RECAPTURES AND RECOVERIES OF BANDED NATIVE PANAMANIAN BIRDS

By Horace Loftin

Skutch (*Ibis*, 108:1-16, 1966), working chiefly in Costa Rica, presented evidence that nesting success of passerines in tropical America is generally markedly inferior to that in north temperate regions. Clutch size of tropical passerines tends to be smaller, while number of clutches per season in general differs little from that of allies farther north. Thus, maintenance of such populations in the tropics evidently depends heavily on longer average life span among these birds which are not subject to the hazards of severe winter or lengthy migrations. The definite proof of such presumed longevity is scanty, because banding data in the tropics

over extended periods of time are scarce.

Incidental to a study of North American migrant birds in Panama and in subsequent mist netting and banding, my collaborators (see Acknowledgments) and I have banded some 7,000 native Panamanian birds in the period 1962 through August 1974. addition, I have the records of Mr. William Belton's banding activities in Panama for 1963-64, involving about 1,500 local birds. Numerous banding returns and several recoveries have been reported from among these birds. Many of these records indicate remarkable longevity and long attachment to locality among these little known species. For example, one Silver-throated Tanager (Tangara icterocephala) returned seven years and six months after banding, with additional returns in four different years between banding and last capture. The most venerable birds were a Claycolored Robin (Turdus grayi) and a Blue-gray Tanager (Thraupis episcopus), both found recently dead more than nine years after banding and within 1 km of the banding sites.

This paper summarizes all of these records of returns and recoveries two or more years after banding. In the presentation that follows, a species name is given, followed by separate entries for each individual bird retaken after two or more years in descending order of time between banding and last recapture. Each separate entry begins with a paired number in parentheses, representing the approximate time elapsed between banding and last recapture. For example, (7-6) signifies seven years and six months from banding to last return. This is followed by the date and locality of banding; information as available on age at banding and sex (U-unknown, HY-hatching year, AHY-after hatching year, M-male, F-female); date of last return or date and locality of last recovery; any additional returns; and any further comments.

Standard banding localities include: Ancon, a wooded residential area on Ancon Hill just above Balboa, near the Pacific coast of the Canal Zone; Gamboa, an area of high grass and secondary forest along the Chagres River 3 km east of Gamboa in the central part of the Canal Zone on the Caribbean watershed; Pipeline Road (also known as the Navy Pipeline Reservation), an area of mainly mature forest some 10 km north of Gamboa, on the Caribbean

watershed; Curundu, an area of secondary forest on the Fort Clayton, Canal Zone, military reservation near the Pacific coast; Cerro Campana, at the edge of cloud forest at about 850 meters elevation, some 50 km by road west of Panama City near the Pacific coast; and Cerro Punta, mixed coffee plantation, residential and forested area, some 1,800 meters elevation, at and near the Florida Audubon Society's Cerro Punta Research Station and along the Chiriqui Viejo river, 15 km north of Volcan, Chiriqui Province, Panama, well inland on the Pacific slope.

Netting and banding activities involved in this report have not followed any consistent pattern. Except during the study of North American migrants, netting has been sporadic and with varying numbers of nets utilized, usually 3 to 10. No effort was made to balance time spent at different banding sites. Thus, it is not appropriate at this time to draw conclusions from comparison of birds banded to birds retaken toward quantitative estimates of longevity rates. However, the banding data are being processed

for ADP analysis at a later date.

Nomenclature follows that of Eisenmann (Trans. Linn. Soc. *N. Y.*, **7**:1-128, 1955).

COLUMBIDAE: Doves

Ruddy Ground-Dove (Columbina talpacoti)

(2-5). Banded 20 September 1966, Albrook Air Force Base, C.Z., U-U; recovered 13 February 1969, Diablo Heights, C.Z., less than 1 km from banding site.

WHITE-TIPPED DOVE (Leptotila verreauxi)

(3-4). Banded (by Belton) 26 April 1964, Ancon, AHY-U; recovered first week of August 1967, Ancon; found dead. (2-4). Banded 28 August 1964, Gamboa, U-U; recovered 20

December 1966, Gamboa area; shot by hunter.

(2-2). Banded 15 October 1964, Gamboa, U-U; recovered 4 December 1966, Gamboa area; shot by hunter.

DENDROCOLAPTIDAE: Woodcreepers

Long-tailed Woodcreeper (Deconychura longicauda)

(5-3). Banded 24 January 1964, Pipeline Road, AHY-U; returned 10 April 1969.

