

and microclimatic conditions appears to be the major, if not only, requisite for kinglet colonization. Breeding kinglets in the Adirondacks, at only a slightly higher latitude than these new areas, occur through a wide range of elevations, some at considerably lower as well as higher altitudes than the new populations. The fact that kinglets do not breed lower than about 3000 feet in the Catskills is probably attributable only to the absence of suitable habitat there below that height. Farther south, in the Pocono Mountains of Pennsylvania, they nest as low as 1700 feet elevation. Altitude and related climatic conditions probably become more significant as influence factors in the disjunct populations of the Appalachians from West Virginia to North Carolina. There they usually occur from about 3000 feet elevation at generally increasing altitudes toward the south (G. A. Hall, in litt.).

Todd (Bird of western Pennsylvania, 1940) remarks on the absence (there is an old reference to the species being a "rare" or "casual" breeder near DuBois) of resident kinglets in the western Pennsylvania Canadian Zone despite the existence of some suitable habitat. Apparently they have not spread to these western areas because I have not been able to learn of any recent definite breeding locations in the state outside of the Poconos and North Mountain in its northeastern portion. Lycoming County and Warren in the central and northwestern parts are mentioned as breeding localities in the literature without supporting evidence. The diminution of native conifers by cutting and fire could be one factor which has affected kinglet breeding in Pennsylvania. Also, the lack of any extensive reforestation with spruces is one possible reason why kinglets have not colonized new localities as they have in New York.

There are probably several more breeding populations of kinglets in New York spruce plantations that have not yet been discovered; I did not check all possible habitat in some reforestation areas. A number of plantations that I examined were not suitable for kinglets either because of age or tree density and species composition, but some of the younger stands are potential future habitat when they attain sufficient size. If forest practices and commercial use permit enough spruce plantations suitable for kinglets to remain, the range extension outlined here will probably persist indefinitely.

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Starling feeds young Robins.—A female Robin (*Turdus migratorius*) built a nest in the crotch of a Hicks upright yew about fifteen feet from the ground. The yew was situated in a grove of evergreens on a property just off Highway 13 in Delaware, and the nest could be clearly seen from a second-story window of the house on the property. The female Robin laid and hatched two eggs. She was seen feeding the young and removing excrement from the nest until 27 May 1970. The male was not seen at the nest.

On 26 May a Starling (*Sturnus vulgaris*) appeared at the nest, and began feeding the young and removing excrement. The female Robin continued feeding and caring for the young along with the Starling. On 28 May the Robin stopped caring for the young, apparently driven away by the Starling.

On 29 May I saw the Starling feed the two young several times. We could not always discern what the Starling was carrying, but frequently we saw insects in its bill. The female Robin did not approach the nest, but three times I saw what appeared to be a Starling chasing a Robin around the roof above us. At this date the young Robins were beating their wings and creeping onto the edge of the nest.

Early on the morning of 30 May, the Starling again fed the young in the nest. A short time later one young left the nest. Thereafter there was much excitement and calling from two Robins on the roof. The second young left the nest in the late afternoon. We could not locate either of the young in the dense undergrowth, and it is not known whether the Starling continued feeding or whether the Robins took over the care of the young.

Logan (Auk, 68:516-517, 1951) has described the feeding of young Robins by a male Cardinal (*Richmondena cardinalis*) at least a day before its own young hatched, and twelve days after the robins had left their nest. Jewett (in Bent, U.S. Natl. Mus. Bull., 196:1949) has also recorded a Swainson's Thrush (*Hylocichla ustulata*) feeding nestling Robins whose parents were present. In the numerous instances of interspecific helpers at the nest summarized by Skutch (Condor, 63:98-226, 1961), the participation of a hole-nesting helper at the open nest of another species seems to be quite rare.—KATHLEEN GREEN SKELTON HERBERT, R. D. 2, Middletown, Delaware 19709, 21 August 1970.

An aberrant incubation stimulus.—A thermistor telethermometer probe, inserted into the nest of a Cardinal (*Richmondena cardinalis*), may have functioned as an incubation stimulus for the nesting female. A standard white-tipped, round telethermometer probe was inserted through the bottom of the empty nest and extended 2.3 cm above the nest floor. It is doubtful that the probe was in direct contact with the median aperture of the bird because the probe registered temperatures from 28–30°C, which are lower than would be expected under direct contact.

The probe was inserted on 26 April 1969. A single egg was found under the incubating female on the evening of 4 May, at which time the egg was removed. The bird continued to incubate in the absence of eggs until the probe was removed on 23 May. After the removal of the probe, the bird was seen only once at the nest, which then was abandoned. The length of observed incubation for this bird was 27 days, the normal incubation period being 12 to 13 days.

This may support the view (McClure, Auk, 62:270-272, 1945) that for some birds the "feel" of the egg or other object alone may evoke the incubation behavior. Prolonged incubation of infertile eggs (Berger, Condor, 15:151, 1953; Jickling, Jack-Pine Warbler, 18:114-115, 1940; Peterle, Wilson Bull., 65:119, 1953) has been reported for several species, but this is the first case known to the author where this behavior apparently was elicited by an object (4 mm × 4 mm) considerably smaller than the species' own eggs (25.3 mm × 18.2 mm).—JOHN R. HALDEMAN, Department of Zoology, University of Arkansas, Fayetteville, Arkansas 75701, 31 October 1970.

Bull snake and Common Grackles.—About a dozen pairs of Common Grackles (*Quiscalus quiscula*) nest each spring in the willows along Little Dry Creek near my home in Arapahoe County, Colorado. One huge tree has 10 branches going abruptly upward from the main trunk, and in this tree a pair of grackles built a nest completely concealed by heavy foliage about 15 feet from the ground. I had watched the birds carrying material and consequently knew its location, though it was not visible from below.