

THE BLACKBIRD BANDING PROGRAM OF THE PATUXENT WILDLIFE RESEARCH CENTER
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A blackbird banding program is being conducted in the Atlantic and Mississippi Flyways by biologists of the Patuxent Wildlife Research Center. The primary purpose of the program is to determine breeding and wintering areas of the birds that cause major crop damage.

The principal species that damage crops are the Red-winged Blackbird (*Agelaius phoeniceus*), Common Grackle (*Quiscalus quiscula*), and Cowbird (*Molothrus ater*). The Redwing causes greater damage to more different agricultural crops than do other members of the blackbird family.

Methods of Capturing Blackbirds

Floodlight traps, decoy enclosure traps, and mist nets are most frequently used in capturing blackbirds and starlings for banding.

The floodlight trap (Figure 1, below) was first used by John T. Sheehan, Robert T. Mitchell, and Frederick C. Schmid. This trap is erected at the edge of a blackbird roost. Basically, it is a huge funnel of netting that tapers back to a tent containing bright lights. The tent also functions as a holding compartment. The trap is operated at night: a crew of men encircle a roost, flush the birds, and herd them toward the trap and the lights.



Figure 1
 Floodlight trap installed in Arkansas, March 1962

The decoy enclosure trap (Figure 2) was first used by John T. Linehan and Don T. Fankhauser at Newark, Delaware. This trap is rectangular, 40 feet long, 20 feet wide, and 7 feet high. The sides and ends are covered with 1-inch mesh poultry wire; the top is covered with small-mesh fish net or poultry wire. Birds enter the trap through ground funnels and ladder-top openings.

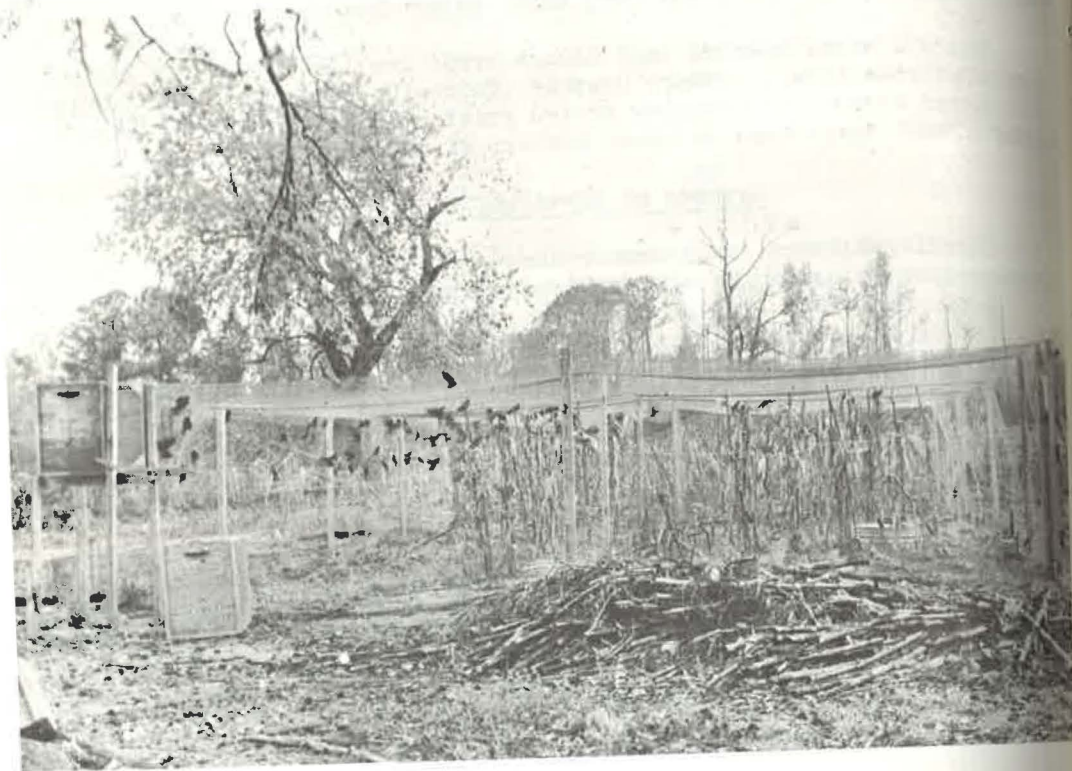


Figure 2
Decoy Enclosure Trap

Mist nets are used mainly in marshes where the floodlight trap and the decoy enclosure trap are not workable. The capture of Red-winged Blackbirds is the main objective of mist netting. Best results have been obtained by intercepting birds en route to a roost, or by trapping in wild rice beds. As many as 269 Red-winged Blackbirds have been banded by one operator during a 24-hour period.

Banding Stations and Numbers of Birds Banded

Semipermanent banding stations are maintained at the Patuxent Wildlife Research Center, Laurel, Maryland; the University of Delaware, in

Newark, Delaware; and at Lyon's Creek, along the lower Patuxent River, Md. Decoy enclosure traps are employed at these stations.