PLAIN-BROWN WOODCREEPER (Dendrocincla fuliginosa)

(4-9). Banded 20 January 1964, Pipeline Road, AHY-U; returned 25 October 1968.

Buff-throated Woodcreeper (Xiphorhynchus guttatus)

- (2-11). Banded 11 February 1964, Curundu, AHY-U; returned 15 January 1967.
- (2-3). Banded 9 February 1964, Curundu, AHY-U; returned 2 May 1966.

Spot-crowned Woodcreeper (Lepidocolaptes affinis)

(6-1). Banded 8 March 1967, Cerro Punta, AHY-U; returned 19 April 1973. Also 5 October and 28 November 1967.

FURNARIIDAE: Horneros

PLAIN XENOPS (Xenops minutus)

(2-3). Banded 9 February 1964, Curundu, AHY-U; returned 1 May 1966.

Scaly-throated Leafscraper (or Leaftosser) (Sclerurus guatemalensis)

(4-10). Banded 24 January 1964, Pipeline Road, AHY-U; returned 23 November 1968.

FORMICARIIDAE: Antbirds

FASCIATED ANTSHRIKE (Cymbilaimus lineatus)

(2-7). Banded 16 February 1964, Curundu, AHY-F; returned 23 September 1966.

Dusky Antbird (Cercomacra tyrannina)

(2-10). Banded 29 March 1964, Curundu, AHY-F; returned 17 January 1967. Also 28 February 1966. This bird was banded (101-187461) on the same day as the third Dusky Antbird listed in this paragraph, an adult male (101-187460), and by the juxtaposition of their band numbers presumably was taken at or about the same time. Both of these birds were retaken in the same net together on 28 February 1966, one year and nine months after first capture and banding. This strongly suggests that these birds constituted a persistent pair.

(2-4). Banded 7 December 1963, Curundu, U-F; returned 1

April 1966.

(2-1). Banded 29 March 1964, Curundu, AHY-M; returned 1 April 1966. Also 6 November 1964 and 28 February 1966. See note on first entry in this paragraph.

BICOLORED ANTBIRD (Gymnopithys leucaspis)

(5-6). Banded 20 January 1964, Pipeline Road, AHY-U; returned 3 July 1969.

Spotted Antbird (Hylophylax naevioides)

(2-5). Banded 20 June 1970, Pipeline Road, AHY-F; returned 4 November 1972. This bird was banded (107-119285) on the same day as the following Spotted Antbird (107-119283), and by their band numbers presumably was taken at or near the same time. Both of these birds were subsequently retaken on the same date and place, 16 January 1971, suggesting that they were a persistent pair.

(2-3). Banded 20 June 1970, Pipeline Road, AHY-M; returned 21 September 1972. Also 16 January 1971. See note on first entry

of this paragraph.

PIPRIDAE: Manakins

Lance-tailed Manakin (Chiroxiphia lanceolata)

(3-10). Banded 7 March 1963, Curundu, HY (or immature)-M; returned 15 January 1967.

(3-2). Banded 9 March 1963, Curundu, AHY-F; returned 1 May

1966.

(3-1). Banded 8 March 1963, Curundu, AHY-F; returned 1 April 1966.

Golden-Collared Manakin (Manacus vitellinus)

(3-9). Banded 7 December 1963, Curundu, U-F; returned 15 September 1967.

(2-4). Banded 4 April 1964, Curundu, U-U; returned 1 May 1966.

Also 6 November 1964.

- (2-4). Banded 5 April 1964, Curundu, U-F; returned 1 August 1966.
- (2-2). Banded 11 February 1964, Curundu, AHY-F; returned 1 April 1966.

TYRANNIDAE: Tyrant Flycatchers

Tropical Pewee (Contopus cinereus)

(2-0). Banded 28 January 1964, Pipeline Road, AHY-F; collected 5 January 1966 by E. S. Morton and sexed as a female. The specimen identification was verified by Dr. Eugene Eisenmann as *C.c brachytarsus* (now in Amer. Mus. Nat. Hist.).

Ruddy-tailed Flycatcher (Terenotriccus erythrurus)

(3-11). Banded 10 January 1965, Pipeline Road, AHY-U; returned 19 December 1968.

(2-5). Banded 20 June 1970, Pipeline Road, U-U; returned 4 November 1972.

Northern Royal-Flycatcher (Onychorhynchus mexicanus)

(2-2). Banded 23 February 1964, Curundu, HY (or immature)-M; returned 1 April 1966. Also 24 and 25 February 1966.

