Map 377. Campethera nubica superspecies. The range of C. bennettii should be extended to Rwanda, for which Schouteden (1966, Doc. Zool. 10: 70)

gives several records.

Map 384. Dendropicos poecilolaemus. The record at about 2°N, 15°E is probably erroneous. This is based on a specimen collected by Haberer, one of a series labelled "Molundu" but all non-forest species and almost certainly not from 2° 02'N, 15° 13'E. This series includes Francolinus bicalcaratus (Map 125).

Map 388. Dendropicos pyrrhogaster superspecies. Old records of D. pyrrhogaster from Mount Cameroun (c. 4° 12'N, 9° 11'E) are substantiated by speci-

mens in Berlin and Stockholm and must be considered valid.

Map 389. Dendropicos elliotii. The records from Western Zaire in Schouteden Doc. Zool. 1 (1961): 98; 3 (1962): 80 and 6 (1964): 109 have been omitted. The incorporation of these records results in a map as in Fig. 1.

Map 390. Dendropicos goertae superspecies. The range of D. goertae should be extended to Rwanda, for which Schouteden (1966, Doc. Zool. 10: 71) gives several records.

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## Winter field notes and specimen weights of Cayman Island Birds

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We observed and collected birds in the Cayman Islands in November 1979, mainly for the purpose of obtaining skeletal material for identification of Pleistocene bird fossils known from the islands (Morgan 1977). We were on Grand Cayman 14-22 November, during which time we concentrated on resident birds in the limestone forests in the middle and eastern portions of the island, although we maintained a mist net in constant operation in the mangrove forest near our quarters at South Sound, on the southwest coast of the island. We were on Cayman Brac 22-26 November, where most of our work was in bluff forest in the middle of the island near Stake Bay.

The most recent list of the avifauna of the Cayman Islands is that of Johnston et al. (1971), to which Barlow (1978) added records of migrants from Grand Cayman. The ecology and physiography of the Cayman Islands with respect to their avifaunas has been treated in detail by Johnston (1975). Less ornithological work appears to have been done in the islands in winter; hence for completeness we have included at least some mention of each species we observed. Because of the nature of our work, the absence of certain species, such as coastal migrants, probably has little significance.

We have also taken this opportunity to include records made by the late Alexander Wetmore, who made 3 vacation trips to Grand Cayman in the 1970's. Although he did not collect specimens, he kept his usual meticulous field notes, which are now on file at the National Museum of Natural History, Smithsonian Institution. The periods of Wetmore's observations include 26 January to 16 February 1972, 8-23 February 1973, and 7-18 January 1975. An asterisk (\*) indicates that a species was also observed by Wetmore but that his notes do not require further elaboration. All observations are ours unless specifically attributed to Wetmore.

We did not visit Little Cayman, but the avifauna of this island has recently been summarized by Diamond (1980), who also includes an appendix with weights of 7 species. Specimen weights in grams appear at the end of each species account and were taken with 30, 100, and 300 g Pesola spring scales. Minimum, maximum, mean, and standard deviation are given for weights when there are 5 or more specimens in a category. GC=Grand Cayman. CB= Cayman Brac.

## SPECIES ACCOUNTS

\*Podilymbus podiceps. Pied-billed Grebe. GC, observed on lake E of Bodden-

Sula leucogaster. Brown Booby. CB, 3 were seen passing bluffs at E end of island, 23 November.

\*Fregata magnificens. Magnificent Frigatebird. GC, observed only occasionally; more than 20 seen over the turtle rearing pens on the NW tip of the island. \*Ardea herodias. Great Blue Heron. GC, common at South Sound.

Egretta alba. Common Egret. Johnston et al. (1971) describe the species as "uncommon in winter" on GC. We did not encounter it, but Wetmore observed the species on all 3 of his trips. On 14 February 1973 he recorded: "Forty to fifty on the larger pond at the Dairy Farm near Boddentown. With Snowy Egrets they rested in a close group on a shallow bank flying out in groups over somewhat deeper water. Here as they passed while on the wing, partly hovering, partly coasting on broad wings they stabbed rapidly at the surface of water to seize small minnows."

