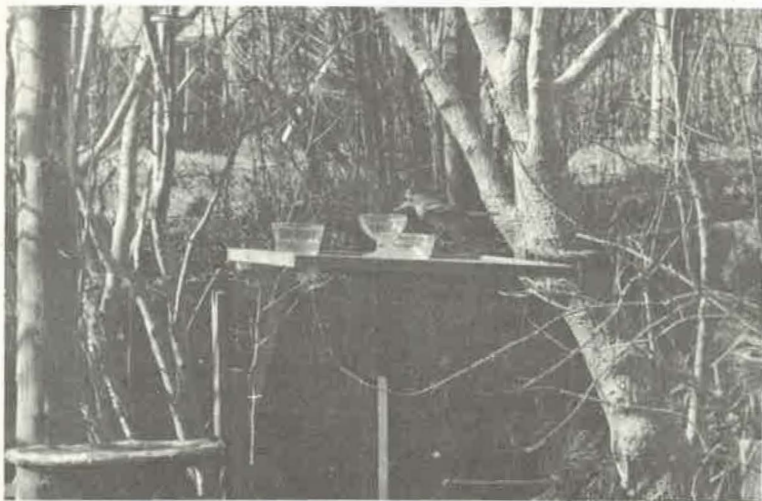


WINTERING BALTIMORE ORIOLES

By Edith F. Andrews

In Massachusetts the first winter record of a Baltimore Oriole was in December 1917 (Forbush, E. H. 1927 Birds of Massachusetts and Other New England States, Vol. II, p. 443) and in Nantucket, Mass. Baltimore Orioles have been reported almost regularly in winter for the past decade. In all instances reports have been of immature birds. The orioles invariably turn up at feeding stations during the month of December, stay for a few weeks and then disappear. It is assumed that they perish from cold and lack of sufficient food. For example, one winter a Baltimore Oriole frequented my yard and managed to pick up a few crumbs left by the Starlings. The bird grew visibly weaker and was last seen in the late afternoon of the day when the temperature dropped to 8°. With this in mind the next time an oriole arrived in December I trapped and held the bird until early May, releasing it when orioles were coming through on migration. During the winter of 1961-62 I held two Baltimore Orioles, both immature males. These were weighed and released 11 May 1962. They flew off immediately and were not seen again.



On 3 December, 1962 an adult male Baltimore Oriole landed on the feeder outside my kitchen window. This was an event in itself, then I noticed the bird was wearing a band. As I did not have a trap available it was not until the next day that I was able to read the band number. It was #57-147054, one of the two which I had held captive the winter before! Here was a case in point for the imprinting theory as suggested by John V. Dennis in his article Strays and Stragglers, Part I, EBBA News 25(5):175 (1962). Quite obviously the bird had returned to its wintering

grounds of the previous year! It would seem that an impression of the new environment had replaced the normal instinct to winter in Central America. My feelings in regard to what I had done to this particular oriole were mixed. By keeping the bird alive I had contributed to disrupting its normal pattern. On the other hand, here was proof that the bird had survived and it was comforting to realize that it had lived to see another summer.

Within the next three weeks I received numerous reports of immature Baltimore Orioles in town. Meanwhile the adult continued to frequent my yard and feeders daily. On 12 December two immature orioles joined the adult male and on the 16th the number had increased to four immatures. On that day I trapped and weighed the adult male #57-147054 and was astonished to find that it had gained 13.1 grams since being released on 11 May 1962. The bird weighed when released 36.7 grams and now weighed 49.8 gms.

By 28 December the number of orioles in the yard reached eight. It seemed as though all the orioles in town had gathered at my feeders. With so many birds it was not feasible to hold them in captivity, so, going on the assumption that a bird can survive any amount of cold as long as it gets enough to eat it was decided to try and see that they got enough to eat and to make periodic records of their weights correlated with temperature and general weather conditions.

Chart I shows the weights of the eight Baltimore Orioles under study taken with an Ohaus Triple Beam Balance over a period of five weeks. The orioles are listed in the order in which they were banded with the adult male at the top. It will be noted that on 28 December three of the four which had been weighed on 21 December showed an increase in weight. Two of the birds were not retrapped on the 28th and the last two were banded and weighed for the first time on that date. On 31 December of the seven retrapped all showed a marked decrease in weight. From 21 - 29 December the temperature averaged in the low thirties with a maximum of 47° and a minimum of 17°. On 30 December the temperature dropped from a maximum of 44° to 0° with snow and gale force winds. On 31 December the thermometer recorded a low of -3° and a high of 14°; winds of 40-50 mi/hr. continued. Due to the severity of the weather it was decided to hold the orioles indoors until milder weather ensued. All but one were trapped and weighed on 31 December and held until 3 January. #62-116196 was not trapped until the next day (1 January) and was released on 4 January so that it spent the same length of time in captivity as the others.