White-throated Spadebill (Platyrinchus mystaceus)

(2-5). Banded 5 March 1967, Cerro Punta, AHY-U; returned 3 August 1969. Also 28 September 1967 and 26 March 1969.

OLIVACEOUS FLATBILL ($Rhynchocyclus\ olivaceus$)

(4-8). Banded 26 January 1964, Pipeline Road, AHY-U; returned 21 September 1968.

Torrent Tyrannulet (Serpophaga cinerea)

(2-6). Banded 25 February 1967, Cerro Punta, AHY-U; returned 3 August 1969. Also 16 March 1968.

Yellow-bellied Elaenia (Elaenia flavogaster)

(2-11). Banded 3 March 1963, Curundu, AHY-U; returned 27 February 1966.

(2-4). Banded 2 December 1963, Curundu, U-U; returned 2 April 1966.

MOUNTAIN ELAENIA (Elaenia frantzii)

(3-9). Banded 22 March 1967, Cerro Punta, AHY-U; recovered December 1970, "near Volcan," probably within 15 km of banding site; shot by hunter.

Paltry Tyrannulet (Tyranniscus vilissimus)

(3-0). Banded 1 March 1967, Cerro Punta, AHY-U; returned 1 March 1970. Also 2 March and 8 April 1968.

(3-0). Banded 12 March 1967, Cerro Punta, AHY-U; returned

23 March 1970. Also 13 March 1968 and 28 December 1969.

(2-10). Banded 26 February 1967, Cerro Punta, AHY-U; returned 29 December 1969. Also 30 November 1967; and 4, 12, 20 and 27 March 1968.

Ochre-Bellied Flycatcher (Pipromorpha oleaginea)

(4-10). Banded 25 January 1964, Pipeline Road, AHY-U; returned 28 November 1968. Also 18 March 1966.

HIRUNDINIDAE: Swallows

Gray-breasted Martin (Progne chalybea)

(3-1). Banded 6 January 1966, Gamboa, AHY-U; recovered February 1969, Corozal, C.Z. This bird was originally captured at Rodman Naval Station near the Pacific coast, was transported to Gamboa on the Caribbean watershed, banded and released. Gamboa is about 12 km from Corozal on the Pacific slope and 15 km from Rodman, with Rodman and Corozal about 3 km apart.

TROGLODYTIDAE: Wrens

Rufous-and-white Wren (Thryothorus rufalbus)

(3-9). Banded 7 December 1963, Curundu, U-U; returned 20 September 1967. Also 5 March and 30 April 1966.

Rufous-breasted Wren (Thryothorus rutilus)

(2-4). Banded 7 December 1963, Curundu, U-U; returned 1 April 1966.

Black-bellied Wren (Thryothorus fasciato-ventris)

(3-9). Banded 7 December 1963, Curundu, U-U; returned 18 September 1967.

Gray-Breasted Wood-Wren (Henicorhina leucophrys)

(3-0). Banded 26 March 1967, Cerro Punta, AHY-U; returned 1 March 1970. Also 27 March and 28 April 1968.

Song Wren (Cyphorhinus phaeocephalus)

(4-6). Banded 9 January 1965, Pipeline Road, AHY-U; returned 12 July 1969.

TURDIDAE: Thrushes

WHITE-THROATED ROBIN (Turdus assimilis)

(5-1). Banded 19 March 1968, Cerro Punta, AHY-U; returned 17 April 1973.

CLAY-COLORED ROBIN (Turdus grayi)

(9-7). Banded (by Belton) 6 September 1964, Ancon, U-U; recovered 13 April 1974, Balboa, C.Z., less than 1 km from banding site; found dead.

(3-8). Banded 23 October 1964, Gamboa, U-U; recovered June 1968, Gamboa, approximately 3 km from banding site; found dead.

Ruddy-Capped Nightingale-Thrush (Catharus frantzii)

- (3-9). Banded 6 March 1967, Cerro Punta, AHY-U; returned 17 December 1970.
- (3-3). Banded 18 March 1968, Cerro Punta, AHY-U; returned 7 June 1971. Also 19 December 1968.

SYLVIIDAE: Gnatcatchers

Long-billed Gnatwren (Ramphocaenus rufiventris)

(2-4). Banded 8 December 1963, Curundu, U-U; returned 2 April 1966.