Egretta thula. Snowy Egret. GC, common; an impressive feeding aggregation of more than 20 was observed for several days near the North Side Road, where flood waters were washing small poeciliid fishes over a dirt road through a marsh. Considerable aggression was noted and there was a definite dominance hierarchy among individuals. Wetmore noted this species feeding on the wing, as described for E. alba above, both at Meagre Bay Pond on 10 February 1972 and at the dairy pond near Boddentown on 14 February 1973. CB, a few in mangrove pools.

\*Egretta caerulea. Little Blue Heron. GC, adults and immatures seen on several occasions.

\*Egretta tricolor. Louisiana Heron. GC, CB, observed occasionally. \*Egretta ibis. Cattle Egret. GC, observed on several occasions, usually with cattle. CB, with cattle on E end of bluff, also along roadsides and very tame at Stake Bay.

\*Butorides virescens. Green Heron. GC, common in mangroves and any wet area; no dark phase birds noted. CB, a few in mangroves on S coast.

\*Nyctanassa violacea. Yellow-crowned Night Heron. CB, one in pool on S

Ixobrychus exilis. Least Bittern. GC, Wetmore observed an individual of this species, both perched and on the wing, in cat-tails in the Omega Settlement area, 7 February 1972. Johnston et al. (1971) list only one other sight record for GC.

Plegadis falcinellus. Glossy Ibis. GC, Wetmore observed an adult and an immature with herons in the West Bay district, 3 February 1972. Johnston et al. (1971) list but one sighting on GC and 2 for CB.

Anas discors. Blue-winged Teal. GC, encountered by Wetmore on each

of his trips.

Anas americana. American Widgeon. GC, 2 seen by Wetmore on 15

February 1973 and on 20 and 24 January 1975.

Aythya affinis. Lesser Scaup. GC, 2 adult males seen by Wetmore on 6 and 10 February 1972 on a lake adjacent to Meagre Bay Pond beyond Boddentown.

Aythya collaris. Ring-necked Duck. GC, we observed at length a male and 3 females among a flock of American Coots in a flooded quarry at the NW tip of the island on 19 November. All field marks, including the ring around the bill, were noted. This appears to be the first record of the species for the Cayman Islands.

Óxyura dominica. Masked duck. GC, one seen by Wetmore in a marsh

in the Red Bay area, 12 February 1972.

Cathartes aura. Turkey Vulture. Hitherto there have been only 2 reports for GC, both equivocal (see Barlow 1978). Wetmore recorded 2 at Pageant Beach Hotel 8 January 1975, and noted birds there on 10, 13, 15 and 20 January 1975, mentioning "several" on the last date. He also saw one "in the mosquito control area" 26 January 1975. We observed one soaring over the marsh W of the North Side Road on 16 November 1979. CB, one observed close at hand soaring by bluffs at E end of island on 26 November. Johnston et al. (1971) give only one other record (June) for the island. When we queried a resident of CB about the "John Crow", she informed us that what was popularly thought to be a single individual had been present on CB for about 10 years and that lately the species seemed to be more common, up to 4 being seen at once.

Pandion haliaetus. Osprey. GC, observed on 3 occasions; one bird seen close

at hand was definitely referable to P. h. carolinensis.

\*Falco columbarius. Merlin. GC, observed twice. CB, observed 3 times; one was captured 23 November in a mist net, after having killed an Elaenia in the net, escaping, and being recaptured near 2 Bananaquits that evidently died of fright, as they bore no injuries. CB, \$\varphi\$ 213 g.

\*Falco sparverius. American Kestrel. GC, observed twice in vicinity of Breakers, probably one individual. CB, 2 observed along road on S side.

Subspecific indentifications were not possible.

\*Gallinula chloropus. Common Gallinule. GC, CB, in ditches and pools

in mangroves.

Porphyrula martinica. Purple Gallinule. GC, Wetmore observed 2 in the Red Bay area on 12 February 1972, one of which, a female with heavy fat (USNM 576772), was killed by a car. Johnston et al. (1971) list only 2 records for GC, and Bond (1973, fide Johnston) mentions another.

\*Fulica americana. American Coot. GC, a fair concentration observed with 4 Ring-necked Ducks (q.v.) on NW tip of island and a few seen elsewhere.

