

TABLE 1. Summary of care of nestling Mouse-colored Flycatchers.

Date	Age of nestlings	Time observed	Times fed	Nestlings covered
19 May	5 days	13:25-14:25	11	13:35-14:04
20 May	6 days	14:25-15:25	16	14:25-14:32 14:46-15:00
21 May	7 days	15:00-16:00	20	15:03-15:20 15:55-16:00
22 May	8 days	12:00-13:00	32	
24 May	10 days	14:20-15:20	13	
29 May	15 days	12:01-13:01	20	

on, 17 min off; 20 April, 11:30-12:45, 75 min on. The nest was fully exposed to the sun, and on 19 and 20 April the bird stood in the nest with drooping wings, panting with open bill, so that its orange-yellow gape was clearly visible. Sometimes the bird answered its calling mate.

In the case in which the second egg had been laid on 30 April, both eggs hatched on 14 May, an incubation period of 14 days.

Nestling period. The nestlings are fed by both parents and almost exclusively on insects, only one at a time. My observations of a nest in which the eggs hatched on 14 May 1961 are shown in table 1. The

quick feeding rate on 21, 22, and 29 May I attribute to the fact that both parents snapped insects from branches immediately below the nest in flight in the same way as the tody flycatchers (*Todirostrum*) feed (Haverschmidt, Auk 72:325, 1955).

The excrements of the nestlings were taken away by both parents and on 21 May I saw one bird "nest probing" after having fed. Then it covered the nestlings. The nestlings were no longer covered after they were eight days old. On 31 May (when they were 17 days old) both nestlings left the nest and I lost sight of them.

The main food of *Phaemyias* in my garden were the orange berries of *Phthirusa piriifolia* (Loranthaceae). Sometimes a bird with a berry in its bill alighted on the nest rim but swallowed it, and only twice, when they were eight and ten days old, did I see that a berry was fed to the nestlings.

Nest defense. Both birds were very aggressive towards other birds that ventured near the nest. I saw them chasing away (by divebombing) Bananaquits (*Coereba flaveola*), House Wrens (*Troglodytes aedon*), Barred Antshrikes (*Thamnophilus doliatus*), Blue-gray Tanagers (*Thraupis episcopus*), Silver-beaked Tanagers (*Ramphocelus carbo*), and even the much larger Smooth-billed Ani (*Crotophaga ani*), which I suspect as a potential nest robber.

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PEREGRINE FALCON OBSERVED FEEDING FAR AT SEA

DONOVAN R. CRADDOCK

AND

ROBERT D. CARLSON

Bureau of Commercial Fisheries
Biological Laboratory
2725 Montlake Boulevard East
Seattle, Washington 98102

A falcon approached and landed on the forward mast of the Bureau of Commercial Fisheries *RV George B. Kelez* while the vessel was stopped for gillnet fishing south of Umnak Island in the Aleutians (24 April 1968, 48°30'N, 168°40'W) about 418 km from the nearest land. On the preceding two days the ship had encountered strong southwest and westerly winds as high as 70 knots, which had lessened to about 15-20 knots on the day of the bird's appearance. Although its feathers were ruffled and the margin of the tail was frayed, the bird seemed to be in good condition. It left the *Kelez* during the late afternoon of 26 April as the ship passed near a large Japanese freighter.

The bird was identified as a mature Peregrine Falcon, *Falco peregrinus* (Peterson 1961). This identification was confirmed by Drs. Gordon Orians, Dennis Paulson, and Edwin Willis of the Department of Zoology, University of Washington. From a color film taken of the bird (by Richard Bakkala, Bur. Comm. Fish., Biol. Lab., Seattle, Washington) they thought it was probably the migratory subspecies, *F. p. anatum*, and not the coastal subspecies, *F. p. pealei*.

About 19:00 on 24 April the falcon, which had moved from the forward mast to the main mast (a height of 18 m above the water), took off, climbed to about 36 m, and dove on a storm petrel (*Oceanodroma*) in a flock flying just above the waves. It was impossible to identify the prey, but both Fork-tailed

Petrels (*O. furcata*) and Leach's Petrels (*O. leucorhoa*) were seen near the ship. The falcon returned with the petrel clutched in its talons, resumed its perch on the yardarm, and devoured the catch. The next day the peregrine was observed capturing four more petrels. Its technique was to spot the flock or individual prey before leaving the ship, climb to gain altitude and position, and then dive at its prey. If it missed, which occasionally happened, it regained altitude and struck again. The actual kill was difficult to observe because of the distance and waves, but on two occasions the falcon was wet when it returned to the ship. Pearson's (1936:88) description of the attack of *F. p. anatum* on sea birds was similar to our observations. Petrels are included among the numerous sea birds that Bent (1938) and Bond (1946) reported as peregrine prey.

The Peregrine Falcon is known to be a powerful flyer and capable of long migrations (probably even long over-water flights). Hickey (1969) remarked that there were many records of peregrines boarding ships at sea. The most extraordinary of these was that reported by Voous (1961), in which a falcon, presumed to be a peregrine, boarded a Dutch factory ship 1300 km from Africa and departed two days later, still more than 1100 km from South America. This falcon devoured at least four storm petrels while aboard. Petrels were eaten by Peregrine Falcons in two other shipboard observations reported by Voous. The actual pursuit and capture of the prey was not reported or seen in the above instances.