VIREONIDAE: Vireos

Yellow-green Vireo (Vireo flavoviridis)

(3-11). Banded 26 April 1965, San Francisco, Veraguas Province, Panama, about 15 km north of Santiago on the Pacific slope, U-U; recovered San Francisco, 5 March 1969, probably within 5 km of banding site. Eugene Eisenmann wrote me that "this species, although a common breeder in Panama in the more open areas of the Pacific slope and locally on the Caribbean slope of the Canal Zone, migrates to South America during the later rainy season, chiefly in August and September, reappearing mainly during January, and starting to nest in February (fide E.S. Morton). Transients breeding north of Panama pass through (often in areas where they do not nest) from late September to early November, and from late January to March. The San Francisco bird was undoubtedly a local breeder."

(3-1). Banded 6 March 1963, Curundu, AHY-U; returned 2 April 1966. Also 9 February 1964. As for the previous entry, this bird is undoubtedly a local breeder.

Brown-Capped Vireo (Vireo leucophrys)

(2-3). Banded 28 September 1967, Cerro Punta, U-U; returned 27 December 1969. Also 20 April and 24 December 1968.

(2-2). Banded 4 October 1967, Cerro Punta, U-U; returned 27 December 1969. Also 30 March and 21 December 1968.

PARULIDAE: Wood-Warblers

Chestnut-Capped Warbler (Basileuterus delatrii)

(3-2). Banded (by Belton) 8 January 1963, Curundu, AHY-U; returned 31 March 1966.

ICTERIDAE: Orioles

Yellow-billed Cacique (Amblycercus holosericeus)

(2-3). Banded 22 February 1964, Curundu, AHY-U; returned 1 May 1966.

THRAUPIDAE: Tanagers

SILVER-THROATED TANAGER (Tangara icterocephala)

(7-6). Banded 25 February 1967, Cerro Punta, AHY-U; returned 14 August 1974. Also 18 December 1968, 19 December 1970, 6 June 1971 and 20 April 1973. It may be noted that Crebbs (*Bird-Banding*, **35**:264, 1964) reported three returns of the congeneric Plain-colored Tanager (*T. inornata*) on Barro Colorado Island, C.Z., more than six years after banding.

(6-1). Banded 6 March 1967, Cerro Punta, AHY-U; returned 12 April 1973. Also 13 October 1967, 18 December 1968 and 19

December 1970.

(5-6). Banded 16 October 1967, Cerro Punta, U-U; returned 18 April 1973.

(4-5). Banded 3 March 1970, Cerro Punta, AHY-U; returned 14

August 1974. Also 16 April 1973.

(3-8). Banded 20 April 1967, Cerro Punta, U-U; returned 18 December 1970. Also 31 October 1967.

(3-2). Banded 15 April 1968, Cerro Punta, U-U; returned 6 June 1971. Also 30 December 1969.

(2-9). Banded 9 March 1968, Cerro Punta, AHY-U; returned 17 December 1970. Also 23 March 1970.

(2-8). Banded 7 April 1967, Cerro Punta, U-U; returned 28 December 1969. Also 18 December 1968.

Blue-gray Tanager (Thraupis episcopus)

(9-6). Banded (by Belton) 28 November 1963, Ancon, U-U; recovered 3 May 1973, less than 1 km from banding site; found dead.

Palm Tanager (Thraupis palmarum)

(3-1). Banded (by Belton) 29 February 1964, Ancon, AHY-U; recovered March 1967, Miraflores, C.Z., about 5 km from banding site; found dead.

CRIMSON-BACKED TANAGER (Ramphocelus dimidiatus)

- (3-1). Banded 7 December 1963, Curundu, U-F; returned 17 January 1967.
- (2-5). Banded 7 December 1963, Curundu, U-M; returned 2 May 1966. Also 4 April 1964.

(2-2). Banded 10 February 1964, Curundu, AHY-U; returned 1 April 1966.

(2-1). Banded 3 February 1964, Pipeline Road, AHY-F; returned

24 March 1966.

(2-0). Banded 9 February 1964, Curundu, AHY-U; returned 28 February 1966.

Rose-breasted Thrush-Tanager (Rhodinocichla rosea)

(2-1). Banded 29 March 1964, Curundu, AHY-F; returned 1 April 1966.

COMMON BUSH-TANAGER (Chlorospingus ophthalmicus)

- (3-10). Banded 25 February 1967, Cerro Punta, AHY-U; returned 17 December 1970. Also 22 September and 13 October 1967 and 2 March 1968.
- (3-8). Banded 1 April 1967, Cerro Punta, U-U; returned 17 December 1970. Also 22 December 1968.