Charadrius vociferus. Killdeer. GC, Wetmore observed a dozen near Spanish Bay 17 February 1973 and noted an individual at Pageant Beach Hotel 10–17 January 1975. One sight record is listed by Johnston et al. (1971) and one by Bond (1973).

Charadrius semipalmatus. Semipalmated Plover. GC, not infrequently ob-

served by Wetmore in 1972 and 1975.

Charadrius wilsonia. Wilson's Plover. GC, Wetmore observed one at Rum Point on 13 February 1973. Apparently not previously reported in winter (Johnston et al. 1971).

Pluvialis squatarola. Black-bellied Plover. GC, observed frequently by

Wetmore on each of his trips.

\*Arenaria interpres. Ruddy Turnstone. GC, we observed a few around the turtle pens.

\*Capella gallinago. Common Snipe. GC, we flushed one individual for

several days in succession in a marshy area 1 km S of Old Man Bay.

Numenius phaeopus. Whimbrel. GC, Wetmore observed one clearly for 10 minutes at Caribbean Cattle Farms on 12 February 1972. The only other record for the Caymans was reported in Bond (1978) as seen on GC on 9 September of an unspecified year.

\* Actitis macularia. Spotted Sandpiper. GC, at least 2 individuals seen.

Tringa solitaria. Solitary Sandpiper. GC, one by pool S of Grape Tree Point, 16 November.

\*Tringa melanoleuca. Greater Yellowlegs. GC, observed occasionally, usually in flooded roads.

Tringa flavipes. Lesser Yellowlegs. GC, seen by Wetmore in 1972 and 1973. Calidris pusillus. Semipalmated Sandpiper. Calidris minutilla. Least Sandpiper. GC, both species recorded by Wetmore in 1972 and 1973.

Himantopus mexicanus. Black-necked Stilt. GC, seen by Wetmore on each

of his trips, though we failed to encounter it.

\*Thalasseus maximus. Royal Tern. GC, observed at South Sound.

\*Columba leucocephala. White-crowned Pigeon. GC, infrequently seen; one bird was discovered roosting at night about 8 m up in mangrove saplings with grackles. CB, decidedly uncommon; most observations could have stemmed from one individual that flushed repeatedly from the same general area on the bluff.

\*Zenaida aurita zenaida. Zenaida Dove. GC, very few seen; one collected in deep forest. CB, one seen along roadside. GC, & 137 g.

\*Zenaida asiatica asiatica. White-winged Dove. GC, observed on only 4

or 5 occasions; one picked up as roadside kill. GC, & 134 g.

\*Columbina passerina insularis. Ground Dove. GC, common in suitable habitat. CB, abundant, even in semi-forested areas of the bluff. GC,  $\stackrel{\circ}{\circ}$  n=5, 35.0-44.5 (38.6±3.8);  $\stackrel{\circ}{\circ}$  35.0, 35.0, 39.0 g. CB,  $\stackrel{\circ}{\circ}$  30.3, 32.5;  $\stackrel{\circ}{\circ}$  34.5, 35.0 g.

35.0-44.5 (38.6±3.8); \( \phi \) 35.0, 35.0, 39.0 g. CB, \( \partial \) 30.3, 32.5; \( \partial \) 34.5, 35.0 g.

Leptoptila jamaicensis collaris. White-bellied Dove. GC, 4 seen in limestone forest. A male and female, probably a pair, although taken 5 days apart, from 1 km S of Old Man Bay, were very fat and showed no moult. A female from 3 km NE of Half Moon Bay had almost no fat but was moulting. Birds from both sites had been feeding exclusively on the seeds of Anthurium. GC, \( \partial \) 179; \( \partial \) 139, 164 g.

\*Amazona leucocephala. Cuban Parrot, GC (A. l. caymanensis), seen or heard E of Savannah at nearly every locality at which we spent any time, as well as occasionally at other places along the south road; no large flocks, 4-6 individuals being the most seen at one time. CB (A. l. hesterna), a pair observed on 2 occasions in different parts of bluff forest; in both instances the birds were furtive and utterly silent, in marked contrast to their counterparts on

GC.

