

on the right bank of the Corentyne River. I never located a breeding colony, but the breeding season must be in the long rainy season as I observed birds assembling and carrying nest material on May 29 and 30, 1953, along Huntley Creek, in the same district where both kites and limpkins were numerous in the vast, surrounding marshes. As is well known, the Everglade Kite is a very social bird which spends the night in a communal roost. In Nieuw Nickerie I observed every afternoon a number of kites crossing the Nickerie River to its right bank on their way to their roost which itself remained unknown to me. At the end of July the numbers were particularly large, so I took the opportunity to count them on July 31, 1953.

The flight started at about 5:30 p. m. They passed over at low altitude, slowly flapping their wings, alternating with short glides. Many were in immature plumage, those in adult plumage often having the primaries in molt. It was interesting that several carried single snails, either in their claws or in their bills. The flight stopped towards darkness, or at about 6:45 p. m. I counted 712 birds which certainly were not all as the birds passed over a rather broad front which I could not oversee in its entirety. It was an impressive spectacle, as at the same time a large number, running into a few thousand, of egrets passed over in the same direction. These egrets have a long-used roost in the bushes on the right bank of the Nickerie River just opposite Nieuw Nickerie.

The Blue and Yellow Macaw (*Ara ararauna*) is in Surinam a bird of the lowland forests. Here it breeds in dead Moriche palms (*Mauritia flexuosa*). Kappler (1881. "Holländisch Guiana," Stuttgart, p. 94) reports the finding of a nest with two eggs (no date given) in such a situation, along the Wana Creek in the Maroni District. A favorite food is the seeds of the possentri or poison tree (*Hura crepitans*). On December 17 and 18, 1948, in the Coronie District, I watched a number of birds feeding in these trees and the stomach of a specimen collected at that time was full of the seeds.

Through the clearance of forests it has now entirely disappeared from the neighborhood of Paramaribo, but it is still rather common wherever primitive conditions remain. I have seen it regularly when travelling by launch along the upper Nickerie and Wayombo rivers and it is always a magnificent sight when some birds, always flying in pairs, cross the forest-fringed rivers, from time to time uttering their harsh note, rrrraaa.

The most impressive spectacle, however, I witnessed on August 23, 1947, when travelling by launch downstream on the Coppename River. In the late afternoon, beginning at about one hour before sunset, numbers of *Ara ararauna* started crossing the river towards its left bank at the point where the Tibiti River enters the Coppename.

As so often happens in such cases I realised the opportunity to count the passing birds only after the spectacle was already well under way. The birds were, as usual, in pairs, each pair flying with slow, synchronised wing strokes, the birds close to each other. Sometimes only single pairs went over, followed again by loose flocks split up in pairs.

The total counted was 342 birds. This number was certainly not all which crossed, as I started counting when the flight had been in progress for some time and, further, I counted from a rather fast-moving boat. In reality at least twice this number must have crossed the river at that time, en route to a sleeping place in the midst of the forest.—F. HAVERSCHMIDT, P.O. Box 644, Paramaribo, Surinam, August 26, 1953.

Repeated territorial attacks of Pied-billed Grebe on Ring-necked Duck.—

In the course of early morning observations on Pied-billed Grebes (*Podilymbus podiceps*) which began on February 27, 1954, one grebe, believed to be a male, established a territory in a marshy pond in Seneca, Maryland. By April 3, this bird had a mate, and

courtship activities, similar in general to those described for the previous year (Kilham, 1954. *Wilson Bull.*, 66:65), were observed. On March 27, Coots (*Fulica americana*) were diving in open water at the center of the grebe's territory. A single female Ring-necked Duck (*Aythya collaris*) alit among the Coots and immediately began to dive. Suddenly the duck flew ten feet over the surface as the grebe emerged at the spot where she had been. The grebe then dashed at the duck which flew to the other end of the pond. Thereupon the grebe called *ka, ka, cow, cow*, etc., the sides of its neck swelling and collapsing as it did so. On March 28, the female ring-neck was again diving with the Coots while the grebe was thirty feet away. Suddenly the duck flew over the surface a short distance, then swam rapidly away, the grebe having come up where she had first been startled. Five minutes later the ring-neck had returned and was again attacked from below and pursued a short distance. A longer lull of twenty minutes followed in which the Pied-billed Grebe was lost from view in marsh vegetation and the ring-neck swam back to continue diving. As I watched (7 × 50 Zeiss binoculars), the duck suddenly started swimming, half submerging as she did so. I could not see the grebe. After swimming twenty feet the duck took flight as the grebe emerged where the former had taken wing. Ring-necked ducks were not found on subsequent visits to the pond. In the four episodes witnessed, the grebe had attacked under water from some distance away and with surprising swiftness. On April 3 a similar attack was launched against an immature Pied-billed Grebe which had no clear bill markings. I saw the male grebe sink under water and, as traced by over-lying ripple marks, head for this stranger. Meanwhile the immature bird, as if alerted, had begun to swim away at right angles. The male surfaced where the other grebe had been, then made a dash which caused the immature bird to take flight. Few other grebes were seen on the pond during the weeks it was under observation.

