

intestinal tract of birds. Barriers to dispersal possibly exist, then, for aquatic organisms lacking resistance to avian digestive processes. A recent observation indicating that dispersal via the avian intestinal tract might be feasible for seeds and other aquatic organisms deficient in resistant disseminules prompted this note.

In the course of an investigation to determine and contrast the effects of avian digestion on disseminules of 23 aquatic angiosperm species, Killdeer (*Charadrius vociferus*) and Mallards (*Anas platyrhynchos*) were fed various seeds. Occasionally Killdeer were observed to regurgitate portions of their meal within one hour after ingestion. The small pellets apparently had not entered the proventriculus for they were not altered by digestive processes. Viable seeds of the plant species under investigation were discovered in each of the disgorged pellets. Regurgitation generally followed the feeding of large seeds or occurred when the birds gorged themselves. My observations of disgorgement by Mallards in the present study confirm an earlier report of this phenomenon by Malone (1966. *Wilson Bull.*, 78:227-228). Disgorgement, however, has not previously been observed among waders.

Little significance can be attached to this observation with respect to dispersal of aquatic plants since a majority of the species surveyed possess resistant seeds which survive passage through the avian intestinal tract. However, seeds (notably of upland plants) which failed to pass successfully through Killdeer remained viable after disgorgement. Seeds of *Ratibida columnifera*, *Samolus parviflorus*, *Cosmos bipinnatus*, and *Raphanus raphanistrum* each failed to pass successfully through the Killdeer intestinal tract, but were viable after regurgitation. Other aquatic organisms or their disseminules ingested by Killdeer, yet not capable of withstanding avian digestive processes, may also be dispersed by this method.

Transport via the crop of birds would be a highly advantageous means of overland transport for seeds of aquatic species, aquatic organisms, or other disseminules destroyed by avian digestion or by desiccation. Nevertheless, the occurrence and frequency of regurgitation are poorly documented. Further research is needed to elucidate this neglected mechanism of dissemination.—VICTOR L. DE VLAMING, *Department of Biology, Texas Technological College, Lubbock, Texas.* (Present address: *Department of Zoology, University of California, Berkeley, California*), 3 October 1966.

Mourning Dove egg in nests of Catbird and Robin.—The Mourning Doves (*Zenaidura macroura*) occasionally utilize nests of other birds and squirrels as a platform for their own frail nest, and they often use old Mourning Dove nests again (Hanson and Kossack, 1963. Illinois Dept. of Conserv. Tech. Bull. 2).

In the spring and early summer of 1966, at Fremont, Nebraska, I observed the re-use of old nests several times. In addition, I observed one Mourning Dove egg placed in an old nest. This one egg was never incubated.

On 6 May, a Robin (*Turdus migratorius*) nest had no eggs at 0555. At 0545 on 7 May, a Mourning Dove was sitting on one Robin egg and one dove egg. The Robin laid three more eggs but the dove was never seen at this nest site again. Three of four Robin eggs hatched but the dove egg was unhatched after 17 days. It was opened and appeared to have been infertile.

On 30 May, a Mourning Dove was discovered incubating one egg in a Robin nest. She had added no nest material to the Robin nest. The egg hatched and the young bird was fledged on 16 June.

On 5 and 6 June, a single Mourning Dove egg was laid in each of two different Catbird (*Dumetella carolinensis*) nests. These nests were approximately 200 meters apart and I suspect that the same dove laid both eggs.

On 5 June, a dove had laid an egg in one of the Catbird nests just after it was completed. She had added a few twigs of her own to the nest. The dove egg remained in the nest until 8 June when there were two Catbird eggs. I suspect that the Catbird removed the dove egg.

On 6 June, a dove egg was laid in a Catbird nest that had just been completed the previous day. It remained there for two days and then disappeared. Catbird eggs were not observed in this nest.

It may be that the Mourning Doves that laid these eggs had eggs in the oviduct before they had constructed a nest and used the first convenient site they could find.

These observations were made in connection with Red-winged Blackbird research supported in part by the Chapman Memorial Fund. I would like to thank James Linder, a student at Midland College, for bringing the one nest to my attention.—LARRY C. HOLCOMB, *Department of Biology, Creighton University, Omaha, Nebraska, 27 September 1966.*

Overlapping nestings by a pair of Barn Owls.—In February, 1961, a male Barn Owl (*Tyto alba*) was captured in a church spire in New Haven, Middlesex County, Connecticut. It was banded and returned to the tower after four weeks in captivity. In April a Barn Owl was incubating seven eggs in a corner of the room over the tower belfry. Five young were reared from this clutch, fledging in mid-August, after which the family left the tower.

In 1962 five eggs were laid between 8 and 17 April. Subsequent candling revealed that only three of these were fertile and only two hatched. Between 16 May, when I first saw the two young, and 4 July I made only brief visits. Usually both adults were seen (the male banded) but no attempt was made to capture them, as they invariably flew up inside the spire to perch on a small platform near the top. Light from a small glass window near the platform made them easily seen. On 4 July the older nestling displayed aggressively when I entered the tower. Both were running and jumping about, but were not able to fly upward.

The following day I returned to the tower, accompanied by Mr. Michael Trevor and Rev. Edward L. Duncan. The young were as aggressive as on the previous day, but were easily handled for banding. The only adult present, an unbanded bird which we assumed to be the female, did not fly up the spire but allowed itself to be captured rather easily. In contrast to the struggling, hissing young, this bird was docile when handled. When released, it flew to the perch inside the spire window and remained there.

Despite my assurance that his attempts would prove futile, Trevor insisted on searching the tower for possible eggs. To my chagrin, he located a clutch of four warm eggs in a hollow of the wall, eight feet directly over the original nest site. After ascertaining that at least one egg contained an embryo, we left the tower. On 11 July we returned, finding only a banded adult present. Where the four eggs had been, there was now only the empty cavity.

While there is no proof that the same female or even the same male owl was involved in the two 1962 nestings, there is less evidence that more than two birds were involved.