

*Wilson Bull.*, 91 (2), 1979, pp. 345-346

**Drowning of grassland birds in stock tanks.**—Drownings of birds in man-made structures are probably common occurrences, although there are few reports of large numbers of drowned birds. Known examples of birds drowned in stock tanks (Craig and Powers, *Condor* 78:412, 1976; Enderson, *Auk* 81:339, 1964) or in impoundments (Mullan and Applegate, *Wilson Bull.* 81:467, 1969) include American Kestrels (*Falco sparverius*), a Prairie Falcon (*Falco mexicanus*) and Bobwhites (*Colinus virginianus*).

I report here the finding of at least 25 drowned Lark Buntings (*Calamospiza melanocorys*) and 113 Western Meadowlarks (*Sturnella neglecta*) in 2 adjacent watering tanks in southeastern Montana (Rosebud County, Range 43E, Township 1N). Both species are common summer residents in this area of the northern Great Plains. On 1 September 1976, I looked into these roadside tanks and counted nearly 50 dead birds. Neither tank had been used for livestock watering during the previous 5 months. The largest tank (6.6 m diam.) contained 43 carcasses floating in about 10 cm of water, while the smaller tank (2.6 m diam.) contained 6 carcasses in 6 cm of water. In each tank a dense algal bloom was suspended in the water. Vegetation near the tanks included sagebrush (*Artemisia* spp.), post-bloom yellow sweetclover (*Melilotus officinalis*), lamb's quarters (*Chenopodium album*) and several species of dry prairie grasses.

On 27 May 1977, I returned to the tanks and collected 138 bird skulls from the large tank only. Of these skulls 113 belonged to the Western Meadowlark and 25 to the Lark Bunting. By examining the extent of ossification in each skull, I established 2 age groups of both species and found that 23 bunting and 77 meadowlark skulls were only partially ossified. These were probably birds of the year. In support of this, I also noted from plumage characteristics that most carcasses in the tanks were those of young birds, especially the buntings. Accurate age classification of 10 meadowlark skulls could not be made because of damage to or deterioration of them.

The magnitude of these drownings presents an unresolved enigma. Unusually heavy spring and summer rains in 1976 probably kept the tank bottoms covered with some water and replenished throughout the summer. Rain gauge data taken from a site about 8 km away showed that 23.3 cm of rain fell between 15 April and 1 September 1976, but less than half of that in 1977. Hence, neither water nor birds were seen in these tanks in 1977. Because most of the buntings and meadowlarks were young birds, one might speculate that lack of experience near watering troughs was involved, but this seems unlikely since large numbers of juveniles of both species are normally present in the area during late summer. Individual birds may have attempted to drink as well as bathe in the tank, but adherence of the algae to the feathers may have precluded flight from the tank, especially since no algal mats that might serve as launching platforms were present. This problem may have been exacerbated by an intensifying algal bloom probably fed by the end products of animal decomposition. Pathological studies of these birds were not considered because of the extent of decomposition and the remoteness of the site from an appropriate laboratory for examination.

Assuming that both species could detect these stationary water sources aloft despite the algal camouflage, it is possible that a flock of birds descended to the tank and many were subsequently pushed into the water and drowned. Some birds may have even mistaken this algal "broth" for solid ground and consequently drowned after landing directly in the water. On the other hand, it has been suggested to me that these birds may have been sick, subsequently became attracted to the water, and died by falling

into the tank. Clearly, further information is necessary to fully evaluate all of these possibilities. Although Craig and Powers (op. cit.) suggested that a block of wood be placed in watering tanks to prevent episodes of drowning, the sizable wood slab I found in the large stock tank ostensibly prevented few avian deaths.—JOHN D. CHILGREN, *Department of Zoology, Oregon State Univ., and Corvallis Environmental Research Laboratory, Corvallis, Oregon 97331. (Present address: NCNM, 510 SW 3rd, Portland, Oregon 97204.) Accepted 10 June 1978.*

## REQUESTS FOR ASSISTANCE

*Shorebird color-marking.*—In 1979, the Canadian Wildlife Service will be continuing a large-scale program of banding and color-marking shorebirds in James Bay. Since 1974, over 38,500 shorebirds have been captured, resulting in more than 1700 “bird days” of sightings of dyed birds ranging from eastern Canada to South America. Much valuable information on migration routes and strategies is being obtained and observers are again asked to look out for and report any color-dyed or color-banded shorebirds that they may see. Reports should include details of species (with age if possible), place, date, color-marks and, if possible, notes on the numbers of other shorebirds present. For color-dyed birds, please record the color and area of the bird that was dyed. For color bands and standard metal leg bands, please record which leg the bands were on, whether they were above or below the “knee”, the colors involved (yellow or light blue), and the relative position of the bands if more than one was on a leg (e.g., right lower leg, blue over metal, etc.). All reports will be acknowledged and should be sent to: Dr. R. I. G. Morrison, Canadian Wildlife Service, 1725 Woodward Drive, Ottawa, Ontario, Canada K1G 3Z7.

*International shorebird surveys 1979.*—A cooperative International Shorebird Survey scheme has been organized by the Canadian Wildlife Service and the Manomet Bird Observatory since 1974 to obtain information on shorebird migration and to identify and document areas of major importance. Valuable information has come from contributors throughout eastern Canada and the U.S.A., the Caribbean Islands and Central and South America, and is being used in assessing requirements for the future protection and conservation of the birds and their habitat. We plan to continue the project in 1979. Any observer who may be able to participate in regular counts of shorebirds during spring and autumn migration periods, as well as during the winter in shorebird wintering areas, is asked to contact one of the undersigned. Occasional counts from observers visiting shorebird areas on an irregular basis would also be most welcome. For areas in Canada: Dr. R. I. G. Morrison, Canadian Wildlife Service, 1725 Woodward Drive, Ottawa, Ontario, Canada K1G 3Z7. For areas in U.S.A., Caribbean Islands, Central and South America: Brian A. Harrington, Manomet Bird Observatory, Manomet, Massachusetts 02345.

## REQUEST FOR ASSISTANCE

*Bird records needed.*—Records of birds observed in Western Alaska on the Seward Peninsula, Norton Sound area and St. Lawrence, King, Diomed and Sledge islands, for inclusion in a publication of the avifauna of this area. Full credit will be given. Send reports to: Henrich Springer, Box 352, Nome, Alaska 99762.