

## BANDING EXPERIENCES IN GUATEMALA AND COSTA RICA

By John V. Dennis

Anyone looking at the atlas and noting the ever narrowing land bridge that connects North with South America may come to the same conclusion that I did; namely, that birds migrating southward by way of this path must become funnelled into ever denser concentrations. If so, there should be areas in Central America that are highly productive to anyone who has a yen to catch large numbers of migrants for banding purposes.

Such speculation, however, should take into account the fact that many North American migrants have dropped out before the really narrow portions of Central America have been reached. Most North American passerine species that breed in the West do not penetrate farther than Guatemala. Many eastern passerines, on the other hand, move on as far as Panama and southward. But it should be added that those that reach South America have not necessarily come by way of Central America. Many presumably take dominantly over-water routes.

In March and April, 1959, when I spent three weeks in Costa Rica, I began seriously to look into the question of banding migrants. The first birds to receive my U.S. Fish & Wildlife Service bands were two Baltimore Orioles. Mr. Roy Kimmel, of the U.S. Embassy in San Jose, had told me about two orioles in his outdoor aviary, and wanted advice as to releasing them for the spring migration northward. I was only too happy to band the birds and see them on their way. The following November, Mrs. Kimmel reported that one, and possibly two, banded orioles were back in their San Jose yard!

Toward the end of my stay, I obtained transportation by air to San Isidro del General in southwestern Costa Rica. From here a Pan American highway truck took me over some rough roads to the finca (farm) of Dr. Alexander S. Skutch, the renowned writer and authority on Central American birds. Dr. and Mrs. Skutch, although expecting me, I think were a trifle apprehensive about my banding intentions. They needn't have been, because the small amount of mist netting I did was hardly enough to ruffle the local bird population. Indeed, my banding operation came to grief almost before it got underway. No one had forewarned me about bats. I made the mistake of leaving my nets up too late in the evening. An entangled bat is not only difficult to handle but will chew gaping holes in the net. The five dozen or so bats I caught left me with little netting for birds during the three remaining days of my stay. Nevertheless the 33 birds of 20 species that I caught gave me an idea of what to expect in that part of Costa Rica. My banding location was near the edge of a stream, and chiefly along the boundary between dense forest and a clearing. The altitude was about 2,500 feet.

I have since gained great respect for bats in the tropics. Inasmuch as night comes on suddenly and bats may be about at twilight, it pays to get nets down early. I might add that Dr. Andrew Starrett, mammalogist at the University of Southern California, was very happy to receive my shipment of ten species of Costa Rican bats.

My next experience with mist netting in Central America occurred in November of the same year. The Northeastern Bird Banding Association, with which I was connected at the time as director of the Nantucket Ornithological Research Station, kindly allowed me to complete the banding season in Guatemala. Through the efforts of Mrs. Roy E. Larsen, the way was prepared for banding operations at an altitude of about 4,200 feet in western Guatemala, and also trips to some representative areas for seeing birds. I am greatly indebted to Mr. Donald Hodgson at whose coffee finca Mrs. Larsen and I started banding operations. Mr. Hodgson also took me on several long trips through the country so that I became acquainted to some extent with the birdlife at many altitudes and different habitats. I am also indebted to the Charles Stillmans for many courtesies.

About six nets were in use daily during a total of 14 banding days at the Hodgson finca which is near Pochuta on the Pacific slope. Mrs. Larsen was present to assist during the first half of this period. At first banding was conducted near the finca headquarters where there were orange groves, wide lawns (shared with three horses), and the edge of large coffee plantings with the usual canopy of shade trees. After some initial success in these surroundings, it was found that birds quickly learned to avoid the nets. Also, the horses were a disadvantage.

The coffee plantings were not especially productive and also the Indian pickers were everywhere at this season. Therefore, the remaining habitat for banding had to be the steep wooded ravines that fell off from a tableland where the coffee was principally grown. Not only did these steep slopes call for considerable climbing ability, but the hanging of a single net was a time and labor consuming effort. One of the greatest drawbacks was a lack of suitable poles and an instrument for sinking poles. We had been somewhat concerned about poles before leaving the states, but who is going to haul poles by air to Guatemala! Left to my own devices with a machete, a hatchet, and some nails, I gradually improved the pole situation. But even in this heavily wooded country, tall straight poles of the right size for hanging mist nets were a rarity.

Not infrequently after cutting net lanes and hanging nets across and along the sides of ravines, I had the disappointment of scarcely catching any birds at all. It seemed that most birds tended to wander in loose mixed parties at this season, much as they do in our northern woods in winter. If such parties didn't happen to appear at one's banding location, the day's results would be extremely meager. On several occasions the nets began to fill toward dusk, just when I was beginning to take them

down. I recall one pitch black evening when I had to make my way home several miles along unfamiliar Indian trails. I had even neglected to bring a flashlight!

In approximately 500 net-hours, 144 birds were banded. In addition, about 25 birds were released unbanded, either because of uncertainty in identity or unsuitable band sizes. Two or three birds were killed by Indians who accidentally stepped into the nets. A number of hummingbirds were banded even though their identification was unsure; this was because we had a supply of Don Bleitz hummingbird bands. The chance of anyone else catching one of these birds was almost nil, but I was thinking in terms of a possible return visit another year.