Coccyzus americanus. Yellow-billed Cuckoo. GC, one dead on road and another seen in tree in abandoned pasture.

Coccyzus minor. Mangrove Cuckoo. GC, one seen in Georgetown 22 November, CB, one seen in bluff forest, 24 November,

\*Crotophaga ani. Smooth-billed Ani. GC, CB, common in disturbed areas. Tyto alba. Barn Owl. CB, probably several individuals flushed along

roadsides almost every night; not seen on GC.

\*Ceryle alcyon. Belted Kingfisher. GC, one seen repeatedly at South Sound. CB, observed once.

Sphyrapicus varius. Yellow-bellied Sapsucker. GC, Wetmore noted this

species on several occasions in 1972 and 1973.

\*Colaptes auratus gundlachii. Flicker. GC, common in limestone and mangrove forest (see Cruz & Johnston (1979) for details of the ecology of this

subspecies). GC,  $\Im$  n=5, 81.5-97.0 (88.5±6.4);  $\Im$  n=8, 83.0-93.5 (88.2±3.1) g. \*Melanerpes superciliaris caymanensis. West Indian Red-bellied Woodpecker. GC, common in limestone forest. GC,  $\delta$  n=6, 68.0-81.0 (73.2±4.6);  $\hat{\mathbf{y}}$  n=7, 63.0-78.0 (67.5±4.9) g.

\*Tyrannus caudifasciatus caymanensis. Loggerhead Kingbird. GC, common. CB, perhaps less common than on GC. GC,  $\delta$  n=6, 38.5-52.0 (45.7±5.5);

\$\pi\_{n=5}\$, 34.5-46.0(42.1\pmu4.8) g. CB, \$\pi\_41.0\$, 47.0 g.

\*Mytarchus sagrae sagrae. Sagra's Flycatcher. GC, reasonably common in

forest. GC, 3 18.0, 19.5, 19.5, 20.0; \$\parallel 17.0, 18.0, 18.5 g.

Contopus virens. Eastern Wood Pewee. GC, Wetmore saw individuals in shrubbery N of Pageant Beach Hotel on 13 February 1973 and near Barkers on 22 February 1973. Previously known from one specimen and 2 sight

records (Johnston et al. 1971; Bond 1973).

\*Elaenia martinica caymanensis. Caribbean Elaenia. GC, tolerably common. CB, abundant; by subjective impression it seemed that this species was many times more abundant on CB than on GC. Two individuals from each island had the abdominal cavity packed with nematodes of the genus Diplotriaena, which characteristically parasitizes passerines, infecting the lungs, air sacs, and body cavity. GC, 3 n=6, 23.0-28.5 (24.9 $\pm$ 2.0); % n=7, 20.0-27.0  $(22.2\pm2.5)$ , sex? 21.5, 24.5 g. CB, of n=6, 18.5-24.5 (21.1±2.4);  $\circ$  20.5, 22.0 g.

\*Hirundo rustica. Barn swallow. GC, CB, good numbers on both islands.

Tachycineta bicolor. Tree Swallow. GC, Wetmore observed 5-20 individuals at Caribbean Cattle Farms on 12, 13, and 15 February 1973 and on 20 February saw a dozen or more "on wires along the road midway to Old Man Village. Some in immature dress. The group kept changing, passing on to the east so that I believe they were in migration". The species is not listed for the Cayman Islands by Johnston et al. (1971), although Bond (1971b, 1972) mentions other sight records.

Stelgidopteryx ruficollis. Rough-winged Swallow. Several observed by Wetmore with Tree Swallows on 20 February 1973.

\*Mimus polyglottos orpheus. Mockingbird. GC, common in open or settled areas. CB, now common, apparently colonized CB about 1956 (Bond 1958). We preserved a skin from CB which is referable to M. p. orpheus, as would be expected. GC, 345.5; 42.0, 43.5 3.0 CB, 350.5 g.

\*Dumetella carolinensis. Cathird. GC, somewhat scarce, perhaps no more than 6 seen. CB, seemingly more common than on GC, but this impression

may have been influenced by the intensive efforts we made to "squeak up"

Turdus plumbeus. GC, § 34.0. CB, § 39.5, 42.0 g.

