

BIRD-BANDING

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WHAT CAN A BIRD-BANDER CONTRIBUTE TO ORNITHOLOGY TODAY?

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There is an unusual opportunity for bird-banders today to increase the value of bird-banding and enlarge the body of ornithological literature by undertaking a more definite program of research and use of banding records and techniques.

Most of the problems concerned with the migration routes, the resident status and distribution of species, and the speed of migration, have been solved. Longevity studies offer some incentive for conscientious banders, but by far the greatest challenge lies beyond these studies in which so many of the answers have been found.

There is a large field of research relatively untouched by many banders—that of life history and behavior study through the banding and special work on individual birds. The emphasis then becomes one of close observation and study of individuals, rather than wholesale observation of migration. This type of work requires many new techniques and some knowledge of what has already been done. You will want to save time by using the most efficient methods and by not repeating research already completed.

If you have been following some of the recent life history and behavior studies, you know that the successful ones are all based on marked birds. The people making these studies have had to use some of the methods which the banders have worked out. In fact, many of the special techniques involved in trapping difficult species and in getting the bands adapted originated with banders. Some of the techniques used in marking birds today originated with the research student who needed an easy method for capturing or identifying individual birds. Thus we have the colored bands, the pluming and the feather imping used to such an extent now.

As to the need for life history and behavior information, may I point out that detailed studies of many of our common birds have not been made. A few such as the Red-winged Blackbird, Song Sparrow, Tree Sparrow, Ovenbird, Cowbird, Field Sparrow, Starling, English Sparrow, Goldfinch, Robin, Bluebird, Snow Bunting, House Wren, Mourning Dove, Bob-White, Wren-tit, Flicker, and a few others have received special attention, but many of the others are waiting to be studied. Such northern species as the Redpoll, Siskin, Pine and Evening Grosbeaks, Crossbills, Purple Finch, all of the summer nesting Warblers, the Sandpipers, Gulls, Swamp Sparrow, Chipping Sparrow, Sharp-tailed Sparrows, Grasshopper and Henslow's Sparrows, Rose-breasted Grosbeak, Scarlet Tanager, Grackles, Orioles, Bobolink, the Vireos, Shrikes, Kinglets, Veery, Hermit Thrush, Catbird, Marsh Wrens, Red-breasted Nuthatch, Rough-winged Swallow, Pewee, Kingbird, Sapsucker, Kingfisher, Nighthawk, and Swift are all birds which need attention. Definite information on the various parts of them and the life history is often unknown. The study of the behavior patterns of individuals of these species has not been started in most cases. So you see the field is wide open for you.

Here are some general directions if you are interested:

1. *Make accurate observation* by using a good prism binocular or telescope, or, the best glass you can get.
2. *Take copious notes and keep accurate records.* Memory is not to be trusted on such matters. Have a pocket notebook for field notes and a permanent one at home for your records. No matter how trivial the observation seems at the time, it should be recorded in writing as it may fit in with some later observation and help clarify otherwise puzzling behavior.
3. *Mark your birds* by aluminum bands, colored bands, or colored feathers so that birds can be identified without retrapping. Aluminum bands could be dispensed with if the number of individuals involved were not too great. You can make your own colored bands by a process described by Butts in *Bird-Banding Magazine* in 1930. You can use pluming in many cases for temporary identification which Baumgartner described in *Bird-Banding* in 1938, and which was further discussed and modified by Wright in *Journal of Wildlife Management* in 1939.
4. As for the *trapping of the birds*, I can assume that you are all experts at this and know where to look for additional information.
5. *Use outline bare maps* when conducting a study on a restricted area, for charting actual occurrence or movements of individuals. They are essential for habitat, population, and territorial studies. Rough sketches with important habitat types and landmarks will usually suffice, and can be mimeographed at small cost.
6. Blinds for close observation and photography are often necessary. Chapman in his *Handbook* (1932) describes an umbrella blind which is easy to make. You can also design one of your own with materials at hand.
7. *Pictures* of significant actions or habits are helpful. They should be distinctive and should assist the worker in portraying the techniques or unusual behavior, rather than duplicating the many fine pictures already in print.

LIFE HISTORY TOPICS

If you want some special help on how to undertake a life history or behavior study, I suggest you read A. A. Allen's Chapter XIX in his book of bird life entitled "Suggestions for the Intensive Study of a Species," or that you review Mrs. Nice's book, "Studies in the Life History of the Song Sparrow." Ralph Palmer's recent work on the "Behavior of the Common Tern" and Tinbergen's work on the "Behavior of the Snow Bunting" will give you many suggestions for similar studies. Eugene P. Odum has summarized many of these suggestions in a very helpful article in the "Oriole," Journal of the Georgia Ornithological Society of September, 1941, entitled, "Technics in Life History Study." He includes an excellent selection of references for each of the topics suggested. These topics include:

Pair-formation	Nest building
Territory	Egg laying
Incubation	Hatching
Development of young	Dispersal of young
Number of broods	Nesting success
Parasites	Molting
Seasonal movements	Voice
Roosting habits	Flocking and social behavior
(night roosting)	Population
Habitat selection	Predators and other Ecological
Food habits	relationships

I would like to conclude with this statement—that life history and behavior studies are not too difficult for the average bander, that they can be broken down into small parts so that a definite accomplishment can be made by most of us, and that banders generally have a very significant contribution to make in the field of ornithology if interested, and willing to engage in such challenging work.

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NOTES ON THE BEHAVIOR OF A NESTING NIGHTHAWK

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During the dark, showery days of late May and early June, frequent glimpses of an Eastern Nighthawk (*Chordeiles minor minor* (Forster)) flying by the windows of the Physics laboratory at Weaver High School in Hartford, Connecticut, suggested that the bird might be nesting, or preparing to nest, nearby.