEAK/LAMELLAE/GIZZARD

Special Features of the Limbs and Digits: Their strong “zygodactyl” feet are specifically adapted to cling and grasp onto trees. Two toes face forward, and two face backward. Most songbirds have three forward-facing toes, and one backward-facing. They may peck a total of 8,000-12,000 pecks per day! Luckily, a woodpecker’s skull is built to absorb this shock. Sinewy attachments at the base of a woodpecker’s bill and around the brain help to minimize damage to the brain.

Any Special Internal Anatomy: Woodpeckers are often characterized as “chisel-billed” because they peck into living or dead wood to find grubs or build a nest. Cells in the tips of their beaks are constantly replaced, preventing them from wearing down over time. The woodpecker's long tongue has a barbed tip and is covered in sticky saliva. These features help the bird capture and extract insects from the holes the bird drills.

Sexual Dimorphisms: The forehead is coloured bright red in the male (and very occasionally yellow), and a lighter shade of red in the female. Sometimes, this is the only place on the head a female will have red colouration, if it has any at all, as the female rarely has a black head with a few buff spots. The crown is bordered black, and is usually red, and is sometimes mixed with black in the female.

Differences Between Juvenile Stage and Adult: The juvenile is a dark olive-brown colour overall, with a buff-striped head and a streaked crown.

Behavior:

Diurnal, Nocturnal, or Crepuscular: Diurnal

Activity: Apart from their behavior at sapwells (see Food section) Yellow-bellied Sapsuckers behave much like other woodpeckers, hitching up and down trees along the bark and leaning away from the trunk, using their stiff tail feathers for support. They fly in a woodpecker’s typical up-and-down, bouncing or swooping manner. They spend most of their time at their sapwells, either drilling them, licking sap and any insects caught in it, or chasing off other birds (such as hummingbirds) that may be attracted to the sap. They also perch at the tips of tree branches when hunting for flying insects, and hop on the ground to forage for ants. In early spring, before mating, sapsucker pairs engage in playful pre-courtship behavior, with one sapsucker chasing the other around tree trunks and branches. Courting birds will land on a tree and face each other with bills and tails raised, throat feathers fluffed out and crest feathers raised, swinging their heads from side to side. This is the same behavior they use when aggressively facing off with sapsuckers of the same sex. Sapsucker mating pairs stay together through the nesting season and raising of young, and often (but not always) reunite for subsequent breeding seasons, though it seems their fidelity may not be to their mate so much as the nesting area or even the particular nest tree.

Locomotion: Hops (“hitches”) vertically up and down tree trunks as well as when moving laterally; also hops on horizontal limbs, rail fences, or when feeding on ants on ground. Intermittent flight widespread in woodpeckers; sapsuckers share this mode of flap-bounding flight. Flight characterized by vertical undulations in flight path caused by alternating flapping and non-flapping phases, with wings held fully flexed during nonflapping phase.

Communication and Perception: The Yellow-bellied Sapsucker’s signature call is a scratchy, nasal mewing that is often repeated. They also have a squealing call, a repeated quee-ah, quee-ah, that’s territorial and often heard in breeding season. And they make a waa call when disturbed or to alert others to danger.

Home Range: Early in breeding cycle, advertises presence and defends more or less exclusively occupied space that includes nest tree; also defends sap wells. Later in cycle, will chase conspecific individuals from immediate vicinity of nest or sap wells, but does not advertise occupancy of space around them. Areas close to nest (within 9–12 m) strongly defended and intruders usually driven away; farther from nest, social displays suffice.

Degree of Sociality: Not very social. Loose aggregations sometimes occur in migration.

Level of Aggression: Both sexes engage in agonistic behavior in vicinity of nest, near mate, and at sap wells; greatest intensity and frequency of engagements occur early in nesting cycle. Striking ritualized postures and movements used in agonistic (and sexual) behavior, and involve complex vocalizations and both static and dynamic optical signals from plumage.

Migration: Short- to long-distance migrant. Yellow-bellied Sapsuckers depart their breeding range in September and early October for wintering grounds in the southern U.S., Mexico, West Indies, and Central America. They arrive back north in May. Females tend to migrate farther south than males, with a ratio of more than three females to one male having been counted in Central America.

Predators:

Predators: Hawks, Red Squirrels, Weasels, Raccoons, Black Bears, Barred Owl.

Anti-Predator Defenses: In response to threats (i.e., potential predators), sapsuckers emit “alarm calls” and call excitedly, but this reaction appears graded according to nesting stage: adults gave mild alarm calls in response to Barred Owl close to nest

with very young chicks; male gave Waa Calls for 30 min at calling rates up to 36 calls/min in response to owl when young near fledging. Adults swoop down and sometimes strike potential predators..

Diet and Nutrition:

Adult Diet: As the name indicates, sapsuckers rely on sap as a main food source. Just like people who tap maple trees to make maple syrup, these birds drill their wells in early spring. In addition to sap, Yellow-bellied Sapsuckers also eat insects (mostly ants) and spiders, gleaning them from beneath a tree's bark like other woodpeckers. And at times they perch at the edge of a tree branch and launch after flying insects to capture them in midair, like a flycatcher. Sapsuckers are also attracted to orchards, where they drill wells in the trees and eat fruit.

