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MIST-NETTING BIRDS ON ANDROS ISLAND, BAHAMAS

By LAWRENCE H. and CLARA M. WALKINSHAW

From the 16th to the 26th of March, 1960, we were on Andros Island, Bahamas, making a study of the birds in the area where we stayed. We hoped to capture the long elusive Kirtland's Warbler (*Dendroica kirtlandii*) by the use of mist-nets but failed to even see nor hear the species. However, we did have some luck in capturing other species.

The weather was very good but at times wind bothered. We operated from one to five nets for a total of 305 net-hours. Since the soil is chiefly coral and almost impossible to dig into and the fact that we were unable to get metal poles, we were forced to use long wooden poles improvised in position by ropes, stones, etc. We had much trouble with local wild dogs and at times cats (some of which were also wild). We captured only 105 birds.

The sun rose mornings between 0615 and 0609 E.S.T. and set in the evening between 1820 and 1825. The wind was predominantly north-east or northwest but on three days 16-18 March it was southerly. Only one evening, 18 March did we get any rain and then only a trace. One morning was foggy. The low temperatures varied between 54° and 70° F. and the highs 70° to 92° F. All in all, the climate was almost ideal.

The following species were captured on our 11 day stay:

1) Lesser Scaup (*Aythya affinis*). A female shot by Mr. Nelson was given to us for a specimen. The bird weighed when fresh on 20 March, 542.9 grams. Measurements were: Wing, 197 mm.; tail, 72 mm.; tarsus, 37 mm.; bill, 39 mm. This and the other specimens are in the University of Michigan Museum of Zoology. This bird was taken in a fresh water marsh at the north end of the island. It was feeding with other ducks in a mangrove area.

2) Ground Dove (*Columbigallina passerina bahamensis*). One bird was brought to me, by Otto Jendresen, which had flown into a picture window and this specimen was kept for a skeleton. The five captured birds averaged in weight 33.6 (29.8-36.9) grams. The average measurements were: Wing, 82.6 (80.5-85); tail, 59.8; tarsus, 16.1; exposed culmen, 11.6 mm. A total of 36 birds were observed on 9 days averaging 3.27 birds per day.

3) Bahaman Woodstar (*Calliphlox evelynae*). Observed daily, a total of 53 birds, 4.8 (1-12) per day. On 19 March a very small female was caught. She had a plain gray throat, a brownish tail with a 10 mm. black band across underneath. She uttered a sharp 'Chip' while in flight when she escaped in the room. Weight, 2.7 grams. Measurements: Wing, 45; tail, 26; tarsus, 6; exposed culmen, 16 mm.

4) Yellow-bellied Sapsucker (*Sphyrapicus varius varius*). One male captured at 1250 22 March. Weight, 65.6 grams. Wing, 125; tail, 84 mm. This was the only one observed.

5) Gray Kingbird (*Tyrannus dominicensis dominicensis*). Four (0.2) observed on 3 of the 11 days. On 19 March, 1 was caught at 0945. Weight, 40.1 grams. Wing, 110; tail, 88; tarsus, 24; exposed culmen, 23 mm. One of these birds spent much of its time in a small grove of pines near the compound in which we were staying. The bird seemed very lethargic.

6) Loggerhead Flycatcher (*Tolmarchus caudifasciatus*). Five observed (0-2) on 4 of the 11 days. On 20 March one was captured (spec. UMMZ). Weight, 40.8 grams. Wing, 105; tail, 86; tarsus, 22; ex. culmen, 24 mm.

7) Northern Mockingbird (*Mimus polyglottos polyglottos*). An average of 3 (33 in all) (1-5) was observed during the 11 days. A pair was found building a nest in a small tree 6 ft. above ground by Mrs. Nelson on 23 March. Two birds were captured:

Date	Hour	Weight	Wing	Tail	Tarsus	Ex. Culmen
17 March	0830	43.8 g.	99	119	33	15½ mm.
25 March	0658	44.8 g.	104	120	32	17 mm.

8) Bahaman Mockingbird (*Mimus^g gundlachii*). Only four (0-2) observed and on 25 March one was caught at 0930. Weight, 67.8 grams. Wing, 118; tail, 135; tarsus, 39; culmen, 20 mm. This bird, larger than the Northern Mockingbird, was much more thrasher-like than that species.

