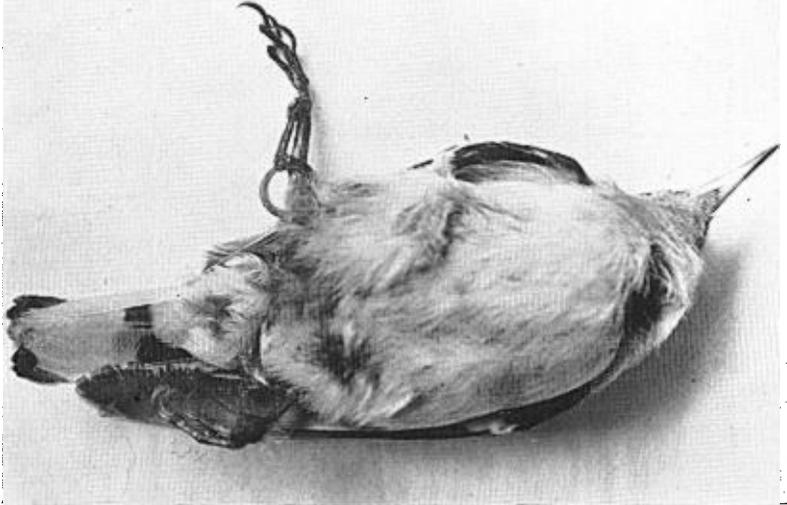


Nuthatch claw caught.—In *Bird-Banding*, 24: 110, July, 1953, I reported having trapped a Grackle (*Quiscalus quiscula*) in which the claw of the hallux was caught behind the tarsus, and had become somewhat overgrown.



Recently a dead White-breasted Nuthatch (*Sitta carolinensis*) was brought to me exhibiting the same condition, but to a worse degree. As shown in the accompanying photograph the claw had completely encircled the tarsus. Presumably a Nuthatch would be more handicapped by such an accident than would be a Grackle.—Sally Hoyt Spofford, Cornell Laboratory of Ornithology, Ithaca, New York 14850.

On the Cause of Death of a Barn Owl.—In labelling specimens for our ornithological collections, I usually indicate how the specimen was obtained—e.g., shot, road kill, picture window casualty—but often have to resort to the incomplete designation “found dead”. The Bird-Banding Office’s “Report on Recovery of Bird Band” (Form 3-1807) also has an entry “How obtained—shot, trapped, found dead or injured (state cause if known)”. Field tags used by the Michigan Department of Conservation even include an “Autopsy No.”, emphasizing the importance of determining the cause of death. The following record on a Barn Owl (*Tyto alba*) illustrates (1) the difficulty in determining the exact cause of death and (2) the danger in assigning a cause on the basis of an incomplete or casual examination.

On 1 January, 1963, Robert C. Ball found the solidly frozen carcass of a Barn Owl in a campus parking lot at Michigan State University, East Lansing. The minimum Lansing temperature during the preceding day was -7°F , climaxing a 14-day cold spell in which temperatures ranged from 1 to 22 degrees below normal. Barn Owls are known to suffer from low temperatures at the northern extremes of their range (Errington, 1931. *Wils. Bull.*, 43: 60; Keith, 1964. *Bird-Banding*, 35: 26); hence I assumed that the bird had frozen to death.

However, an examination of the carcass disclosed that it was severely emaciated, with the keel of the sternum protruding from the shrunken pectoral muscles. Since the prey of local Barn Owls consists of about 98 per cent small mammals (Wallace, 1948. *Tech. Bull.* 208, MSC Agr. Exp. Sta., E. Lansing, pp. 46-55), which would be difficult to obtain under the 4-inch snow and ice cover that prevailed for 6 days preceding the find, it seems likely that starvation contributed strongly to the owl’s demise.

Additionally, in preparing the specimen for our skin collection, I found two bullets in the thigh muscles. Two bullets in the leg would not necessarily be an

immediate cause of death but may have caused a crippled condition which hindered capturing prey.

As a final check on possible causes of death, E. A. Boykins, who was running tests for DDT in birds at that time, analyzed the owl for DDT. However, as was usual with our tests on predatory birds using the Schechter-Haller method of analysis, he obtained a "red reaction" which we have interpreted to mean that DDT was present, presumably in substantial amounts, but was masked by interference of another closely related chemical, or that break-down of DDT into metabolites not recoverable by the Schechter-Haller method had already taken place.

Obviously, then, the Barn Owl could have died from any one of the above causes, or from some undetermined cause such as disease, or from any combination of these. Hence, this brief history illustrates the difficulty, and danger, in trying to assess mortality from a casual inspection. George J. Wallace, Department of Zoology, Michigan State University, East Lansing, Michigan.

RECENT LITERATURE

BANDING

(See also 12, 13, 18, 37, 53)

1. **Shorebird Migration According to Banding Records.** (*Migratsii kulikov po dannym koltsevaniya*). M. I. Lebedeva. 1965. *Ornitologiya*, No. 7: 328-340. Five distribution maps. Numerous observations are presented here, based on banding returns for 11 species: Golden Plover (*Charadrius apricarius*), Lapwing (*Vanellus vanellus*), Little Stint (*Calidris minutus*), Wood Sandpiper (*Tringa glareola*), Marsh Sandpiper (*Tringa stagnatilis*), Ruff (*Philomachus pugnax*), Bar-tailed Godwit (*Limosa lapponica*), Black-tailed Godwit (*Limosa limosa*), Whimbrel (*Numenius phaeopus*), Snipe (*Gallinago gallinago*), and Woodcock (*Scolopax rusticola*). In summary the author notes certain features characteristic of the migrations of the order as a whole. Shorebirds nesting in north European USSR take two well-defined migration routes. One route includes the coast of the Baltic and North Seas to the shores of France and Spain, where many remain for the winter, whereas others of the same species, crossing the western Mediterranean, go on to African wintering grounds. This is most clearly marked in the Golden Plover. The other is a continental route, passing through the Baltic countries and the Ukraine to Italy, and thence to southern France or north Africa. Of special note are the directions taken and distances traveled by the Ruff, some banded on migration in England, Italy and Germany having been recovered in Yakutiya of eastern Siberia. One banded in Germany April 29, 1961 was taken in the Upper Wilyuiska area of Siberia on May 31, 1961, having traversed at least 6500 kilometers in 32 days, or 203 km. per day. A Ruff banded February 21, 1957 at Cambridge, England was taken near Yakutsk, Siberia on May 24, 1959. A juvenal Ruff banded near Copenhagen on September 9, 1951 was taken May 18, 1958 near Okhotsk on the east Siberian coast. Some Ruff populations take a so-called "loop" route, in autumn following the coast of Europe to Africa, and in spring returning through Italy and northward over the continent.—Leon Kelso.

2. **Banding and Tagging of Animals** (*Koltsevanie i mechenie zhivotnykh*). M. I. Lebedeva and P. P. Shevareva. 1964. Information Bulletin (Informatsionnyi Byulleten), No. 2, Institute of Zoology, Academy of Sciences USSR, Moscow, pp. 1-88. Following an introduction by G. P. Dementiev, there is a table of banding totals for USSR by bird orders for years 1925-1959. Of the total 1,395,029 banded 617,337 were passerines, 417,434 Lari, 156,236 Anseres, and 98,841 alcids. There follows a table of totals banded by years for each (of 477) species, a bibliography (363 titles) by A. A. Vinokurov containing publications utilizing the results of the banding data, and an index to the birds (134 species) involved in those data.—Leon Kelso.