Acknowledgments.—I wish to thank M. T. Murphy and D. I. MacKenzie for constructive criticisms on an earlier draft of the manuscript.—MICHAEL J. HAMAS, *Laboratory of Animal Behavior and Behavioral Ecology, Dept. Biology, Central Michigan Univ., Mt. Pleasant, Michigan 48859.* *Accepted 9 Feb. 1983.*

Wilson Bull., 95(3), 1983, pp. 477–478

Herring Gull males eat their own eggs.—Although Herring Gull (*Larus argentatus*) adults are known to eat their own chick offspring (Parsons, Ph.D. thesis, Univ. Durham, Durham, England, 1971) we know of no documented observations of them eating their own eggs. On two occasions we observed male Herring Gulls break open and eat eggs in the clutches they were incubating: on 12 May 1978 at a colony on Fighting Island, Detroit River (near Lasalle, Essex Co., Ontario, Canada) and on 22 May 1979 at the Lighthouse colony near Port Colborne, Ontario, Niagara Co., Canada. The sex of the birds in question was determined by observations of copulation together with size differences (male larger) within the pair. Both members of the pair at the Lighthouse colony were individually color-banded. Both pairs laid three-egg clutches. The clutch at Fighting Island was completed on 26 April 1978 and was one of the earliest of all clutches (N = 40) in the colony. The clutch at the Lighthouse was completed on 6 May 1979, during the "peak" of clutch initiation (N = 75) at the colony. Thus, in both instances the behavior was observed 16 days after clutch completion.

Details of the two observations follow. At Fighting Island, an elevated blind was located about 15 m from the nest of interest. The male was incubating at the beginning of the observation period (08:20) and although the female was present intermittently throughout the day, the male was not relieved by her during observations of the nest (completed 18:30). At 16:50 the male, apparently unalarmed, stood over the clutch. With active pecking movements the bird then broke open one of the eggs and consumed the contents. He resumed incubation of the remaining eggs at 16:55. The female was present during the egg-eating episode. Both eggs hatched from the clutch and one chick eventually fledged.

At the Lighthouse colony, an elevated blind was located about 10 m from the nest of interest. The male had incubated the clutch for at least 2 h (14:00–16:00) when he stood over the clutch, broke open all three eggs within 30 sec and then partially ate the contents. His mate, present during the event, had attended the male at the nest-site during the previous hour. She had been trapped that morning (22 May 1979) and radio-transmitter equipment attached to her back. The pair remained at the nest-site throughout the breeding season although no further eggs were laid. Both clutches had been checked daily from clutch initiation. All eggs in the Fighting Island clutch were intact 24 h before the incident occurred, while at the Lighthouse all eggs were intact on the morning of the incident.

In evolutionary terms, egg-eating behavior is clearly maladaptive as considerable time and energy have already been invested with relatively little subsequent investment needed to bring the eggs to term. Eaten eggs may be inviable through infertility or embryo mortality; however, detection of the appropriate egg by an adult seems unlikely. Although the age of the birds in each pair was unknown, all were in adult plumage when the incidents occurred and the early laying dates suggest older, experienced birds (Chabrzyk and Coulson, J. Anim. Ecol. 45:187–203, 1976). Thus, we rule out the possibility that the anomalous egg-eating behavior was a result of youth or inexperience of the males. An obvious proximate explanation is that our activity in both colonies was sufficiently disturbing to cause the aberrent behavior by these two individuals. Certainly in the case of the trapping activity at the Lighthouse colony, this would be reasonable. However, over 40 adult Herring Gulls have been trapped at this colony between 1978–1980 and there is no evidence that either this procedure or the

attached radio-transmitter equipment had any negative effect on the adults, their clutches or chicks (Morris and Black, J. Field Ornith. 51:110–118, 1980; Morris et al., J. Field Ornith. 52:242–244, 1981). Birds at both colonies were aware of observers in the blinds but always settled down and exhibited normal incubation and chick feeding behavior a few minutes after entry of the blind by the observer. Despite the apparent lack of negative effects of trapping and harnessing procedures, the act of egg eating at the Lighthouse was most likely a result of these disturbances. An alternative explanation, possibly applicable to the Fighting Island observation, is that an incubating adult unattended for long periods by its mate eventually experiences simultaneous drives to incubate and to leave the nest. The resulting displacement activity is egg eating. These observations may explain some incidences of egg disappearance noted by several workers at gull colonies (e.g., Gilbertson, Can. Field-Nat. 88:356–358, 1974; Morris and Haymes, Can. J. Zool. 55:796–805, 1977; Teeple, Can. Field-Nat. 91:148–157, 1977).

Acknowledgments.—We acknowledge the financial assistance of the Canadian Wildlife Service (contract #OSZ78-00019 to JWC) and the Natural Sciences and Engineering Research Council of Canada (grant #A6298 to RDM). J. Bonisteele and C. Rutledge graciously provided logistic assistance. R. Knapton reviewed an earlier manuscript. Our thanks to these organizations and individuals.—JOHN W. CHARDINE AND RALPH D. MORRIS, *Dept. Biological Sciences, Brock Univ., St. Catharines, Ontario L2S 3A1, Canada.* *Accepted 3 Feb. 1983.*

Wilson Bull., 95(3), 1983, pp. 478–479

Opportunistic feeding on whale fat by Wilson's Storm-Petrels in the western North Atlantic.—Species of Procellariiformes have often been observed feeding on the carcasses of whales at South Atlantic whaling stations (Murphy, Bull. Am. Mus. Nat. Hist. 38:117–145, 1918; Bierman and Voous, Ardea, Supple., 1950). In northern latitudes, Gill (Auk 94:385–386, 1977) collected a Fork-tailed Storm-Petrel (*Oceanodroma furcata*) at Nelson Lagoon, Alaska, that was feeding on decayed fat from a stranded gray whale (*Eschrichtius robustus*). Although anecdotal information is available, our observations provide the first positive documentation of feeding on whale fat for procellariids in the western North Atlantic.

On 11 July 1978, while we were surveying the pelagic distributions of marine birds from Cape Hatteras to Nova Scotia, a recently killed fin whale (*Balaenoptera physalus*) was seen at 41°10′N, 68°48′W. No birds were seen with the carcass at this time. Three days later, the carcass was resighted in a bloated condition. Blue sharks (*Prionace glauca*) were seen eating its flesh and approximately 400 Wilson's Storm-Petrels (*Oceanites oceanicus*) were feeding on floating bits of carrion around the whale. On 24 August 1979, several hundred Wilson's Storm-Petrels were seen feeding on pieces of decayed fatty tissue from the carcass of a dead fin whale at 41°48′N, 67°55′W. Two of these birds were collected and their proventriculi contained whale fat. Except for a skua (*Catharacta* sp.), which was seen in the vicinity of the latter sighting, no other birds were associated with these carcasses. In view of this limited evidence that Wilson's Storm-Petrels and other procellariids may on occasion be associated with and selectively feed upon the fatty tissue of dead cetaceans, we feel it appropriate to identify possible reasons for this opportunistic feeding behavior.

Recent evidence indicates that procellariids use the sense of smell to find food. The size-ratio of the olfactory bulb to cerebral hemisphere is high in procellariids and suggests an increase in function (Bang, Acta. Anat. 65:391–415, 1966). Grubb (Nature 237:404–405, 1972) found that procellariids are able to determine odor trails at night as well as in daylight. Controlled observations by Hutchinson and Wenzel (Condor 82:314–319, 1980) also supported the view that procellariids use olfaction to locate food. Since foraging by smell is based on