

Notes on hoarding nesting material, display, and flycatching in the Gray Jay (*Perisoreus canadensis*).—In the winter of 1960 several white-tailed deer fed regularly at our feeding station at Pimisi Bay in central Ontario and toward spring the snow became littered with their shed hairs. On 23 March one of the Gray Jays was observed picking up these hairs and storing tufts of them in crotches between the needles of a white spruce. I cannot say whether the mere sight of such an abundance of nesting material caused this reaction, or if later some of the stored hairs were actually used for the nest-building. A monograph on the Siberian Jay (*Perisoreus infaustus*) by Arne Blomgren (Bonniers, Stockholm 1964, reviewed in *Vår Fågelvärld*, 25: 280–281) mentions this jay hoarding feathers during the winter “for the prospective nest-building.”

On 11 November 1966, hopping on the ground with a piece of food in the bill, one of a pair of Gray Jays, upon being pursued by its mate in an effort to take the food away, went into an interesting display. The bird ran out of the way of its pursuer with all the contour feathers fully erected and then crouched with wings held stiffly out from its flanks, tips vibrating. At the sight of this display the mate immediately stopped the pursuit. Here, obviously, was a display of highly ambivalent content suggesting conflicting motivations, threat expressed by the ballooning of the contour feathers, and appeasement by the stance of the begging bird. Both birds were tame and performed at no greater distance from me than about 4 feet.

A few minutes later the same birds engaged in catching in the precise manner of a true flycatcher some small moth-like insects that were in the air above the top of a young birch on this mild fall day.—LOUISE DE KIRLINE LAWRENCE, *Pimisi Bay, R. R. 1, Rutherglen, Ontario, Canada.*

Nesting of the Black Guillemot at Point Barrow, Alaska.—Breeding of the Black Guillemot, *Cepphus grylle*, along the arctic coast of Alaska has been suspected by several authorities (A. M. Bailey, *Colorado Mus. Nat. Hist., Pop. Ser.*, no. 8: 257, 1948; I. N. Gabrielson and F. C. Lincoln, *The birds of Alaska*, Harrisburg, Pennsylvania, Stackpole Co., and Washington, D. C., Wildlife Mgmt. Inst., 1959, see p. 483; R. W. Storer, *Univ. California Publs. Zool.*, 52: 200, 1952), but has not been confirmed by actual observation. Specimens of *C. g. mandtii* in breeding plumage have been collected near Point Barrow in summer (MVZ 134733, taken 23 June), and immature birds are occasionally seen in August. Native hunters of the Eskimo village of Barrow report that occasional birds of this species are seen in open areas in the sea ice in all months of the year. This is substantiated by winter specimens (MVZ 152785, taken 27 February).

In its breeding habitat the Black Guillemot is a bird of rocky cliffs. J. D. Soper (*Auk*, 57: 17, 1940) states that “an indispensable feature [of the nesting habitat] is the presence of talus slides at the base of cliffs near the sea where the nests are hidden away among the boulders. This imposes a highly restraining influence on general distribution.” The established breeding range of the *C. g. mandtii* extends from the northeast coast of Greenland east to the Siberian arctic coast (Storer, 1952: p. 200 and fig. 17; M. D. F. Udvardy, p. 98 in *Pacific basin biogeography* (J. L. Gressitt, Ed.), Honolulu, Bishop Mus. Press, 1963). L. G. Swartz (p. 615 in *Environment of the Cape Thompson region, Alaska* [N. J. Wilimovsky and J. N. Wolfe, eds.], Oak Ridge, Tennessee, USAEC Div. Tech. Info. Ext.) observed Black Guillemots breeding at Cape Thompson on the northwest Alaskan coast, where rocky cliffs of the type Soper describes are common. No such cliffs exist along the northern Alaskan coast, and the conditions under which we found the species breeding there are most novel.

On 15 August 1966 two Eskimo seal hunters, Joseph Ahgeak and Merle Solomon, reported finding the nest of a small, black sea-bird near the tip of Point Barrow, the northernmost extremity of Alaska. On 17 August we visited the nest and identified the birds as Black Guillemots. (The similar Pigeon Guillemot, *Cepphus columba*, has not been recorded in extreme northern Alaska.) The nest was in a 55-gallon oil drum, open at one end and partly submerged in the gravel of the Point. The drum was approximately 200 m from the end of the Point and 40 m from the shallow water (maximum depth, 2 m) of Elson Lagoon. A single egg rested directly on the gravel in the back of the drum. The incubating bird left the nest as we approached and flew to the lagoon, where it was joined by another adult, presumably its mate. Both birds remained in the water near shore while we were there. At the same time two other adults in breeding plumage were seen approximately 200 m away. The breeding status of these birds is unknown.

Before our next visit to the nest on 3 September, a young Eskimo shot the two nesting adults (although the natives do not use alcid as food). We found the egg partially hatched, so we collected the chick and preserved it in alcohol (MVZ 3537).

On 22 August a second nest was reported to us. It was on gravel under a ruined building near Elson Lagoon, 4 km south of the previous nest. This nest contained two juveniles. We left the area shortly thereafter, and have no more information on this nest.

Such use of artificial nesting cavities apparently permits limited breeding in this area beyond the known normal breeding range of the species. This suggests that distribution of the Black Guillemot is limited by the lack of suitable nesting sites.

These observations were incidental to a study of the ecology of certain vertebrates supported by a grant from the Arctic Institute of North America to Dr. Frank A. Pitelka. Field support was provided by the Arctic Research Laboratory.—S. F. MACLEAN, JR., and N. A. M. VERBEEK, *Museum of Vertebrate Zoology, University of California, Berkeley, California*.

Kingfishers eating bullfrog tadpoles.—At 5:15 AM 13 June 1967, at about sunrise, I saw a pair of Belted Kingfishers, *Megaceryle alcyon*, flying about over a pond the University of North Carolina built on its farm at Chapel Hill in 1965. The artificial pond has never had any fish in it, but since the spring of 1966 it has had a high population of bullfrogs, *Rana catesbeiana*. The kingfishers were alternating in long flat dives into the shallow waters of the pond close to the shores where hundreds of bullfrog tadpoles concentrate during the day. As I watched several dives by the kingfishers I could see each come out of the water holding a fat white-bellied tadpole in the bill. The tadpoles were about 2 to 2½ inches long. I had recently collected some for close observation and found that they had developing hindlegs and the larval tail, which made them resemble fat minnows whether they were swimming or lying quietly on the pond bottom.

I was sure, from watching the kingfishers through an 8 × 40 binocular, that they were eating bullfrog tadpoles because no other tadpoles of this size are in the pond. I was able to verify it to my satisfaction through a fortunate circumstance. As one kingfisher flew back to eat its prey on a tree branch within 300 feet of where I stood, the bird suddenly jerked its head and the tadpole fell to the ground where I retrieved it. In a search through the literature on the feeding habits of the Belted Kingfisher, I can find no reference to tadpoles in its diet.—JOHN K. TERRES, *P. O. Box 571, Chapel Hill, North Carolina*.