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Severe aggression between female Black-headed Grosbeaks.—On 27 May 1985 at 11:00, while conducting a study of the breeding biology of a color-banded population of Black-headed Grosbeaks (*Pheucticus melanocephalus*) in the Sandia Mountains in central New Mexico, I encountered two color-marked female grosbeaks engaged in a vigorous struggle. The birds were on the ground with their bills locked. At least one of the combatants continually emitted a loud distress call. As I watched, the bird on top (GRAO) forced its opponent (AORO) into a small stream but did not submerge the lower bird's head. GRAO had a nest with two eggs, one and 2 days from hatching, about 20 m from where the struggle took place. I did not know the breeding status of AORO, but I had seen it frequently about 300 m from the encounter. I observed the struggling birds for about 5 min before they moved into an area of very thick ground cover and disappeared from view.

The next day, AORO was captured in a trap 50 m from the location of the fight. The bird had several lacerations about its bill and throat and was bleeding from the mouth. It weighed 46.0 g, 5.0 g less than it had 2 weeks before. Despite its injuries, the bird flew off when released. On the night of 28–29 May a dog retrieved the body of AORO, which I believe almost certainly had died from injuries sustained in the struggle a day and a half earlier. An autopsy of the body revealed no injury that a dog might inflict (e.g., tooth marks or broken bones) but did show blood in the trachea and damage to the neck region coinciding with the wounds that were present when the bird was captured alive on the previous day. GRAO was trapped 3 days after the struggle and showed no signs of the battle. It was incubating eggs 3 h after the fight and both young in its nest fledged.

Intraspecific struggles resulting in death are rare even among male passerines (Lack 1956, Brown 1977, and references therein); however, Gowaty (1981, 1985) recently reported that female Eastern Bluebirds (*Sialia sialis*) frequently engage in vigorous clashes and occasionally kill one another. She hypothesized that fights between female bluebirds center around nest cavities, which are critical to reproduction but are limited in supply. Cavity owners may

fight to retain their nest sites while intruders may seek to oust owners or dump eggs into nests.

As in bluebirds, female-female aggression is a conspicuous aspect of the reproductive behavior of Black-headed Grosbeaks (Weston 1947, Ritchison 1983, pers. obs.). The circumstances leading to female aggression in Black-headed Grosbeaks, however, appear to be somewhat different than in bluebirds. Female grosbeaks build open cup nests in a number of species of small trees or shrubs, which are abundant on the study site. AORO had no mature or maturing ova in its oviduct when it died, and the eggs of GRAO had been incubated for 9 days and were close to hatching when the struggle took place. It therefore seems unlikely that the females were fighting for a nest site or that the intruding female was attempting to dump eggs. The females may have been fighting for access to a territorial male.

Black-headed Grosbeaks are strictly monogamous (Weston 1947, Ritchison 1983, pers. obs.). Although all (or nearly all) adult-plumaged male grosbeaks (males in their second breeding season or older) hold a territory and breed, very few subadult male grosbeaks (males in their first breeding season) do so (Ritchison 1980, pers. obs.). In contrast, yearling females are fully mature and commonly breed (pers. obs.). This leads to a potential surplus of reproductive females and a shortage of adult territorial males. My mist-netting data indicate that, while the ratio of all males to females is close to unity (1.12:1.00, N = 309, $\chi^2 = 0.94$, df = 1, $P > 0.30$), the ratio of adult males to females is 0.71:1.00 (N = 250, $\chi^2 = 7.06$, df = 1, $P < 0.01$).

Heightened female aggression has been noted in other species where territorial males are a valuable resource (e.g., Tree Swallows [*Tachycineta bicolor*] [Leffelaar and Robertson 1985] and woodpeckers [*Picoides, Melanerpes, Sphyrapicus*] [Lawrence 1967, Kilham 1983]). I propose that populations of monogamous passerines with a surplus of reproductive females may not be as rare as has been supposed (Brown 1968), and that such a situation may explain the high degree of aggression displayed by females of many species of passerine, including Black-headed Grosbeaks.

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An albino Greater Shearwater: feather abrasion and flight energetics.—Barrowclough and Sibley (1980) speculated on the survival potential of a partially albinistic Yellow-rumped Warbler (*Dendroica coronata*) whose white flight feathers were severely abraded. As they pointed out, the actual significance of increased abrasion to albinistic flight feathers remains uncertain for two reasons: (1) the relationship of fitness to flight energetics is unknown and (2) the importance of other factors (e.g., camouflage and countershading) needs to be evaluated.

Previous authors (e.g., Averill 1923) observed that black shows less wear than white on primary feathers, and Voitkevich (1966) suggested that the presence of melanin was associated with increased thickness of keratin in these same feathers. The importance of melanin was confirmed by experimental abrasion of differently colored and pigmented warbler feathers (Burtt 1979). Barrowclough and Sibley (1980), however, argue the significance of abrasion-resistant coloration among wild birds.

On 28 August 1980, 40 miles SE of Oregon Inlet, Dare County, North Carolina (30°30′N 74°38′W) DSL observed and collected an albinistic Greater Shearwater (*Puffinus gravis*) from a mixed feeding flock of 30–40 Greater and Cory's Shearwaters (*Calonectris diomedea*).

At a range of 30 m, the bird appeared to lack the maneuverability, speed, and grace of the shearwaters with which it was associated. Although other shearwaters nearby soared on very light winds, the albino flapped and generally remained 3–5 m above conspecifics. Unlike the other individuals it never landed on the water to feed and its wing beat appeared faster and deeper.

The bird, a female (NCSM 7741; ovary 3.5 × 8.0 mm) weighed 424.3 g. The iris was dark brown. The bill was flesh colored, lighter than that of a normal Greater Shearwater, and the tarsi and feet were light pink with the outer toe of each foot gray-brown. All plumage was essentially unpigmented, except for faintly dark coloration in feathers of the "cap," tail, and spotting on the tips of the primary wing coverts and on feathers on the leading, ventral surface of the wings. All feathers were old and very worn. The tail and flight feathers were abraded to the extent that the wings were abnormally shortened and on the remaining distal 5 cm of most primary feathers the barbs were lacking. Microscopic examination revealed that most distal barbs, when present, lacked barbules. We assume this resulted from abrasion.