

A SLATE-COLORED JUNCO RECOVERY
By Mabel Warburton and Charles H. Blake

On the morning of 23 September 1968, M. W. banded a Junco (*J. hyemalis*) at Island Beach State Park (near Seaside Park), New Jersey, with band number 75-29525. This bird was recovered on 17 November 1968 near Hillsborough, North Carolina, by C. H. B. It was recorded as quite brown with a wing length of 69 mm., and was retaken on two further dates up to 1 March 1969. The same bird was taken four times in the span 10 November 1969 to 8 January 1970. That season it was somewhat brown above with a wing of 71 mm. The bird was aged as a juvenile by eye color at banding by M.W. C.H.B. concurs on the basis of the changes between 1968 and 1969 and considers it probably a female.

The lack of recapture at Island Beach in 1968 indicates that it did not stay there long and the similarity of the two initial capture dates at Hillsborough seems to show the normal arrival date on its wintering ground. In 1968, it required, apparently 55 days to cover an air distance of 370 miles. The nominal rate of travel was 6.7 miles per day. Even a detour to avoid crossing the Delaware and Chesapeake Bays would have increased the distance only to about 425 miles. A flight speed for the Junco of 15 miles per hour would be, if anything, under the mark. If each migratory jump lasted only four hours, it could have covered the distance in seven to eight nights. This leaves 47 to 48 nights off passage.

The dates are interesting in other respects. The average date of arrival of Juncos at Island Beach is 14 September, although in 1968 the earliest arrival was 8 September. At Hillsborough the species arrives at the end of October, so our bird was not particularly late at either place.

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LONGEVITY AND DISPERSAL OF THE DOWNY WOODPECKER
By: Ralph W. Condee

From 1 September 1965 to 31 August 1971, 35 Downy Woodpeckers (*Dendrocopos pubescens*) were trapped or netted 125 times, banded, and released. Sixteen were female, 19 male. The study area, about 5400' x 1800', is mixed deciduous forest, cutover brushy woods, and open pastures, at elevations from about 1300' to 2000' in central Pennsylvania, about ten miles northeast of the Pennsylvania State University.

Here are the 12 (apparently) oldest of the 35:

Bird	Sex	Date Banded	Date Last Trapped	Estimated Age#	No. of Trappings	Maximum Distance&
337	F	03-29-69	08-24-71	38.24*	5	1969'
800	M	11-04-65	03-31-68	33.31	17	812'
181	F	03-26-67	03-26-69	33.26	2	2406'
001	M	11-07-65	02-24-68	32.08	7	1000'
147	M	10-22-66	11-30-68	29.30	8	1375'

Bird	Sex	Date Banded	Date last Trapped	Estimated Age#	No. of Trappings	Maximum Distance&
172	F	01-18-67	11-30-68	29.30	5	297'
191	M	11-12-67	04-07-68	22.07	3	2235'
173	F	01-18-67	03-10-68	21.10	4	375'
005	F	11-21-65	01-18-67	19.18	7	(+)
194	M	11-26-67	12-08-68	18.06	7	2390'
367	M	01-16-71	08-05-71	14.05*	4	1875'
368	M	01-16-71	04-29-71	10.29	3	1825'

Notes

The estimated age arbitrarily assumes the bird is 1 day old on 1 June prior to banding. Age is expressed in months and days: 38.24 = 38 months, 24 days.

* Presumably still alive at the end of the study period

+ No significant figures available.

& See references.

This chart has the obvious limitations that none of the Downies listed could be aged at the time of banding, and that the time of survival after the last trapping is unknown because no birds were found or reported dead.

During the study period 491 birds of other species were trapped or netted, banded, and often repeatedly retrapped a total of 1490 times; the greatest repeater was a Tufted Titmouse (*Parus bicolor*) which was trapped 76 times in more than three years. These are relevant facts in that much of the evidence and dispersal is necessarily negative; therefore the opportunities in which a bird might have been trapped at a given time and place, but was not, are cumulatively significant.

