

There are other cases of seabirds, especially alcids, being transported from Long Beach but unfortunately I cannot recall the circumstances of these incidents.

I think, then, that banders and ornithologists should treat inland records of seabirds with extreme caution, especially returns and records from the summer and early fall. This, of course, is the period when birds are most likely to be picked up by vacationers.

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R. Wayne Campbell, Vertebrate Museum, Department of Zoology, University of British Columbia, Vancouver 8, B. C., Canada.

A Colored Leg Tag for Nestling and Adult Birds.—Current studies of sturnids in the lower mainland of British Columbia require identification of individual wild nestling, juvenile and adult birds. Hatchling starlings (*Sturnus vulgaris*) and crested mynas (*Sturnus cristatellus*) are too small to successfully wear the recommended size (2) U. S. Fish and Wildlife Service aluminum leg bands, and these bands alone are not sufficient aids for identifying juvenile and adult birds at a distance in the field.

Prior to the papers by Craighead and Stockstad (1956) and Blank and Ash (1956) which reported use of plasticized polyvinyl chloride materials, Trippensee (1941), Taber (1949), Nelson (1955) and Helm (1955) described use of plastic materials as marking devices. Subsequently, other workers have reported use of plastic materials for marking birds (Downing and Marshall 1955; Campbell 1960; Hester 1963; Thomas and Margurger 1964). Fankhauser (1964) and Gullion (1965) used colored Scotch brand adhesive tape to mark birds. More recently, Guarino (1968) described a procedure employing nylon-empregnated, non-adhesive polyvinyl chloride strips held in place by U. S. Fish and Wildlife Service aluminum leg bands.

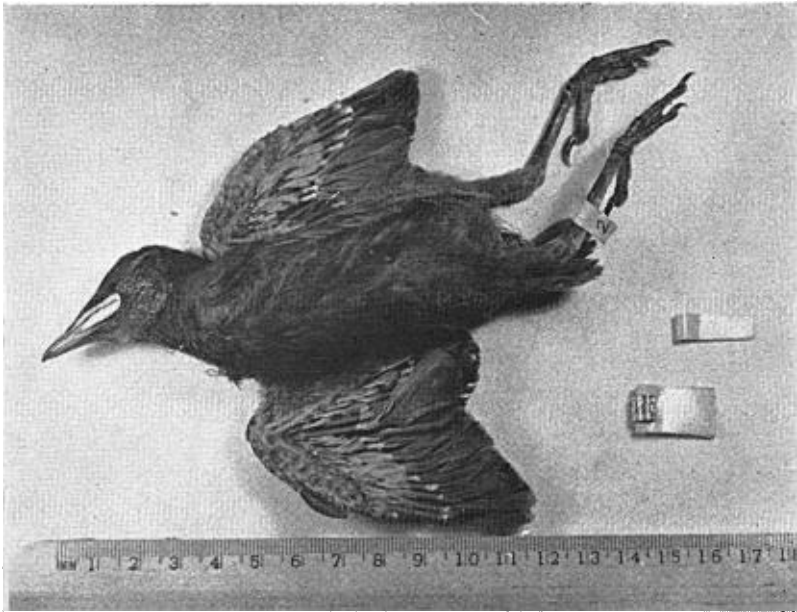
MATERIALS AND METHODS

In this study, Scotch brand pressure sensitive tapes are used to mark nestling starlings and crested mynas. Tags are attached by placing the tarsus into a fold in the tape and pressing the two adhesive surfaces together up to the tarsus. This results in a leg tag upon which identification is placed. If firmly applied, ink impregnates the tape and gives a long lasting impression. The adhesive surfaces of the tape disengage as tarsal growth occurs, thereby not affecting leg growth. After tarsal growth has completed, larger permanent adhesive strips can be attached in the same manner described above (See Fig. 1). To increase retention, U. S. Fish and Wildlife Service aluminum leg bands can be applied around the tarsal tags and abutted firmly against the tape.

TAG RETENTION

Three hundred smaller tags have been applied to nestling starlings and crested mynas. Nine juvenile birds removed nestling tags shortly before leaving the nest. This necessitated application of the larger permanent adhesive tape tags reinforced with U. S. Fish and Wildlife Service leg bands. One hundred eighty permanent color tags have been applied to starlings and mynas since 6 June 1968, resulting in 81 observations of tagged birds. Starlings recaptured at a communal roost in March, 1969, still had their tags held in place by U. S. Fish and Wildlife Service bands. The ink impressions applied with ball point pen had faded but were clearly readable.

Figure 1. Nearly fledged starling with tags.



SUMMARY

A new method is described for color marking nestling, juvenile and adult birds with colored pressure-sensitive tape. This technique provides individual identification and does not affect leg growth. Placing aluminum leg bands around larger leg tags strengthens them as permanent color markers for juvenile and adult birds.

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Steve R. Johnson, Dept. of Zoology, University of British Columbia, Vancouver 8, B. C., Canada (present address, Institute of Arctic Biology, Univ. of Alaska, College, Alaska 99701.

RECENT LITERATURE

BANDING AND LONGEVITY

(See also 14, 69, 87)

1. Migration in Asia as suggested by reported ring recoveries. H. Elliott McClure. 1970. Pp. 85-114 in *Migratory Animal Pathological Survey: Annual Progress Report 1969*. San Francisco: U. S. Army Research & Development Group, Far East.—The first part of this paper summarizes previous literature on migration in eastern Asia, most of which consisted of plotting of hypothetical "routes" of migration. Presumably the arrows on these maps should not be construed as the only flight paths of birds: if so they would literally darken the sky along strategic lines such as the coast of China and the Ryukyu chain. The main part of the paper summarizes 2,623 recoveries of nearly 200 species, obtained from 945,782 birds banded under the auspices of MAPS since 1963. There are many interesting features of these recoveries and of the maps based on them, but the peculiar concentrations of the recoveries—especially swallows in Korea and herons in the Philippines—and the complete lack of reports from China indicate that the geographical distribution of recoveries is extraordinarily biased.

Banding a million birds in seven years, in a program which started literally from scratch, is a great achievement. However, the sponsorship of the program by the U. S. Army will cause some raised eyebrows in these anti-militarist days. Let us hope that some germ-happy general does not take the arrows on these maps too literally.—I. C. T. Nisbet.

2. Operation Baltic. Working Methods. (Akeja Baltyska. Metody pracy.) P. Busse and W. Kania. 1970. *Acta ornithologica* (Warsaw), **12**(7): 231-267. 22 figs., 5 tables. (In Polish, with Russian and English summaries.)—Four pages of very readable summation and information of the work of this major banding project make this paper an invaluable consultant for planners of other large scale projects.—Leon Kelso.

3. Longevity records and banding data on Short-tailed Shearwaters. D. L. Serventy. 1970. *Australian Bird Bander*, **8** (3): 61-62.—Two male and three female *Puffinus tenuirostris*, breeding birds banded in 1947 on Fisher Island, Bass Straits, Tasmania, were recaptured as breeding birds during the 1969-1970 season, 22 years after banding. These five birds comprised 7% of the breeding birds banded in 1947. Since breeding birds are at least 5 or 6 years old, the recaptured birds must have been nearly 30 years old and very likely older.

The oldest birds of exactly known age are three 20 year old birds: a male and a female hatched on Fisher Island in January 1950 and a nestling banded in the same month on Flinders Island. The female first bred at 6 years of age and the male at seven.—Roger B. Clapp.