

Notes on the Gyrfalcon in western coastal Alaska.—While working under a grant from the National Science Foundation to the University of Alaska in the area north of Hooper Bay, we made some observations on food habits, commensal nesting associations, and ectoparasites of the Gyrfalcon (*Falco rusticolus*).

In his comprehensive paper on Peregrine Falcons (*Falco peregrinus*) and Gyrfalcons, T. J. Cade summarizes what little is known about the food habits of the Gyrfalcon in Alaska (*Univ. California Publs. Zool.*, 63: 225–234, 1960). The data pertain mostly to eyries in the more inland tundra and mountainous areas; therefore, the following information from coastal nesting birds seems noteworthy.

On 7 June 1963 we found a Gyrfalcon eyrie containing four eggs on a rock outcrop at the base of the Askinuk Mountains, overlooking the coastal marshes of the Hooper Bay area. The adult male was bluish-gray with a suffusion of brown on his head, while the female was white with a few grayish-black bars on her back. The eyrie was visited 14 times between 9 and 24 June 1963. The prey species found around the nest were as follows: ptarmigan (*Lagopus* sp.) 9 (23.8 per cent); unidentified shorebirds, 5 (13.2); unidentified passerines, 4 (10.5); unidentified anatids, 3 (7.9); Western Sandpiper (*Ereunetes mauri*), Sabine's Gull (*Xema sabini*), and unidentified larids, 2 (5.3) each; Green-winged Teal (*Anas carolinensis*), Red-breasted Merganser (*Mergus serrator*), Common Snipe (*Capella gallinago*), Pectoral Sandpiper (*Erolia melanotos*), Dunlin (*E. alpina*), Northern Phalarope (*Lobipes lobatus*), Long-tailed Jaeger (*Stercorarius longicaudus*), Mew Gull (*Larus canus*), Arctic Tern (*Sterna paradisaea*), Redpoll (*Acanthis* sp.), and Savannah Sparrow (*Passerculus sandwichensis*), 1 (2.6) each.

It may be significant that only adult ptarmigan (*Lagopus* sp.) remains were found prior to the hatching of the young falcons. Ptarmigan were rather common in the area, but by no means at the high point in the population cycle. In contrast to Cade's report (*op. cit.*: 225) that remains of prey other than pellets were infrequently found at or near the eyrie, we commonly found remains of prey scattered about in an area within 150 yards of the nest. Only a few pellets were found on the nesting cliff and none were examined for contents. On one occasion we observed the male Gyrfalcon drop prey to the ground near the eyrie. The female Gyrfalcon flew from the nest to this food and commenced to pluck or eat it.

Commensal nesting associations between falcons and other species of birds are known, for example between the Peregrine Falcon and the Canada Goose (*Branta canadensis*) in Alaska (B. Kessel and T. J. Cade, *Biol. Papers Univ. Alaska*, 2: 44, 1958), but only Finn Salomonsen (*Birds of Greenland*, Copenhagen, 1950; see pp. 453–454.) appears to have recorded such an association involving the Nearctic Gyrfalcons. A further instance was noted by us as follows: a Canada Goose nested on the same cliff face some 15 feet below the Askinuk Mountain falcons, while a Pintail (*Anas acuta*), a Common Eider (*Somateria mollissima*), and a White-fronted Goose (*Anser albifrons*) nested on the ground in front of and within 120 feet of the eyrie. A Green-winged Teal nested about 600 feet away. All were apparently unmolested by the falcons.

When the young falcons were 11 days old, several engorged nymphal ticks were collected from their heads, underwings, and leg regions. The ticks were identified by Glen M. Kohls of the Rocky Mountain Laboratory, U. S. Public Health Service, Hamilton, Montana, as *Ixodes howelli*. This tick is heretofore unrecorded from Alaska and is apparently here first recorded from the Gyrfalcon. *I. howelli* is closely related to a Russian tick, *I. berlesi*, and, according to Kohls (pers. comm.), may ultimately prove to be conspecific with the Russian tick. Since the life cycle of this

tick is poorly understood, more data are clearly needed to gain an understanding of its means of transmission. The accumulation of such data may help elucidate the problem of the exchange, intermixing, and migration of the Russian and North American bird populations.—CLAYTON M. WHITE, *Department of Zoology, University of Utah, Salt Lake City, Utah*, and HEINRICH K. SPRINGER, *Box 375, College, Alaska*.

The use of the terms “juvenal” and “juvenile.”—Uncertainty and confusion exist as to the use of these terms in regard to birds and their plumages. In larger dictionaries both words are given synonymous meanings of young or youthful (adjective) and a youth (noun); but “juvenal” is now very rare or obsolete in its original general sense and has become almost exclusively a technical term designating a specific plumage stage in birds. The term “juvenal plumage,” meaning the first covering of true feathers following the neossopile or downy stage, seems to have originated with Jonathan Dwight (see *Ann. New York Acad. Sci.*, 13: 99, 106, 1900). Dwight later explained his selection of “juvenal,” rather than the more familiar “juvenile,” because the latter word “has a less exact meaning” (*Auk*, 19: 251, 1902), being commonly used to indicate immaturity in general. Dwight’s term “juvenal plumage” has been adopted almost universally by American ornithologists, including those who, like Humphrey and Parkes (*Auk*, 76: 15, 1959), favor abandoning Dwight’s plumage nomenclature in other respects. In Great Britain “juvenile plumage” is employed in the same sense (H. F. Witherby *et al.*, *The handbook of British birds*, vol. 1, p. xxiii; London, Witherby, 1941.). However much current ornithological literature, both in the United States and abroad, uses “juvenile” with the general meaning of “immature,” that is, for any stage prior to the definitive adult (J. Van Tyne and A. J. Berger, *Fundamentals of ornithology*, p. 572; New York, Wiley and Sons, 1959. M. E. Rawles in A. J. Marshall *et al.*, *Biology and comparative physiology of birds*, vol. 1, New York and London, Academic Press, 1960; see pp. 198–9.). Sometimes—and this is particularly true of specimen labels—“juvenile” or “juv.” indicates only the younger stages of immaturity, but without restriction to the first generation of plumaceous feathers. Some American ornithologists insist, nevertheless, on a fine distinction, which seems to me both unnecessary and productive of confusion; they use “juvenal” as an adjective for the first feathered plumage, but adopt “a juvenile” as the noun for a bird in juvenal dress. Others suggest that “juvenal-plumaged bird” be employed to avoid ambiguity. It seems to me shorter and simpler (and equally unambiguous) to say “a juvenal” for an individual in juvenal plumage. The only objection advanced is that “juvenal” is adjectival in form and origin; but this applies equally to “juvenile.” As a matter of English usage and grammar both words are convertible into nouns. Such locutions as “an immature” or “a downy” are strictly analogous.

In the interest of precision and brevity, I recommend that those who employ “juvenal” to indicate the plumage should also use the term “a juvenal” for a bird in that plumage. Because of its ambiguity, “juvenile” should be avoided in technical studies of plumage or where a specific age stage is intended.*—E. EISENMANN, *American Museum of Natural History, New York 24, New York*.

* Without reference to the finer distinctions relating to noun vs. adjectival use, the editor is one who considers “juvenal” a definite statement of stage (i.e., relating to a bird in first plumage) and “juvenile” a general indication of comparative youthfulness. These are the meanings that these terms (hopefully) carry in *The Auk*.—Ed.