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## STATUS OF SOME BIRDS ON ISLA SAN ANDRES AND ISLA PROVIDENCIA, COLOMBIA

STEPHEN M. RUSSELL

JON C. BARLOW

AND

DONALD W. LAMM

The authors visited these Colombian islands from 7 April through 12 April 1972, spending 10-11 April on Providencia and the remaining time on San Andres. The latter is in the Caribbean Sea about 200 km east of Nicaragua and the former is about 100 km farther north. The most recent paper on birds of the islands (Paulson, Orians, and Leck, *Auk* 86:755-758, 1969) dealt principally with migrants and considered only San Andres. Species found on Providencia were last recorded by Bond (*Proc. Acad. Nat. Sci. Philadelphia* 102:43-68, 1950) who also discussed the native birds of both islands. Our paper cites migrants we noted and reports on the current status of resident species.

San Andres is about 13 × 4 km and its present vegetation consists largely of coconut palms. There are mangrove swamps, overgrown pastures with thickets, and scattered patches of native trees, occasionally to a height of 20 m. We set one to five mist-nets on each of three days in a brushy pasture close to the edge of mangroves south of the village of San Luis. This was adjacent to a fresh-water spring, which seeped out over an area of about 25 m<sup>2</sup> and attracted many birds, particularly migrants, under the prevailing dry conditions. Our nets were standard 2 × 12 m with a mesh of 36 mm and were used for a total of about 48 hours.

The island of Providencia is of volcanic origin and about 5 × 8 km; steep hills rise to 380 m. Our activities here were largely confined to the southwest along Sweetwater Creek, where it is bordered by brush, vines, a few palms, and native trees. One to three nets were in use along this stream for a total of about 12 hours.

On both islands, birds were weighed with Pesola spring balances. Birds kept as specimens are now in the Royal Ontario Museum.

### RESIDENT SPECIES

Paulson et al. (1969) found 13 of the 14 species of breeding land birds reported by Bond (1950) and found that their status was generally unchanged; they did not find the Mangrove Cuckoo (*Coccyzus minor*). Bond (1950) remarked that this cuckoo was common on Providencia but rare on San Andres. We failed to find it. Otherwise, we encountered all species in this category mentioned by Bond (1950).

*Columba leucocephala*. White-crowned Pigeon. These pigeons occurred singly and in pairs commonly on San Andres and even more commonly on Providencia.

*Zenaidura asiatica*. White-winged Dove. On both islands this species was fairly common, though less so than White-crowned Pigeons. They were generally

solitary or in pairs but we saw one group of six and elsewhere four perched together. We heard only a little calling and we found no nesting.

*Leptotila jamaicensis*. Caribbean Dove. This species does not occur on Providencia; on San Andres, Bond (1950) considered it to be the rarest permanent resident land bird except for the ani. We noted at least six scattered single birds.

*Crotophaga ani*. Smooth-billed Ani. Our only record on San Andres consisted of four individuals, who came to the spring where we mist-netted. One bird was heard on Providencia.

*Anthracothorax prevostii*. Green-breasted Mango. This hummingbird was relatively common on both islands. Four females on San Andres weighed 5.7, 5.8, 6.0 and 6.5 g. Testes of two males were 3 × 2 mm; each bird weighed 5.8 g. A female on Providencia weighed 6.5 g.

*Elaenia martinica*. Caribbean Elaenia. This flycatcher was a common roadside bird on both islands, although we saw fewer on Providencia. Three males were in breeding condition (testes 8 × 5, 8 × 5, and 8 × 4 mm; weight 23.0, 24.0 and 24.5 g). A female had a 6 × 3 ovary (ova 1 mm) and weighed 23.0 g.

*Mimus gilvus*. Tropical Mockingbird. Bond (1950) considered this mockingbird to be "surprisingly uncommon" but we found many.

*Vireo caribaeus*. San Andres Vireo. This vireo is restricted to San Andres, where it was very common. Males were in full song; 10 were heard in 5 ha. Three males weighed 8.6, 9.1 and 9.5 g and had testes measuring 4 × 3, 1 × 1 and 5 × 4 mm, respectively.

*Vireo crassirostris*. Thick-billed Vireo. This species was common on Providencia and we could hear as many as six singing at one place along the creek. Two males each weighed 10.5 g with testes 2.5 × 1.5 mm, respectively. Each of two females weighed 10.5 g and had granular ovaries measuring 7 × 4 and 5 × 5 mm.

*Vireo altiloquus*. Black-whiskered Vireo. This large vireo was uncommon on San Andres. Song was seldom heard and usually only a few isolated notes were uttered. A male had testes 4 × 3 mm and weighed 21.0 g.

On Providencia this species was fairly common in large trees along Sweetwater Creek. As many as 15 individuals were seen from near sea level to about 210 m in the hills and at least six males were in song. A male weighed 21.0 g and had testes 4 × 3 mm. The iris was dark reddish brown.

*Coereba flaveola*. Bananaquit. Bananaquits were very common on Providencia, though somewhat less so than on San Andres. In the hand, adults on both islands had the base of the gape swollen and red. Five males weighed 12.0-13.0 g (mean 12.3), whereas two juveniles were each 11.5 g. Three immatures were undergoing the first pre-basic molt.

