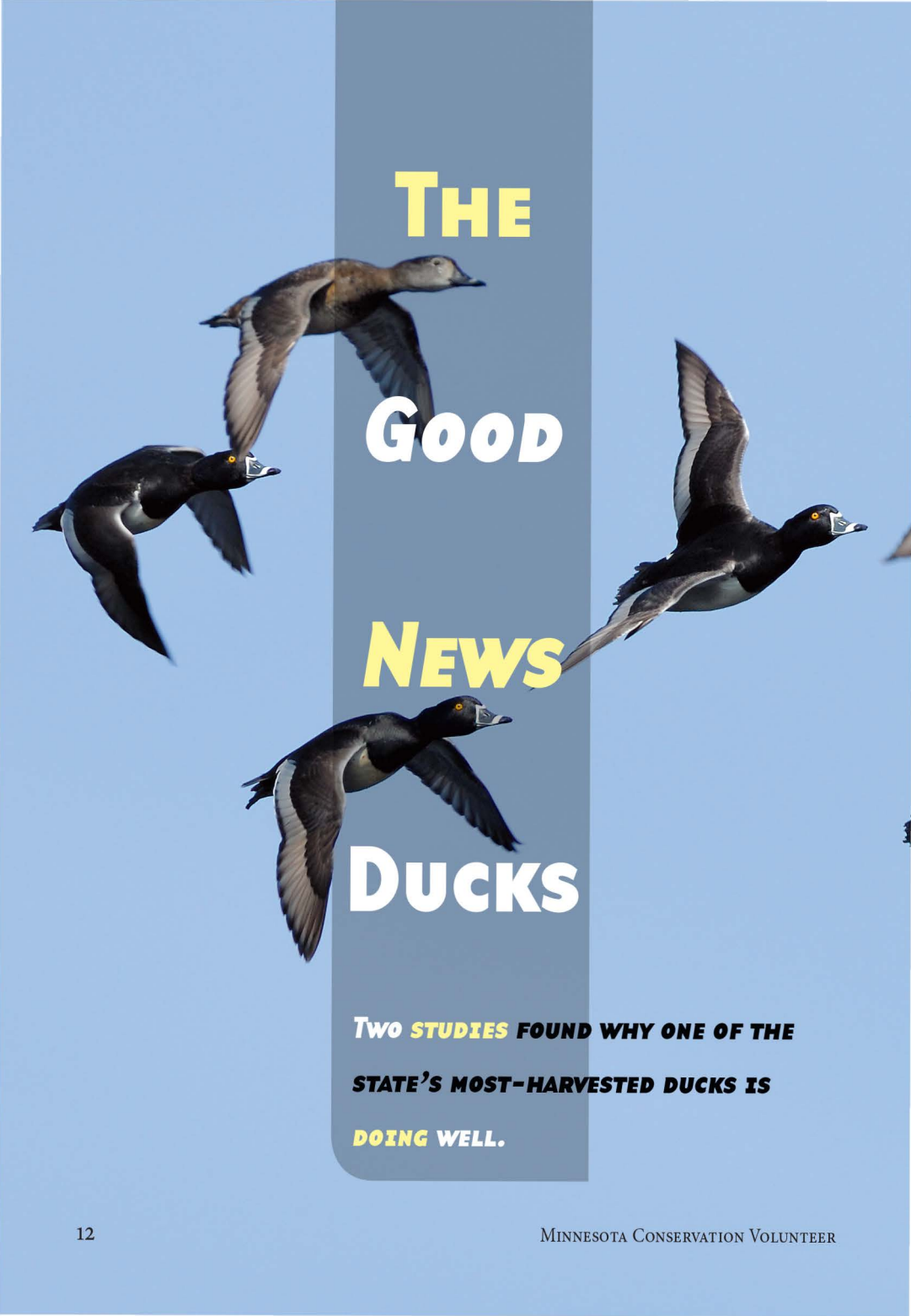

The Good News Ducks

Two studies found why one of the state's most-harvested ducks is doing well.

