

quickly moving to drive conspecifics from three nearby fish, pausing at each briefly to take one peck at the fish. This behavior seemed to be territorial defense of an area rather than defense of a particular food item (see Myers et al., *Studies in Avian Biology* 2:231–246, 1979).

The Willet avoided aggression with the gulls by choosing fish not favored by them, and by moving quickly away when the gulls approached. Several Sanderlings fed at fish near the end of the line of fish and thus were less frequently displaced. Turnstones invariably displaced Sanderlings simply by walking up to a fish.

Feeding times.—Table 2 gives mean feeding bouts for the different species at high density. For young Herring Gulls the feeding bouts increased significantly from 120 sec at high density to over 300 sec at low density (Mann-Whitney $U = 0$, $P < .001$). The single Willet showed an increase (high density mean of 31.8 sec vs. low density mean of 44.2 sec, $U = 29$, $P < .01$), but this bird usually fed on the edge of the group. At low densities only 3 young and 1 subadult Herring Gull were present to chase the shorebirds.

Although only four times (mean = 100.1 sec) were obtained for Sanderlings at low density (when only 9 were present), these were significantly longer than the times at high density when 24 were present ($U = 2$, $P < .001$). Half of the high-density feeding bouts were less than 7 sec in duration, and all terminated due to aggressive displacements. At high density we recorded times for four Sanderlings feeding on the ends of the row of fish. These bouts averaged 41.5 sec, significantly longer than the comparable high-density times for birds in the center of the fish where the gulls fed ($U = 0$, $P < .001$), but they were not different from the times obtained at low density ($U = 11$, $P < .10$).

The opportunistic use of carrion by shorebirds is undoubtedly more frequent than is apparent from the literature. At Galveston where commercial netting of fish occurs regularly, shorebirds have ample opportunity to exploit this food source. Such opportunism indicates that shorebirds can switch to a readily available food supply when their usual food is unavailable. Our observations were made during a period of very cold temperatures for Galveston. In the two preceding days the air temperatures fell below 0°C, and 3 January 1979 was the coldest 3 January in 50 years. Under these conditions shorebirds were having trouble obtaining their usual food. Energy requirements would also be higher under these conditions (see Goss-Custard, *Studies in Avian Biology* 2:247–258, 1979).

Carrion-feeding was not without cost since the shorebirds were frequently interrupted by aggression. Only a small percentage of the gulls within 50 m were feeding on the dead fish at any one time. Had more of the gulls concentrated at the carrion, the shorebirds would have been denied access. Sanderlings displaced conspecifics 25 times in 30 min, and the average feeding bout lasted only 9.2 sec, indicating that interruption was a serious problem.—MICHAEL GOCHFELD, *Environmental Health, Columbia University School of Public Health, 600 West 168th St., New York, NY 10032*, and JOANNA BURGER, *Department of Biology, Livingston College, Rutgers University, New Brunswick, NJ 08903*. Received 1 May 1980; accepted 17 July 1980.

Mockingbird's Defense of a Winter Food Source.—A Mockingbird (*Mimus polyglottos*) continually used the city lot surrounding my home in Oxford, North Carolina, throughout the winter of 1978–1979 without observed conflict with other birds, except during two days. During the period 8–9 February 1979, following a snowfall of 14 cm on 7 February, this bird repeatedly drove approaching Starlings (*Sturnus vulgaris*) from a fruit-laden pyracantha bush. During the period 0900 to 1400, 23 chases were made, with as many as five Starlings involved in some chases.

Michener and Michener (Condor 37:99, 1935) noted that Mockingbirds defend a territory throughout the year, with the defense in winter being much more vigorous than in summer and centering on a food source. This Mockingbird showed defensive activities only when snow cover restricted the available food supply. Thus, the vigor in defense of a winter territory or food supply may indicate the amount of difficulty a given Mockingbird encounters in finding food or the relative amount of available food.—PAUL A. STEWART, 203 Mooreland Drive, Oxford, NC 27565. Received 3 December 1979; accepted 5 May 1980.