This species was incredibly abundant on San Andres. Two nests that were checked each contained two eggs. Five males ranged in weight from 11.0 to 13.5 g ( $\bar{x}$  = 12.2). Five females weighed 10.0-10.5 g ( $\bar{x}$  = 10.2).

*Dendroica petechia*. Yellow Warbler. The resident San Andres population was, as Bond (1950) remarked, fairly common. A captured male had only a faint chestnut tinge on the crown but had testes measuring 8 × 4 mm and weighed 8.0 g. We did not find Yellow Warblers on Providencia.

*Icterus leucopteryx*. Jamaican Oriole. This oriole

TABLE 1. Non-resident birds observed or netted on Isla San Andres and Isla Providencia in April 1972.

Species	Locality <sup>1</sup>	Number <sup>2</sup>	Weight <sup>3</sup>
<i>Fregata magnificens</i>	SA	2	
<i>Casmerodius albus</i>	P	1	
<i>Florida caerulea</i>	SA	1	
	P	30	
<i>Bubulcus ibis</i>	SA	5	
<i>Butorides striatus</i>	P	3	
	SA	2	
<i>Falco columbarius</i>	P <sup>4</sup>	1	
<i>Actitis macularia</i>	SA	1	
	P	2	
<i>Arenaria interpres</i>	SA	4	
<i>Calidris minutilla</i>	SA	4	
<i>Numenius phaeopus</i>	SA	1	
<i>Larus atricilla</i>	SA	3	
<i>Sterna maxima</i>	SA	1	
	P	10	
<i>Megasceryle alcyon</i>	SA	5	
	P <sup>4</sup>	1	
<i>Tyrannus tyrannus</i>	SA <sup>4</sup>	1	
<i>Contopus virens</i>	SA	1	
<i>Riparia riparia</i>	SA	7	
<i>Hirundo rustica</i>	SA	ca. 50	
	P	ca. 25	
<i>Dumetella carolinensis</i>	SA	3(1)	41.5
	P <sup>4</sup>	2	
<i>Mniotilta varia</i>	SA	4(1)	9.0
	P <sup>4</sup>	3(2)	♀ : 10.2; sex ? 10.5
<i>Protonotaria citrea</i>	P <sup>4</sup>	1	
	SA	1	
<i>Helmintheros vermivorus</i>	SA	5(4)	11.0-13.8 (12.5)
	P <sup>4</sup>	1(1)	15.8
<i>Vermivora peregrina</i>	SA	2(2)	8.0, 8.5
<i>Parula americana</i>	SA	5(2)	♀ 6.2, 6.5
<i>Dendroica petechia</i>	SA <sup>0</sup>	6(3)	♂ 7.0, 7.5; ♀ 7.4
<i>Dendroica magnolia</i>	SA	4(1)	6.5
	P <sup>4</sup>	1	
<i>Dendroica tigrina</i>	SA	3(2)	♀ 8.5; ♂ 10.0
<i>Dendroica caerulescens</i>	SA <sup>5</sup>	2(1)	♀ 7.0
<i>Dendroica coronata</i>	SA <sup>4</sup>	16	
<i>Dendroica virens</i>	P <sup>5</sup>	1	
<i>Dendroica striata</i>	SA <sup>4</sup>	1	
	P <sup>4</sup>	1	
<i>Dendroica palmarum</i>	SA	6	
<i>Seiurus aurocapillus</i>	SA	8(5)	16.0-19.0 (17.5)
	P	1(1)	21.0
<i>Seiurus noveboracensis</i>	SA	18(14)	14.6-17.1 (16.0)
	P	3(3)	17.0, 17.5, 20.5
<i>Oporornis formosus</i>	P <sup>5</sup>	1(1)	16.0
<i>Geothlypis trichas</i>	SA	8(1)	♂ 8.7
<i>Wilsonia citrina</i>	SA <sup>5</sup>	3(1)	♂ 8.0
<i>Setophaga ruticilla</i>	SA	14(8)	♂ 7.0; 5 ♀ : 5.5-7.5 (6.3); 2 ? : 6.5, 7.0
	P <sup>4</sup>	1	
<i>Pheucticus ludovicianus</i>	SA	3	
	P <sup>4</sup>	8	
<i>Passerina cyanea</i>	SA	16(4)	♀ 12.5-13.5 (13.1)
	P <sup>4</sup>	1	

<sup>1</sup> SA = Isla San Andres; P = Isla Providencia.<sup>2</sup> Total number observed, including those netted shown in parentheses.<sup>3</sup> Weight in grams of netted birds; mean weight in parentheses; sexes indicated when known.<sup>4</sup> First record for this island.<sup>5</sup> Not previously recorded from either island.<sup>6</sup> Only the resident race has been previously reported.

was common on San Andres. Two males, one with testes  $10 \times 8$  mm, weighed 35.0 and 37.0 g. A female (ovary  $6 \times 3$  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  $8 \times 5$  and  $7 \times 5$  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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*Department of Ecology and Evolutionary Biology, University of Arizona, Tucson, Arizona 85721. Address of second author: Department of Ornithology, Royal Ontario Museum and the Department of Zoology, University of Toronto, Toronto, Ontario, Canada M5S 2C6. Address of third author: 6722 East Nasumpta Drive, Tucson, Arizona 85715. Accepted for publication 30 September 1977.*

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

LAWRENCE KILHAM

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.