Nature's submarines possess exceptional characteristics: a maniacal call, hitch-hiking offspring and eating their own feathers.

The Grebes of Illinois

pied-billed grebe

Story By Sheryl DeVore

As the earth begins to thaw in spring, fog blankets a northern Illinois wetland at sunrise.

Suddenly, out of the mist comes a loud, maniacal call, as if a ghost were laughing from the cattails. The pied-billed grebe, Illinois' only breeding member of the bird family Podicipedidae, is declaring its territory.

"It's a strange call that doesn't even sound like a bird," said scientist Jeff Walk.

(Photo by Steven D. Bailey.)

Emerging from its egg at Frank Bellrose Wildlife Reserve, located in the Cypress Creek National Wildlife Refuge in southern Illinois, a pied-billed grebe nestling's egg tooth remains intact.

This author hears a resonant, laughing, gulping sound that rises in pitch and insistence—the male's territorial defense call, as well as its come-hither call to the female. The pair also duets together in a series of duck-like laughs and fast quacks.

More of these fascinating vocalizations can be heard in Illinois these days. Once endangered in Illinois, the pied-billed grebe has recovered and is doing well in the state, said Walk, director of science for the Illinois Nature Conservancy. After being moved from endangered to threatened

The pied-billed grebe is the most common grebe in Illinois, although four other species—horned, eared, red-necked and western—can be spotted on Illinois waters during spring and fall migration.

in 1999, the species was eventually removed from the Illinois threatened and endangered species list in 2004.

"Pied-billed grebes have responded well to wetland restoration, while some of the other wetland birds, such as the yellow-headed blackbird, haven't," said Walk, who serves on the Illinois Endangered Species Protection Board.

Four other grebe species visit Illinois, but only during fall and spring migration. The most common is the horned grebe, with the red-necked, eared and western grebes putting in occasional appearances.

Grebes possess interesting traits that help them do what they do best—swim and dive to catch their meals of aquatic invertebrates, crustaceans, fish and amphibians.

A grebe is virtually tail-less and its feet are placed far back on the body, helping the bird more easily propel itself in the water. Alas, these characteristics cause it to appear rather clumsy on land as it hobbles along. Like loons, which possess similar attributes, grebes require large enough bodies of water to paddle across before becoming airborne.

Some grebe species, including the pied-billed, are nature's submarines. When alarmed, instead of taking off in flight, they dive or sink their bodies low into the water so they can barely be seen. The pied-billed grebe actually can adjust its ability to float by pressing its dense, waterproof feathers against its body.

"One of the most bizarre traits of grebes is that they eat their own feathers," Walk said. Some scientists have speculated that the feathers help the birds digest their food.

By March and April, pied-billed grebes, and sometimes larger numbers

(Photo by Adele Hodde.)

horned grebe

(Photo by Steve Patterson, Illini Images.)

eared grebe

(Photo by Bob Steele, BobSteelePhoto.com.)

red-necked grebe

(Photo by Bob Steele, BobSteelePhoto.com.)

(Photo by Bob Steele, BobSteelePhoto.com.)

western grebe

The largest grebe species in the United States, the western grebe is a rare to casual migrant through Illinois.

of horned grebes, are plying the lakes and reservoirs of Illinois as they journey north to their breeding grounds.

The eared, red-necked and Western grebes are much less numerous in Illinois. Their breeding grounds are north and west of the Prairie State.

The only grebe that will remain to nest in Illinois is the pied-billed grebe. During the breeding season, observers may see grebes with what looks like seaweed dripping from their mouths—that's nesting material. The female anchors a floating nest of decaying wetland vegetation to living greenery so that it blends with the wetland scenery. When an intruder approaches, the adult grebe covers the eggs with the vegetation and slips beneath the water.

The pair takes turns incubating four or five eggs, and in about 28 days the young hatch and within hours climb onto the adult's back to get their first, bird's-eye-view of the water. Only days later, the chicks are swimming with their parents and learning how to dive.

Illinois Natural History Survey ornithologist Steven D. Bailey had the rare opportunity of discovering a grebe nest with newly hatched young.

"The young still had its white egg tooth, something biologists rarely see since the egg tooth is not kept for long," Bailey said. "Another egg was slightly cracked and being pipped."

Like many birds, as the time approaches for the grebe to break out of its shell, a muscle in its neck gets larger and stronger. This muscle furnishes the extra power to bring the egg tooth out to pip the shell, according to Harvey Fisher, author of "The hatching muscle in North American grebes," published in 1961 in "The Condor."

"Nesting grebes are most common in the northern third of Illinois, but they do breed statewide," Bailey said. Some good locations to look for pied-billed grebes in spring and summer include Rollins Savanna Forest Preserve in Lake County, Goose Lake Prairie State Natural Area in Will County, Hennepin Hopper Lake in Putnam County, Emiquon Preserve in Fulton County and Spunky Bottoms Preserve in Brown County.

Visit a wetland at dawn or dusk this summer and wait for a loud, maniacal laugh to emerge from the vegetation. Return during the day and perhaps you'll see the source of that ghost-like call and its hitch-hiking offspring.

Illinois' grebes

Pied-billed grebe—common migrant in spring and fall; fairly common breeder in marshes and sometimes ponds and lakes bordered with cattails; rare winter resident where water remains unfrozen

In breeding plumage, this12-inch long bird has a darkish overall appearance, a white eye ring, black chin and throat and a contrasting black ring around the short, compressed, whitish bill. In non-breeding plumage, it loses the black ring on the bill and has a white chin and throat.

Horned grebe—fairly common to common migrant in spring and fall with a few in winter; found sometimes in flocks of 25-50 or more on lakes, with fewer numbers on ponds and sloughs; usually in large reservoirs in winter; nests farther north than pied-billed grebe

In breeding plumage, the 12-inch-long bird has a rufous neck and sides, a dark head, red eyes and golden ear tufts. In non-breeding plumage, it lacks the ear tufts. Its white cheeks and red eye, along with its contrasting light and dark overall plumage, help differentiate it from the pied-billed grebe during non-breeding plumage.

Eared grebe—rare migrant in spring and fall, found on lakes, ponds and sloughs; nests farther west and north than the pied-billed grebe

About the same size as the pied-billed and horned grebes, this species has red eyes, a black neck and feathered golden ear tufts. In non-breeding plumage it loses the ear tufts and has dark cheeks. An erect area of feathers toward the front of its head may help differentiate it from the horned grebe.

Red-necked grebe—casual migrant in spring and fall, uses lakes and reservoirs; nests farther north and west than the pied-billed grebe

Stockier than all other grebes and larger than the pied-billed, eared and horned grebes, this species sports a rusty neck, white cheeks and black-capped head, with a stout, long, straight, yellowish bill in breeding plumage. In all plumages, it has dark eyes. In non-breeding plumage, its neck is whitish, often with a hint of reddish-brown.

Western grebe—rare to casual spring and fall migrant; uses large, deep lakes; nests in western United States and Canada

In breeding and non-breeding plumage, the largest of all United States grebes has a long, slender neck, black head, back of neck and body, and contrasting white on the cheeks and throat. The bird also has red eyes and a long, slender, yellow bill.