which is referred to later in this paper since the great amount of debris it washed from Halmahera into the Galela Bay area attracted many seabirds.

The Wedge-tailed Shearwater, Puffinus pacificus, is the commonest shearwater, being most frequently seen in Galela Bay, Halmahera. On August 15, after a severe storm, there was a great deal of debris in the water, and these shearwaters were present in great abundance. A Bulwer's Petrel, Bulweria bulwerii, was seen perched on a floating log off Halmahera, first on August 19, and several times after that. The Dusky Shearwater, Puffinus l'herminieri, was not considered common, although we saw it fairly often, especially on August 15 off the coasts of Halmahera and Morotai. Wilson's Storm Petrel, Oceanites oceanicus, was seen just north of the Talaud Islands on September 13. Only adult Brown Boobies, Sula leucogaster, were seen in this region, but they were relatively common, especially in the region of Galela Bay. The Greater Frigate Bird, Fregata minor, was quite common around Morotai and the fringing reef islands. There was no indication that the birds were breeding here, although immature and adult male and female birds were seen. During July, they were seen daily, circling in large flocks over the barrier reef of Morotai. In August and September they disappeared completely, and Lesser Frigate Birds took their place. The flocks of both species were estimated to have well over 100 birds. A few Lesser Frigate Birds, Fregata ariel, were seen in early June, then not seen again until August and September when they were common. Immature individuals were seen, although again there was no evidence of breeding here. The Roseate Tern, Sterna dougallii, was the commonest white tern in the region of Halmahera and Morotai. Sooty Terns, Sterna fuscata, were often seen off Halmahera (Galela Bay and south). Brown-winged Terns, Sterna anaetheta, were relatively common in this region, particularly near Galela Bay. The superciliary streak was distinctly seen, though faint, extending well beyond the eye. The Spectacled Tern, Sterna lunata, was seen uncommonly off Halmahera; it was identified from a collected specimen. Some adult and many immature Crested Terns, Thalasseus bergii, were seen off Halmahera in the region of Galela Bay and also perched on the beach. The crest was partly raised when perched, down when in level flight, and raised when diving. The Common Noddy, Anous stolidus, was fairly common off Halmahera, during August and September, where it was perched on floating debris (logs, coconuts) and flying. The Whimbrel, Numenius phaeopus variegatus, was the only shorebird seen on Soemoe Soemoe or Halmahera.-JOHN J. CHRISTIAN, 12 Roseland Ave., Philadelphia 11, Pennsylvania.

Notes on the Birds of Guam.—In these notes emphasis is placed on habits, dates, and island distribution. An occasional field mark is offered for corroboration of identification or as an aid to future observers. Dates cited are a record of field trips more than of the occurrence of a species, since notes were not made with regularity.

Observations were made from December, 1945, to July, 1946, primarily in the Agat-Mount Tenjo-Piti-Orote Peninsula area and the Tumon Bay region. One trip was made across the center of the island to Talafofo Bay on the southeast coast, one to Northwest Field near Ritidan Point, and one down the west coast by boat to Cocos Island. Due to Navy regulations all trips were necessarily taken between the hours of 1 and 7 p. m.

CHINESE LEAST BITTERN, *Ixobrychus sinensis.*—Common in the region of Apra Harbor, seen in the mangroves, mudflats, marshes and swamps. The call is a harsh 'chalk.' Their flight is distinctive. The forward motion through the air appears slow compared to the rapidity of the wing beats. In flight, the secondaries appear MARIANNAS MALLARD, Anas oustaleti.—In the same swamp mentioned later in connection with the Gallinule, three birds (one a male) were usually seen feeding. During the months of May and June, when the swamp was almost dry, they were absent. On June 22, one was seen and on July 2 and 4 the three adults were again present.

PIGMY QUAL, *Excalfactoria chinensis.*—Seen in the foothills on the western side of Mt. Tenjo in dry grassy areas. On June 16, two young and three adults were flushed 10 feet ahead of the observer. One young was caught; it was one and one-half inches long, with blackish down. When flushed these birds were usually silent, but occasionally a timid '*keek-keek*' was heard. They fly 50 to 75 feet before alighting. In five of the six times I have flushed this bird it has been on the lee side of a hill. The wind in this region at this time of year usually blows at 20 to 25 miles per hour from an easterly direction.

