

Gorsuch (Univ. Ariz., Biol. Sci. Bull. No. 2, 1934) calculated the time required for a pair of Gambel Quail (*Lophortyx gambelii*) to rear a brood of young and concluded that there was insufficient time in a breeding season to raise two broods. This conclusion was based on allowing a period of two and a half to three months for rearing the young after hatching and is therefore not valid for the observed cases in which the females re-nested within three weeks or less after hatching their first broods.

The numerical importance of second broods remains open to question. Of the 19 chicks in the two second broods, only four reached maturity, a survival of only 21 per cent, compared to a survival of 60 per cent in the first broods. The difference could be attributed to a reduction in vigor of the females after the strain of producing the first clutch or to a qualitative difference in the food supply in the later part of the season. There was no shortage of food, water, or cover, nor was there any predation.—WILLIAM J. FRANCIS, *Museum of Vertebrate Zoology, Berkeley, California, March 12, 1965.*

Notes on the Distribution of the Parasitic Jaeger and Some Members of the Laridae in California.—In California most of the gulls, terns, and jaegers listed here have been found only along the coast and have been considered as vagrants if they occurred at all away from salt water.

Stercorarius parasiticus. Parasitic Jaeger. This species has been considered as restricted to the coast and larger bays, and the interiormost record is from near Suisun, Solano County (Grinnell and Miller, Pac. Coast Avif. No. 27, 1944:161). On September 3, 1960, McCaskie saw two of these jaegers flying over Lake Tahoe at Tahoe City, Placer County, and they were joined by a third individual the following day. On September 6, 1964, McCaskie saw one five miles south and one mile east of Mecca, Riverside County, at the point where the Whitewater River storm channel empties into the Salton Sea. On September 18, 1964, he saw a total of eight on Salton Sea. On September 20, 1964, Cardiff collected an immature male and an immature whose sex was not determined (nos. 3601 and 3602, in the Cardiff Collection, San Bernardino County Museum) at the mouth of the Whitewater River storm channel. Both birds were resting on the water a short distance from shore.

There are two fall record specimens from along the Colorado River (Monson and Phillips, A Checklist of the Birds of Arizona, 1964:24). It would now appear that this species occasionally occurs inland during the fall. Here they act much as they do along the coast and are seen harassing both gulls and terns for food.

Larus glaucescens. Glaucous-winged Gull. In 1944 the only inland record stations were Berkeley, Alameda County, and Westlake Park, Los Angeles (Grinnell and Miller, *op. cit.*:167). McCaskie has seen this species regularly during the winter in small numbers on the freshwater reservoirs close to the coast as far south as Sweatwater Reservoir, San Diego County. Farther inland the Glaucous-winged Gull appears to be rather rare. McCaskie has seen three in the Sacramento Valley: one near Woodlands, Yolo County, on March 6, 1960; one on the Sacramento River near Sacramento, Yolo County, on November 19, 1960; and one on the Sacramento Wildlife Refuge, Glenn County, on November 5, 1961. He collected an immature on Lake Tahoe at Tahoe City, Placer County, on January 9, 1962 (no. 155188 Mus. of Vert. Zool.), and he saw one on the Salton Sea at the mouth of the Whitewater River storm channel on May 2, 1964. A specimen from along the Colorado River (Monson and Phillips, *op. cit.*) helps to support the idea that this species is rare but is found regularly away from the coast during the winter.

Larus occidentalis. Western Gull. This species appears to be restricted to salt water. However, there is a specimen from the Colorado River (Monson and Phillips, *op. cit.*). On January 17, 1965, McCaskie and Alan Craig, and on January 31, 1965, McCaskie, Alan Craig, and Cardiff, saw one on the Salton Sea National Wildlife Refuge, Imperial County, where collecting is not permitted. The bird appeared to be in adult plumage except for the fact that there were some dark spots on the ends of some of the tail feathers.

Larus pipixcan. Franklin Gull. This species has been considered casual in California (A.O.U. Check-list, fifth ed., 1957). In 1944 there were four fall specimens from Hyperion, Los Angeles County, and two spring and a fall specimen from Tulare Lake, Kings County (Grinnell and Miller,

op. cit.:169). A specimen from Imperial Beach, San Diego County, on October 31, 1960 (McCaskie and Banks, Auk, 81, 1964:356) appears to be the only report since 1944.

McCaskie has recently found this species to be regular in small numbers along the coast of southern California and in the area of the Salton Sea. Most of the records are for the fall period, but at least one individual, having badly worn flight feathers, apparently spent the summer of 1964 on the Salton Sea. The majority of the birds were in immature plumage with the dark band at the end of all but the outermost tail feathers. Some individuals have been observed which have a white tail but lack the complete black hood and the "windows" in the wingtips. These have been considered to be second-year birds.

Along the coast McCaskie saw an immature just north of Oceanside, San Diego County, on September 6, 1963; an immature at Imperial Beach, San Diego County, on November 16, 1963; an immature in south San Diego Bay on September 26, 1964; as many as four immatures and an adult together at Solana Beach, San Diego County, between October 11 and 30, 1964; and an immature at Imperial Beach on November 14, 1964. There are at least 14 additional fall and early winter sightings of single birds, or groups of up to six birds, from along the coast between Rodeo Lagoon, Marin County, and Oceanside, San Diego County, reported variously in Audubon Field Notes.