Turdus plumbeus coryi. Red-legged Thrush. CB, although W. W. Brown found this well-marked endemic subspecies in 1911 to be "an extremely abundant bird" (Bangs 1916: 314), in our experience it was decidedly uncommon. By persistent "squeaking" we were able to secure 5 specimens, mainly in bluff forest, but one was taken among the buildings at Stake Bay. Some were also seen along the road on the N side of the island and on the trans-island road in the middle of the island. We probably did not encounter more than 12 or 15 individuals. All 5 of those collected showed evidence of infectious disease. Two had scaly encrustations on the tarsi, and all had subdermal lesions c. 1.5 cm in diameter on the abdomen anterior to the anus. One had a similar lesion on the anterior part of the breast. An excellent opportunity exists here to study the effects of disease on a small natural population of birds in a restricted area. CB, 5 71.0, 81.0, 84.0; \$ 68.0, 73.0 g.

Polioptila caerulea. Blue-gray Gnatcatcher. GC, one observed by Wetmore,

30 January 1972.

Vireo c. crassirostris. Thick-billed Vireo. GC, scarce, only c. 5 observed. CB, decidedly more common than on GC. It is of interest that birds from GC weigh significantly less than those from CB, or from the Bahamas where the average weight of 9 individuals was 13.9 g (Steadman et al. 1980). GC, 3 11.0; \$ 11.0, 11.0; sex? 11.5 g. CB, \$ 13.0, 13.5, 13.5, 13.5; \$ 12.5; sex?

\*Vireo magister caymanensis. Yucatan Vireo. GC, relatively common. GC

3n=5, 15.0–16.0(15.6±0.4); 9n=6, 13.5–17.0(15.2±1.3); sex? 16.0 g.

\*Mniotilta varia. Black and White Warbler. GC, this species and Setophaga ruticilla were the most frequently encountered non-resident warblers in woodlands. CB, present in fair numbers.

Helmitheros vermivorus. Worm-eating Warbler. GC, one bird netted on 17 and 18 November. One observed by Wetmore on 28 January 1972. GC, & 10.5 g.

\*Parula americana. Parula Warbler. GC, CB, scattered individuals seen in woodlands. GC, sex? 6.2 g.

Dendroica petechia eoa. Yellow Warbler. GC, decidedly scarce, 3 taken and no more than 3 or 4 others seen; not observed on CB. One specimen was taken while foraging in wrack along the beach. Johnston et al. (1971: 152) describe this species as a "very common resident especially in mangrove swamp" on all 3 of the Cayman Islands. This was definitely not the case during our visit, suggesting that perhaps some of these supposedly resident birds are migratory. Wetmore's notes indicate that he did not encounter the species frequently, as in 1972 and 1973 he saw single individuals on 7 occasions, a pair on another, and only once mentioned seeing "several". GC, & 6.5; \$ 9.5, 10.0 g.

Dendroica tigrina. Cape May Warbler. GC, group of 8-10 observed S of Grape Tree Point; one netted at South Sound and scattered others seen; few, if any, of these were adult males. CB, one female-plumaged bird netted twice.

\*Dendroica dominica. Yellow-throated Warbler. GC, our only observation was of an individual taking insects while hovering in the corners of a window in a bank building in Georgetown, 15 November.

\*Dendroica discolor. Prairie Warbler. GC, not common; one taken and at

least 2 others seen. CB, one or two seen. GC, & 6.5 g.

\*Dendroica vitellina. Vitelline Warbler. On both islands this species seemed more abundant than any one of the wintering species of woodland warblers. GC, (D. v. vitellina) 3. n=5, 6.5-7.0  $(6.6\pm0.2)$ ; 2. n=5, 6.5-7.3  $(6.8\pm0.3)$ ; sex? 6.2, 6.5, 6.7, 6.8 g. CB, (D. v. crawfordi) 3. n=8, 6.5-7.5  $(6.8\pm0.4)$ ; 2. 6.5, 6.5, 7.0; sex? 6.5, 7.0; sex? 6.5, 7.0 g.