GUAM RAIL, *Rallus owstoni.*—Common in the Tumon area and seen three times along the road by the Atantano River east of Apra. It is found in the forests and shrubbery and is more often heard than seen. By noting its frequent calls (when disturbed) it could be approached closely, but even then it was difficult to see, for it was very elusive. At Tumon, on June 22, I saw six individuals in a square mile. The call is characteristic; it ranges from the alarm call, a loud explosive '*keeep*' to a soft '*keeep*' that sounds like a young chicken. The call was usually heard before I was 30 feet from the bird or not until after I had passed it. When excited, they dash into the undergrowth uttering little '*keeep*'s.' Sometimes they give forth an excited series of '*kick*'s' or '*kitty*'s.'

GALLINULE, *Gallinula chloropus.*—I saw this bird only in an open, flooded mudflat with several islands of green grass in it, about half a mile inland from Agat Bay. The height of the water fluctuated with the rainfall. The number of birds visible varied, but throughout the eight months there was always at least one pair present and usually more, feeding in the debris of last season's vegetation or on the dry, caked surface of the higher parts of the flat. The call is a barnyard cackle. On June 30, four immatures were feeding in the center of the area. One adult was feeding two half-grown birds and a pair was engaged in building a nest. They had chosen a moist piece of earth approximately 10 by 40 feet, sparsely covered with grasses and sedges. One bush stood two feet high in a clear area, but water covered its base. One bird remained in this bush on the beginnings of a nest while the other ran rapidly back and forth carrying grasses to it. The bird sitting on the nest fitted the material into place. It was very persistent in its actions. The birds exchanged places about every 20 minutes.

GOLDEN PLOVER, *Pluvialis dominica.*—Five were seen on June 30; four were feeding in a coral tidal pool by Apra on July 3.

RUDDY TURNSTONE, Arenaria interpres.—It was usually seen in a mud-flat inland from Agat Bay or on the flats along the bay. First seen on March 6, there were seven on June 20, three on June 22, and a pair at Agat on July 4. During the months of June and July they were seen more often than the above dates suggest.

WHIMBREL, Numenius phaeopus variegatus.—Seen occasionally along the beaches, mangroves, and mudflats from Agat to Tumon from December to May and regularly from May to July. Their flight is suggestive of the slow, over-head strokes of a gull. They glide to earth on bowed, outspread wings. The call is a loud emphatic 'cuk, cuk, cuk, $c\bar{u}k$, $c\bar{u}k$, c

COMMON SANDPIPER, Actitis hypoleucos.—One seen along Agat beach July 4.

FAIRY TERN, Gygis alba.—These birds were not common but were fairly regular in occurrence.

COMMON NODDY, Anous stolidus.—At all times these birds could be seen flying about the cliffs at Orote Point or working over the ocean near by. A cluster of about 20 were flying off Bangpi Point on May 25. There were approximately 60 off Orote that day. I never saw them dive from a height. They made sorties out from the cliff, following closely the troughs in the waves. On March 29, during a typhoon of three days' duration, the terns were forced to retire to a relatively sheltered area on the lee side of Cabras Island. Despite the winds, they maintained their position over the water in search of food. This was the only time I saw them away from Orote Point.

MARIANNAS FRUIT DOVE, *Ptilinopus roseicapillus.*—They call frequently. The call is a resonant 'gook,' rhyming with cook. It is repeated with acceleration until it becomes a gurgling sound and then slows down to the original speed. The performance takes five or six seconds.

PHILIPPINE TURTLE DOVE, Streptopelia bitorquata dusierei.—One of the commonest birds present, usually seen in pairs. The call is a 'cook coo-cooo.' On March 2, a dove was seen carrying a twig. On April 12, a flimsy nest was found in the forest edge at Tumon; it was 15 feet from the ground and contained two white eggs. On April 13, another nest was found at Tumon, containing two white eggs in a low bush ten feet from the ground and ten feet from the ocean's edge. A peculiar performance observed both on Guam and Saipan consisted of an ascent into the air at a 40-degree angle of about 25 feet. At this height the bird suddenly dropped to one side, wheeling on stiff, outstretched wings to the branch again; while rising the wings snapped loudly with each beat.

WHITE-THROATED GROUND DOVE, Gallicolumba xanihonura.—Seen fairly often in the Tumon forests, once near Agat, and occasionally making relatively long flights 200 feet in the air. Because of these long flights, I think their feeding grounds may be widely scattered. They are definitely forest birds.

