United States Department of the Interior

FISH AND WILDLIFE SERVICE

OFFICE OF MIGRATORY BIRD MANAGEMENT
LAUREL, MARYLAND 20708

TAKE PRIDE IN AMERICA

MTAB 69
January, 1991

MEMORANDUM

To: **All Banders**

From: **Chief, Bird Banding Laboratory**

Subjects:

1. **BBL Biologist**
2. **Possible New Band Size**
3. **Status Code Changes: Rehabilitated Birds; Oiled Birds**
4. **Computer Generated Schedules**
5. **Attachments**
6. **Recent Literature**

1. BBL Biologist

We are pleased to announce the hire of William Howe to fill the newly added position for a third biologist in BBL. Bill has degrees from Cornell University and the University of New Mexico. He most recently was employed by the U.S. Fish and Wildlife Service at Fort Collins, Colorado, conducting studies of riparian birds. He has extensive experience in field ornithology, data management, and data analysis, and he holds master banding permit No. 21528. Bill will assume responsibility for schedule editing and coordination of auxiliary marking at BBL.

2. Possible New Band Size

The smallest butt-end, preformed band size currently carried in our inventory is the size 0 band which has an internal diameter of 2.11 mm. Several banders have suggested that this size is too large for some birds (e.g., gnatcatchers), and have recommended development of a smaller size. We are pursuing the development of a suitable smaller size band, and we would welcome banders' recommendations. Please send your recommendations on diameter and species to be banded to Kathy Klimkiewicz at BBL by March 1, 1991.

3. Status Code Changes: Rehabilitated Birds; Oiled Birds

Rehabilitated birds often undergo a variety of procedures during the course of their treatment and release. They may be transported, fitted with auxiliary markers, have blood samples taken from them or have any combination of these things and others done to them. The banding status codes assigned to rehabilitated birds have presented problems for both banders and BBL. Furthermore, in some cases such as where a rehabilitated bird was color-marked before release, the birds "lost" their identity in the computer database because they were assigned 685 (miscellaneous) status.

After considerable deliberation and consultation with the Canadian Wildlife Service and the National Wildlife Rehabilitator's Association, we are simplifying the status codes for rehabilitated birds. Codes 656 and 660 are now obsolete, and code 685 does not apply. Banders should assign status code 697 to all rehabilitated birds, regardless of what was done to them. This simplification will actually benefit future data analyses, because some "lost" 685 birds will now be identifiable as rehabilitated birds. Under the remarks section of the banding schedule, banders should continue to describe what was actually done to the rehabilitated bird. It is not feasible for BBL to computerize this information, but it would be available to anyone who might wish to review schedules which BBL keeps indefinitely.

The definition of status code 640 is changed from "Oil soaked, cleaned and released within 24 hours" to "Oil soaked, cleaned, and released." This change is made because today almost no oil treated birds are released within 24 hours.

4. **Computer Generated Schedules**

After a lengthy development period the Schedule Generator Program is fully operational and is proving to be successful. Fifty banders are now using the Program and submitting banding data on computer disk. We estimate that in 1990 14% of all banding data were submitted via disk, enabling a significant savings in editing and data entry time. We encourage more banders to use the Program, especially those who band large numbers of birds annually. The Schedule Generator Program works on IBM-compatible machines. Requests for the Program should be submitted in writing and should include a blank formatted 5 ¼ " or 3½" disk.

5. **Attachments**

Our record of birds banded under your permit in 1988 is attached.

This listing includes birds that:

- have AOU numbers assigned.
- were reported under your permit number only.
- were banded in 1988 only.
- were reported and processed by the BBL by August 28, 1990.

This listing does not include:

- lost or destroyed bands.
- rebanded birds.
- birds that died before the schedule was submitted.
- birds that died after the schedule was submitted, but within 90 days within the same 10' block of banding.
- bandings reported or processed by BBL after cutoff date.

If you detect any errors or omissions, we would appreciate your notifying us by returning this list (or a copy) with your reply and providing band numbers for species in question. Note: there is no need to reply or return the list if there are no discrepancies.

A Current Name and Address Listing is attached. If corrections are needed, please make them and return the listing to us. It should not be used for permit related requests.