9) Catbird (*Dumetella carolinensis*). Eleven observed on 6 days (0-3). Two captured; 20 March, 0937. Weight, 33.3 grams. Wing, 89; tail, 109; tarsus, 25; culmen, 17 mm. The second on 21 March at 1545. Weight, 30.9 grams. Wing, 89; tail, 98; tarsus, 24; culmen, 15 mm.

10) White-eyed Vireo (*Vireo griseus* subsp.). One collected 21 March at 1025. Weight, 10.4 grams. Wing, 58; tail, 51; tarsus, 21; culmen, 12 mm.

11) Thick-billed Vireo (*Vireo^c crassirostris*). Four of these birds were captured. They weighed, 14.0, 13.1, 15.0 and 14.2 grams respectively. The wings measured, 60, 61, 64 and 59 mm.; the tails, 51, 51, 55 and 49 mm.; tarsus, 21, 23, 23½ and 20½ mm.; culmens, 14, 11½, 13 and 11½ mm. All had light brown eyes but the largest one which had white eyes. A total of 20 vireos were seen but they could have been either this or the previous species. They were found in tangles of brush or in pines.

12) Bananaquit (*Coereba^{flaviceps} bahamensis*). We observed 34, average 3.1 (0-6) per day on 8 of 11 days. Regularly found in blossomed trees where the birds worked in the blossoms with their decurved bills. Eight birds were caught. Average weight was 10.2 (8.5-12.3) grams. The average wing measurement was, 58.8 (56-63) mm.; tail, 41.9 (40-45) mm.; tarsus, 20.3 (18-23.5) mm.; exposed culmens, 13.4 (12-14.5) mm.

13) Black and White Warbler (*Mniotilta varia*). Six observed on 4 of 11 days. One was caught 23 March at 1027. Weight of this female was 8.1 grams. Wing measured, 68 mm.; tail, 49 mm.; tarsus, 19 mm.; culmen, 14.5 mm.

14) Swainson's Warbler (*Limnothlypis swainsonii*). One male was caught 23 March at 0904. Weight, 15.6 grams. The wing measured, 69 mm.; tail, 49 mm.; tarsus, 18 mm.; exposed culmen, 18 mm. (spec. UMMZ).

15) Worm-eating Warbler (*Helmitheros vermivorus*). One bird was caught 25 March at 1042. Weight, 11.4 grams. The wing measurement was, 67 mm.; tail, 47 mm.; tarsus, 19 mm.; exposed culmen, 13 mm. Photographed, banded and released.

16) Cape May Warbler (*Dendroica tigrina*). Seven (0-2) observed. On 23 March a female was captured at 0710. Weight, 10.0 grams. The wing measured, 60 mm.; tail, 45 mm.; exposed culmen, 11 mm.

17) Myrtle Warbler (*Dendroica coronata*). Not found until 24 and 25 of March when a total of 6 were observed and four caught, all females. The wing measurements averaged, 67.5 (66-70) mm.; tails, 53.5 (52.5-54) mm.; tarsus, 19 (18-20) mm.; culmens, 10.25 (10-10.5) mm. These birds were always feeding on fruit of an unidentified tree. Weights, 11.8 (10.9-12.6) grams.

18) Yellow-throated Warbler (*Dendroica dominica*). Two observed on 22 March and one on 18 March. The two former were caught and

weighed 10.1 and 11.2 grams. Both wings measured, 63 mm.; tails, 46 and 50 mm.; tarsus, 16.5 and 17 mm.; exposed culmens, 12 and 13 mm.

19) Prairie Warbler (*Dendroica discolor*). Three times we heard a male Prairie Warbler singing during the early mornings. It was observed on nine days, a total of 24 individuals (0-7) and 10 were captured, six males and four females. The weights and measurements were:

Sex	Weights	Wing	Tail	Tarsus	Exposed Culmen
Male	7.46 grams (6.8-8.2)	54.7 mm. (53.5-57)	47.2 mm. (44-51.5)	18.5 mm.	10.5 mm.
Female	6.62 grams (5.9-7.5)	50.5 mm. (49-53)	43.2 mm. (40-48)	18.2 mm.	10.1 mm.