MICRONESIAN KINGFISHER, Halcyon cinnamomina.—These kingfishers were not numerous, but they were seen regularly, almost always in pairs. On April 6, a pair was seen in a patch of woods one mile inland from Agat Bay. Also on April 6 an immature was present; it was fully feathered and could fly a little. It persistently called 'aaa-aaaa' (rhyming with 'baaa' of the sheep, accent on the last syllable). The adults fed it once during the 30 minutes that I watched. Twice they chased a band of Starlings away from the immature.

NIGHTINGALE REED WARBLER, Acrocephalus luscinia.—I didn't find this bird until June 3. At least three individuals were singing in a broad expanse of cane grass or in nearby mimosa thickets along the Atantano River below Mt. Tenjo. The song lasts four to five seconds with a five to six second interval and is catbirdlike but not as slurred; there are fewer 'hicks.' Sometimes the calls are repeated, after the fashion of the Brown Thrasher. On June 20, these warblers were still singing in the area.

RUFOUS-FRONTED FANTAIL, *Rhipidura rufifrons.*—In the shrubbery and thickets (especially mimosa) on all parts of the island these birds were present. Their feeding actions were more like an energetic warbler's than a flycatcher's. They continuously

flit about the mimosa thickets chasing insects. On June 16, a fully fledged immature was being fed.

MICRONESIAN BROADBILL, Myiagra oceanica.—Seen regularly in mimosa thickets inland from Agat Bay in the mangrove-shrubbery vegetation to the island edge of Apra Harbor, and at Tumon Bay. Its calls vary: a husky 'zip-zip-zip-zip-zip,' a harsh husky 'bwee-it, biz,' and a soft titmouse-like 'per-per.' It responds to squeaking and the crest is raised when excited.

MICRONESIAN STARLING, Aplonis opacus.—Very common throughout the island, noisy and gregarious. The call is an oriole-like 'jeep' or 'ja-leep.' They frequently feed on insects in dead trees or on the breadfruit or papaya plant. Streaked immature birds were present during all eight months of my stay. On January 8, a pair was taking turns flying to the top of a dead coconut tree, dropping inside, remaining there for five minutes (during which time the mate remained in a nearby tree) and then leaving. I saw no food in their bills. On February 4, I noticed similar actions at another tree. The first pair was still active at its tree. In both cases, one bird remained by the tree while the other was gone. On February 13, both pairs were still active at the nests; a pair was mating, and another bird carrying a twig. On May 5, after the first stump had been deserted for at least a month, a bird was seen carrying a twig into it.

GUAM CROW, Corvus kubaryi.—I saw this bird occasionally in the Tumon area, in coconut trees or in the taller trees of the forest. No more than five individuals were seen together at one time. The call is like the American Crow's, but is higher pitched and more nasal.

CARDINAL HONEY-EATER, Myzomela cardinalis.—This was a common bird in the more open growth of inhabited areas. A canary-like call, 'bweet' was uttered all day long. Their song, a simple melodious 'per-mit-you' was heard most often in the early morning. At 5 a. m. on June 20 five birds were singing within a 500-foot radius in the mangroves. A fully fledged young was being fed by a female on December 9 and on April 13.—LEWIS F. KIBLER, 721 Hastings St., Pittsburgh, Penn.

NOTES AND NEWS

CHAPMAN MEMORIAL FUND

THE biographical account in this issue of "The Auk' of the late Dr. Frank M. Chapman makes it timely to refer again to the fund in his memory sponsored by the American Museum of Natural History. In April, 1950, this totalled approximately \$37,000, all of which has been invested. As soon as the capital assets reach \$50,000, or perhaps before, it is proposed to expend the annual income in support of ornithological research.

Admirers of Dr. Chapman may contribute by drawing checks to the "Chapman Memorial Fund" and sending them to the American Museum of Natural History, Central Park West at 79th Street, New York 24, N. Y. Contributions are deductible under the Federal Income Tax regulations, and small gifts are welcomed. Upon request, the Museum will supply inquirers with a circular of information about the fund and the uses to which the income will be applied.

In these times of high costs of publication (and often reduced incomes from invested funds), many organizations are having difficulty in carrying on their publications. This is particularly true in ornithology where the interest has increased so