Dementiev (1951) noted that *F. p. pealei* fly far from shore to hunt sea birds and have been reported to capture sandpipers (*Calidris minutilla*) 97 km at sea and devour them on the wing. Grayson (1872) reported an incident in 1858 in which a peregrine landed on a sailing ship 161 km off the coast of lower California and killed at least a dozen dusky petrels in the two days it was aboard. Our observation of the actual pursuit and consumption of storm petrels in the North Pacific Ocean helps to substantiate Voous' con-

clusion that predation on storm petrels by Peregrine Falcons is widespread.

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A MEXICAN SPECIMEN OF THE YELLOW-BILLED LOON

JOSEPH R. JEHL, JR.

Natural History Museum
 P.O. Box 1390
 San Diego, California 92112

On 24 November 1968 I collected an immature female Yellow-billed Loon (*Gavia adamsii*) 1½ mi. N of South Coronado Island, Baja California, México. The specimen (San Diego Soc. Nat. Hist. no. 36831) represents the first occurrence of this species in México and is the southernmost record for North America. The normal wintering range of this loon includes the coasts of southeastern Alaska and northern British Columbia, some 1600 miles to the north of the collecting site. The only published record for California is from Tomales Bay, Marin County (Audubon Field Notes 22:472, 1968), 500 miles distant. Measurements of the specimen are as follows: bill, 75.1 mm; wing (chord), 355 mm; tarsus, 87.0 mm; weight, 7¼ lb, no subcutaneous fat.

In life the loon was immediately distinguishable from Common Loons (*G. immer*) by its pale-headed appearance. The crown was pale gray and markedly lighter than the back, and the white of the face extended above the eye. Except for a small bluish area at the base of the culmen, the bill was entirely pale yellowish; the color darkened within two days after the specimen was prepared. Contrary to the literature, bill size and shape are not reliable field marks for immature birds. I do not know when bill growth is completed, but the specimen was probably no more than five months old when collected. The culmen was decurved (Fig. 1), as in Common Loons, and had not yet attained the straightness or slight upturn that characterizes adult Yellow-billed Loons. The bill length was only 84 per cent that of summer-taken adults (data from Palmer [ed.] Handbook of North American birds. Vol. 1. Yale Univ. Press, New Haven, 1962). The specimen also showed a distinct brownish post-auricular spot. This field mark, pointed out to me by L. C. Binford, appears to characterize most immature and adult Yellow-billed Loons (see cover photograph, Audubon Field Notes 22(3), 1968), but is absent in Common Loons. Although this character does not seem to have been mentioned in the literature, it is quite evident in living birds, although in skins it may be mistaken for a dirty smudge.

When sighted, the loon was fishing in an area of calm water of a depth of 20-22 fathoms (U. S. Hydro-

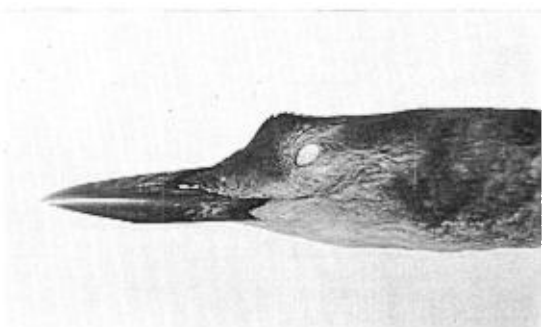


FIGURE 1. Immature Yellow-billed Loon (SDSNH no. 36831) collected at South Coronado Island, Baja California, México. Note the brown post-auricular spot.

graphic Office charts). It made several dives, appeared to be in good health, and showed little fear of our boat. Its stomach was filled with unidentifiable fish remains and a dozen bits of gravel, the largest measuring 13 x 10 mm. Two freshly-caught Pacific sanddabs (*Citharichthys sordidus*), weighing 20 and 67 g, were removed from its gullet. These strictly bottom-inhabiting flatfish occur from Alaska to Baja California at depths of 10-100 fathoms.

The functional significance of the upturned bill in this and certain other diving birds may be related to bottom feeding. Limited data summarized by Palmer (op. cit.) indicate that Yellow-billed Loons feed primarily on bottom-dwelling fishes, whereas straight-billed Common Loons (*G. immer*) take a high percentage of free-swimming fishes. Similarly, in winter at least, Eared Grebes (*Podiceps caspicus*), which have upturned bills, feed largely on bottom-dwelling invertebrates, while the winter diet of Horned Grebes (*P. auritus*), which have straight bills, includes a higher percentage of fishes (Storer, Proc. XII Int. Ornithol. Congr., Helsinki, 1958, p. 704). A study of sexual differences in foraging behavior in Western Grebes (*Aechmophorus occidentalis*), in which females' bills are markedly upturned but males' bills are straight, might be particularly instructive (see Selander, Condor 68:137, 1966).

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