FRINGILLIDAE: Finches

STREAKED SALTATOR (Saltator albicollis)

(2-6). Banded 11 February 1964, Curundu, AHY-U; returned 1 August 1966.

Blue-black Grosbeak (Cyanocompsa cyanoides)

- (3-4). Banded 9 March 1963, Curundu, AHY-M; returned 26 July 1966.
- (2-2). Banded 31 January 1964, Pipeline Road, AHY-U; returned 16 March 1966.

Variable Seedeater (Sporophila aurita)

- (6-2). Banded 20 March 1963, Curundu, AHY-F; recovered 22 May 1969, in Panama City, presumably within about 5 km of banding site.
 - (4-4). Banded September 1962, Curundu, U-M; returned 16

January 1967. Also 3 March 1963 and 12 February 1964. (3-10). Banded 8 March 1963, Curundu, AHY-F; returned 19

January 1967.

- (3-1). Banded 8 December 1963, Curundu, U-M; returned 15 January 1967. Also 28 March 1964, 28 September 1965 and 2 May 1966. There was a trace of "greenish or immature-looking" feathers about the head of this adult male when taken on 15 January 1967. Presence of such feathers might be taken to indicate an immature male turning into adult plumage and this instance indicates the need for caution.
- (2-11). Banded 23 February 1964, Curundu, AHY-F; returned 17 January 1967. Also 2 November 1964 and 28 February 1966.
- (2-11). Banded 3 February 1964, Pipeline Road, AHY-F; returned 21 January 1967.
- (2-11). Banded 9 March 1963, Curundu, AHY-F; returned 28 February 1966.
 - (2-10). Banded 29 March 1964, Curundu, AHY-M; returned 16

January 1967. Also 1 April 1966.

(2-9). Banded 9 March 1963, Curundu, AHY-U; recovered about December 1965 near University of Panama campus, about 3 km from banding site.

(2-6). Banded 16 February 1964, Curundu, AHY-F; returned 1 August 1966. Also 25 September 1965.

(2-3). Banded 9 February 1964, Curundu, AHY-M; returned 2

May 1966.

- (2-1). Banded 8 April 1964, Curundu, AHY-M; returned 2 May 1966.
- (2-1). Banded 28 March 1964, Curundu, AHY-M; returned 1 April 1966.

(2-0). Banded 5 April 1964, Curundu, AHY-M; returned 1 April

1966.

(2-0). Banded 29 March 1964, Curundu, AHY-M; returned 1 March 1966.

Yellow-thighed Finch (Pselliophorus tibialis)

(2-6). Banded 24 September 1967, Cerro Punta, HY-U; returned 23 March 1970. Also 22 April 1968.

YELLOW-THROATED BRUSH-FINCH (Atlapetes gutturalis)

(4-2). Banded 1 April 1967, Cerro Punta, U-U; returned 6 June 1971. Also 23 September 1967 and 12 March 1968.

(2-5). Banded 3 October 1967, Cerro Punta, HY-U; returned 23

March 1970.

CHESTNUT-CAPPED BRUSH-FINCH (Atlapetes brunnei-nucha)

(2-3). Banded 2 November 1966, Cerro Campana, U-U; returned 25 February 1969.

Rufous-collared Sparrow (Zonotrichia capensis)

(5-0). Banded 2 April 1968, Cerro Punta, U-U; returned 18 April 1973. Also 1 March 1970.

(2-3). Banded 23 September 1967, Cerro Punta, U-U; returned

28 December 1969.

ACKNOWLEDGMENTS

This banding program used bands furnished by the U.S. Fish and Wildlife Service Banding Office and with its permission. wish to thank the Banding Office for its cooperation and for its patience in dealing with species "foreign" to its normal operations. A portion of this investigation was supported by PHS Research Grant AI 06072 from the National Institutes of Health. Many student assistants, local birders, and visiting scientists participated in the mist netting and banding activities that resulted in these records. Student assistants included Thomas Heatly, Vernon Kleen, Thomas Olson, James Sawyer, Steven Hilty, George V. N. Powell, Daniel Koslovsky, George Child, Charles Leck, and Storrs Olson. Other participants included William Belton, John S. Dunning, Dr. Nathan Gale, Dr. Edwin Tyson, Robert Ridgely, Dr. Eugene S. Morton, Dr. James Karr, Dr. Richard Cooke, Dr. Peter Kirmse, and many others. My thanks are extended to all of them. Dr. Eugene Eisenmann kindly reviewed the manuscript and offered many helpful suggestions.

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Received 14 September 1974, accepted 6 November 1974.