By
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My favorite holiday comes the third week of October, with gifts. There are skeins of ducks in the dawn, whistling wings high overhead. It comes with the drumming of cold sleet on my parka hood, the bobbing of decoys in the foam, the entertainment of coots and grebes in front of the blind. It is decorated with camouflage, takes place on blue northern lakes, amid waving stands of golden wild rice stalks, and framed by shorelines of butterscotch-colored tamaracks. I toast it with thermos coffee and share it with friends and quivering retrievers.

BILL MARCHEL

Each autumn Minnesota hosts this marvelous migration of ringnecked ducks. At peak migration, Minnesota attracts more than 500,000 ringnecks, largely in the north-central part of the state. Drawn here by

Ring-necked ducks were the number 2 bird in Minnesota hunters' bags last year. The ringneck harvest increased to 89,000 in fall 2010, a 94 percent jump over the prior year.

our shallow lakes and wealth of wild rice, they arrive from wooded marshes in Canada and join local ringnecks.

About 15,000 breeding pairs of ringnecks live in Minnesota, yet little has been known about them until recently. Two studies used radio transmitters to track ringnecks—first-of-its-kind research conducted by DNR waterfowl biologists. The studies depict a breeding population of ring-necked ducks with consistent nesting success in Minnesota. And the data shows, for the first time, just how and when these ducks use Minnesota's state and federal wildlife refuges.

#3 Bird in the Bag. Ring-necked ducks are not glamour birds. They aren't gaudy like mallards, aren't as rare as canvasbacks, aren't as storied as bluebills. But they are important to Minnesota, both as breeding birds and for the hunter's bag. In fact, Minnesota often ranks number one nationally in the annual harvest of ringnecks. In recent years, harvest has been around 75,000 birds, but it has occasionally been twice that. That means that ringnecks are typically the third or fourth most-harvested duck species in the state, depending on the year.

At 17 inches long and about 1 ½ pounds, the ringneck is half the size of a mallard and only slightly larger than a blue-winged teal. It is one of the smallest members of the diving duck family, a bit smaller than a lesser scaup.

The ringneck is often mistaken for a scaup (bluebills to hunters), but the two

species can be easily told apart. Hunters often call the ringneck a *ringbill* because of its most distinctive feature: a white ring just behind the tip of the bill and, on the drake, a second ring where the bill meets the face. This is a much better identifier than the purplish neck ring, for which the ringneck is named. Only the drake in his nuptial plumage displays this feature, which is almost invisible except in the best light.

Another important distinction, in this hunter's opinion: Ringnecks are much better table fare than scaup, for the former feast on wild rice during the autumn, while the latter eat invertebrates and mussels.

BILL MARCHEL

Nesting-Success Study. Ring-necked ducks breed in a large area across the continent's northern forests, yet remarkably little is known about their nesting habits—perhaps because they're bog birds.

Finding ringnecks on their nests is "very physically difficult," says DNR waterfowl research scientist Charlotte Roy, who launched a study in 2008 to locate ringneck nests and analyze nesting success.

"They nest in sedges or below leatherleaf or bog laurel," she says. "These bog mats are unstable, and we frequently fall through, swamping our waders."

Ringneck nests are also spaced out, so Roy had to do a lot of searching to find a large enough sample for her survey. Roy and her team searched 110 wetlands and found only 66 nests. To find the nests, Roy, DNR biologist Christine Herwig, and seasonal interns searched bogs in spring and early summer on foot or from a lake's edge by canoe. When tromping through the bog, the crew dragged ropes with plastic bottles filled with pennies, which made a loud, jangling noise. The noise flushed the hens. When working from canoe, they used long bamboo poles to beat the vegetation and flush a nesting hen.

"You're working so hard, and there are days that you don't find any nests at all," says Roy. "It can be a real test of your will power."