20) Western Palm Warbler (*Dendroica palmarum palmarum*). Occasionally a male was heard singing. The species was observed daily (2-8 individuals, average, 4.5). Three birds were captured. Weights, 9.9, 10.3 and 12.2 grams. The wings measured, 62, 64 and 67 mm.; tails, 53, 51 and 44 mm.; tarsus, 23, 19 and 20.5 mm.; exposed culmens, 11, 12 and 11 mm. This was a common bird around the compound usually found in low bushes or trees near the ground.

21) Ovenbird (*Seiurus aurocapillus*). Three observed at Mastic Point 'The Front' and one captured on 23 March at 1045. It weighed, 20 grams. The wing measurement was, 71.5 mm.; tail, 52 mm.; tarsus, 24 mm.; culmen, 13 mm.

22) Louisiana Water Thrush (*Seiurus motacilla*). On 19 March two were observed; 20 March, two; 21 March, 1 found dead. Five were captured. The average weight, 21.0 (19.8-22.7) grams. The average wing measurement was 81.5 (80-82) mm.; tail, 52.5 (47-57) mm.; tarsus, 22.5 (21-23) mm.; culmen, 14.5 (14-15) mm. (one spec. UMMZ).

23) Yellow-throat (*Geothlypis trichas* subsp.). A male was captured on 20 March at 1610. It weighed, 10.2 grams. The wing measured, 54 mm.; tail, 47 mm.; tarsus, 17.5 mm.; culmen, 11 mm. The same day at 1855 a female was caught. It weighed, 9.4 grams. The wing measured, 51 mm.; tail, 47 mm.; tarsus, 21 mm.; culmen, 12 mm. Only five individuals were seen.

24) Striped-headed Tanager (*Spindalis zena*). On 8 of the 11 days, 31 (0-9, average, 2.8) were observed. Thirteen, 7 males and 6 females were captured: (Two spec. UMMZ).

Sex	Weight	Wing	Tail	Tarsus	Exposed Culmen
Male	21.4 grams (20.6-22.3)	76.1 mm. (73-78)	64.5 mm. (62-67)	19.6 mm.	10.7 mm.
Female	21.1 grams (19.8-21.8)	72.5 mm. (71-75)	59.3 mm. (54-63)	20.3 mm.	10.5 mm.

25) Greater Antillean Oriole (*Icterus dominicensis*). This bird is much more yellowish than those observed by us on the Isle of Pines. Ten observed on 4 of 11 days. Two were captured, both immatures. They weighed on 22 March at 1645 and 1809, 39.8 and 41.4 grams. Their wings measured, 92 and 94 mm.; tails, 94 and 97 mm.; tarsi, 26 and 28 mm.; exposed culmens, 21 and 21.5 mm. We found them in the blossoming orange trees at 'The Front'.

26) Painted Bunting (*Passerina ciris*). A female was captured (UMMZ) on 22 March. She weighed, 14.5 grams. The wing measured, 61 mm.; tail, 51.5 mm.; tarsus, 18 mm.; exposed culmen, 9.5 mm.

27) Black-faced Grassquit (*Tiaris bicolor*). Very common, and observed daily (2-25 plus individuals, average 12 per day). A pair was building a nest on 24 March about 4 feet, 6 inches up in a small pine tree. Fourteen birds (nine males, five females) were captured. This little bird found around doorsteps, yards, etc., was very tame. The males have a song resembling that of the Dickcissel only not as loud and more sibilant. The weights and measurements were:

Sex	Weight	Wing	Tail	Tarsus	Exposed Culmen
Male	10.4 grams (8.9-11.8)	52.5 mm. (51-55)	42.9 mm. (41-46)	16.4 mm. (15-18)	8.3 mm.
Females	9.9 grams (8.5-10.2)	50.6 mm. (49-52)	41.5 mm. (39-44)	16.6 mm. (16-18)	8.25 mm.

28) Greater Antillean Bullfinch (*Loxigilla violacea*). Observed, 21 March, 1; 22 March, 6; 23 March, 7; 24 March, 4; 25 March, 3. Eleven birds were captured (two spec. UMMZ). The average weight of the 11 birds was, 21.3 (18.8-25.6) grams. The wing measurement averaged, 69.1 (65-74) mm.; tail, 62.8 (53-69) mm.; tarsus, 22.8 (20.5-26) mm.; exposed culmen, 12.9 (12-14) mm.

