

Breeding sites of *Sterna eurygnatha* and other sea birds off the Brazilian coast.—The distribution of the Cayenne Tern, *Sterna eurygnatha*, has remained somewhat puzzling. Junge and Voous (*Ardea*, 43: 226–247, 1955), in the first extensive study of this bird, say that it is one of the rarest and least known of the world's terns. Murphy (*Oceanic birds of South America*, New York, Amer. Mus. Nat. Hist., 1936; see vol. 2, p. 1141) gives the distribution of the species as “Caribbean and Atlantic coast of South America, from Colombia and Venezuela . . . southward to Puerto Deseado, Argentina. Breeds on the coast of Brazil.” Although the last statement has seemed likely to be true, no definite sites have been reported until now.

Very few observations of *Sterna eurygnatha* have been published since the description of the species, in 1876, from Santa Catarina, southern coast of Brazil. The first mention of a breeding place (Aruba, Dutch Antilles) dates from 1931, but only in 1952 were Voous and his collaborators able to establish with certainty the breeding of the species in that area (Bonaire and Curaçao). No other breeding grounds have been discovered off the coasts of South America. We have known this tern for many years, but only on the basis of sight records from Guanabara Bay and the region of Cabo Frio in the state of Rio de Janeiro, where the species is not rare at all.

Oddly enough, less is known about the sea birds frequenting the coastal islands of Brazil than about those to be found in remote islands in mid-ocean, such as South Trinidad and Fernando de Noronha.

On 12 July 1963 we visited some of the islands lying off Macaé, a town in the state of Rio de Janeiro situated about 45 miles north of Cabo Frio. One of these is a small islet named “Ilha dos Papagaios.” It lies less than a mile from Macaé harbor but its steep shores and high breakers prevent frequent visits by the local people. It rises to a height of about 70 feet and is chiefly composed of solid rock split here and there into large, flattened blocks. In the center, however, there is some loose earth clothed with shrubs and grass.

We found the islet swarming with *Sterna eurygnatha* and the Antarctic Tern, *Sterna hirundinacea*. We estimated that more than 500 of the former were present, and they appreciably outnumbered the latter. Upon landing we found active breeding colonies of the two species. The young of *Sterna hirundinacea* were large and most of them were fully fledged, whereas *S. eurygnatha* had downy young of various ages as well as unhatched eggs. Unfortunately, even though we moved with great caution, our presence threw the colony into such confusion (the young retreated in hurried disorder and some of them tumbled down the rocky slopes) that we decided not to attempt any counting.

Almost all *S. eurygnatha* observed at this islet had the black cap of the breeding plumage; a few individuals showed sparse white spots on the forehead. All of the birds had light lemon-colored bills, although occasionally a touch of black was present on the sides of the bills. In the harbor of Macaé, however, we saw one bird whose bill was similar to that of the Sandwich Tern, *S. sandvicensis* (*Thalasseus sandvicensis* of the A.O.U. Check-list, fifth edit., 1957; *S. sandvicensis acuflavida*, see Junge and Voous, *op. cit.*: 228), that is, the basal half was entirely black. In this connection it is pertinent to point out that Junge and Voous (*op. cit.*) assert that *S. eurygnatha* and *S. sandvicensis* are allopatric representatives of a single species. The southernmost breeding localities of *S. sandvicensis acuflavida* are in the Bahama Islands and along the coast of the Yucatan Peninsula, none having been found in the Antilles where *S. eurygnatha* occurs.

We took with us one egg on which a Cayenne Tern had sat as if incubating. It

measured 55×35 mm and proved to be rotten. Its coloration was not unusual with respect to most tern eggs and agrees with the descriptions of Junge and Voous: creamy buff with black patches and smears and grayish secondary markings. Junge and Voous give 50.7×36 mm as the average dimensions of 26 eggs of the species from Curaçao (*op. cit.*: 234).

No shorebirds appeared to be breeding on the Ilha dos Papagaios. Close to the wave-washed rocks, however, we observed six oystercatchers (*Haematopus palliatus*), six Ruddy Turnstones (*Arenaria interpres*), whose upper parts were heavily mixed with rust-colored breeding plumage, and three Sanderlings (*Crocethia alba*) in the pure light gray plumage of autumn.

On this same day we visited a group of islands lying farther offshore, consisting of two larger islands, "Ilha de Santana" and "Ilha do Francês," and a number of adjoining islets. We observed *S. eurygnatha* and *S. hirundinacea* here also, in a mixed flock with 30 Royal Terns, *S. (Thalasseus of A.O.U.) maxima*. However, there was no evidence that any species of tern was breeding on these islands.

On "Ilha do Francês," a wooded island about one mile in circumference, we discovered a large nesting colony of Brown Boobies, *Sula leucogaster*, with nests containing eggs and young at various stages of development. There was also a rather large flock of Magnificent Frigatebirds, *Fregata magnificens*, numbering possibly 200 individuals. The frigatebirds were not nesting, but limited their activities to trees on a particular hillside. The imposing red throat pouch of males was conspicuous. Fishermen informed us that frigatebirds have nested on this island; most certainly they breed in this region, because on 22 March 1963 we found a small breeding colony on "Ilha da Âncora" in the Cabo Frio archipelago.

As concerns the breeding season of *Sterna eurygnatha*, our data confirm the suspicion of Junge and Voous that terns breed about the same time along the coast of Brazil as they do in the Netherlands Antilles. In the Antilles, breeding activity of *S. eurygnatha* has been noted from May to August (Junge and Voous, *op. cit.*: 231-234).

The breeding colony of *S. eurygnatha* found by us near Macaé constitutes conclusive proof that the species breeds along the coast of Brazil; previous reports were not fully satisfactory. Junge and Voous maintain that a nestling from Rio de Janeiro has been misidentified as *S. eurygnatha* (see *Cat. Birds Brit. Mus.*, 25: 85, 1896), and eggs ascribed to this species by von Ihering (*Rev. Mus. Paulista*, 4: 294, 1900) are most likely eggs of *S. maxima* (dimensions, $60-64 \times 43$ mm). However, von Ihering cites eggs of *S. cantiaca* (= *sandvicensis*) having measurements of $52-53 \times 33-36$ mm; these eggs could have been those of *S. eurygnatha*, but since no locality data were given and since no comparative material sufficient to distinguish eggs of *S. eurygnatha* from those of closely related *S. hirundinacea*, is at present available, no conclusion can be drawn. In 1964 the terns did not return to the "Ilha dos Papagaios" to breed.—HELMUT SICK, *Museu Nacional*, and ARISTIDES P. A. LEÃO, *Instituto de Biofísica, Universidade do Brasil, Rio de Janeiro, Brasil*.

***Molothrus bonariensis* parasitizing *Fluvicola pica* and *Arundinicola leucocephala* in Surinam.**—Friedmann ("Host relations of the parasitic cowbirds," *U. S. Natl. Mus., Bull.* 233, 1963; see p. 195) quotes my statement that in Surinam the House Wren (*Troglodytes aedon albicans*) is the most common host of the Shiny Cowbird (*Molothrus bonariensis minimus*). This holds true, of course, only for