

## GENERAL NOTES

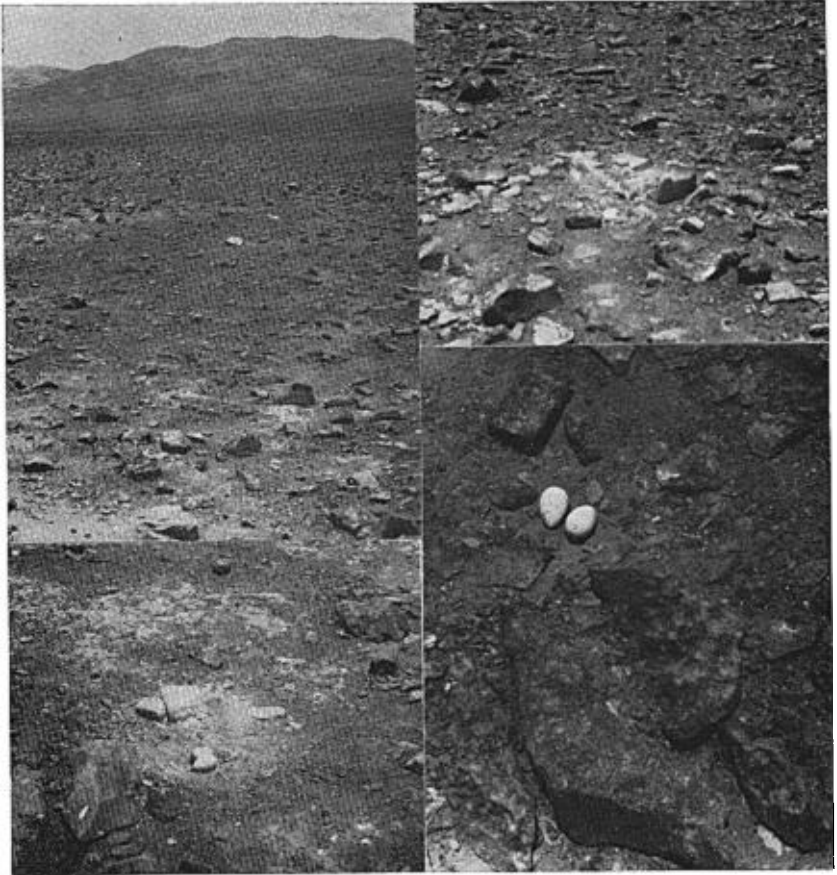
**Nesting habits of the Peruvian Gray Gull.**—(Plate 21)—An interesting 'quiz' question for the ornithologist would undoubtedly be: "What bird is found on the sea coast every day of the year and yet never nests there?" The correct answer is *Larus modestus* or the Peruvian Gray Gull, a bird whose peculiar nesting habits have long been the subject of much speculation among ornithologists.

Our acquaintance with this interesting bird, which is found all along the West Coast of South America from Piura in northern Peru to Valdivia in southern Chile and is without doubt the commonest species of gull inhabiting the arid littoral from the northern limit of its range down to the latitude of Coquimbo, dates back to the time of our arrival in northern Chile some 30 years ago. While stationed on the sea coast at a point about 20 miles north of the nitrate port of Iquique, we had occasion to observe the Gray Gull at close quarters, and noticed that, though it was present in large numbers all the year round, there was never any trace or indication of nests or eggs.

Further investigation showed that during the summer months (November to January) this gull, known locally by the name of 'Garuma,' might be observed rising from the sandy beaches at sunset in large flocks, which, after describing wide concentric circles until considerable altitude had been gained, would suddenly disappear landwards in loose formation to the accompaniment of many raucous and oftentimes plaintive cries. After early efforts to locate possible nesting sites among the barren wastes of the arid coast range had proved entirely fruitless, transfer to a nitrate plant in the desert interior brought the surprising information that on certain nights during the summer months, especially those with heavy fog, the unmistakable, plaintive note of the Garuma Gull might be heard penetrating the darkness.

Repeated enquiries among the local workers brought the further information that these gulls might be found nesting in certain isolated, uninhabited regions of the 'pampa' or nitrate desert, but such reports, on being investigated, invariably ended in disappointment. By the time we reached the supposed nesting grounds, something had always happened—either we were too early or else too late or, in the latter case, we were informed that the birds must have moved to a new site. Finally, in November, 1919, we did succeed in tracking down a small colony which was just beginning to nest on the stony slopes of an isolated, desolate stretch of country, situated among the hills of the coast range between the Lagunas Nitrate Plant and the guano-covered promontory known as 'Punta de Lobos,' some 80 miles south of the nitrate port of Iquique. On this occasion we obtained three clutches of two eggs each, but unfortunately no photographs.