Juvenile Diet: Insects (May be sap-covered)

Special Adaptations for Getting Prey: Sapsucker wells are neatly organized, with several holes drilled in horizontal rows. The bird first drills narrow, circular wells into the tree's xylem—the inner part of the trunk—to feed on sap moving up to the branches in early spring. Then, after the tree leafs out, the sapsucker begins making shallower, rectangular wells in the phloem, the part of the trunk that carries sap down from the leaves. This sap can be more than 10 percent sugar. These phloem wells must be continually maintained with fresh drilling, so the sap will continue to flow. Sapsuckers tend to choose sick or wounded trees for drilling their wells, and they choose tree species with high sugar concentrations in their sap, such as paper birch, yellow birch, sugar maple, red maple, and hickory. They drill wells for sap throughout the year, on both their breeding and wintering grounds

Reproduction:

Mode of Reproduction: Monogamous

Mating System: Socially monogamous. Rarely adult other than parent looks into nest with nestlings and may even feed them.

Mating Season: May to August

Courtship: Except for copulation, displays used for courtship and in agonistic encounters essentially indistinguishable. Agonistic components apparent even during change-overs at nest during incubation and during feeding of fledglings.

Territoriality: HOME RANGE

Mating: Male hovers down upon female's back from above or hops toward her with crown feathers fully erect, bib ruffled, wings drooping and sometimes flapping weakly, back deeply depressed, and fanned tail scraping the branch. "He bobs and throws out his chest . . . mounts . . . may tramp a few times on the female's back before he acquires a secure hold, then slides down her side and with a few . . . flaps of the wings achieves contact". Male grasps female with his feet before sliding down her left side, and swings posterior part of his body beneath female's uplifted tail to achieve cloacal contact while his tail presses against her right flank; many variations in this general form and sequence, but male's movement from female's dorsum down her left side seems invariant. Copulation lasts up to 10 s.

Nesting: Yellow-bellied Sapsuckers choose many of the same tree species for nesting that they use for drilling wells, including aspen, birch, maple, beech, and elm. Trees used for nesting are often alive but are usually infected with a fungus that causes the tree's heartwood or sapwood to decay, making excavation easier. The male chooses the nest tree most of the time. Cavity nests may be reused for several breeding seasons, for up to 7 years. Yellow-bellied Sapsuckers are cavity nesters. The male does most of the work excavating the cavity over about 2 to 3 weeks. No lining is placed within the nest; the eggs are laid on wood chips left over from the excavation. The entrance hole is small, only about 1.5 inches in diameter, but the cavity itself may be 10 inches deep.

Egg-Laying: Clutch Size: 4-6 eggs Number of Broods: 1 brood Egg Length: 0.8-1.0 in (2-2.6 cm) Egg Width: 0.6-0.7 in (1.6-1.8 cm) Incubation Period: 10-13 days Nestling Period: 25-30 days Egg Description: White.

Hatching and Incubation/Gestation: Bare and blind at birth with pink skin and a gray bill; eyes open at 8 days.

Development: Altricial and nidicolous. Bill light gray.

Parental Care: Both sexes brood equally. Both sexes feed young; identity of prey items fed to young not well known. Parents bring small insects when young first hatch. Adult may visit sap trees to coat insects in sap before taking to young.

Lifespan: Up to 7.5 years old.

Conservation:

Official Federal Status: Least Concern

Special Statuses in Individual States: NONE

Threats: Yellow-bellied Sapsucker numbers slightly increased between 1966 and 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 10 million with 53% spending some part of the year in the U.S., 79% breeding in Canada, and 31% wintering in Mexico. This U.S.-Canada Stewardship species rates a 7 out of 20 on the Continental Concern Score and is not on the 2014 State of the Birds Watch List. In the past, Yellow-bellied Sapsuckers were considered pests in fruit orchards and shot on sight, but that's no longer the case; there may even be more

sapsuckers now than in pre-settlement times, as many of the old-growth forests of the past have been converted into the early successional forests that sapsuckers favor.

Conservation Efforts: ^^^^^

Extra Facts:

1. The Yellow-bellied Sapsucker makes two kinds of holes in trees to harvest sap. Round holes extend deep in the tree and are not enlarged. The sapsucker inserts its bill into the hole to probe for sap. Rectangular holes are shallower, and must be maintained continually for the sap to flow. The sapsucker licks the sap from these holes, and eats the cambium of the tree too. New holes usually are made in a line with old holes, or in a new line above the old.
2. The sapwells made by Yellow-bellied Sapsuckers attract hummingbirds, which also feed off the sap flowing from the tree. In some parts of Canada, Ruby-throated Hummingbirds rely so much on sapwells that they time their spring migration with the arrival of sapsuckers. Other birds as well as bats and porcupines also visit sapsucker sapwells.
3. Yellow-bellied Sapsuckers have been found drilling sapwells in more than 1,000 species of trees and woody plants, though they have a strong preference for birches and maples.
4. The Yellow-bellied Sapsucker frequently uses human-produced materials to help in its territorial drumming. Street signs and metal chimney flashing amplify the irregular tapping of a territorial sapsucker. The sapsucker seems to suffer no ill effects of whacking its bill on metal, and a bird will return to a favorite sign day after day to pound out its Morse code-like message.
5. The Yellow-bellied Sapsucker is the only woodpecker in eastern North America that is completely migratory. Although a few individuals remain throughout much of the winter in the southern part of the breeding range, most head farther south, going as far south as Panama. Females tend to migrate farther south than do males.
6. The oldest known Yellow-bellied Sapsucker was a male, and at least 7 years, 9 months old. It was banded in New Jersey and found 6 years later in South Carolina.

Notable Species: NONE