

was common on San Andres. Two males, one with testes 10×8 mm, weighed 35.0 and 37.0 g. A female (ovary 6×3 mm, granular ova) weighed 34.0 g.

Tiaris bicolor. Black-faced Grassquit. This grassquit was seen frequently on both islands. Two San Andres males had testes 8×5 and 7×5 mm, and six males weighed 10.2–11.5 g ($\bar{x} = 10.9$). One had a bad case of foot pox. Two females weighed 11.0 and 13.0 g. A male and a female from Providencia weighed 11.2 and 10.8 g, respectively. The male showed heavy dorsal and light ventral molt.

NON-RESIDENT SPECIES

Table 1 lists the number of each species of migrant seen and mist-netted. We banded most transients with U.S. Fish and Wildlife Service bands and released them. No migrant birds were molting. The Northern Green Heron (*Butorides striatus virescens*) is listed here though evidently both residents and migrants occur on the islands (Bond 1950).

DISCUSSION

In handling the North American migrants, we noticed the generally emaciated condition of most individuals, especially those netted on San Andres. For example, seven of the eight American Redstarts (*Setophaga ruticilla*) we netted were lighter than any of the weights reported for 11 individuals by Baldwin and Kendeigh (Auk 55:416–467, 1938) and Norris and Johnson (Wilson Bull. 70:114–129, 1958). Other examples of light birds on San Andres include Tennessee Warbler (*Vermivora peregrina*), Northern Parula (*Parula americana*), Yellow Warbler, Black-throated Blue Warbler (*Dendroica caerulescens*), Common Yellowthroat (*Geothlypis trichas*) and Hooded Warbler (*Wilsonia citrina*). Although our data are based on a very small sample, we were impressed not so much by the light weight of the captured birds as by the lack of fat ones. Only the Gray Catbird (*Dumetella carolinensis*) had sub-

stantial fat stores. On San Andres the unusually harsh dry season persisted for another two months. Migrant species presumably would have little likelihood of accumulating adequate fat reserves for a flight across open water. We have no idea of the number of transients that may pause on San Andres, but it is doubtful that many in 1972 reached their breeding grounds. Birds on Providencia were perhaps in better condition. None of 14 Northern Waterthrushes (*Seiurus noveboracensis*) caught on San Andres had appreciable subcutaneous fat but three individuals taken on Providencia were heavier. The heaviest Worm-eating Warbler (*Helminthos vermivorus*) and Ovenbird (*Seiurus aurocapillus*) were from Providencia. We took our sample on Providencia in an area supporting a considerable amount of native vegetation adjacent to a permanent stream. This site appeared to be a more favorable environment than any on San Andres.

The status of resident land birds appeared to be roughly the same as it was in 1950. The ani, which Bond (1950) suspected to be a recent arrival on both islands, certainly has not increased in numbers. Our failure to find the Mangrove Cuckoo may not be significant in view of our short stay on Providencia, but we suggest that future visitors make a special effort to locate it. The same applies to the resident race of the Yellow Warbler on Providencia.

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SNAKE AND POND SNAILS AS FOOD OF GREY-NECKED WOOD-RAILS

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While staying at Tikal, Peten, Guatemala between 23 January and 14 February 1978 I had an opportunity to observe the foraging habits of Grey-necked Wood-Rails (*Aramides cajanea*) by water reservoirs. These birds had become as tame as domestic fowl and were easily visible because beyond the fringe of reeds was a smooth lawn. While Ripley (Rails of the World, David R. Godine, Boston, 1977) has described the general feeding habits of these birds, I found the handling of two prey items of special interest.

After one wood-rail caught a water snake about 30 cm long and held the snake writhing in its bill, it ran about trying to escape the pursuit of two other wood-rails. The captor put the snake on the ground and gave it many blows with its bill, particularly around the head, in addition to picking it up and shaking it. After 25 min of this treatment the snake was still able to rise, open its mouth and face its predator, but it appeared dazed. After 10 more minutes of vigorous blows, the wood-rail swallowed half of the snake headfirst but, disturbed by continued writhing, ejected it. The rail made seven attempts to swallow the snake, delivering many blows in between. On the last attempt the snake, still writhing feebly and with a skin that looked intact and unlacerated as viewed through binoculars, disappeared inside the beak of the wood-rail. The whole incident from capture to swallowing took 45 min.

