

shaft H3. Two nights later they occupied the reverse positions, and three nights later they were again roosting side by side in shaft H2, but this time on the north wall. The next night No.-73 was alone in shaft H2, while its mate was alone in shaft H1. In the evening of 12 June, they were back together again in H2, but No.-73 was on the south wall and No.-79 was on the west wall. For several days they were not located, but on 16 and 17 June, No.-73 was alone in H3, where it remained before disappearing again.

On 24 June 1964, No.-79 was back in H3, but No.-73 visited in shaft R2, where the mates of that shaft, after three years of successful nesting there, had lost their nest with three eggs following a heavy rain storm twenty days before. (The hazards of nesting on a vertical wall by Chimney Swifts were described in detail (Dexter, 1952) earlier.) Only the female (24-167738) remained in the evening of 24 June when it was visited by No.-73. A replacement nest was then built by No.-73 and its newly acquired mate in shaft R2. The first mate of the bird which nested twice that season in shaft R2 was also a crippled bird, having lost its toes on the right foot, but it disappeared from the campus colony after the nest with its three eggs fell from the wall. Three eggs were also laid in the replacement nest, with No.-73 being the male parent for the second clutch.

In 1965, No.-79, which had been incompatible with No.-73, did not return, and No. 24-167738, mated with No.-73 in shaft R2 the previous year, did not return either. When No.-73 was taken as a return in 1965, it was found in shaft N9 on 25 May with No. 25-137548, a repeat which earlier had been in shaft M1, and with a new bird banded 28-141749 at that time. (No.-48 had nested in shaft M1 in 1963 and 1964. The former mate of No.-48 returned to nest in M1 in 1965, but with a new mate. No.-48 then moved into shaft N9 with No.-73. It is very possible that No.-73 was the crippled bird which had been seen in various air shafts, especially N9, on the roof of this building up to this date. Swifts with a crippled foot hang on the wall at an angle rather than in a vertical position as birds with both feet do.)

Between one and three birds were observed roosting in shaft N 9 over a period of time, and, on 1 June, No.-73 and No.-48 were retrapped from the shaft. While they remained there for some time, they were often observed roosting on different walls. They failed to build a nest although they remained in the shaft until late September. No.-48 was taken on 25 September from shaft U1 roosting with ten other swifts preparatory to migration. No.-73 was not in that group, however, and neither one has been found since that time.

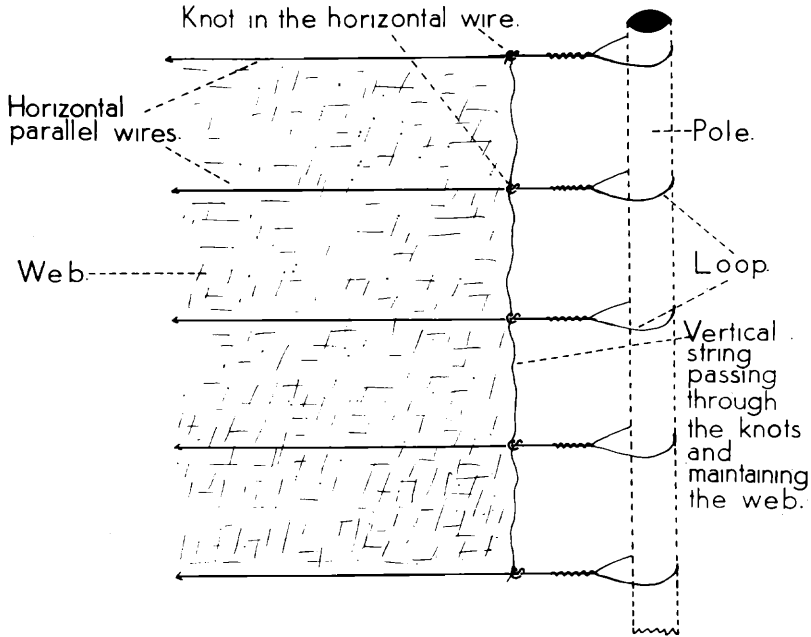
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Modifications of the Use of the Japanese Mist Nets.—This concerns the current 10 or 12 meters long fowling nets which contain five horizontal parallel shelf-strings and a vertical one at each extremity near the five final loops.

Many people working with these Japanese mist nets in order to catch birds or bats find the same difficulty, i.e., the horizontal parallel shelf-strings break down and the net loses efficacy. These shelf-strings may break down early because of too high a tension due to rain, and more especially because of the captured bats which cut the shelf-strings with their teeth.

While capturing birds and bats in Venezuela, I experimented with replacing the five parallel horizontal shelf-strings by five black-wire shelf-strings in new nets. The operation is quite simple: first spread the net between two poles and pierce the wire shelf-strings following each of the original horizontal shelf-strings; secondly, remove the five horizontal shelf-strings and also the five final loops at each extremity. Actually, it is more practical to derive the loops from the horizontal wire shelf-strings themselves. (See fig.).