\*Dendroica palmarum. Palm Warbler. GC, CB, very common in open areas and along roads; one particularly tame bird at our quarters on GC was observed to take nectar from a low-growing ornamental bush with small red

flowers.

Dendroica caerulescens. Black-throated Blue Warbler. CB, a few observed; none noted on GC.

Dendroica coronata. Myrtle Warbler. GC, Wetmore found a flock of 15-20 that at first kept peculiarly close to one another in a marshy tract near Boddentown on 6 February 1972. He noted it as "common" at the Caribbean Cattle Farms on 13 and 15 February 1972. Johnston et al. (1971) mention it as having once been common in winter but not "reported in recent years."

\*Seiurus aurocapillus. Ovenbird. GC, at least 2 at South Sound on 21 and

22 November. CB, present in low numbers. GC, & 20.5 g.

\*Seiurus noveboracensis. Northern Waterthrush. GC, at least 2 netted and 2 others seen. GC, sex? 15.0 g.

Geothlypis trichas. Yellowthroat. GC, CB, infrequent in grassy areas; no adult males seen on either island.

Icteria virens. Yellow-breasted Chat. GC, Wetmore recorded "one seen clearly at the edge of a thicket near the Caribbean Dairy Farm, beyond Boddentown" on 14 February 1973. This species is known in the West Indies only as a vagrant to Grand Bahama, Bimini, and western Cuba (Bond 1971a: 244). It is unlikely that someone with as many years field experience as Wetmore would mistake such a distinctive species.

\*Setophaga ruticilla. Redstart. GC, common in woodland. CB, commonest wintering warbler in woodlands, but only 1-2 adult males seen.

\*Coereba flaveola sharpei. Bananaquit. GC, CB, the most abundant bird. A few had enlarged gonads, the only birds of any species we collected that could possibly have been breeding. A few were heard singing on CB. In handling these birds one is impressed with how muscular and hardy they are in mist nets, in contrast to the Parulidae, with which Coereba has been associated by some authors. GC,  $\sigma$  n=9, 10.0-13.5 (11.1±1.1);  $\varphi$  n=8, 8.5-12.5 (10.3±1.1) g; sex? 9.5, 11.0, 13.5. CB,  $\sigma$  11.0, 11.0, 11.0;  $\varphi$  9.5, 10.0; sex? 9.0 g.

\*Spindalis zena salvini. Striped-headed Tanager. GC, at times difficult to find, but travels in flocks, when up to 12 may be encountered. GC,  $\sigma$  n=10, 24.0-31.0(26.7±1.8);  $\varphi$  n=6, 24.0-28.5 (26.2±1.7) g.

\*Quiscalus niger caymanensis. Greater Antillean Grackle. GC, common; a nocturnal roost was found in a thicket of mangrove saplings along the main road by South Sound. A different subspecies, Q. n. coryi, is supposed to inhabit CB and Little Cayman. Despite a fair amount of searching, we did not find a single grackle on CB, although Martha B. Hays (pers. comm.) found the species to be common on Little Cayman in March 1980. Perhaps this species leaves CB to spend the fall and winter on Little Cayman, which

has more suitable habitat for grackles than does CB. GC, (Q. n. caymanensis)  $3n=10,67.5-88.0(75.1\pm7.1); ? n=11,51.0-64.0(57.4\pm4.3)g.$ 

\*Tiaris o. olivacea. Yellow-faced Grassquit. GC, CB, only occasionally encountered, almost always on roadsides. GC, ₹ 9.0; \$ 8.0, 8.7 g.

Pheucticus ludovicianus. Rose-breated Grosbeak. CB, a male in changing plumage collected in bluff forest. CB, & 47.0 g.

\*Passerina cyanea. Indigo Bunting. GC, one problematical bird seen in intermediate plumage. CB, one in brown plumage netted and released.

\*Melopyrrha nigra taylori. Cuban Bullfinch. GC, common in woodland. 18.0, 18.0 g.

Passerculus sandwichensis. Savanna Sparrow. GC, on 6 and 7 February 1972, Wetmore noted "single birds flushed . . . in scattered open grassy areas". On 10 January 1975 he observed "several near the Cattle Farm". Only 2 other records are given by Johnston et al. (1971).

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