Mist nets have been operated during late summer and early fall for the past five years in wild rice stands at Red Lion Creek, Delaware, and Lyon's Creek, Maryland.

The floodlight trap is used primarily at winter roosts. At Hanover, Pennsylvania, it has been in operation on a part-time basis for the past four winters. There are also several recent light trap operations on the southern wintering grounds, and more are planned. A light trap operation at Baton Rouge, Louisiana, in January 1962, resulted in the banding of 6,500 blackbirds and starlings by two operators in 8 nights. A similar operation at Auburn, Alabama and Clemson, South Carolina, during January and February 1962, resulted in banding of more than 9,000 birds. Light trap operations at Forrest City, Arkansas, in early March 1962 resulted in banding of more than 8,500 blackbirds by two men during 9 nights.

Approximately 15,000 blackbirds and starlings have been banded each year by Patuxent biologists for the past 4 years (1958 through 1961). During the first 2½ months of 1962, more than 25,000 blackbirds and starlings were banded. Approximately 972,000 blackbirds and starlings have been banded by all banders during the period 1920 to 1961 (Table 1).

Table 1

Estimated Number of Blackbirds and Starlings Banded, 1920 - 1961

<u>Species</u>	<u>Total Banded</u>
Starling	333,400
Bobolink	1,500
Brown-headed Cowbird	158,100
Bronzed Cowbird	20
Yellow-headed Blackbird	8,300
Red-winged Blackbird	138,500
Tricolored Blackbird	22,000
Rusty Blackbird	7,500
Brewer's Blackbird	12,700
Common Grackle	279,400
Boat-tailed Grackle	10,700
TOTAL	972,120

Distribution and Migration

Available band returns and recoveries suggest that movements of the blackbirds of the Eastern Coastal States are restricted almost entirely

to these states. The Coastal Plain Province is the major migration route to and from the breeding and wintering grounds. Probably the most important secondary migration route in the eastern states is the Great Valley that extends from New York to northern Alabama and includes the valleys of the Cumberland, Hagerstown, Shenandoah and Tennessee Rivers.

The Mississippi Flyway probably carries the largest blackbird flight in the country. The major movement is north and south through the Mississippi Valley, with the main dispersal along a broad belt, three miles wide, extending from Texas, Louisiana, and Mississippi northward to the Dakotas, Minnesota, and Wisconsin.

Band recovery data indicate that resident populations cause most late summer and early fall damage to corn, rice and other agricultural crops that mature during this period. Many Redwings banded as nestlings have been recovered three to five months later within five miles of the point of banding. With some exceptions, resident adult and young Redwings remain in or near the breeding grounds until the molt is nearly complete in September.

In late September, when the molt is complete or nearly so, blackbirds begin drifting southward toward the wintering grounds. The main wintering grounds of blackbirds of the Atlantic and Mississippi Flyways have been fairly well established. In the Atlantic Flyway, Red-winged Blackbirds winter chiefly in the Coastal Plain Province, south of the mouth of the Chesapeake Bay. Winter recoveries from birds banded in a large Redwing roost in late summer on the Patuxent River, Maryland, were scattered from southeastern Virginia to southeastern Georgia. Grackles, Cowbirds and starlings also are abundant in much of this area during the winter; they are widely distributed inland and somewhat northward in the Piedmont and the Ridge and Valley Provinces.

The main wintering ground of blackbirds in the Mississippi Flyway is in the lower Mississippi Valley of the Gulf Coastal Plain Province. Red-winged Blackbirds are especially numerous in the rice belt and the coastal marshes, whereas Grackles and Cowbirds seem to be more numerous in the delta lands along river bottoms of the Mississippi and its tributaries. The winter concentration of blackbirds in the lower Mississippi Valley probably is the largest anywhere in the United States at any season. The great size of this winter population is the result of large numbers of birds from the North Central States and the Prairie Provinces of Canada moving into the area in late fall.

The Role of the Volunteer

The great majority of banded blackbirds have been banded by volunteer banders. Most banding in the Atlantic Flyway is done in Massachusetts, New York, and New Jersey; in the Mississippi Flyway most of the

banding is done in Michigan, Illinois and Arkansas.

In addition to banding large numbers of adult and immature blackbirds each year, many volunteer banders are participating in the Cooperative Red-winged Blackbird Nestling Program sponsored by the Patuxent Wildlife Research Center. In 1961, cooperators banded over 3,200 nestlings. Each year, Patuxent biologists band approximately 1,000 nestlings. Because of the habitat in which nests most often are built, the banding of nestlings involves considerable effort; but it provides the best information on the origin of specific populations.

Laurel, Maryland

ADDITIONS, CORRECTIONS, AND CHANGES TO MEMBERSHIP LIST IN VOL. 25, NO. 2

* = Sustaining Member

= Life Member

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