

Incidence of deformed bills in California Gulls (*Larus californicus*).—Observations of bill deformities in birds are fairly common, but information on the incidence of occurrence has been reported by only a few persons. During the past 12 years we have handled 6,147 juvenile and 306 subadult and adult California Gulls in Wyoming. Only four of these individuals had deformed bills, and in each case the type of malformation was crossed mandibles. All four were captured at a colony 8 miles northwest of Laramie.

Two juveniles of 661 banded during 1967 had severe lateral deflections of the upper mandible. In one bird the mandible was deflected to the left and in the other bird to the right. The bills superficially looked like the Herring Gull chick with a deformed bill photographed by Threlfall (Auk, 85: 506, 1968). Both birds were otherwise in good condition and were banded and released.

During June 1968 we took 25 chicks from the colony and raised them in the laboratory. One of these taken at 4 days of age had a slightly crossed bill. Lateral displacement at the tip did not exceed 2 mm. The chick was below average in weight when removed from the colony and had to be coaxed to eat during the first few days of captivity. By 8 days of age it had attained the mean weight for caged birds of equal age. Gradually the bill became less crossed, and by 10 days of age it articulated normally.

The fourth deformed bird was taken 25 May 1969 among 30 adult gulls captured with a cannon trap. The displacement at the tip of the mandibles was 6.8 mm. The bird, a female, weighed 526 g, which is only 31 g lighter than the average female adult captured from this colony.

Threlfall (op. cit.) reported one bill deformity in over 1,500 Herring Gulls. Pomeroy (Brit. Birds, 55: 49, 1962), on the basis of limited information, suggests that the incidence of bill deformities in wild birds was well under 0.50 per cent. The occurrence of the crossed bills in Threlfall's data is 0.067 per cent; in ours 0.062 per cent. While they may arise with greater frequency, crossed mandibles above the frequency given probably are only temporary or are removed at a very early age by natural selection. —JEAN SMITH and KENNETH L. DIEM, *Department of Zoology and Physiology, University of Wyoming, Laramie, Wyoming 82070. Present address of first author: Department of Biology, Carroll College, Helena, Montana 59601.* Accepted 13 Aug. 1970.

Food habits of Black-crowned Night Herons in southern Alberta.—A study of Black-crowned Night Herons (*Nycticorax nycticorax*) nesting colonially in marshes near Cassils and Tilley, Alberta, in 1964 and 1965 (Wolford and Boag, 1970) involved an investigation of their food habits. Food items were collected from the regurgitations of nestlings in June and early July, and from the gullets and stomachs of older herons collected in late July and August of both years. Table 1 shows the qualitative and quantitative aspects of the diet.

Black-crowned Night Herons are known to eat a wide variety of animals and to take advantage of temporary abundances of certain prey, such as voles (Allen and Mangels, 1940) and salamanders (Wetmore, 1920), while in most places their diet consists mainly of fish (Bent, 1926; Palmer, 1962). Thus the diversity of food items recorded is not unusual. In examining these data, the bias in favor of items with indigestible parts must be kept in mind, for it probably masks the importance of fishes and amphibians that lack such indigestible material.

Among the invertebrates eaten, beetles were the most apparent and included mainly small adult carabids plus adult and larval dytiscids. Other groups were represented