Wilson Bull., 100(1), 1988, p. 136

Apparent sibling cannibalism by a nestling Pigeon Guillemot.—During a study of nestling growth of Pigeon Guillemots (*Cepphus columba*) on Protection Island, Jefferson Co., Washington (48°08′N, 122°55′W; 1.6 km²; 1.5 km from mainland) from June to August 1982, I recorded an incident of apparent sibling cannibalism in this species. Pigeon Guillemots on Protection Island commonly nest under driftlogs (Banks, M.S. thesis, Andrews Univ., Berrien Springs, Michigan, 1981); the nest in which the incident occurred was beneath a driftlog approximately 5 m long, about 1.3 m from one end. Two eggs laid in this nest hatched on 4 July 1982. On 5 July the chicks were leg banded; Chick A weighed 35 g, and Chick B 50 g. On 16 July Chick A weighed 185 g, and Chick B weighed 125 g; both appeared healthy. On 19 July (16 days of age) Chick A was dead, and its head was missing, although the tongue and trachea were still attached, along with bits of tissue, to the neck. The body had not noticeably decomposed. Chick B was apparently healthy and had semi dry blood on the beak, gape, and left alula. The body of Chick A was removed on this date, and Chick B continued growing normally.

Circumstantial evidence suggests that Chick A was partially eaten (or at least pecked at) by Chick B: 1) Chick B had blood on its gape and bill but lacked injuries; 2) the nest entrance was too small to admit avian predators, and no mammalian or reptilian predators occur on the island except shrews (*Sorex* spp.) (Banks 1981), which seem unlikely to have removed the head of a 185 g nestling; 3) Chick A had not been moved from the nest; and 4) ants were not found on the body. In seven other cases in this study, one chick died in the nest and was not removed or mutilated by the other chick, the parents, or other organisms.

Cannibalism by siblings and adults is common in owls and Falconiformes, and adult gulls of several species commonly cannibalize chicks (Terres, p. 82, The Audubon Society Encyclopedia of North American Birds, 1980). Cannibalism of siblings usually occurs incidentally in species that practice brood reduction (Terres 1980). Sibling cannibalism has not previously been reported in the Alcidae, probably in large part because most species lay only a single egg (for a review of clutch size and nesting biology in alcids see Sealy, Ornis Scandinavica 4:113-121, 1973). In those alcid genera in which clutches of two or more eggs are usual (Cepphus and Synthliboramphus [including Endomychura]), there are no published records of sibling cannibalism. Synthliboramphus murrelets leave for sea at about two days of age, when they feed themselves, so brood reduction is probably not practiced in these species, and sibling cannibalism would not likely be witnessed if it occurs at all. Young of Cepphus species, however, remain in the nest for over 30 days, so opportunities for sibling cannibalism would seem greater, but this behavior is unreported in the genus. In the Spectacled (Sooty) Guillemot (C. carbo), only one chick normally survives to fledging. The second may be found dead in the nest, severely pecked on the head (Thoresen, Western Birds 15: 145-160, 1984).

Acknowledgments.—I thank J. G. Galusha, Jr., S. L. Lindsay, M. R. and J. Burrell, J. Lorenz, Mrs. P. Vorvick, M. R. Opp, and the Protection Island Beach Club for assistance during my study. A. C. Thoresen and C. Stinson reviewed the manuscript, and P. S. Humphrey and M. D. Gottfried improved earlier versions. Field work was supported by the Division of Biological Sciences, Walla Walla College.—Pamela C. Rasmussen, Dept. Biological Sciences, Walla Walla College, College Place, Washington 99324. (Present address: Museum of Natural History and Dept. Systematics and Ecology, Univ. Kansas, Lawrence, Kansas 66045.) Received 22 June 1987, accepted 14 Sept. 1987.