

**Feeding interactions of Snowy Egrets and Red-breasted Mergansers.**—In March 1968 while on a field trip to the Mote Marine Laboratory near Sarasota, Florida, we observed a flock of Red-breasted Mergansers (*Mergus serrator*) and several species of waders fishing together. The flock of overwintering mergansers, consisting of 90 to 100 females and two males, regularly fished the narrow bays adjacent to the Mote Laboratory. Each day small groups of mergansers arrived in the bay about 15:00 and congregated into a large flock. After several periods of preening and regrouping the birds began fishing, swimming slowly, and frequently submerging the bill and eyes under the surface. Moving across the small bay as a loosely organized unit, the flock changed its direction of movement frequently, and not uncommonly it broke into two smaller units as the fishing progressed. Individuals that became isolated or fell behind the group (frequently as a result of chasing or capturing prey items) increased their swimming rate and rapidly rejoined the flock. Although the organization of these flocks did not seem to approach that noted by Bartholomew (Condor, 44: 13, 1942) in Double-crested Cormorants (*Phalacrocorax auritus*), the effect was the same—fish were driven ahead of the mergansers. The birds followed several predictable routes, zigzagging up the bay in a manner that forced a concentration of fish into shallow water. When in these concentrations the mergansers increased their diving rate markedly and literally churned the water in a frenzy of feeding activity. Most such feeding bursts occurred when fish were forced toward shorelines, mud flats, or shallow sandbars in the bay. Consequently, the feeding behavior of the mergansers served to drive fish into the shallow zone frequented by herons and egrets.

Four species of waders fed commonly in the area, the Common Egret (*Casmerodius albus*), Snowy Egret (*Leucophoyx thula*), Louisiana Heron (*Hydranassa tricolor*), and Great Blue Heron (*Ardea herodias*). Three of these species seemed to benefit from the feeding tactics of the mergansers. The behavior of Common Egrets and Louisiana Herons can best be described as follows: when mergansers drove fish toward where they were feeding, both their striking rate and capture rate increased predictably.

More interesting was the behavior of the Snowy Egrets. Each afternoon 10 to 15

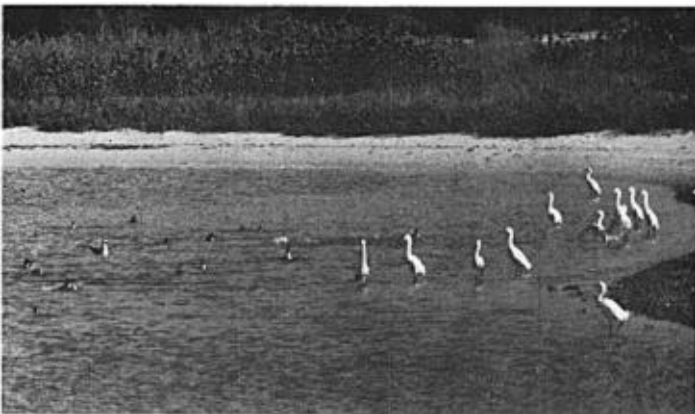


Figure 1. Snowy Egrets feeding among a flock of mergansers. Photograph supplied by Kenneth Hall.

individuals congregated on a narrow spit of land bordering the bay and engaged in various maintenance activities. Fishing behavior was uncommon at this time, but as the flock of mergansers formed and began moving up the inlets, the egrets flew to the shorelines near or in front of the mergansers and actively followed the progression of the merganser flock. Additional egrets joined this progression, and not uncommonly as many as 20 egrets followed the feeding mergansers. When the mergansers swam in close to shore the egrets moved out to meet them (Figure 1). At these times the feeding activity of the egrets was intense, and individual capture rates of five to eight small fish per minute were not uncommon.

Although large numbers of egrets and herons were actively fishing in very close proximity, we noted few aggressive actions. Intense feeding frenzies of this type seldom lasted more than a few minutes because the mergansers normally changed course and moved toward another shore of the narrow bay. The egrets then also abandoned the area, flew across the bay, and waited as the mergansers approached the new shore.

These observations concur with reports of Christman (Condor, 59: 343, 1957) and Parks and Bressler (Auk, 80: 198, 1963) and seem to represent a clear-cut example of one species learning to exploit the normal feeding habits of a second, unrelated species. Unlike the situation with the Common Egret and Louisiana Heron, this feeding interaction surpasses the bounds of casual opportunism. The afternoon activity schedule of many Snowy Egrets appeared to be adjusted to the behavior of the mergansers. Not only was most of their afternoon feeding accomplished as described above, but they congregated in seeming anticipation of the merganser arrival. Although no complete quantitative data on feeding rates were obtained, the advantage of this feeding interaction to the Snowy Egret seems obvious.

Great Blue Herons never were noted to take part in these feeding assemblages. Whether this is because this species forages in deeper water where the fish concentrations would be less dramatic, because it selectively feeds on larger-sized fish than those chased by the mergansers, or for some other reason is unknown.

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**Records of the Brambling in North America.**—A Brambling, *Fringilla montifringilla*, was seen regularly in Portland, Oregon, from 22 November 1967 to 3 April 1968 and photographed by many people. First discovered at a feeder in the northeast section of the city by Jeff Gilligan and Ron Klein, from January on it was a daily visitor to the feeder of the Albert H. Praels in the same part of Portland. The bird, judged by plumage to be a male, fed regularly with House Finches (*Carpodacus mexicanus*) on sunflower seeds. The occurrence of this individual in Portland was recorded in Audubon Field Notes (22: 471, 1968) without detail.

The A.O.U. Check-List (1957) presents but a single North American record of the Brambling. A search of the ornithological literature since publication of that compendium reveals several additional records. Unfortunately none of the authors of these various records was apparently cognizant of all the other records; thus the status of this Eurasian species in North America has remained confused.

The first record was a specimen, a male lacking the tail feathers, obtained 25 October 1914, on St. Paul Island of the Pribilof group in the Bering Sea (Hanna,