To test the male grebe's reactions I threw a small duck decoy, painted roughly like a female Ring-necked Duck, into his territory. Ten minutes later he swam up to within twelve feet of this lure and gave a loud *ka, ka, cow, cow*, etc. Then with head and neck stretched straight up like a periscope to see above the weeds, he approached to within six feet, looked the decoy over well, and departed. This curiosity was evoked in varying degree on subsequent occasions by a stoppered bottle thrown into the open water, a muskrat cleaning its fur on a tussock, and by any sudden commotion among the Coots or Blue-winged Teal (*Anas discors*). The grebe never showed hostility toward teal, Coots, or Wood Ducks (*Aix sponsa*) which were usually present and often passed the grebe at close range.

On April 17, a female Hooded Merganser (*Lophodytes cucullatus*) flew over and alit in open water where all previous attacks had been witnessed. I kept my binoculars on the merganser after it alit. Within seconds the duck shot eight inches straight upward with *quack, quack* of alarm as the grebe surfaced right below. To all appearances the grebe had rammed the merganser in the belly. The merganser alit 15 feet farther on and the grebe swam for it with neck arched and head low, causing the merganser to fly twenty feet still farther on. Although the duck continued to swim and dive in the grebe's territory, the latter paid no further attention to it. On this, as on other occasions, the female grebe, although nearby, was never observed to attack.

Discussion: In the above observations the so-called male was distinguished from the female grebe by a lighter back (presumably an individual variation), by being the one to establish the territory, by delivering all attacks observed, by making the only loud, prolonged calls, and, on two occasions, by performing the "courtship dance" of standing on water with rapidly treading feet, a performance which immediately preceded coition

in my study previously referred to. Attacks delivered under water in an attempt to ram an adversary from below are of interest as they have been described for other species of grebes. Of special interest, however, were the repeated attacks on the female Ring-necked Duck, in explanation for which the following hypothesis is offered: When seen together it was apparent that the female ring-neck bore rough resemblances to a Pied-billed Grebe, both in color pattern and behavior. It is a small duck with a ring on its bill and a white eye ring. It is dark brown above and lighter buff below. In behavior, it dove frequently and repeatedly lifted its body at a forty-five degree angle to the surface to shake and readjust its plumage, thus exposing its white belly. The grebe, when diving, has a similar performance, but has a peculiar way of snapping back to its original position. The female Ring-necked Duck may have had sufficient "releasers" to elicit attacks which the male grebe would normally have launched only against rivals of its own species. The ring on the bill may not have been the principal "releaser" as an immature grebe and a female Hooded Merganser were also attacked. The merganser, with its distinctive reddish crest, was only attacked momentarily, possibly on account of its small size and drab color. Once the grebe had a closer look, however, no further attacks were made. In summary, the male Pied-billed Grebe was perpetually alert to activities of other birds and animals in its territory, attacking what it considered rivals, but showing well-marked curiosity toward new situations.—LAWRENCE KILHAM, 8302 Garfield Street, Bethesda, Maryland, April 25, 1954.

Miscellaneous notes on Mexican birds.—During the past several years the California Academy of Sciences has secured several thousand study skins of birds from various parts of Mexico. Most of these were either purchased from the late Wilmot W. Brown or obtained by the senior author. Smaller accessions were received through the courtesy of Drs. Ernest P. Edwards and G. Dallas Hanna. Included in these collections are certain new state records and extensions of the ranges of a few species. In the course of studying some of this material it was necessary to examine pertinent specimens in the University of California Museum of Vertebrate Zoology and the University of Kansas Museum of Natural History. The writers are indebted to the officials of these institutions for permission to examine collections under their care and to make mention of certain specimens found therein.

Podilymbus podiceps antillarum. Pied-billed Grebe. A male taken by Webster on a pond 12 miles northeast of Durango City, Durango, June 26, 1952, was paired and apparently breeding. Its testes were enlarged. The wing length (120 mm.) is equal to the minimum listed for males of this race by Hellmayr and Conover (1948. *Field Mus. Nat. Hist., Zool. Ser.*, 13, pt. 1, no. 2:37). This species has heretofore neither been reported from Durango nor have members of this race been recorded this far north.

Falco columbarius richardsonii. Pigeon Hawk. An adult female, taken January 28, 1952, near Chilpancingo, Guerrero, and prepared by W. W. Brown, appears to be of this race. It is decidedly paler above and below than any comparable examples of either *F. c. columbarius* or *F. c. bendirei* examined. This not only constitutes a considerable southward extension of the wintering range of the race *richardsonii* but also the first record for this species from Guerrero.

Catoptrophorus semipalmatus inornatus. Willet. An adult female secured at the north end of Socorro Island on November 20, 1953, by G. Dallas Hanna, is the first record of this species from the Revillagigedo Islands.

Crocethia alba. Sanderling. A single female was seen and collected by G. Dallas Hanna at the north end of Socorro Island, Revillagigedo Islands, on November 20, 1953.