ined displayed pathological bones; he concluded these conditions reflected normal accidents or dietary deficiencies.

The high percentage of bone pathologies evident in the macaws are indicative of a captive state with inadequate diet and generally poor treatment contributing to this condition. With no evidence of the Plains Indian keeping captive hawks, it may be reasonably assumed that the 2 birds exhibiting fractured bones were injured in "natural" accidents. Regardless of the cause, the fact remains that many wild birds which suffer severe fractures are able to survive adverse conditions during the healing period and eventually return to their natural mode of life. The broken and repaired humeri of ducks described and illustrated by Abbott (Auk 60:447, 1943) and Dillon (Auk 78:273–274, 1951) exemplify the fact that a healed break of a major wing element, even though distorted, may enable the bird to regain the power of flight. The extremely deformed coracoid from the Hosterman site is of special interest, however, both from the standpoint of how such an injury occurred and its possible effect on normal wing movement.—PAUL W. PARMALEE, *Dept. of Anthropology, Univ. of Tennessee, Knoxville 37916.* *Accepted 1 Nov. 1976.*

Nest reciprocity in Eastern Phoebes and Barn Swallows.—A few investigations of the Eastern Phoebe (*Sayornis phoebe*) and Barn Swallow (*Hirundo rustica*) have revealed use, with modification, of old nests of 1 species by the other (Stoner, New York State Mus. Circ. 22:1–42, 1939; Graber et al., Ill. Nat. Hist. Surv. Biol. Note No. 86, 1974; Jackson and Weeks, Alabama Birdlife 24:7–9, 1976).

In March 1970 on Crane Naval Ammunition Depot (NAD Crane), Indiana, I examined and marked all Eastern Phoebe and Barn Swallow nests that remained under bridges and culverts from previous nesting seasons. Of the 242 old nests examined, I found 7 instances of reciprocal use—3 former Barn Swallow nests modified by phoebes, 1 phoebe nest converted by a Barn Swallow, and 3 nests illustrating multiple reciprocity. In these and subsequent modifications, the pattern was similar, with Barn Swallows adding mud and dried grass, and phoebes adding moss to the nests' rims; each species also lined the nest with the appropriate material.

The multiple reciprocity nests were all found beneath bridges. The largest nest, 32 cm in height, was composed of 7 alternating Barn Swallow and phoebe nests beginning with a Barn Swallow base (Fig. 1). Another nest was of similar construction but composed of 4 tiers of alternating nests built on a phoebe base and 24 cm in height. A third nest appeared to be a single, excessively large (21 cm in height) Barn Swallow nest modified by phoebes, and only at removal at the end of the season did the nest separate to reveal a second, intermediate layer of phoebe nesting material.

Of the 235 normal nests marked prior to the 1970 nesting season, 8 were modified and used during the season by the other species. Six old Barn Swallow nests were adapted by phoebes, and 2 old phoebe nests converted by Barn Swallows. One of these latter nests and another phoebe nest, built early in the 1970 season, fledged broods of phoebes prior to their modification and successful late season use by Barn Swallows.

Since old nests were removed at the end of the 1970 season, no nests were available for reuse in spring 1971. However, 1 phoebe and 1 Barn Swallow nest built early in the 1971 season were subsequently converted and used by the alternate species. All nests