Precise conclusions are of course impossible because of the inherent limitations of the study. But it is notable that among the (apparently) oldest Downies, sex seems not to have been a factor in longevity; of 16 females and 19 males banded, the 12 oldest were 5 females and 7 males. It is also notable that only 1 out of 35 could be shown to survive more than 3 years; only 6 more than 2 years. The disappearance in less than a year of 24 birds out of 35 is probably not the dispersal of young birds after the nesting season, since these birds were banded at various times in the year; of the 13 birds banded but never retrapped, only 1 was banded in the fall (11-12-67); all other "one-timers" were trapped in winter or spring. It seems improbable that many of these were "skulkers" in the area, in view of the 1615 successful trappings or nettings throughout most of the study area during the six year period. The "one-timers" may have died soon after banding or they may have moved to unknown places for unknown reasons.

References

Condee, R. W. 1969

A Technique for Studying the Local Movements of Wintering Birds.
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GUIDES TO MEASURING LIVE BIRDS

By Frank P. Frazier, Sr.

(Reprinted by popular demand, from EBBA News 22(3): 67, May-June 1959. Ed.)

Measure in millimeters -- weigh in grams -- whenever possible. But weigh and measure live birds, at any rate. Banders have a unique opportunity to get these statistics and add important details to the study of live birds.

Always measure the direct distance - not the curvature.

- WING - from the bend of the wing - to the tip of the longest primary
- TAIL - from the point between the middle rectrices where they emerge from the skin - to the end of the longest rectrix
- BILL (Culmen) - from the tip of the upper mandible - to base of feathers on forehead
- TARSUS - from the point of the joint between tibia and metatarsus - to the point of the joint at the base of the middle toe in front

CONVERSION FACTORS

	<u>Multiply</u>	<u>By</u>	<u>To Obtain</u>
Inches		2.54	Centimeters
Feet		30.48	Centimeters
Centimeters		0.3937	Inches
Centimeters		10	Millimeters
Grams		0.03527	Ounces
Ounces		28.35	Grams
Ounces		16	Pounds
Temperature - ($^{\circ}$ C)	17.78	1.8	Temp. ($^{\circ}$ F)
Temperature - ($^{\circ}$ F)	-32	5/9	Temp. ($^{\circ}$ C)

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SOME DIFFERENCES BETWEEN JUVENILE, FIRST YEAR, AND ADULT WRENS
By Ike Hawthorn

(We thank Robert Spencer, Editor of The Ringers' Bulletin, organ of the British Trust for Ornithology, for allowing us to reprint Ike Hawthorn's paper, which appeared in Volume 3, No. 9, on pages 9 - 11. Ed.)



On Thatcham Marsh, Berkshire during August to October 1970, I handled about 60 Wrens (Troglodytes troglodytes). These were mainly juveniles undergoing post-juvenile moult, but there were also some adults, and it seemed that certain differences could be categorised which could lead to a reliable method of ageing. After testing this throughout the winter of 1970-71 on a population of about 180 Wrens, also on Thatcham Marsh, I have been able to set out the following details:

Juvenile/Post Juvenile

The juvenile has uniform brown undertail coverts, but during post-juvenile moult (August to October) a pattern of white spots is produced, indicating a post-juvenile wren.

First Year/AdultGreater Covert differences

During post-juvenile moult, Wrens can moult a variable number of greater coverts. These may range from "none" through "some", to "all". One trend amongst those caught from August to October on Thatcham Marsh in 1970 appeared to be to moult the inner five and keep the outer four so that the contrast between the gingery colour of the unmoulted outers and the more fawny brown colour of the moulted inners made ageing easy. However, when only one or perhaps two inners had been replaced, the difference was difficult to detect; a large number of birds seemed to fall into this category.

Most of the juveniles disappeared from the Marsh after completing post-juvenile moult and were replaced by a wintering population in which only ten out of 100 new birds caught had greater covert differences sufficiently noticeable to warrant definite ageing by this method.

Bastard Wing differences

The pattern of marking on the outer web of the large bastard wing feather appears to fall into three groups. It should be noted that the patterns below are not absolute and serve only to illustrate the general case.

Group I

Figure 1 shows group I, with barring fore and aft; light brown bars on the darker brown backgrounds without any trace of white. May be four or five bars; very occasionally six, usually broad.

Group II

Figure 2 shows group II with barring horizontal light brown without any trace of white. Edges of barring are poorly defined. Intermediate cases of groups I and II often occur when ill-defined fore-and-aft bars merge to form part horizontal bars.

