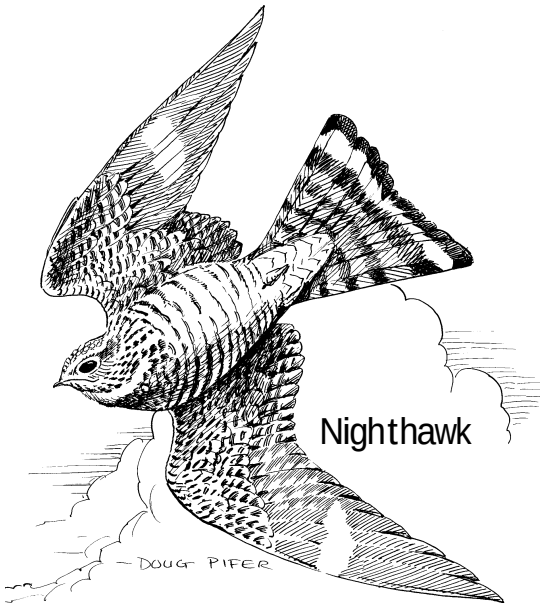
Wildlife Note — 55
LDR0103

Common Nighthawk and Whip-Poor-Will



By Chuck Fergus

The common nighthawk and the whip-poor-will belong to Family Caprimulgidae, a group of nocturnal and crepuscular birds also known as the nightjars; 80 species are found around the world. Nightjars have large heads and eyes and exceedingly wide mouths, used as scoops for catching insects in midair. Their long wings and large tails contribute to a buoyant, maneuverable flight. Their legs are short, and their feet are small and weak. Most spend the day resting on the ground or roosting in trees, perched lengthwise on limbs. "Nightjar" seemingly refers to the birds' nocturnal habits and the jarring or grating aspect of their vocalizing. The nightjars are also known as "goatsuckers," from an erroneous belief that the birds use their expansive maws to steal milk from goats and other livestock.

Common Nighthawk (*Chordeiles minor*) — The name "nighthawk" is a misnomer, as the bird is not related to the hawks and it flies mainly at dawn and dusk rather than at night. A nighthawk is about nine inches long, with a wingspread of almost two feet; individuals weigh from two and a half to three and a half ounces. The flight pattern is bouncy, erratic, full of twists and turns. Nighthawks spend the summer in many cities and small towns across the state. During late summer evenings many people see flocks of nighthawks flying high above towns and farmland, but few have gotten a close look at the birds. The plumage is a mix of dark gray and brown. The long wings have a crook about halfway out and then taper to a point. The tail has a white band; white brightens the chin and throat; and a white "bandage" on each wing is clearly visible from below.

Unlike whip-poor-wills, which sit in wait and then sally forth to catch individual insects, nighthawks remain on the wing for extended periods, flapping, gliding, stalling and swerving as they chase and catch prey. Their batlike flight has earned them the nickname "bullbat." More than 50 insect species have been reported as prey, including flying ants, June bugs, mosquitoes, moths, mayflies, caddisflies, wasps and grasshoppers. Nighthawks drink on the wing, skimming the surface of lakes and streams. They do not fly during heavy rain, strong winds or cold weather.

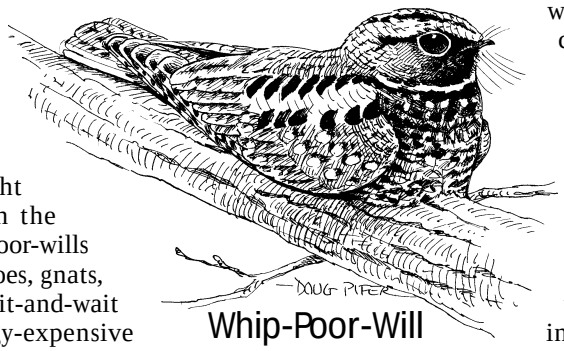
The call is a loud, nasal *Peent* which, according to one source, resembles the word "beard" whispered loudly. As part of his breeding display, the male also makes a booming sound, which is produced by air rushing through his primary wing feathers after a sudden downward flexing of the wings while diving. Years ago, while camping at a back-country site in the Badlands National Park in South Dakota, I sat enraptured by nighthawks "booming" above the prairie through the extended twilight of a June evening and on into moonlit night.

Chordeiles minor has a large breeding range, from the Yukon Territory to Labrador and south to Florida, Texas and Central America. The birds nest in open fields, gravel beaches, rock ledges, burned-over woods, grasslands and flat graveled roofs of buildings such as schools and grocery stores. The female nighthawk does not build a nest; she lays her two eggs directly on the ground. The laying period peaks around the first of June. Nighthawk eggs are creamy or pale gray, dotted with brown and gray. The female does most of the incubating (the male may spell her at times), and the eggs hatch after about 18 days. Nestlings are "semi-precocial": their eyes are open and they are able to move from side to side after hatching. Females may feign injury to draw predators away from the nest. Both parents feed the chicks by regurgitating insects to them. At around 18 days, young nighthawks make their first flights. They can fly capably by 30 days, and by 50 days they are fully developed. Nighthawks raise only one brood per year. They are among the earliest breeding birds to leave Pennsylvania, commencing their southward migration in August.

