

In large foothill impoundments, bluegill commonly occur in the offshore epilimnion (McGinnis 1984), and during fall they prey heavily on flying insects and other terrestrial arthropods (Goodson 1965), most of which are taken on the surface. We believe the surface activity we saw was normal bluegill feeding behavior.

Our observations were made in October, after the heron nesting season and during the period when intermittent foothill streams, which provide foraging areas during the rest of the year, are dry. At this time shallow water wading sites are scarce. We suggest two environmental factors, a temporary abundance of detectable open water prey and a lack of shallow water wading sites, as proximal stimuli for the plunge foraging specialization we observed in this heron. Furthermore, we can not rule out the possibility that the tangle of fishing line around one foot precluded typical foraging.

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LITERATURE CITED

- GOODSON, L. F. 1965. Diets of four warmwater gamefish in a fluctuating, steep-sided reservoir. *California Fish and Game* 51:259–269.
- KUSHLAN, J. A. 1973a. Black-crowned Night Heron diving for prey. *Florida Field Nat.* 1: 27–28.
- . 1973b. Bill vibrating—a prey attracting behaviour of the Snowy Egret, *Leucophaea thula*. *Am. Midl. Nat.* 89:509–512.
- . 1976. Wading bird predation in a seasonally-fluctuating pond. *Auk* 93:464–476.
- . 1978a. Feeding ecology of wading birds. Pp. 249–296 in *Wading birds* (A. Sprunt IV, J. C. Ogden, and S. Winkler, eds.). National Audubon Society, New York, New York.
- . 1978b. Nonrigorous foraging by robbing egrets. *Ecology* 59:649–653.
- MCGINNIS, S. M. 1984. *Freshwater fishes of California*. Univ. California Press, Berkeley, California.
- RECHER, H. F. AND J. A. RECHER. 1972. The foraging behavior of the Reef Heron. *Emu* 72:85–90.
- WILLARD, D. E. 1977. The feeding ecology and behavior of five species of herons in southeastern New Jersey. *Condor* 79:462–470.
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Allofeeding in American Goldfinches (*Carduelis tristis*).—The passing of food between birds (including individuals of the same sex) outside the breeding season has been termed allofeeding (Smith, *Condor* 82:291–295, 1980). Previous studies have shown a relationship between allofeeding and dominance. Here, I report allofeeding among American Goldfinches (*Carduelis tristis*) and its relationship to dominance status. Allofeeding has been reported previously in the genus for the Eurasian Siskin (*C. spinus*) (Mundinger, *Science* 168:480–482, 1971; Senar, *Condor* 86:213–214, 1984).

I maintained a group of captive American Goldfinches in a 1 × 1.5 × 2 m indoor aviary

at Elkhart Lake, Sheboygan County, Wisconsin, from January through March 1986. The birds were kept in captivity as part of a study on agonistic communication (Popp, in prep.). During January the group consisted of two males (L and R) and two females. The birds were captured, as a group (near a feeding station), in late December 1985. The birds had probably been members of the same flock. All birds were hatching-year individuals at the time of capture. Dominance relationships were determined by observing aggressive encounters that occurred over access to a feeder. A bird was considered dominant to another bird if it won (displaced its opponent) in most of the encounters between them. Dominance relationships were clear-cut between all individuals. Both males were dominant to the females, and L was dominant to R. At the end of January two additional birds (one male, one female) were introduced to the group as part of the main study. At this time there was a change in the dominance hierarchy, with R becoming dominant to L. L and R remained dominant to all other birds. Interactions among the finches at a feeder were videotaped as part of the study of agonistic communication. Additional haphazard observations were made of the goldfinches while they were elsewhere in the enclosure.

Allofeeding was seen 13 times during January (during 20 h of observations). Food was passed in a manner similar to that reported for Eurasian Siskins (Senar 1984). The male giving the food was in an upright posture and made regurgitation movements, while the bird receiving the food was in a more crouched posture. In all cases the subordinate bird (R) passed food to the dominant (L). In each case, L solicited from R (by pecking at his beak) before the food was passed. Following the reversal in dominance L was seen soliciting food from R seven times during February (15 h of observation). In all cases R refused to pass food to the now subordinate L, and in four of the cases R directed an agonistic display (head forward display; see Coutlee, *Wilson Bull.* 79:89–109, 1967) towards L. L stopped soliciting food from R in March.

As both individuals were males, the observed behavior was not courtship feeding. Also, it was not parent-offspring feeding as both individuals were caught as juveniles. That food passing always occurred from the subordinate bird to the dominant bird and that it ceased when dominance was reversed confirms that allofeeding is related to dominance status (cf. Senar 1984).

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Brewer's Blackbird feeding on a Barn Swallow.—At 19:40 on 10 June 1985 we observed an adult male Brewer's Blackbird (*Euphagus cyanocephalus*) feeding on a dead Barn Swallow (*Hirundo rustica*) at the Idaho National Engineering Laboratory, Butte County, Idaho. Our attention was drawn to the blackbird, which was on the ground 70 m off at the edge of a parking lot, because of its conspicuous pecking and plucking movements. We moved to within 50 m and continued observations with 16× binoculars. The blackbird vigorously pecked at the dead bird and ate for ca 5 min, then flew with some flesh in its beak to a nest in low shrubs 150 m from the feeding site. It then flew ca 100 m to a lawn and drank from a small puddle of water. We examined the nest and found 4 approximately 7-day-old blackbird nestlings. Inspection of the partially consumed Barn Swallow revealed that portions of its head, neck, pectoral, and femoral regions had been consumed. Much of the swallow had been plucked. While we were inspecting the Barn Swallow remains, a male Brewer's Blackbird flew briefly into the area and then left.