Blackbird of the bogs: an early victim of global warming?

by Ted Bailey

Photo of a female rusty blackbird/USFWS.

As I walked around the margin of a small pond on the Kenai Refuge in mid-May checking on the seasonal progress of breeding wood frogs, I flushed a jet-black bird feeding along the edge of the water ahead of me. When it landed on a birch sapling nearby and I looked at it closely through my binoculars, its jet-black appearance at a distance had transformed into a beautiful iridescent bluish-green gloss in the reflected sunlight. The iridescence reminded me of the plumage of displaying birds-of-paradise from New Guinea. But I was looking at a male Rusty Blackbird, which is sometimes referred to as the "blackbird of the bogs." Its duller slate-colored female companion was also nearby but was more secretive. Both sexes of Rusty Blackbirds have conspicuous light-colored eyes resulting from their pale irises. Later in the year their plumage will take on a more brownish appearance from which their name "rusty" is derived.

By coincidence, the next morning in the May 15 edition of *Time magazine* I read an article entitled Bye Bye Birdies where it was written: "The decline of the rusty blackbird, for example—one of the most rapidly dwindling species in North America, says Butcher—may also be due to global warming, but the immediate cause seems to be a drying up of the Canadian wetlands where it breeds." I had previously known the Rusty Blackbird was in decline but had not realized the significance or rapidity of the decline.

One of the first scientific articles on the decline of Rusty Blackbirds appeared in a 1999 issue of *Conservation Biology* magazine. By analyzing past reports and results of North American Breeding Bird Surveys, Christmas Birds Counts and the Quebec Checklists Program the authors were able to document an approximately 90% decline of Rusty Blackbirds over the past 30 years. In contrast to other species of blackbirds in North America—the Red-winged and Brewer's blackbirds and grackles—that benefited from habitat changes caused by humans, it appears that the Rusty Blackbird declined primarily because of the draining of wooded wetlands in the southern United States where it spends the winters.

In a more recent report entitled *Status Review and Conservation Plan for the Rusty Blackbird (Euphagus carolinus) in Alaska*, written in March 2004 by Kevin Hannah of the Alaska Bird Observatory in Fairbanks, I read that the Rusty Blackbird has been one of the least studied birds in North America over the last 40 years. It is the least studied because of the remoteness and inaccessibility of its breeding range. During the breeding season, Rusty Blackbirds frequent wet forests, bogs, fens, muskeg, beaver ponds, and wet forest openings across the boreal region and favor open habitat near water, with a preference for nesting in tall shrubs. I also learned that Rusty Blackbirds in Alaska appear to be declining at a slower rate than elsewhere where their populations have been monitored.

But now in addition to problems on its winter range, the Rusty Blackbird may also be threatened by shrinking wetlands in its summer breeding range, which is the boreal forest region across northern North America including Alaska. Unlike other blackbirds, breeding Rusty Blackbirds feed primarily on aquatic invertebrates such as the larvae and adults of aquatic insects and snails. Each year I have been fortunate to observe a pair of Rusty Blackbirds that nest near our home. On several recent occasions I watched them feeding in their usual manner by wading in shallow water and flipping over dead leaves looking for aquatic invertebrates. But the Peninsula's wetlands are declining.

Kenai Refuge ecologist Ed Berg has documented the drying of wetlands on the Kenai Peninsula (See *Refuge Notebook*, September 16, 2005), which appar-

ently began in the late 1960s and accelerated during the 1990s. He attributes the decline of wetlands to warmer summer temperature, which increases evapotranspiration. The drying of wetlands is subtle unless they are visited on an annual basis. For example, one pond that I first surveyed for wood frogs in 1991 held water over 30 inches deep. The size of this pond rapidly shrank during the early 1990s and today the "pond" has numerous white spruce trees growing where it once existed, some of which are over three feet tall. The drying of wetlands in the boreal forest areas of Alaska and Canada is predicted to have a detrimental effect on many species of wildlife. The Rusty Blackbird may be one of the first noticeable victims of this ecological change.

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