Only 18 out of 51 species banded were of likely North American origin; that is, occurring as breeders chiefly north of Mexico. The North American element had been even less conspicuous in southwestern Costa Rica. There I had banded one Kentucky Warbler and four Swainson's Thrushes. Resident species banded at the same locality and identified with the help of Dr. Skutch are as follows:

Tawny-winged Woodcreeper (*Dendrocincla anabatina*)  
 Lawrence's Woodcreeper (*Xiphorhynchus nanus*)  
 Plain Xenops (*Xenops minutus*)  
 Bare-crowned Antbird (*Gymnocichla nudiceps*)  
 Blue-crowned Manakin (*Pipra coronata*)  
 Red-capped Manakin (*Pipra mentalis*)  
 Orange-collared Manakin (*Manacus aurantiacus*)  
 Sulphur-rumped Flycatcher (*Myobius sulphureipygius*)  
 Northern Royal Flycatcher (*Onychorhynchus mexicanus*)  
 Golden-crowned Spadebill (*Platyrinchus coronatus*)  
 Nightingale Wren (*Microcerculus philomela*)  
 Bananaquit (*Coereba flaveola*)  
 Buff-rumped Warbler (*Basileuterus fulvicauda*)  
 Scarlet-rumped Tanager (*Ramphocelus passerinii*)  
 Blue-black Grosbeak (*Cyanococcyz cyanoides*)  
 Yellow-faced Grassquit (*Tiaris olivacea*)  
 Gray-striped Bush-finch (*Atlapetes assimilis*)  
 Orange-billed Sparrow (*Arremon aurantirostris*)

With the exception of the Lawrence's Woodcreeper, I was able to find the common and scientific names in The Species of Middle American Birds, Transactions of the Linnaean Society, by Eugene Eisenmann (New York, 1955).

Since the North American migrants were of most interest to us in Guatemala, I shall list banding totals for these and omit totals for the resident species. The banding was conducted on 14 different dates between November 6 and 24, 1959, at Finca Pacayal near Pochuta, Guatemala.

<u>Species</u>	<u>Number Banded</u>
Swainson's Thrush	7
Black and White Warbler	3
Worm-eating Warbler	3
Tennessee Warbler	5
Ovenbird	3
Northern Waterthrush	1
Kentucky Warbler	2
Mourning Warbler	2
MacGillivray's Warbler	2
Yellow-breasted Chat	5
Wilson's Warbler	12
Baltimore Oriole	8
Western Tanager	1
Rose-breasted Grosbeak	4
Indigo Bunting	3

Several other species banded might have been migrants from Mexico or this country. These included Bullock's Oriole, Summer Tanager, and Painted Bunting.

It is to be noted that Wilson's Warbler led the list in the number banded. This is an extremely common winter resident in the highlands of Guatemala. Since this species frequents low shrubbery, it is highly susceptible to being taken in mist nets. Tennessee Warblers are even more abundant, but they tend to stay higher in the trees. Both in Guatemala and Costa Rica, Tennessee warblers are extremely abundant in the flowering trees that grow so plentifully in coffee plantations and that are found widely elsewhere. Other migrants that throng these trees are Townsend's Warbler, Baltimore Oriole, and Rose-breasted Grosbeak. If one could raise mist-netting to higher levels, the take in North American migrants would be spectacular.

Under mist-netting conditions such as I have described, the banding of North American migrants is extremely unproductive. To hope for foreign birds from the north or recovery northward of one's own birds, the number of migrants handled should be in the thousands. There is always an odd chance, of course, that something spectacular might turn out of a small banding operation. But to my mind the most productive approach would be to slant one's operation at the few North American migrants that appear in the greatest numbers. One would have to find the optimum altitude and geographic location for the species in question. Also, the mist-netting should be tailored to whatever species one has chosen. It is, of course, possible to raise mist nets to mid-tree levels. This is where the greatest numbers of North American migrants would be taken and, at the same time, some of the hazards of close-to-ground netting would be eliminated.

In December 1961 I returned to Guatemala, this time for a two week vacation with my family. About half our stay was in Guatemala City and the remaining half at Panajachel on Lake Atitlan. Looking over the banding possibilities, although I had no nets, I noted that around Panajachel birds of the higher tree levels often came down close to numerous small irrigation ditches. These ditches with fast flowing water ran everywhere through coffee plantations and fields near the town. Again Tennessee and Wilson's Warblers were most abundant, also many Baltimore Orioles, Western Tanagers, and Townsend's Warblers. Anyone enjoying the scenery, swimming, and pleasant accommodations at this lake resort could also do some fairly productive banding, if so minded.

In Guatemala City, Mrs. Kay Shaw is banding on a small scale with a net or two and some traps. She tells me that she has had a banded MacGillivray's Warbler back for three years now (although she hadn't caught this bird this year to read the band number).

There are plenty of opportunities with North American migrants, but also likelihood of disappointment. I am convinced that the greatest opportunity is in banding the resident species - this not only to look for possible local movement or even migration, but to learn about plumage changes, weights, and the many small life history subjects that are made easier when birds are individualized through their bands. Of course, such studies would necessitate residence in a Central American country through part or all of the year. It is time, I should think, that someone other than Dr. Skutch, who has contributed more than 200 life histories, took a detailed interest in the habits of Central American birds. No one has done more than dabble at bird banding in this region. The possibilities here are enormous.

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