

Rock Dove

Columba livia

Because of its foreign origin and frequent dependence on man, the Rock Dove has frequently been regarded as a second-rate citizen by many birders, as well as by the National Audubon Society, which disdained to count the species on the annual Christmas Bird Counts from 1950 through 1974. Such disdain has robbed birders of a wealth of information regarding the species' past populations; the Rock Dove's close association with man would have made it a useful barometer of the effects of urbanization.

Introduced to North America by the French in the early 1600s (Schorger 1952), the Rock Dove was raised for food throughout colonial America in the 1700s. Feral birds from early settlements formed the ancestral stock of today's populations. It is not known whether the species was more widespread in the mid-1800s when agricultural clearing reached its zenith in Vermont, but present reforestation trends and the decline in agriculture seem destined to restrict its Vermont distribution by limiting critical winter foraging habitat.

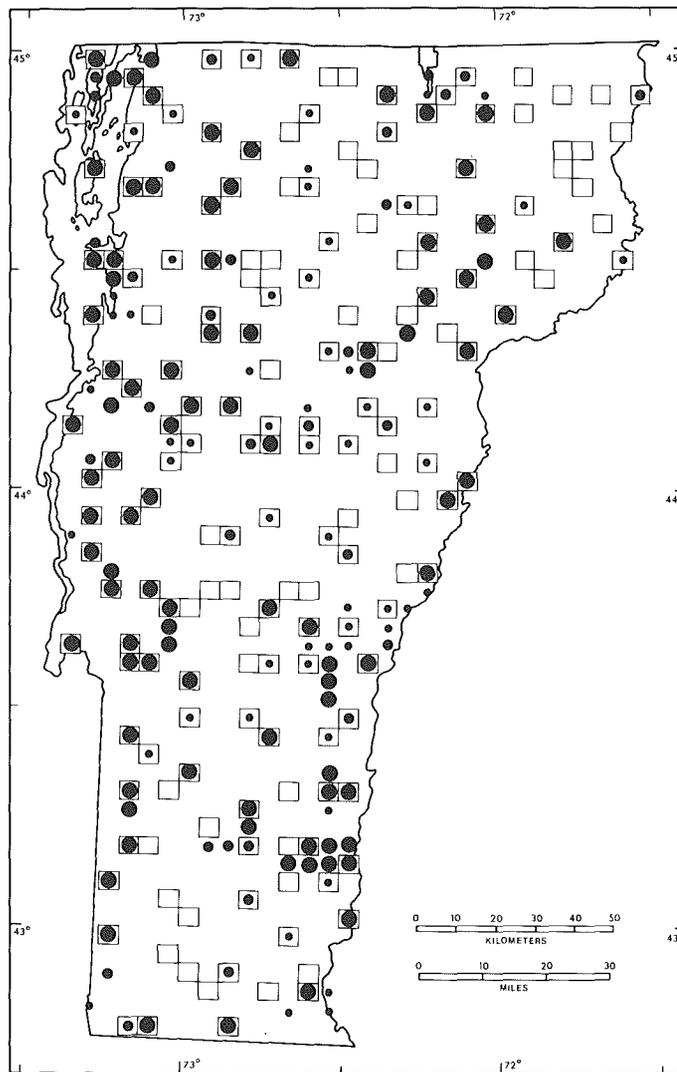
Although often nesting on man-made structures (bridges and barns), the Rock Dove also nests on cliffs and ledges if open agricultural foraging areas are within a few miles. Greatest densities in Vermont are encountered near the larger metropolitan areas in the Lake Champlain and Connecticut River valleys, where abundant nest sites and foraging areas are in close proximity and winters tend to be milder than in other parts of the state. Rock Doves are relatively rare in the mountainous and extensively forested sectors of Vermont. They were found in only 25% of the Northeast Highlands priority blocks and in only little more than half of the blocks in the Green Mountains and the North Central region.

The Rock Dove was apparently the first bird to be domesticated, in about 4500 B.C. (Zeuner 1963); its breeding biology is well documented (Naethes 1939; Fabricius and



Janssen 1963). Although reproductively active throughout the year at southern latitudes, the onset of breeding in Vermont seems to be weather-related. A significant increase in courtship displays—particularly wing clapping and gliding by pairs with wings in a V, and billing and nodding in late winter—marks the onset of nesting. Since Rock Doves may remain paired for several consecutive seasons, these courtship displays may be seen at almost any season. Billing and displacement preening more typically accompany actual mating (Stokes 1979).

The nest, built principally by the male, is a messy affair of twigs placed on a ledge, beam, or other support, natural or man-made. The 17- to 18-day incubation of the 2 off-white eggs starts as soon as the first egg is laid. The male shares incubation duties only during the day. Although information for Vermont is scanty, young have been reported in the nest on five dates from March 4 to October 19. Members of the Columbiformes initially feed their young on "pigeon milk," an inner lining of the crop that is sloughed off and regurgitated. Toward the end of their 10-day nesting period young Rock Doves are fed increasing amounts of solid food. Postfledgling attendance tends to be brief, since the parents usually initiate renesting within a few days. The number of



No. of priority blocks in which recorded

TOTAL 124 (69%)
 Possible breeding: 34 (27% of total)
 Probable breeding: 17 (14% of total)
 Confirmed breeding: 73 (59% of total)

Physiographic regions in which recorded

	no. of priority blocks	% of region's priority blocks	% of species' total priority blocks
Champlain Lowlands	30	97	24.1
Green Mountains	31	57	25.0
North Central	12	63	10.0
Northeast Highlands	4	25	3.2
East Central	14	74	11.2
Taconic Mountains	14	87	11.2
Eastern Foothills	19	79	15.3

broods typically raised each year in Vermont is unknown, but 3 or more are likely.

Rock Doves—or “homing pigeons,” as they are also known—are nonmigratory; yet because of their nest-site tenacity they have proven excellent subjects for research on the ability of birds to orient by celestial and electromagnetic cues. Birds taken from their breeding cote have been shown to be capable of returning from many miles away even if the eyes are covered. Much recent ornithological research on navigation has focused on the Rock Dove (Keeton 1971, 1972; Emlen 1975).

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