I used a common stove pipe wire. This type of wire has a certain disadvantage because it oxidizes itself. Nevertheless, this oxidation does not diminish the net's efficacy. However, I recommend the use of a wire covered by a black plastic material in order to prevent this oxidation. This will allow the netting to glide more easily on the horizontal wires. Naturally, it is necessary to choose a wire which is pliant enough, strong enough, and with a diameter similar to that of the original shelf-strings.

It is also good to make a knot at each extremity of the wire shelf-string, at approximately six inches from the final loops. This permits joining together the five horizontal wires with the use of the vertical string which controls the distance between them at each extremity of the net. Naturally, this vertical string will continue to maintain the web's extremity. (See fig.).

The presence of wire in the net will render it a little bit more difficult to manipulate. However, I found this modification extremely useful, especially when the captures extend themselves over many days. This method allows the operator to leave the net in a permanent way. If we want to stop the captures, we have only to bring together the final loops on the poles, and to close the net in such a manner. It is also possible to remove the net very easily. Indeed, the operator has just to attach the loops firmly together at each extremity of the net, and to roll it, making a roll of approximately ten inches in diameter. Moreover, the presence of wire in the net didn't prove to injure the birds more than the nylon shelf-strings.

The purpose of this note is not to throw out the methods which have previously been recommended. On the contrary, I don't recommend this method for

general application. For the standard net techniques, everybody will find advantage in looking at the paper published by S. H. Low in 1957 (*Bird-Banding*, 28(3): 115-128.). However, this modification should be very helpful to those who find the shelf-strings failing too early in good quality nets. I recommend the replacing of the nylon shelf-strings by wire shelf-strings just for those taking bats, and for those taking birds under extremely severe conditions like those in tropical rain forest, especially if the captures extend themselves over many days during the rain season. This method is not recommended for those working in North American coniferous forest or deciduous forest, except if they catch bats. Those catching birds in all habitats but tropical rain forest will find the standard techniques far more applicable. — Raymond McNeil, Département des Sciences Biologiques, Université de Montréal, Canada.

Returns in 1965-1966 of North American Migrant Birds Banded in Panama.—Repeats, returns and recoveries through autumn 1964 of North American birds banded in the Republic of Panama by Loftin and associates have been reported earlier (H. Loftin, *Bird-Banding* 34: 219-221, 1963; H. Loftin *et al.*, *Bird-Banding* 37: 35-44, 1966). This report summarizes returns during 1965-1966 in Panama which are noteworthy because they represent (1) first records of the species' returning there in subsequent migratory years, (2) first records of their returning in subsequent years or overwintering in a different area of Panama than previously reported, or (3) records of interest because of lengthy interval between banding and recapture. Thus, many records of returning banded migrants are omitted from this report, since they represent the same species, localities or time intervals listed in earlier papers. All the migrants from temperate North America reported here or in the earlier notes as returns belong to species which to some extent winter in Panama. Although most netting was done during periods of migration, the records of recapture in subsequent years probably represent successive returns to the same winter quarters.

Yellow-green Vireo (*Vireo flavoviridis*). Loftin *et al.* (op. cit.) reported several repeats and returns of this species near Curundu, C. Z., in the 1963-1964 season, interpreting this as evidence that "some individuals of this species return to identical localities in migration between their wintering and breeding grounds in subsequent years." In a letter, Dr. Eugene Eisenmann kindly pointed out to us that, in addition to a transient migratory population through Panama, there is also a breeding population through much of the Pacific lowlands and in cleared areas of the Canal Zone on the Caribbean slope. Dr. Eisenmann writes: "So far as I can judge, the resident population moves out in August and early September, at the time when birds from farther north in Middle America are starting to pass through. The breeders return towards the end of January and early February, the transients pass through (I think) even as late as April." Thus, as Dr. Eisenmann suggests, the Canal Zone "return" records probably pertain to local Yellow-green Vireos. (See also Eisenmann *Bird-Banding*, 37: 286, 1966.)

Tennessee Warbler (*Vermivora peregrina*). A specimen banded 21 October 1964 at Almirante was recaptured there on 20 October 1965, the first recorded return of this species to the same area in Panama in subsequent years.

Chestnut-sided Warbler (*Dendroica pensylvanica*). A specimen banded near Curundu, C. Z., on 6 December 1963 was recaptured in the same general locality on 2 April 1966, more than three years later.

This is the first recorded return of this species to the same locality in Panama in a later migratory season.

Ovenbird (*Seiurus aurocapillus*). Loftin *et al.* (op. cit.) reported several instances of returns of this species to the same general locality in Panama in subsequent years; however none of these returns was more than a year after banding. During the 1965-66 season at Almirante, one bird which was banded on 13 October 1963 was first recaptured on 23 April 1965, then again on 17, 27 and 28 October 1965. Another, banded 21 October 1963, was retaken on 4, 5, 8 and 10 April 1965.