



Harriers Holding on in Coos

by Chris Martin, Senior Biologist

During a warm week in early August 2023, NH Audubon coordinated a Northern Harrier productivity survey at scattered sites across Coos County. I was joined in this effort by former harrier field techs Katrina Fenton and Levi Burford, several folks from NH Fish and Game (NHFG) and the Natural Resources Conservation Service (NRCS), and a few other experienced birders. Together we surveyed 24 potential breeding sites in 12 Coos towns and one additional site in Grafton County. We count harriers in August because that's when juveniles begin to move out of hidden nests, perching on shrubs and fenceposts, and noisily chasing adults when they arrive with prey.

We found just 3 active breeding territories in Coos County in 2023; 2 of the 3 were successful, producing 4 fledglings. The third territory had 3 adults present, but no evidence of fledglings. Productivity in 2023 was substantially lower than 2022, when a total of 15 fledglings were found at 6 successful sites. Limited Spring 2023 surveys and other public sightings reported to eBird suggested that at least 4 additional Coos breeding territories may have had nesting attempts earlier in the breeding season. But, like the rest of the state, Coos County experienced heavy rains in June and July—a situation that is generally bad for ground-nesting birds.

Historically, NH harriers were largely restricted to freshwater and tidal marshes, beaver meadows, and other natural or human-made upland and lowland openings. Agricultural activity in the state in the 1800s created a mosaic of fields and edges that turned many areas into potentially suitable harrier breeding or foraging habitat. However, over the last 150 years, much of the Granite State's landscape has either been heavily impacted by development or it has reverted to forest. On the remaining agricultural lands, intensive management practices can put nesting or foraging harriers at increased risk.

From 1983 through the mid-1990s, NH Audubon worked with NHFG, graduate student/wildlife biologist Pat Serrentino, and local Coos County citizens David and Barbara Killam to monitor harriers and look for productive nests. We discontinued

this effort around 1997, and subsequently harriers were reclassified as state-listed Endangered. With funding from NHFG and several foundation grants, we renewed focus on harriers starting in 2019, hoping to gather information that might help NHFG and other wildlife managers preserve harrier habitat and promote recovery.

Our annual survey methods have varied somewhat over the past 5 years, and we have seen mixed results from the harriers:

- 2019—limited surveys starting in July: one successful breeding pair that fledged 3 young.
- 2020—full May-Aug surveys: at least 10 territories; 6 pairs fledged at least 9 young.
- 2021—full May-Aug surveys: 2 successful pairs fledged just 3 young.
- 2022—full May-Aug surveys: 15 fledglings at 6 sites; 3 times more successful, 5 times more young than in 2021.
- 2023—limited surveys; 2 successful pairs fledged 4 young.

NH Audubon believes that habitat management suggestions need to be shared with local landowners if harriers are to be preserved as breeders in northern New Hampshire in the years ahead. We need to protect, enhance, and create more mixed-age fields as nesting habitat for harriers, especially in proximity to high-quality foraging habitat. Collaboration with federal and state land managers will be important, as will exploring the role that large-acreage timber harvests might play to create ephemeral breeding and foraging habitat.



Creampoke Road habitat (top), by Chris Martin; Whitefield airport male (upper inset), by David Forsyth; female at Creampoke site (lower inset), by Tom McShane.