In the Salton Sea area, McCaskie saw two immatures at the mouth of the Whitewater River storm channel on September 16, 1962; an immature feeding over an alfalfa field near Holtville, Imperial County, on November 11, 1962; two immatures at the mouth of the Whitewater River storm channel on September 1, and three there on September 14, 1963; a second-year bird near Red Hill, Imperial County, on July 18 and 19, and again on August 8, 1964; a second-year bird at the mouth of the Whitewater River storm channel on July 18, and an adult there on August 8, 1964; an immature near Red Hill on September 5, 1964; and an immature at the mouth of the Whitewater River storm channel on September 18, 1964. Cardiff collected an immature male (no. 3614, Cardiff Collection) from a group of five at the mouth of the Whitewater River storm channel on October 18, 1964, and McCaskie collected an immature female (no. 3621, Cardiff Collection) near Red Hill on November 1, 1964.

This species is considered to be a rare migrant along the Colorado River and has been collected twice during October (Monson and Phillips, *op. cit.*). McCaskie saw a second-year bird on the seepage pond at the west end of Imperial Dam, Imperial County, on June 5 and 6, 1964. It is also interesting to note that William Anderson, biologist for the California Department of Fish and Game, saw two at Los Baños, Merced County, on December 2, 1952, and a large group of people including Marie Mans and George Peyton observed an adult in summer plumage near Woodlands, Yolo County, on May 12, 1962. It now appears as if this species is a regular migrant in limited numbers throughout the state.

Sterna hirundo. Common Tern. In 1944 there were two known inland records of the Common Tern, and it was thought to be a waif away from the coast (Grinnell and Miller, *op. cit.*:173). Today this species appears to be a regular fall migrant inland as well as along the coast. During August and September McCaskie has seen this species in small numbers on Lake Tahoe. McCaskie collected an adult female (no. 148202 Mus. Vert. Zool.) near Al Tahoe, El Dorado County, on August 11, 1962, and another adult female (no. 30766, San Diego Natural History Museum) at the same place on August 25, 1963. At the Salton Sea McCaskie has found this species to be quite common during the fall. Common Terns are most often found on the mudflats at the mouth of the Whitewater River storm channel, but some can be found almost anywhere along the shore of the sea. The earliest date that we have is that of fifteen birds, including adults and immatures, at the mouth of the Whitewater River storm channel on June 27, 1964. During late August and September numbers appear to be largest. Cardiff collected an immature male and an immature female (nos. 3603 and 3604, Cardiff Collection) from a flock of about one hundred terns at the mouth of the Whitewater River storm channel on September 20, 1964. An immature male (no. 3616, Cardiff Collection) was found dead at the mouth of the Whitewater River storm channel by Cardiff on October 18, 1964, and about 30 live birds were in the area on this date. Inland the immatures appear to outnumber the adults, but this may only be due to the fact that the immatures are

more readily identified in the field. So far there appears to be no inland record for the spring migration period.

Sterna albifrons. Least Tern. There appears to be no inland record of this species in California, however, there is a specimen from the Colorado River along with some sight records (Monson and Phillips, *op. cit.*). McCaskie saw an adult at the south end of the Salton Sea near Red Hill, Imperial County, on April 29, 1962. He also saw three adults together at the mouth of the White-water River storm channel on June 27, 1964. In neither case was there any evidence of breeding.—GUY McCASKIE, *Tahoe City, California*, and EUGENE A. CARDIFF, *San Bernardino County Museum, Bloomington, California, February 3, 1965*.

Arctic Loons Invade Missouri.—Few records exist for the Arctic Loon (*Gavia arctica*) in the interior of North America. Palmer (Handbook of North American Birds, 1, 1962:45) gives but four, none for Missouri.

On November 27, 1964, the writer observed eight juveniles on Lake of the Ozarks, near Gentle Slopes Resort, 10 miles south of Gravois Mills, Morgan County, Missouri. The birds were studied for over five hours at close range. The loons were readily distinguished as juveniles by the light edging to the back feathers which give a scaled appearance (Palmer, *op. cit.*:44). On the same date three Common Loons (*Gavia immer*) were observed on another part of the lake which permitted a good comparison. The straight, slender, evenly tapered bill and the scaly back also distinguished the eight juvenile Arctic Loons from Red-throated Loons (*Gavia stellata*). The Arctic Loons were further distinguished by the paler color of the nape and hind neck.

On November 28 only five juvenile Arctic Loons in two groups could be found about one mile from the previous location. Since collecting efforts were futile, it was desirable for more observers to be present; so on November 29, five from the St. Louis Audubon Society, Mr. and Mrs. Richard Anderson, Mr. and Mrs. Joel Massie, Kay Wahl and the writer visited the area by boat and were finally successful in finding two Arctic Loons about two miles from the location of the previous day.

Since this migratory species breeds over most of the extreme northern part of North America, it seems possible that more Arctic Loons might migrate through the interior of the continent than records indicate. It is of interest to note the recent record reported by Brown (Aud. Field Notes, 18, 1964:511) of an Arctic Loon observed at Des Moines, Iowa, for several weeks in early June, 1964.—DAVID A. EASTERLA, *Department of Biology, Northwest Missouri State College, Maryville, Missouri, March 8, 1965*.