The Outside Story

The Birds of Middle Earth

By: Laurie D. Morrissey

I usually hear the kingfisher before I see it. If I'm reading by the lake, its harsh, rattling call gets my attention. I look up to see the flashy blue-and-white bird fly to a new perch or hover over the water scanning for small fish and crayfish. If I'm kayaking, I try to follow it along the shore as it moves from one overhanging limb to another. This lasts for about two moves: they are easily disturbed and are fast fliers.

Stalking the bird recently, I began to wonder about its nest. As common as belted kingfishers are, I didn't know anything about their domestic arrangements. As it turns out, my kingfishers likely consider this lake better for noshing than nesting. The lake's rock-bound shore lacks the type of steep earthen bank the birds need to dig a burrow. Kingfishers are among the few birds in North America that nest in cavities they excavate themselves.

Kingfishers raise their five to eight chicks deep within the bank of a river, lake, or wetland, at the end of a tunnel. Three to six feet of depth is typical, though some extend up to 15 – quite a feat for a short-legged bird that's only a foot long.

The key is conjugal cooperation. The male and female take turns digging – anywhere from a few seconds to three minutes at a stretch – though the male does most of it. You can tell who's who by the color: the female has a rust-colored belt across its breast and is brighter than the male. The birds dig with their bills and front toes, scraping dirt out of the hole as they back out. The process takes from three days to three weeks.

The male selects a nest site during courtship in April. The preferred address is a high, narrow bank near a food source, easily excavated, free of roots, high enough to be safe from rising water or swimming snakes and minks, low enough to be out of a raccoon's reach, and too unstable to be climbed. Besides natural banks, they readily make use of human-created sites like abandoned sand and gravel operations, road cuts, and construction-site dirt piles.

At the end of the gently up-sloped tunnel, the pair hollows out a nesting chamber eight to twelve inches in diameter and six to seven inches high – a home that's dry, protected from wind, and virtually impregnable.

Dan Albano, who researched kingfishers along a 56-mile stretch of the Connecticut River for his doctoral thesis, observed that females invariably laid seven eggs. Breeding success was high. Few eggs failed to hatch, and few nestlings failed to fledge – a testament to an effective nesting strategy.

By late July or early August, baby kingfishers have fledged, and they abandon their nest holes.

Two New England songbirds also nest in earthen banks: bank swallows and northern rough-winged swallows. Rough-winged swallows are cavity nesters but not excavators. They will use abandoned kingfisher burrows, and have been known to nest in a drainpipe or the tailpipe of a long-parked truck.

Bank swallows dig their own burrows, and they nest in colonies of up to 1,000 pairs, with nesting burrows no more than a foot apart. Their tunnels are shorter than kingfisher tunnels (one to five feet) but no less impressive. The male swallow excavates the first foot or so, then attracts the female. Once a pair has formed, the female helps finish the digging. In the nest chamber, the female builds an inch-thick mat of grass and leaves to cushion her two to six eggs.

Sadly, bank swallows (like many aerial insectivores) have been declining in number over the past 20 to 30 years. Scientists are looking for the reason. Habitat loss is significant: riverbank stabilization can wipe out an entire colony. A major challenge, according to Mara Silver, who has studied bank swallows on the Connecticut River, is getting accurate population counts. “We don’t really have a good sense of population size in New England because they are hard to survey using traditional survey methods,” she said. “If you miss a colony, that can account for a major percentage of a local population.”

I now scan riverbanks and lakeshores for kingfisher holes whenever I paddle. Riding my bike, I pause on bridges to look for bank swallow holes, marveling at the ability of these birds to create homes where their offspring are safe, dry, and completely invisible to me.

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