

ABOUT THE COVER: RED-SHOULDERED HAWK

The whistled scream *kee-aah* of the Red-shouldered Hawk (*Buteo lineatus*) is no longer heard as frequently in the spring as in previous decades, but there are indications that this beautiful raptor may be gradually making a comeback in New England as reforestation occurs. About the size of a crow, this buteo is intermediate in size between a Broad-winged Hawk and a Red-tailed Hawk. Adult birds are distinctive, with their brownish, rufous-tinged upper parts, rufous shoulder patches, and rufous barred underparts. In flight they show a black tail thinly banded with white, black-and-white checkered wing feathers, and a translucent "window" at the base of the primaries. Immature birds are more difficult to identify because they have spotted or streaked underparts, much like the immature plumages of several other buteo species, but they always have the long-tailed look that is typical of Redshoulders of any age. Five subspecies are recognized, with *B. l. lineatus* being the race found in the northeast. Another race is confined to the southeast, and the others occur in Florida, Texas, and the West Coast.

Red-shouldered Hawks are found primarily in the eastern United States from Minnesota to Texas and north through the southern part of eastern Canada. There is a breeding population in the west from southern Oregon to southern Baja California. In Massachusetts they breed most commonly in the heavily wooded areas of the western part of the state and are largely absent from Cape Cod and the islands.

The northern part of the Red-shouldered population is migratory, and wintering birds are found from Maine throughout the southeastern United States and as far south as central Mexico. In Massachusetts they are uncommon and local in winter.

The spring migration in Massachusetts usually begins during the last week of March, with the highest single day count being 267 birds tallied at Mount Tom. Nesting occurs from April through June, and the fall migration begins in the third week of September with peaks in late October and early November. The maximum one-day fall migration count in Massachusetts is thirty-two.

Red-shouldered Hawks are monogamous and highly territorial, and have sometimes been known to occupy a territory for life. They prefer wet bottomland forest, swampy woods, and riparian habitat. Extensive wet deciduous forests are optimal habitat, with the presence of beaver ponds and scattered fields suggested as sometimes desirable features. In spring a two-or-three-syllable song variously described as *kee-ah*, *kee-aah*, *kee-oow*, or *kee-you*, is given by birds on territory. These hawks are especially noisy when defending their territory against other raptors. Their displays include a spectacular "sky-dance" in which the male soars up as high as 2000 feet, calling all the while, followed by a series of steep dives alternating with rapid spiral ascents.

Red-shouldered Hawks produce a single brood and usually first breed at two years of age. Their nests, which are usually placed in a deciduous tree, average about fifty feet above the ground and are made of sticks and twigs and lined with leaves and bark. Both birds contribute to the nest-building, and they typically "decorate" the nest with sprigs of fresh green foliage. They sometimes reuse their own old nests, or they may use the old nests of crows or other hawk species. Three or four bluish-white eggs, blotched or spotted brown or shades of lavender, are laid usually at two-day intervals. Hence the young hatch asynchronously, producing young of staggered sizes. The female, which does most of the incubation, has well-developed brood patches. Incubation lasts about a month. The female also does most of the initial brooding and is fed by the male. After hatching, both birds hunt and feed the young, which fledge in about six weeks and are totally independent of the adults by about four months of age.

Red-shouldered Hawks hunt in open forest, wooded swamps, and edge habitat, as well as in meadows and fields. They usually "perch-and-wait" but fly low and accipiter-like in open habitat. Their diet includes reptiles, amphibians, birds, and insects, as well as small rodents which are their major prey.

Sadly, migration counts across North America suggest a decline in Red-shouldered Hawks from 1946 to 1986, and Breeding Bird Survey data show a significant decline in Massachusetts from 1966 to 1991. The population has crashed by ninety percent in some midwestern states. In 1971 the species first made the National Audubon Society "Blue List," which gives early warning of declining populations or range reductions in species. This precipitous decline is attributed primarily to the effects of forest fragmentation and deforestation in general, although some effects of DDT and related pesticide problems have been documented. The species is listed as endangered in New Jersey, threatened in New York, of special concern in Connecticut, and is on the "watch list" in Maine and Massachusetts. Apparently, this hawk does not fare well in competition with Red-tailed Hawks and Great Horned Owls in small forest fragments.

Hopefully, reforestation will result in the removal of this species from the various "lists," and we will hear the territorial song more often in future springs.

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