It was not, however, until many years later, with out interest now thoroughly aroused by the knowledge that the nesting habits of this gull were unknown to science, that we decided to make a new effort to locate a colony and obtain the necessary photographs and documentary evidence. In this, after further failures and many disappointments, we were finally successful. On November 22, 1943, after traveling some 800 miles especially for the purpose, we managed to locate a colony situated among gently undulating hills at a point in the coast range some 35 kilometers inland from the nitrate port of Tocopilla, in the Province of Antofagasta, Chile (Lat. 22° 26' S., Long. 69° 59' W.). At this point the desert is strewn with an enormous number of small, irregular stones after the style of the 'hamadas' of Algeria and Tunis and, rising gently towards the north, is enclosed by a semicircle of hills, which reach a height of 2335 meters and are known as the 'Cerros de Colupo' (see Plate 21).



GOODALL, PHILIPPI, AND JOHNSON: NESTING OF THE PERUVIAN GRAY GULL.

Against this background and over an area of some five square kilometers, a colony of *Larus modestus* was in the initial stages of nidification. Here and there, at irregular intervals, sometimes singly and sometimes in small groups but always in the immediate proximity of one or more small stones, a large number of rounded, cup-shaped excavations were to be observed in the loose surface of the yellowish-brown desert earth. Most of these cup-shaped hollows were still empty, but every now and again we came across one containing eggs; altogether five nests with two eggs and four with only one egg were found, all of them perfectly fresh (see Plate 21). In addition there were a number of mummified fledglings, evidently casualties from previous years' nesting operations.

As we walked about the nesting area a few Garumas flew past us in slow and desultory fashion, alighting from time to time on the ground only to fly up again as we approached. Altogether we must have seen about 50 Garumas and one solitary Turkey Vulture (*Cathartes aura jota*)—between them the only living things in all that immense solitude, otherwise so utterly devoid of life that not a single plant can live there nor an insect disturb the vast silence of its desolate wastes.

The eggs of the Garuma are very different from the usual gull type, and doubtless represent an adaptation to the very special conditions of strong light, heat and glare which characterize the environment in which they are laid. The ground-color is very light, varying from white with faint pearl-gray suffusions, to pale ochraceous salmon (Ridgway); over this are to be found a few clearly defined though smallish spots in varying tones of chestnut brown and others, so faint as to be scarcely discernible without a magnifying glass, of light violet gray. The measurements of 14 eggs give a length of  $58.3 \pm 0.57$  mm. and a width of  $41.3 \pm 0.28$  mm.

The fact that the scrape in the ground which does duty as a nest is almost always placed alongside a stone is curious and would seem to indicate that the birds recognize the need to provide the nestling with some degree of shade and protection from the sun and wind during their daily absences from the colony in search of food. Similarly the need to cover the eggs or young during the chilly nights no doubt accounts for the flocking from the sea coast at sunset.

That these colonies sometimes assume very large proportions is proven by the fact, established personally by a friend of ours, that the year previous to our visit, five men with baskets and a truck brought away from this same colony and sold in the port of Tocopilla no less than 30,000 eggs. Such vandalism would, of course, soon exterminate the species, but fortunately opportunities are few and far between as the vast stretches of seemingly limitless, all-but-uninhabited desert which form the hinterland of this gull's range both in Chile and Peru, provide the widest possible choice of nesting sites and every facility for changing to another location in the event of molestation. That these sites are sometimes as much as 100 kilometers inland is proven by the discovery of a nesting colony or 'Garumal' in the Aguas Blancas section of the nitrate pampas of Antofagasta.

Why this bird, essentially an inhabitant of the sea-coast, should have chosen such an extraordinarily un-gull-like environment for its nesting activities and how and when this ultraspecialized habitat became standard practice for the species are questions for which we offer no explanation. We can only leave on record what this standard practice is and leave it at that.—J. D. GOODALL, R. A. PHILIPPI B., AND A. W. JOHNSON, *Santiago, Chile*.

**Longevity record of Black-cheeked Weaver.**—Longevity records are always of interest to the ornithologist. If an individual has been in captivity for a known period, or has been tagged in some manner so that its identity can be recognized, the