29) Grasshopper Sparrow (*Ammodramus savannarum pratensis*). One bird was taken. It weighed 15.0 grams. The wing measurement was 57 mm.; tail, 45 mm.; tarsus, 21 mm.; exposed culmen, 11 mm., on 20 March.

30) Savannah Sparrow (*Passerculus sandwichensis*). On 20 March one of these birds was captured. It weighed 18.2 grams.

In addition to the captured birds we observed the following species:

Brown Pelican (*Pelecanus occidentalis*). One observed on 24 March at the north end of the island.

Turkey Vulture (*Cathartes aura*). Observed daily (2-31 individuals).

Wilson's Plover (*Charadrius wilsonia*). Five observed on 22 March and two on 24 March at the north end of the island.

Mourning Dove (*Zenaidura macroura*). Only one observed, 20 March.

White-crowned Pigeon (*Columba leucocephala*). A lone individual observed on 24 March was flying back into a thick pine forest.

Smooth-billed Ani (*Crotophaga ani*). A total of 49 observed were usually feeding in flocks of three to 12 individuals.

Greater Antillean Pewee (*Contopus caribaeus*). One was observed around 'The Compound' at 'The Back', Mastic Point regularly, often singing 'Kee-ee-wee-wee'. One day it scolded me with a sharp 'Wee-wee-wee'. This was the only area where we saw the species.

Bahaman Swallow (*Callichelidon cyaneoviridis*). Observed on seven of the 11 days. Usually only two to seven individuals were observed but on 17 March at least 75 were seen coursing back and forth over the cucumber and strawberry fields.

Western Red-legged Thrush (*Mimocichla plumbea*). One observed on both the 18 and 19 March.

Parula Warbler (*Parula americana*). Thirteen observed (0-5) on six of 11 days.

Pine Warbler (*Dendroica pinus*). Heard singing regularly in the taller pines throughout the entire north end of the island, at Frances Town and around 'The Back'. Observed on 9 of the 11 days, a total of 16 (0.3 per day) individuals.

American Redstart (*Setophaga ruticilla*). A young male was observed on 22 March at Mastic Point, 'The Front'.

We wish to thank especially Mr. Kenneth Parker for his kind help in making these studies possible and also Bruce Gray, Ricky Gray, Otto Jendresen, Mr. and Mrs. Norman Nelson and all the people at Mastic Point, who helped measureably in our studies.

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THE CHICKADEE TRAP

By FRANKLIN McCAMEY

In a banding study of the Black-capped Chickadee (*Parus atricapillus*) the usual design of the popular Potter trap proved to be unsatisfactory. These birds are too light and quick for the relatively sluggish, heavily loaded trigger. The difficulty is inherent in the design of the trigger, where the tip supporting the door must move upward slightly, lifting the door, as it moves backward into the trap to permit the door to drop. Smoothing the tip and improving the efficiency of the pivot supports does not help enough.

The accompanying sketch shows an improved trigger design that has been highly successful in taking lightweight birds. Hanging the trigger tip from above causes it to move slightly downward as it begins the backward movement to free the door. This speeds the action of the trigger in releasing the door and makes it possible for a weight of only 2 grams to trip the trigger. Normally the triggers are balanced to trip with a 5 gram load (approximately the weight of an eightpenny common nail). If carefully balanced, the trigger mechanism can be made stable in either the set or sprung position, eliminating most of the accidental tripping caused by vibration.

While increasing the sensitivity of the trap, an effort was made to simplify the details of construction and omit easily damaged parts requiring frequent adjustments. Three years of hard use indicate that this effort was successful. Some of the traps have even caught squirrels repeatedly and still remained sensitive enough to catch chickadees.

Welded wire 1 x 1/2-inch mesh, #16 gauge, galvanized after welding, was selected as the best material. This wire is sufficiently stiff that supporting frames are not required around the openings or bottom, and the mesh is usually square and accurately sized. Bends are made over a square metal bar attached to the workbench, most easily in the inter-mesh space between crosswires. (Note the corners of the illustrated trap.) All the heavy wires are of #12 gauge galvanized steel wire, carefully straightened by pounding on a hardwood block. Almost any solder may be used to fasten the joints; that designated as 60:40, or with any higher proportion of tin, will be easier to use. Tinnings' flux, a