raised head, but this is difficult to verify in the field. Several observers (Witherby et al. 1938, Goodwin 1978, Simms 1978) have correctly noted that the body inclination of the European Blackbird on the ground is usually less upright than that of the Song or Mistle thrush or American Robin. Correspondingly, I have noted that the angle of the bill above the horizontal in Blackbirds is often less than that of these other *Turdus* species. Blackbirds dig with the bill in litter much more than do these other *Turdus* species (Simms 1978, pers. obs.), and I suggest that the difference in posture during pauses might be related to the difference in foraging. Much remains to be learned about the frequency of uptilted bills among birds in general and about the functional and possible systematic significance of the frequent uptilt in thrushes.

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Canada Goose Feeding Damages Shellfish Beds.—During the fall of 1976, the Massachusetts Shellfish Officers Association (MSOA) lodged a complaint with the Division of Fisheries and Wildlife that Canada Geese (*Branta canadensis*) were feeding on soft shelled clams (*Mya arenaria*). A review of the literature revealed no reports of Canada Geese ingesting shellfish. A questionnaire prepared by Burke Limeburner, President of MSOA was distributed in 1977 at the MSOA convention. Officers from 11 towns indicated they had "major problems" with geese on shellfish beds, 4 indicated "minor problems," and 8 had no problems. I contacted several of the officers reporting major problems. Officers differed in their views of when depredations on clam beds were greatest. Some felt the problem occurred during the summer when seed clams were small enough to be ingested by geese, while others felt that winter was the worst time when wintering populations of geese were greatest and other food sources limited.

I selected 3 towns on Cape Cod for field observations of Canada Geese. Seven observation periods of 3–4 h duration were made between August and November 1977. I observed no Canada Geese feeding over clam beds although I did observe Mallards (*Anas platyrhynchos*) and Black Ducks (*A. rubripes*) doing so. These birds engaged in puddling activities, treading the bottom during shallow water periods, creating bowl shaped depressions. This action stirred up the bottom, exposing previously-covered food items. Shellfish officers stated that they observed Canada Geese performing similar actions.

No further field observations were made until January 1980 when I observed Canada Geese feeding over clam beds and performing the puddling actions described by Shellfish Officers. The geese, however, appeared to be feeding on grasses inundated by the high tide.

I also talked with Winthrop Taylor, a deputy shellfish officer with formal training in biology and an avid goose hunter. He reported observing geese puddling in shellfish areas and that whenever he shot one of these birds he found only sedge (*Carex* sp.) roots in the gizzard.

A total of 188 gizzards were collected from geese shot along coastal Massachusetts during the 1977–80 hunting seasons. The sample included 86 from towns where shellfish officers indicated geese were damaging clam beds. One gizzard contained 3 small, unidentified salt water snails. None contained shellfish.

While I found no evidence to support MSOA allegations that Canada Geese were ingesting shellfish, it did become apparent to me that the feeding activities of geese over soft shelled and quahog (*Mercenaria mercenaria*) clam beds were detrimental to shellfisheries. Puddling by geese dredged up seed clams, exposing them to the elements and to predation by other animals known to eat shellfish, including waterfowl. The large size of the geese allowed them to create deeper depressions than Black Ducks and Mallards and expose larger shellfish. During aerial inventories, I observed that the cratering effect on areas where geese fed over clam beds was both intensive and extensive.

The Canada Goose was not a common nester in Massachusetts until the mid-1940's (Griscom and Snyder, The Birds of Massachusetts, Peabody Museum, Salem, Mass., 1955). When the use of live decoys was outlawed in 1935, geese kept for this purpose were released to the wild (Blandin and Heusmann, Trans. N. E. Sect. Wildl. Soc. 31:83–100, 1974). Since that time breeding flocks have increased in both size and numbers. Wintering geese have increased from 3000–4000 birds in the mid-1940's to 10,000–14,000 in recent years. This increase has amplified problems of goose grazing on crops, golf courses, and private lawns, fouling beaches, contaminating water supplies, and now, damaging shellfish beds. While it became apparent that Canada Geese have a detrimental effect on soft shell clam beds, the economic impact was not measured by this study.

Canada Geese are a tourist attraction on Cape Cod and visitors and residents alike enjoy watching and sometimes feeding the birds. In some areas where shellfish bed damage is the highest, shoreline development prevents hunting while artificial feeding concentrates birds. The problems associated with resident flocks of Canada Geese in the Northeast will continue to multiply in the immediate future and should be a concern to wildlife managers.

This study was a contribution of Massachusetts Federal Aid in Wildlife Restoration Project W-42-R.—H W Heusmann, *Massachusetts Division of Fisheries and Wildlife, Westboro, MA 01581.* Received 10 October 1980, accepted 28 May 1981.

Adventitious Molt in Red Knot Possibly Caused by *Actornithophilus* (Mallophaga: Menoponidae).—When examining a Red Knot (*Calidris canutus*), accidentally killed during a rocket net shot at Third Cliff Beach near Scituate, Massachusetts on 7 August 1980, I observed molt in the primaries. The Knot, an adult male, was replacing the 5th primary on the right wing and the 4th on the left (⅔ grown). The shafts of adjacent primaries contained lice, and the quills were darker (from louse droppings inside) than quills of feathers farther from the growing ones. Small holes (ca .35 mm diam.) were present in the shafts where the quill protruded from the skin and also farther up on the rachis.

The lice were identified by Dr. K. C. Emerson as *Actornithophilus canuti* Price and Leibovitz, a species which lives inside the shafts of feathers and feeds on the central pith. These specimens represent the second known collection of *A. canuti,* the first being made from the primary quills of a Red Knot taken 11 August 1968 in New York (Price and Leibovitz, Can. Entomol. 101:997–999, 1969). No statement was made concerning molt in this bird.

No molting flight feathers were found when examining 645 Red Knots captured on 29 July and 7 August 1980, so I suspect the molt in the killed bird was induced by the lice. Lice can cause the molt of primaries in matched pairs as was demonstrated in a captive Indo-Chinese Green Peafowl (*Pavomuticus imperator*) infested with *Somaphanthus spencei* Emerson (Menoponidae) (Emerson, Ann. Mag. Nat. Hist. ser. 13, 1:102–106, 1958). Emerson (pers. comm.) believed that other Menoponid species that live inside quills could cause feather molt in their hosts.

Red Knots stop briefly along the North Atlantic coast in the fall to accumulate fat to supply the energy for a non-stop migration to South America (McNeil and Cadieux, Le Naturaliste Canadien 99:589–605, 1972). The Knot killed in the rocket shot seemed healthy, having heavy deposits of fat and weighing 188 g. This was 20 g over the mean weight of 160 Knot captured that day. It seemed unaffected by the molt and apparently capable of continuing its migration.

I thank Andrew Main and K. C. Emerson for their assistance in identification of the lice.—Avery L. Taylor, Jr., *Manomet Bird Observatory, Manomet, MA 02345.* Received 10 November 1980, accepted 21 March 1981.