6. **Recent Literature**

MTABs 66 and 67 mentioned publications presenting advanced statistical methods for analyzing banding data. We mention another here:

> Conroy, Michael J., James E. Hines, and Byron K. Williams. 1989. Procedures for the Analysis of Band-recovery Data and User Instructions for Program MULT. U.S. Fish and Wildl. Serv., Resour. Publ. 175. 61 pp.
>
> Abstract: We briefly review methods for inference from band-recovery data and introduce a new, flexible procedure (MULT) for analysis of data from bird-banding studies. We compare our computing method to program SURVIV and discuss the relative advantages of each. We present several basic model structures that can be analyzed using program MULT and for each model structure describe estimation and hypothesis testing and give a data example. Model structures describe are: one-age-class band-recovery; analysis of covariate effects on survival rates; variable time intervals between banding periods; two-age-class analysis; banding at two times of the year; and analysis of reward-band data. We provide a complete description of program MULT, which is IBM-PC compatible and may be run as either an interactive or a batch-mode program.

These methods are yielding results that challenge some tenets of avian survival. See:

> Karr, J.R., J.D. Nichols, M.K. Klimkiewicz and J.D. Brown. 1990. Survival rates of birds of tropical and temperate forests: will the dogma survival? The American Naturalist 136: 277-291.
>
> Their Summary: Survival rates of tropical forest birds are widely assumed to be high relative to the survival rates of temperate forest birds. Much life-history theory is based on this assumption despite the lack of empirical data to support it. We provide the first detailed comparison of survival rates of tropical and temperate forest birds based on extensive data bases and modern capture-recapture models. We find no support for the conventional wisdom. Because clutch size is only one component of reproductive rate, the frequently assumed, simple association between clutch size and adult survival rates should not necessarily be expected. Our results emphasize the need to consider components of fecundity in addition to clutch size when comparing the life histories of tropical and temperate birds and suggest similar considerations in the development of vertebrate life-history theory.
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> Krementz, D.G., Sauer, J.R. and Nichols, J.D. 1989. Model-based estimates of annual survival rate are preferable to observed maximum life span statistics for use in comparative life-history studies. - Oikos 56: 203-208.
>
> Abstract: Estimates of longevity are available for many animals, and are commonly used in comparative life-history analyses. We suggest that annual survival rate is a more appropriate life history parameter for most comparative life history analyses. Observed maximum life spans estimate complicated functions of survival and sampling probabilities. Annual survival rate estimates derived from modern band-recovery statistical procedures are becoming available for a variety of organisms. We compiled annual survival rate estimates and observed maximum longevities derived from band recovery data for North

American waterfowl. Observed maximum longevities were not correlated with the annual survival rate estimates and appear to be unstable over time. We recommend that observed maximum life spans not be used in life history analyses.

Fat scoring data are collected by many banders. Those interested in pooling or comparing data among banders should see:

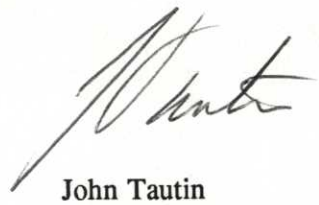
Krementz, D.G. and G.W. Pendleton. 1990. Fat scoring: sources of variability. Condor 92:500-507.

Abstract. Fat scoring is a widely used nondestructive method of assessing total body fat in birds. This method has not been rigorously investigated. We investigated inter- and intraobserver variability in scoring as well as the predictive ability of fat scoring using five species of passerines. Between-observer variation in scoring was variable and great at times. Observers did not consistently score species higher or lower relative to other observers nor did they always score birds with more total body fat higher. We found that within-observer variation was acceptable but was dependent on the species being scored. The precision of fat scoring was species-specific and for most species, fat scores accounted for less than 50% of the variation in true total body fat. Overall, we would describe fat scoring as a fairly precise method of indexing total body fat but with limited reliability among observers.

For an excellent discussion of the comparative advantages and disadvantages of recovery vs recapture (resighting) based studies see:

Hestbeck, J.B., D.H. Rusch and R.A. Malecki. 1990. Estimating population parameters for geese from band-recovery and mark-recapture data. Trans. 55 th N.A. Wild. & Nat. Res. Conf. 55: 350-373.

Finally, the Summer 1990 issue of the Journal of Field Ornithology contains several techniques articles that will be of interest to many banders.



John Tautin