Once they found a nest, the researchers candled any eggs (that is, they held the egg up to the sun to see into it and estimate hatch date). They checked the nests periodically throughout laying and incubation.

During the last week of the 26-day incubation period, the researchers placed a live trap near the nest to capture the hen. Then they surgically implanted a tiny radio transmitter on the hen's back. When she woke up from the anesthetic, the hen found herself back on her eggs.

The transmitter allowed the team to follow the hen and her brood. Once the hen was off the nest, the crew returned to look for evidence of predation, study vegetation, and document nesting preferences.

Study data was used to determine ringneck nest success, which is critical for finding out if a population is stable or declining. And the results are good news.

During the three-year study, Roy found 27 percent to 48 percent of nests produced at least one duckling. Some nests were lost to mink and other predators, and some got flooded out. The nesting success rate was comparable to those of studies done in Minnesota in the 1970s and '80s. And it was much higher than that of grassland nesting ducks, such as mallards and pintails. Roy says the results mean that, given adequate habitat, Minnesota will likely maintain a healthy ringneck population.

Post-Fledging Study. Over many decades, the DNR has invested a great deal of money and effort to establish many waterfowl refuges in our state. These valuable lands and waters provide a place for waterfowl to rest and feed during migration. In the north-central part of the state, many were specifically selected for migrating ring-necked ducks, which tend to flock to wild rice.

But do these refuges also benefit Minnesota's homegrown ringnecks? Roy's second study tackled that question.

"We wanted to see just what our locally produced ringnecks were doing after fledging," says Roy. "We have many refuges set up in Minnesota for ringneck duck fall use. But they've often been placed opportunistically rather than strategically. We know migrant birds use them, but do our locally produced birds?"

For the past four years, Roy has immediately followed up her nesting study with a post-fledging study that monitored young-of-the-year ringnecks until they migrated south in October and November. To avoid influencing the results of the nesting study, this study tracked different broods than those tracked earlier in the summer.

Roy, Herwig, and their team of interns headed out to marshes at night and used spotlights and nets to capture ring-necked ducklings along shorelines. Caught just days before they could fly, the ducklings received leg bands and transmitters.

The fledglings were monitored by weekly aerial surveys and continuously—24 hours a day—via solar-powered receiver towers erected for the study at 12 state refuges and two federal refuges in the north-central area.

"We found that 33 percent of the birds that fledged use the refuges," Roy says. "But we don't find that all refuges are used equally. There are some more popular hangouts with some ducks.

"I would say that if a third of young birds are utilizing an area that is being managed specifically to benefit them, then the DNR is doing something right in selecting refuge areas."

The daytime aerial surveys showed the top three refuges used by locally produced ringnecks in the study were Drumbeater State Game Refuge, Mud-Goose Wildlife Management Area, and Tamarac National Wildlife Refuge. Data transmitted to the radio towers showed that birds also used some refuges at night.

"We think that some refuges see significant night use because they also possess significant amounts of wild rice," says Roy. "Not only are they refuges from hunting, but they also are good feeding areas. There's no reason for the ducks to leave."

Good News. Taken together, Roy's back-to-back studies on nesting success and refuge use show that Minnesota is a good place for ring-necked ducks.

"Minnesota has long recognized the need for adequate sanctuary and rest areas and realized the importance of wild rice for ring-necked ducks," says DNR waterfowl manager Steve Cordts. He says a network of refuges within 25 miles of each other has ensured that there isn't a gap in rest spots for migrating ringnecks. And the DNR's investments in wild rice management have provided plenty to eat for all of Minnesota's ringnecks, both migratory visitors and local residents.

All good news for my favorite holiday, one that duck hunters will be celebrating for generations to come.

BILL MARCHEL

Every fall about 500,000 migrant ring-necked ducks join Minnesota's local population of ringnecks. The 2011 spring waterfowl population survey estimated 54,000 breeding ringnecks in Minnesota, one of the top three counts over the past 15 years.