

It is possible that the Mallard was never hit by the falcon as Dekker (Can. Field-Nat. 94:371-382, 1980) has suggested that erratic plunging flight routinely exhibited by waterfowl when pursued by falcons may appear like a "hit" when in fact no contact is made. The lack of apparent injury to the duck seemingly supports Dekker's suggestion. However, the Mallard was definitely harassed during this episode as evidenced by its speed which approached the maxima of 80-96 km/h previously reported by Cottam (Wilson Bull. 54:121-131, 1942) and Cooke (U.S. Dept. Agric. Circ. 428, 1937). The weaving among cars likely reduced the opportunities for stoops by the falcon for an extended distance along the roadway. Thus, the combination of rapid flight and maneuvering among cars at least prolonged the predator avoidance for this duck and aided its survival (albeit we were the final distracting factor). Whether the cars were used by the duck as a surrogate "flock" is a matter for speculation.

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Ochraceous Wren fails to respond to mobbing calls in an heterospecific flock.—On 6 October, 1970, I was following a mixed-species foraging-flock through a tract of Lower Montane Wet Forest at Monteverde, Puntarenas Province, Costa Rica (see Buskirk and Buskirk, *Am. Midl. Nat.* 95:288-298, 1976; Powell, *Auk* 96:375-390, 1979 for descriptions of this location). The flock had just passed me when 2 Common Bush-Tanagers (*Chloro-pingus ophthalmicus*), trailing behind the flock, discovered a tree viper (*Bothrops lateralis*) and began giving high-intensity, rapid twitters. Within 30 sec 2 Golden-crowned Warblers (*Basileuterus culicivorus*) and 2 Slate-throated Redstarts (*Myioborus miniatus*), all of which had recently passed the snake, returned and joined the mobbing bush-tanagers 0.5-1.0 m from the snake. Within another 30 sec a Black-and-White Warbler (*Mniotilta varia*), a Wilson's Warbler (*Wilsonia pusilla*) and 2 Ochraceous Wrens (*Troglodytes ochraceus*) arrived. The warblers actively joined the mob. But the wrens remained a few meters away and foraged normally, searching the surfaces of major branches. The behavior of a wren in my line of vision gave no indication that it recognized the presence of the snake or the meaning of the mobbing activity. When the wren approached within 1.5 m of the snake, the wren looked up from its foraging and at the snake. The wren froze for an instant and then began uttering high-intensity calls and joined the mobbing. Immediately the second wren joined the group. The wrens had returned with the flock but had not reacted to the predator until one of them saw it. In all, the mobbing lasted only about 3 min before the flock moved away from the snake.

This incident demonstrates different responses among species to the mobbing calls of other species with which they flock. The wren had not shown unusual excitation or orientation toward the viper prior to its own discovery of the snake. The immediate response of the second wren once the first gave mobbing calls demonstrates intraspecific recognition of such a signal. That wrens returned with the flock suggest they do respond positively to visual and/or auditory cues of the other species. However, the behavior of their associates elicited gregariousness, not alarm.

Several investigators of heterospecific flocks have cautioned that the potential advantages and disadvantages derived from flocking may differ among participants (e.g., Moynihan, *Smithson. Misc. Coll.* 134:1-140, 1962; Morse, *Ecol. Monogr.* 40:119-168, 1970). The different behaviors of the wrens and their associates substantiate this caution.

The potential advantages of flocking include the greater surveillance capability of the group and the corresponding benefits of early warning and foraging efficiency (Powell, *Anim. Behav.* 22:501-505, 1974). The advantage of early warning depends on appropriate response to predator-alert signals.

If, however, "alarm" and/or mobbing calls are prey-to-predator communication of recognition/alertness and thereby identify reduced vulnerability (Buskirk, unpubl.), then predators may avoid hunting in areas where an alarm or mobbing has been given (e.g., Trivers, *Q. Rev. Biol.* 46:35-57, 1971). If so, some advantage to flock participation may exist for gregarious species not cued to the full information content of these signals. Essentially, a protective "halo" would exist around an alerted flock. A large proportion of flock attendants cannot be of this type or predators will find successful hunting in the vicinity of grouped calls. Eliciting mobbing to attract these unaware but gregarious species or individuals may be a successful hunting ploy for some predators. Smith (*Ibis* 111:241-243, 1969) found forest falcons (*Micrastur*) provoking mobbing as a hunting technique. Flock attendants, like the wrens, that are unresponsive to the "predator-present" context of these calls should be more vulnerable than the others. Their frequency of attendance in flocks should be optimized at relatively low levels if anti-predation advantages are a predominant selective force for heterospecific gregariousness.

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Fish attack on Black Guillemot and Common Eider in Maine.—Data on bird mortality at sea are scarce and, although predation and scavenging by marine organisms are assumed, few cases have been documented. The subject was generally reviewed by Glegg (*Ibis* 87:422-433, 1945; *Ibis* 89:433-435, 1947). Additional reports include predation or scavenging by grey seals (*Halichoerus grypus*) (Grant and Bourne, *Seabird Rep.* 52-53, 1971; Kinnear, *Scot. Birds* 9:342, 347, 1977), octopuses (*Octopus* sp.) (Hindwood, *Emu* 64:69-70, 1964), sharks (*Galeocerdo cuvieri*, *Carcharodon carcharias*, *Carcharinus leucas*, *C. longimanus*) (Brooke and Wallett, *Ostrich* 47:126, 1976; Dodrill and Gilmore, *Auk* 95:585-586, 1978; Harrison, *Oceans* 5:25-26, 1979), monkfish (*Squatina squatina*) (Davenport, *Br. Birds* 72:77-78, 1979) and cod (*Gadus macrocephalus*) (Scheffer, *Murrelet* 23:17, 1942). Foot and leg damage is fairly common in some seabirds and has been assumed to represent attempted predation, probably by fish. The following account documents 1 source of foot and leg damage on the coast of Maine.

On 11 August 1975, a newly fledged Black Guillemot (*Cephus grylle*) and 2 eclipse-plumaged Common Eider drakes (*Somateria mollissima*) were observed being attacked by several fish off Eastern Egg Rock, Muscongus Bay, Maine. The sea was extremely calm,