The average life span of a common nighthawk is estimated at four to five years; banded birds as old as nine years have been recovered. Since the 1960s the number of breeding and migrating nighthawks has fallen noticeably. This decline may stem from indiscriminate use of pesticides, increased predation, or changes in habitat, either in the northern breeding range or in the southern wintering area, which includes South America, about which little is known. In Pennsylvania most nesting takes place on building roofs in urban areas, with nighthawks seemingly abandoning traditional rural nesting sites.

Whip-Poor-Will (*Caprimulgus vociferus*) — The whip-poor-will lives in moist woods across the eastern and southern United States. It is about the size of a common nighthawk, but its wingspan is not as great and its wings are broader and more rounded. On each side of the bill, a vertical row of hair-like bristles flares toward the front: the bristles funnel insect prey into the generous mouth. The plumage is a mix of camouflaging browns. Both sexes have a white neck band, and the male has white outer tailfeathers.

Whip-poor-wills perch on branches or sit on the ground or along roadsides, where the birds' eyes gleam red or bright orange in the glare of automobile headlights. This "eyeshine" is caused by a reflective layer at the back of the retina called the tapetum. The tapetum amplifies small amounts of light by passing them back through the retina a second time. Whip-poor-wills fly up to catch moths, mosquitoes, gnats, June bugs and crane flies. The sit-and-wait foraging strategy is less energy-expensive than the common nighthawk's in-flight foraging and may be what allows whip-poor-wills to arrive earlier on northern breeding grounds and to survive periods of cold weather and low prey availability. Its soft feathering lets a whip-poor-will fly almost as quietly as an owl and helps the bird intercept moths, many of which can detect, through tympanic membranes, sounds of potential predators. Whip-poor-wills take sphinx moths, noctuid moths and the big silk moths: cecropia, tuna and polyphemus.



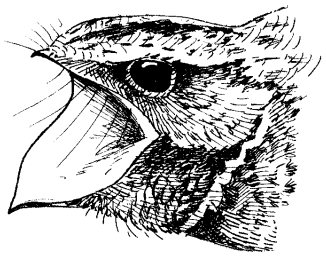
Whip-Poor-Will

The whip-poor-will is named for the male's repetitive nocturnal calling. The "whip" is sharp, the "poor" falls away, and the "will" — the highest note in the sequence — is a bullwhip snapping in the night. The call carries about half a mile. Listeners close to the calling bird may hear a soft *knock* sound before each repetition. In Pennsylvania whip-poor-wills start calling in late April or early May, when males arrive from the south; the calling continues through June and dwindles in July. Whip-poor-wills call mainly at dawn and dusk, and they go on and on. A friend of mine who lived on our road, upon hearing a whip-poor-will start up outside his house, counted for four consecutive minutes, recording 55, 56, 56 and 57 repetitions. He noted the time, then sat reading. The bird kept singing, without changing position or tempo, for 91 minutes. Figuring an average of 56 calls per minute, he arrived at a total of more than 5,000 *whip-poor-wills*.

The calling attracts females. Whip-poor-will courtship involves head-bobbing, bowing and sidling about on the ground. The female lays two eggs on the ground in dry open woods, often near the edge of a clearing. Most egg-laying occurs between mid-May and mid-July. The eggs are off-white, speckled with tan, brown or lilac; they blend in with the dead leaves, as does the adult that incubates them. Several times I have almost stepped on whip-poor-wills incubating or brooding. In one case the incubating bird was a male. On another occasion the adult, a female, flew directly at my face, then fell to the ground and tried distracting me by feigning an injury.

The reproduction of whip-poor-wills may correlate with the lunar cycle: males sing longer on moonlit nights, and hatching may occur when the moon is waxing, on its way to being full, so that the increased light makes foraging easier for the adults, which must now feed nestlings as well as themselves. The eggs hatch after about three weeks of incubation. Parent birds feed their young by regurgitating crushed insects. The fledglings first fly about 20 days after hatching. Whip-poor-wills begin leaving the Northeast in August and September, with stragglers into October. The species winters in the southeastern states, in areas where the related chuck-will's-widow (*Caprimulgus carolinensis*) breeds in summer. (The chuck-will's-widow withdraws to Central and South America in winter.) Some whip-poor-wills migrate to Central America and the West Indies.

Whip-poor-wills reach their greatest numbers in young brushy forests; abandoned farms, sometimes called "whip-poor-will farms"; and woodland edges, where rank plant growth promotes insect populations. The birds hunt in forest clearings and around water, orchards and gardens. In Pennsylvania the population remains strongest in the Ridge and Valley Province in the southcentral counties. The whip-poor-will does not adapt well to urbanization; the growth of suburbs and cities has eliminated this species from much of southeastern Pennsylvania. Whip-poor-wills also cease to breed in areas where woods become too mature; they have declined over much of the East during the last three decades.



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