During the three days in which the orioles were held captive all but one continued to lose weight. Bird #62-116195 went from 28.5 gms. to 29.1 gms. a gain of .6 gms. which would indicate that this particular bird had reached the minimum weight tolerance and therefore benefitted to a small degree from the change in environment.

Chart I. Weights (in grams) of eight Baltimore Orioles taken periodically from 16 Dec., 1962 through 22 Jan., 1963. Heavy black lines enclose dates held in captivity.

Band No.	Date	Dec. 16	Dec. 21	Dec. 28	Dec. 31	Jan. 1	Jan. 3	Jan. 4	Jan. 6	Jan. 12	Jan. 15	Jan. 22
57-147054	A M	49.8	49.5	49.0	43.2		39.5		42.9		46.7	46.7
62-116194	I M	37.2	38.9	41.7	35.6		34.9		37.3	37.8		38.4
62-116195	I F		31.9	34.0	28.5		29.1		30.4	31.0	31.3	33.0
62-116196	I M		40.2			33.1	31.4	29.8	34.4	34.4	33.8	33.5
62-116197	I F		37.9	38.5	31.6		30.4		33.4			33.2
62-116198	I M		37.1		32.0		30.6		33.7		35.8	34.9
62-116200	I M			39.9	34.8		30.7		33.8	35.5	34.8	37.7
62-116001	I F			39.8	34.3		31.8		34.1	36.0	36.1	

A = Adult, I = Immature, M = Male, F = Female.

On 6 January all eight orioles were retrapped and weighed and all showed a considerable gain in weight. When weighed again on the 12th, of those retrapped all were holding their own at least and showed a marked increase over the loss suffered during the severe weather conditions of 30-31 December. It was evident that they were better off out-of-doors as long as the weather remained mild. Weights taken on 15 and 22 January show no appreciable loss and in some instances considerable gain. Temperatures for that week ranged from 13° to 49° with no prolonged periods below 20°. After 22 January weighing was done sporadically as most of the birds had become trap-shy.

As time went on it became apparent that some method for identifying individual birds was needed as only rarely did all eight come at once. The adult male was obvious, one was banded on the left leg, and another had only one tail feather. Subsequently four of the others were color-marked with Dri-Mark and one was left unmarked.

On 14 January one oriole was caught by a cat but when I tried to get it the cat opened its mouth and the bird flew away and I was not able to identify it. However, it was apparently unharmed as all eight were accounted for until 31 January. For convenience, I have listed four orioles in the order of their disappearance, showing last weight recorded and the date on which they were seen last:

<u>Band #</u>	<u>A</u>	<u>S</u>	<u>Wt.</u>	<u>on</u>	<u>Date</u>	<u>Last Date Seen</u>
62-116200	I	M	36.5 g.	28	Jan.	30 Jan.
62-116196	I	M	32.6 g.	25	Jan.	2 Feb.
62-116197	I	F	34.1 g.	4	Feb.	8 Feb.
57-147054	A	M	46.7 g.	22	Jan.	11 Feb.

All survived the severe weather of 24, 25 and 26 January when winds reached gale force and a minimum of 8° was recorded. A period of mild weather followed yet #62-116200 failed to show up on 31 January. Neither weather nor weight would seem to be a factor in this case. The weight of #62-116196 indicates that this individual was not getting enough to eat: this was the one which had had the band changed to the left leg as the right foot was severely damaged by frost bite and the bird showed difficulty in perching during high winds. Number 62-116197 had all but one tail feather missing which affected flight somewhat but she was holding her own at the food dishes and I thought she would survive the 5° - 12° temperatures of 8 and 9 February. Indeed here was one other that I didn't have much hope for and it did survive.

The disappearance of the adult male was a surprise. He seemed to be in the best of health, ate most of the mealworms, was wary of cats and dogs and generally alert. We are inclined to believe that he left the island. The weather of 11 and 12 January was again mild with calm to

gentle southerly winds; however it rained during the night of 11-12 and there was some fog on the morning of the 12th. On that last day he was seen he stuffed on mealworms as I had just received a shipment of them and gave generous portions. Also on that last day he was heard whistling, loud and clear; not the full song, just a few whistled notes. The only other time he whistled was when I released him into the cage indoors in December. When he flew from my hand to the perch he whistled once. Was this a sign of recognition of his old home of the winter before?



