

**A Technique for Banding Nestling Gull Chicks.**—Standard butt-end type Fish and Wildlife Service aluminum bands are too large to be retained by nestling gull chicks just hatched from the egg. To prevent band loss rubber collars can be fed on to the opened end of the band. Bands so adapted result in a substantial reduction of band loss when fitted to nestling gull chicks.

During the summer of 1971, I conducted an experimental study on the parental care of the Great Black-backed and Herring Gull. During the course of this study I exchanged the eggs of Great Black-backed Gull nests with those from Herring Gull nests to measure the effect of foster parentage on hatch and fledge success. It was essential to be able to identify individual chicks from the time of hatching. Identification had to be relatively permanent so that it would not be necessary to remark each chick as it increased in size.

Harris (1970) apparently encountered some difficulty in banding small Lesser Black-backed and Herring Gull chicks. He found it necessary to first "mark" the chicks at hatching and later to band them as soon as it was possible—about a week old. He states that many of the small chicks nevertheless lost their bands because when put on they had to be large enough to allow for the growth of the legs. This band adaptation I describe permits permanent marking of small nestling chicks. This adaptation is an alternative to Harris's (1970) mark-recapture-remark procedure.

To make this band adaptation rubber tubing was cut into small segments forming the collars which were applied to the bands. The collars for size 6 Herring Gull bands had an internal diameter of 10.0 mm., a width of approximately 9.0 mm., and a thickness of 0.5 mm. The collars for the size 7b Great Black-backed Gull bands had an internal diameter of 14.0 mm., a width of approximately 13.0 mm., and a thickness of 0.7 mm. Three collars were fed on to the opened end of each band. Each collar was cut about three-quarters of the way through (width dimension) so that only a small piece of rubber actually held the collar on the band. This was to insure that the collar would wear away and come off when the tarsal size increased to a point where the collar was no longer needed.

Sixty-six Herring Gulls and seventy-eight Great Black-backed Gulls less than two days old were fitted with collar adapted bands. No Herring Gull chicks lost bands but five Great Black-backed Gull chicks did. Results when banding Great Black-backed Gull chicks might be improved by using a larger (internal diameter) size of collar.—Roderick Firth, Jr., c/o Dept. of Forestry and Wildlife Management, University of Massachusetts, Amherst, Ma. 01002.

#### LITERATURE CITED

HARRIS, M. P. 1970. Abnormal migration and hybridization of *Larus argentatus* and *L. fuscus* after interspecies fostering experiments. *Ibis*, **112**: 488-498.

**Gadwall duck learns to fly after breaking a wing.**—On 20 August, 1969, 113 hand-reared, banded, 5 week old Gadwall (*Anas strepera*) ducklings were released at the Delta Waterfowl Research Station. Between 15 and 25 September, a local resident found one of these birds injured near the release site. It had flown into a nearby obstacle and had broken the humerus bone of its left wing. The bird was placed in one of the Station's predator proof flight pens with about 150 other ducks. It remained there unobserved until 16 November when all ducks were removed to their indoor wintering facilities. At that time I observed that the bird was able to fly and had to be captured with a hand net. As the bird appeared to be in good condition and the wing healed it was kept as part of the flock.

On 16 December this duck was found dead in the duckhouse where it had apparently been killed by other more dominant birds. The building contained about 200 Mallard (*A. platyrhynchos*) ducks as well as a few other species. I prepared the humerus bones of both wings for closer examination and found the broken area completely ossified (Fig. 1). Whether or not healing could occur in an adult duck is not known. Perhaps the degree of ossification of the bones is incomplete enough in young birds to facilitate such a repair. The time lapse between when the wing was broken and when the bird regained flight was somewhere between 6-8 weeks.

It is not known what the occurrence of this phenomenon is in the wild. An earlier record (Nelson, *The Flicker* **29**: 128, 1957) has shown that it can occur in pheasants (*Phasianus colchicus*). It seems doubtful that a bird handicapped in

FIG. 1. Humerus bones of a Gadwall duck showing broken area on left humerus.



such a way would be able to withstand the rigors of a sustained migration flight.—Bruce D. J. Batt, Delta Waterfowl Research Station, Delta, Manitoba, Canada.

## RECENT LITERATURE

### BANDING AND LONGEVITY

(See also 9, 10.)

**1. Banding ethics.** F. S. Schaeffer. 1969. *EBBA News*, 32: 243-246.—The bander has responsibilities to the birds, the public, other banders and the banding laboratory. Ethics are discussed under these heads in this article that should be widely read by banders.—Jack P. Hailman.

**2. Long Point Bird Observatory: 1967 Report.** D. J. Hussell, R. W. Stamp, P. S. Woodford, J. Bradshaw, M. Bradstreet and W. A. Martin. 1969. *Ontario Bird Banding*, 5: 7-50.—Migration peaks, banding (including recoveries and returns) and other station activities are recounted. More than 10,000 birds were banded.—Jack P. Hailman.

**3. Population dynamics of geese and brant in northern Kazakhstan.** (Dinamika chislennosti gusei i kazarok v sevrnom Kazakhstane.) A. Solomatn. 1971. *Byull. moskovskogo obshch. isp. prirody, otdel. biol.*, 76(1): 89-99. (In Russian, English summary.)—Another item in the history of decline, here it was