Group III

Figure 3 shows group III with well defined fore-and-aft barring, light brown on darker brown background, narrowing near the outer edge of the web, then broadening slightly with outside tips of bars white or whitish brown on some, but not necessarily all bars. There is sometimes a white leading edge to the web. The number of bars is usually six, sometimes seven, but can only be five.

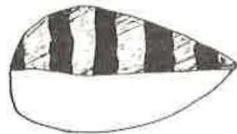


FIG.1

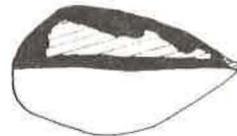


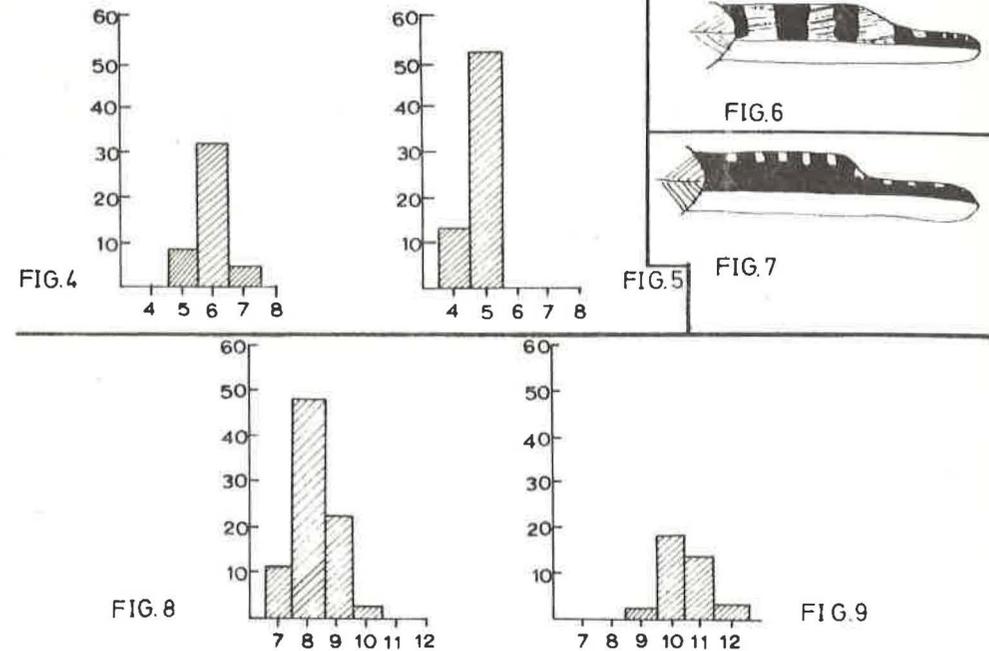
FIG.2



FIG.3

In the 1970-71 season 143 birds of the winter population were trapped and these included 43 known adults (i.e. birds ringed in previous winters). Fig. 4 illustrates the frequency distribution of the number of the bars on the large bastard wing feather of known adults. All had some degree of white as in group III.

Of the 100 birds caught for the first time in this season, 88 were without any trace of white on the large bastard wing feather. These could all be placed in groups I and II and were judged to be 1st year birds. Fig. 5 shows the distribution of the number of bars on these 88 birds. The remaining 12 new birds all had some degree of white and could not be placed in groups I or II.



Presumably the change from groups I and II to group III, takes place at the time of the first bastard wing moult, and the above birds in groups I and II retained their bastard wing feathers while undergoing post-juvenile moult. The percentage of juveniles renewing their bastard wing feathers at post-juvenile moult is not known, and as the above 12 intermediate birds had presumably renewed their bastard wings, further criteria are needed to identify adults. As the primaries are known not to be moulted at post-juvenile moult the 4th primary was arbitrarily chosen for comparison between the groups. Examination of primaries was not started until late in the season so that some birds were not included.

Differences of 4th Primaries

The barring on the 4th primary (counting from the outer edge inwards) falls into two groups. Fig. 6 shows group A with very broad light brown barring on the outer web, with 7-9 bars, very rarely 10. The three or four proximal bars are inclined to be very much broader than the others, usual-