Large water-snails (referred to as *Pomacea flagellata* by Smithe, The birds of Tikal, Natural History Press, 1966) were a second item of prey taken at the water edge. A wood-rail, after finding a snail, spent from one to four minutes pounding at it on the ground before tossing the shell away and devouring the body as two separate morsels. I was able to recover the particular shell with certainty (other shells were lying about) on three occasions and found that the bird had made a hole about 0.6 cm in diameter in the side of each shell. Limpkins (*Aramus guarana*) and Everglade Kites (*Rostrhamus sociabilis*) have specially adapted bills that enable them to feed

on *Pomacea* snails with shells up to 3 cm in diameter (Snyder and Snyder, Living Bird 8:177-223, 1969) but wood-rails do not. The wood-rails did not feed on snails as regularly as the Limpkins, seemingly because they were unable to locate them well with their shorter bills.

These observations seem noteworthy as neither snakes nor pond snails have been described in previous accounts (Ripley 1977) of the food of *A. cajanea*.

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A NEST OF THE COLLARED GNATWREN (*MICROBATES COLLARIS*)

YOSHIKA ONIKI

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According to Kiff (Condor 79:261-262, 1977), the nest of the Collared Gnatwren (*Microbates collaris*, Sylviidae) has not been reported. He found a cup nest near the ground for the Half-collared Gnatwren (*M. cinereiventris*). The related Long-billed Gnatwren (*Ramphocaenus melanurus*) is known to have such a nest (bibliography in Kiff 1977); we have found several similar nests of the species. While studying Amazonian birds in the forest at Reserva Ducke, near Manaus, Brazil, E. O. Willis flushed a noisy Collared Gnatwren from a nest with two eggs (Fig. 1) on 16 May 1974.

The bulky, leafy cup was 0.4 m up on a dead leaf of a thorny palmetto tuft and on crossing twigs of a *Ryania* cf. *sagotiana* Eichl. (Flacourtiaceae), under another arching palm leaf, in moderately dense undergrowth near fallen trees. The nest was well concealed, as it looked like a pile of debris. The body of the nest was of compacted rotten leaves, with leaf rachises on the outside and near the rim. The lining was of much thinner, soft, brown material, apparently rotting palm and other leaves. The nest weighed 14.2 g when dry, and measured 10 cm in outside diameter and height, 4.7 cm in internal diameter, and 4 cm in inside depth.

The two white eggs had a few small brown spots near and forming a loose wreath around their large ends. The adult was incubating on 8 of 13 visits, indicating an incubation constancy of about 60%. Fourteen days after discovery, on 30 May, the eggs hatched. The young were naked, with dark skin and pale yellow gapes, and weighed 1.6 and 1.4 g each, at 16:25. They left the nest 12-13 days afterward, as the nest had two large young on 10 June, one young on 11 June and was empty on 12 June at

18:02. When last seen, the young were large and much the color of adults.

Growth of young was rapid (Fig. 2). They peeped when measured 5-7 June but closed their eyes and huddled in the hand 8 June. Feathers were opening on 6 June, and by 10 June, the young seemed well feathered.

The nest of this gnatwren resembles that of *Ramphocaenus melanurus*, and unlike that of gnatcatchers (*Polioptila*), which supports Kiff's suggestion (1977) that gnatcatchers are not closely related to gnatwrens. However, it would be difficult for small birds to carry leafy material to treetop and edge nests such as those of gnatcatchers, and such nest cups are conspicuous away from the ground. In treetop and edge habitats near Manaus, bulky nests are mainly the leafy ovens of becards (*Pachyramphus* spp., Cotingidae). Gnatwrens and gnatcatchers could



FIGURE 1. Collared Gnatwren incubating in nest at Manaus, 21 May 1974.