birds as either type X, Y or Z with X having clear white-and-black crown-stripes, Y having dull or dirty white central and apparently black lateral stripes, and Z having gray and brown or tan and brown stripes. Lowther and Falls reported different levels of aggression in different morphs of White-throated Sparrows in Ontario. At Manomet my observations also suggested that discrimination in aggression may correlate with color morphs. For example, X birds were "chasers" twice as frequently as they were chased ($P < 0.01$), Y were "chasers" as often as they were chased, and Z birds were "chasers" only one-half as often as they were chased ($P < 0.01$) (Table 2).

Table 2. Number of intraspecific chases involving different morphs of White-throated Sparrows and the frequency with which specific types were the "chasers" or the "chased."

	Morph Type		
	X[1]	Y[1]	Z[1]
No. of chases involving one or more	143[2]	139[2]	100[2]
Frequency of chases in which morph type was:			
the chaser	65 (N = 93)	46 (N = 64)	34 (N = 34)
the chased	35 (N = 50)	54 (N = 75)	66 (N = 66)

[1] See text for description.
[2] Chases involving two birds of the same morph type are counted twice.

My observations also suggest that morphs were either discriminating the morph type of birds that they chased, or that certain morphs may have avoided situations that elicited a chase from a bird they recognized as being dominant. In general, Z morphs rarely chased other White-throats. When they did, they did not appear to distinguish between X (12 chases), Y (11 chases), or Z morphs (11 chases). Y morphs rarely chased X morphs (12 chases) as compared to Y (26 chases) or Z (26 chases) morphs. X morphs appeared to be less discriminating than Y (26 chased X, 38 chased Y, and 29 chased Z).

The pattern of dominance as related to the type of morph in these observations is complicated by the apparent effect that residential status has upon dominance relationships. However, without exception, on 22 April, all winter residents, regardless of morph type, dominated the new spring migrants, including many Z morphs that dominated X and Y morphs. Beginning 23-24 April, and more so on 25-27 April, the dominance relationships appeared to correlate more to morph type then to residence status.

I would like to thank Trevor Lloyd-Evans and Russell Chariff who color-banded many of the birds used in this study, Natalie T. Houghton who helped make observations, and Raymond S. Stefanski who made helpful suggestions on an earlier manuscript. —Brian A. Harrington, *Manomet Bird Observatory, Manomet, Massachusetts 02345.* Received 1 June 1973, accepted 7 August 1973.

Basis for pre-roost gatherings of Starlings and Brown-headed Cowbirds.—Based on observations of White Wagtails (*Motacilla alba*) and Pied Wagtails (*M.a. yarrelli*) Zahavi (*Ibis*, **113:** 106-109, 1971) suggested that pre-roost gatherings of these birds developed as an adaptation to avert predation, the birds disappearing into their roost after first advertising their presence and revealing to their roost associates the general location of the roosting site. The related facts appear to be more against Zahavi's proposal than for it. Because diurnal predators are not a hazard to the birds at night and because no nocturnal predators are active to observe the pre-roost gatherings, it is difficult to imagine how the pre-roost gatherings can function to direct attention of predators away from the roosting congregation. It is difficult to understand, too, why the same behavior that advertises the location of the roost and directs roost associates to the roost could not operate in the same way to aid potential predators. Furthermore, the loud vocalizations lasting more than an hour total in the evening and morning thoroughly advertise to predators the actual location of the roosting congregation. An alternate explanation for pre-roost gatherings seems to be in order, at least for pre-roost gatherings of Starlings (*Sturnus vulgaris*) and Brown-headed Cowbirds (*Molothrus ater*).

Observations I made at Oxford, North Carolina during and following the breeding seasons of 1970-73 on the roosting behavior of mixed congregations of blackbirds and associated species indicate that pre-roost gatherings of Starlings and Brown-headed Cowbirds result from the birds delaying entrance into the roost until after the nightly roosting site has been established by Common Grackles (*Quiscalus quiscula*), these birds leading in establishing the roosting congregations with Starlings and Brown-headed Cowbirds being followers .

The role of Common Grackles in selecting nightly roosting sites was particularly evident early in the nesting season when these birds continually flew from one potential roosting site to another, seemingly searching for suitable roosting sites not already occupied. Often this movement continued until dark, with more birds remaining in larger units of suitable roosting cover than elsewhere. Small numbers of Starlings and Brown-headed Cowbirds later joined some of the groups of Common Grackles, but earlier in the year many Starlings roosted separately from the Common Grackles in and on artificial structures with Rock Doves (*Columba livia*). Most of the Brown-headed Cowbirds remained in one site visited by numerous grackles but occupied by only a few. Thus, by moving from site to site until darkness fell, some of the Common Grackles avoided having Starlings and Brown-headed Cowbirds for roost associates, and these birds were left in association with only a few grackles. Starlings and Brown-headed Cowbirds could not both remain together with their own species and with Common Grackles; they chose mostly to remain with others of their own species.

With the advance of the season and the appearance of young birds in the population, roosting Common Grackles became more centralized. However, the grackles continued moving about between several different roosting sites so the only way Starlings and Brown-headed Cowbirds could be with them was to join them after they had settled on a roosting site. Rather than to follow the grackles from site to site, the Starlings and Brown-headed Cowbirds waited nearby until the grackles had settled on a roosting site. Thus, pre-roost gatherings of Starlings and Brown-headed Cowbirds resulted from these birds delaying their entrance into the roost until after the nightly roosting site had been established by Common Grackles.—PAUL A. STEWART, 203 *Mooreland Drive, Oxford, North Carolina 27565.* Received 10 June 1973, accepted 22 August 1973.

Screech Owl displaces nesting Pileated Woodpeckers.—On 20 April 1973 near Ironto, Montgomery County, Virginia, a pair of Pileated Woodpeckers (*Dryocopus pileatus*) began excavating what appeared to be a nest cavity in an 11-meter dead yellow poplar (*Liriodendron tulipifera*) snag. For the three subsequent weeks I made observations on the nest tree at least every other day. On 2 May the Pileated Woodpeckers finished their excavation. While examining the nest tree on 6 May, I noticed a Screech Owl (*Otus asio*) perched in the entrance to the cavity, apparently using the hole as a daytime roost. After several minutes a Pileated Woodpecker landed on the nest tree and hitched its way up to the nest opening. The woodpecker peered into the hole but made no attempt to strike the owl. The Screech Owl hissed and snapped its beak several times. The Pileated Woodpecker remained silent, continued to peer into the cavity for approximately one minute, and then flew off. Later the same day the pair of woodpeckers started excavating another cavity in a dead snag 60 meters from the original nest tree. They eventually fledged two young from the second nest tree. The Screech Owl abandoned the original woodpecker nest cavity about 14 May.—RICHARD N. CONNER, *Department of Fisheries and Wildlife Sciences, Virginia Polytechnic Institute and State University, Blacksburg, Virginia 24061.* Received 13 August 1973, accepted 13 September 1973.