Baltimore Oriole - "The Champ"
Photo taken with a STAR TECH by the author

After the adult male left I gave up. The competition from the Starlings had become unbearable so I decided to trap the remaining four orioles and hold them indoors until spring. Two were trapped quickly but the other two simply would not go in the trap. Trapping was tried over a period of several days under different weather conditions including severe cold and still they would not enter the trap so the battle with the Starlings continued after all. However, with the number reduced to two out of doors I developed a system that worked quite well. When I saw one or both orioles in the vicinity I put two dishes of mealworms on the feeder and waited outside nearby until the orioles had eaten. Usually this took less than five minutes. This was done at least six times a day and each dish contained from ten to twenty mealworms. One oriole ate faster than the other

and often got more than his share. When the supply of mealworms ran out doughnut was substituted and the same method employed. Honeywater was kept on the feeder at all times. At first this was ignored by the Starlings but they soon discovered it and the dish had to be replenished three or four times a day.

Of the two orioles remaining outdoors #62-116194 was the slower of the two and was dominated by #62-116198. On 22 March #62-116194 was slower than usual about eating and when chased by the other flew around in circles, dropped to the ground, did a couple of somersaults and lay still with wings outstretched and head down. I picked him up and he closed his eyes but did not pass out. I put him in a cage and after a few minutes he revived so I released him and he flew off as though nothing had happened.

On 23 March I released #62-116001, one of the two indoors. This weighed 35.0 gms. when released. It joined the other two but was not readily accepted; however, in a day or two it became more aggressive and even chased #62-116198.

On 26 March #62-116194 was seen for the last time. Again his actions were sluggish so there must have been something wrong with him.

The female #62-116001 was observed for the last time on 15 April and #62-116198 was last seen shortly after 5 p.m. on 26 April. On 24 April an adult male Orchard Oriole joined him at the feeder. The Orchard remained through the 27th.

Bird #62-116195 was found dead in the cage on the morning of 22 April. There had been a heavy thunderstorm in the night and it is thought that the bird dashed itself against the cage in fright. Examination showed brain hemorrhage. The weight of the dead bird was 29.6 gms. and there was a medium disposition of fat (Fat Class 2).

Plumage changes were noted in two of the orioles early in February: the breast of the adult male took on the scarlet glow of the breeding season and #62-116194 developed a black patch on the back of the neck. No changes were noticed in any of the others.

In the course of examining the birds it was noted that the immature males had yellow-orange wing-linings whereas the wing-linings of the immature females were grayish-white. There was one exception in which only the upper row of under wing-coverts was yellow. This bird was the one that died in the cage and proved to be a female. Many more immature orioles will have to be examined before any definite conclusion can be reached but it is possible that the color of the wing-linings may be an aid in sexing difficult individuals. Does anyone have information on this?

All of the birds showed evidence of frost-bite. The tips of the toes, particularly the middle one seemed to be most susceptible. Mild cases resulted in a swelling of the tips of the toes at the base of the nail. Severe cases resulted in the complete loss of the toe. At first the toe appeared black and shrunken and subsequently dropped off.

Baltimore Oriole #62-116198 is unquestionably the champion of the lot, having survived a total of twenty-one days when temperatures ranged from below 0° - 20° and an additional forty-one days when temperatures were between 20° and 30°. This bird spent the entire winter out-of-doors except for the three-day period mentioned earlier.

There has been an astonishing increase in the number of wintering orioles in recent years. A survey of Audubon Field Notes Vol 17 (2) April 1963 shows no less than 116 records for Baltimore Orioles in 31 Christmas Counts in the East from New Brunswick to Florida. Twelve additional birds do not show in the Counts: 7 Nantucket ones being held captive at the time of our Count and 5 survived the month of January in Lexington, Mass. (Mass. Audubon Newsletter, Vol 2 (7) March 1963). This increase in the number of records suggests an interesting problem. Three possible theories present themselves:

1. This species may actually be undergoing an evolutionary change which would tend to shorten the migratory range.
2. There may be a weakness of the migratory instinct in certain individuals (all our observations have been of immature birds) which increased observation has brought to light.
3. It may be just an interruption in the normal migration pattern due to weather conditions and/or related factors.

Whether it is wise to winter-over an insectivorous bird such as the Baltimore Oriole is questionable. I do know that it is a full-time job and an expensive one.

3 Stone Alley, Nantucket, Massachusetts.

PLANNING AND CARRYING OUT PROJECTS AS A BANDER
By E. Alexander Bergstrom
(Reprinted from the Workshop Manual, Vol. 2, 1963)

When we plan a project for our banding station, we are really stepping back to take a good look at the reasons why we are banders. The reasons do vary, but generally they go beyond enjoyment of fresh air or pleasure in the bird in the hand. To a greater or lesser degree, each of us is penetrating beyond the limits of current knowledge, and experiencing the exhilaration of walking along new paths.