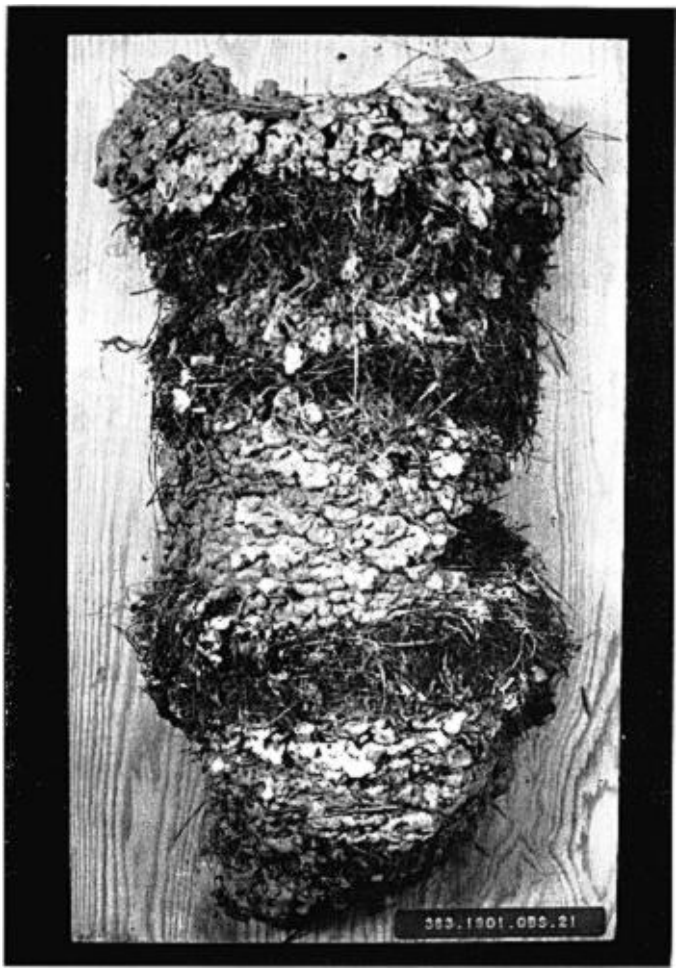

FIG. 1. An extreme example of successive nest use by Barn Swallows and Eastern Phoebes.

were removed at the end of the 1971 season with only sporadic examinations made from 1972 through 1975. At the close of the 1976 breeding season, I found 6 Barn Swallow nests altered by phoebes and 3 phoebe nests remodeled by Barn Swallows; all were under bridges.

Both species regularly nest under bridges and add material to and use old nests of conspecifics, so it is perhaps not surprising that these birds occasionally demonstrate reciprocal use. It seems that in most instances both species recognize and prefer old nests of their own species. The question then arises as to why a bird chooses an old

I wish to thank C. M. Kirkpatrick and F. H. Montague for critical review of this manuscript. This is Journal Paper No. 6464 from Purdue Agricultural Experiment Station.
—HARMON P. WEEKS, JR., *Dept. of Forestry and Natural Resources, Purdue Univ., West Lafayette, IN 47907.* *Accepted 12 Jan. 1977.*

REQUESTS FOR ASSISTANCE

Colored-marked Sandhill Cranes.—During summers of 1975 through 1977, researchers at Clarence Rhode National Wildlife Range on the Yukon-Kuskokwim Delta, Alaska, banded and color-marked Lesser Sandhill Cranes. In July and August of each year, chicks were marked with black-numbered yellow collars and leg bands as well as standard Fish and Wildlife Service aluminum bands. To date, 10 resightings have been reported, yielding valuable information on migration routes and wintering areas. More information is needed on timing and pathways of migration, however. Observers are asked to report the date and location of sightings, size of the flocks with which marked birds were seen, whether color bands were on the birds' right or left legs and, if possible, the numbers on the collars and leg bands. Report sightings to Cheryl Boise, Wildlife Research Unit, Irving Building, Univ. of Alaska, Fairbanks, AK 99701.

Sightings of Sandhill Cranes in northwestern Ontario.—The Greater Sandhill Crane breeds throughout the Great Lakes states and parts of Saskatchewan and Manitoba. However, in northwestern Ontario (area south of 51° latitude and west of Sault Ste. Marie) they are considered rare transients. Over the past decade, cranes believed to be Greater Sandhills have been sighted with increasing frequency throughout this area. Occurrences of immatures in the last year suggest that there is a population of Greater Sandhills breeding in N.W. Ontario. Information from sightings will be used to estimate the population distribution and to determine an area for an intensive study of biology, migration, and taxonomic verification. Please include date, location, and number of birds. Dr. C. D. Ankney, Department of Zoology, University of Western Ontario, London, Ontario, Canada, N6A 5B7.