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Evasive Maneuvers of Black-capped Petrel (*Pterodroma hasitata*)

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On 30 August 1992, H. Fenton Day III and I observed a group of 25 distant birds soaring at heights 50-80 meters over the ocean, near "the Point" (35° 33' N, 74° 53' W), east-southeast of Oregon Inlet, North Carolina. From a distance of roughly a half-kilometer, the birds seemed to be gulls soaring together in a tight, ascending column. The time of initial observation was 1245 EDT; it was a hot day with moderate winds (5-10 knots), with good conditions for the formation of thermals over the Gulf Stream, and soaring gulls, if a little out of place, seemed plausible.

As the *Country Girl* neared the birds, it became apparent that they were Black-capped Petrels, with white collars and rumps visible on some of the lower birds. What had seemed lazy spirals in the air from a distance became rapid, precision-climbing from a closer vantage of 150 meters. The reason for this behavior also became apparent: an intermediate-morph South Polar Skua (*Catharacta maccormicki*) had begun a series of upward sallies at the lower petrels. Presumably this bird, possibly the same individual reported for several weeks in this vicinity (Allan Foreman, pers. comm.), was the cause of this unusual flight behavior in the petrels. The skua made five upward passes at the petrels without any apparent gain; the petrels simply ascended too rapidly for the skua. In one instance, the skua reached a petrel from below, perhaps 50 meters above the ocean. The petrel simply folded its wings in a drop resembling the stoop of a large falcon and returned to the locomotion more typical of a gadfly petrel after pulling out of the drop virtually instantaneously. The skua was left behind. At no time did the petrels exhibit aggressive behavior, such as mobbing, toward the skua.

It is not immediately obvious why a skua would harass a *Pterodroma* petrel: such behavior may be kleptoparasitic or predatory. In addition to predation on birds in their size class, skuas have been known to kill procellarids that did not disgorge (Furness 1987); predatory behavior cannot be ruled out in this case. On 14 August 1993, within a km of the present sighting, Alan Brady photographed an intermediate-morph South Polar Skua eating a Black-capped Petrel. It was not clear whether the skua had killed the petrel or whether the petrel was already dead.

My limited experience with Great (*C. skua*) and South Polar Skuas suggests that kleptoparasitic attacks are mounted most frequently from *above*, with

skuas often driving birds down onto the ocean's surface, perhaps because regurgitant is more easily recovered there. This is supported in the literature on skua kleptoparasitism and attack strategies. Nelson (1979) notes that whereas Parasitic Jaeger (*Stercorarius arctica*) "relies upon its great ability to out-fly its victim on level terms," the Great Skua will "circle above potential victims and then surprise them by stooping at great speed." The same appears true of South Polar and other southern skuas (Parmelee 1980, Furness 1987), and one finds many accounts of skuas forcing Northern Gannets (*Morus bassanus*) and various albatrosses to the water by riding them down and/or pushing with the feet. Brown Skuas (*Catharacta skua/antarctica lönnbergi*) regularly stoop and topple adult humans who enter their nesting territory. (Undoubtedly the most dramatic account of a skua stoop is that of F. St. Mars, excerpted in Bent [1921], who describes a violent encounter between an adult Golden Eagle and a pair of Great Skuas in Scotland, in which a skua attaches itself to the back of the eagle, forcing a plummet of over one hundred meters.) On 9 August 1993, I watched an adult light-morph Parasitic Jaeger pursue a Black-capped Petrel at 35° 25' N, 74° 36' W. The attack consisted entirely of swoops from below, which the petrel avoided by means of rapid, twisting acrobatics combined with high, dynamic arcs. The jaeger broke off the attack without success after one minute.

Figure 1. South Polar Skua feeding on the carcass of a Black-capped Petrel at 35°30'N, 74°49'W on 14 August 1993. Photo by Alan Brady.

It is conceivable that, in response to this stooping strategy in skuas, Black-capped Petrels have developed a primary evasive maneuver of ascent rather than a speed-based aerial escape tactic (see Lima 1993), which may be less effective, given the comparable swiftness of *Catharacta* and that genus's tendency to stoop from above. The petrels' tight column could have been an example of what Lima terms socially-coordinated escape. It is interesting to note,

in light of Furness's evidence that kleptoparasitic pursuit in jaegers is more successful when the host is high-flying, that the Black-capped Petrel observed on 9 August 1993 responded differently to an attack of *Stercorarius*: with lower altitude evasive maneuvers rather than soaring.

I have only rarely seen other procellarids successfully outmaneuver a skua, and never in aerial ascent. Few people have seen Black-capped Petrels engaged in high-altitude soaring. Haney (1987) notes: "Gull-like soaring on horizontal wings from 50-100 m above the ocean surface was observed rarely during moderate wind conditions (6-15 knots)." It is not clear whether the petrels we observed had been soaring prior to or in response to the attack of the skua, but their behavior during the observation strongly suggested its efficacy as an escape tactic. The only instances of interspecific aggression involving Black-capped Petrel known to me involve a Bridled Tern (*Sterna anaethetus*) attacking a Black-capped Petrel on 10 October 1978 off Hatteras, North Carolina , in which the petrel displayed erratic evasive maneuvers 5-10 m. above the ocean as it tried to feed (David Lee, pers. comm.), and a Cory's Shearwater causing a Black-capped Petrel to drop a small fish (Todd Hass, pers. comm.). Interspecific piracy among *Sterna* is an uncommon but occasionally observed behavior (Nelson 1979); terns are more frequently the victim in piratic pursuit. Aerial ascent and soaring is commonly observed in *Pterodroma* engaged in display flight or on return to the nesting area, but King and Reimer (1991) are alone in describing a rapid, tight ascent in a *Pterodroma*. David B. Wingate (pers. comm.) has observed spirally aerial ascents in the nocturnal courtship of Bermuda Petrels (*Pterodroma cahow*), but these displatys involve rather wider circles.

I am not able to find references in the literature available to me on interspecific interaction between skuas (*Catharacta* spp.) and Black-capped Petrels. Haney (1987) rarely found the two in association during his research cruises. Likewise, I am unable to find reference to this evasive maneuver in *Pterodroma*; Lima's exhaustive compendium of escape tactics makes no reference to tubenoses. The ability to ascend rapidly in tight circles is associated in my experience solely with Gyrfalcon (*Falco rusticolus*); despite the petrel's reputation for speed and agility, such a tactic was unexpected. The day was a particularly good one for Black-capped Petrels: at least 128 birds were seen along the transect. My thanks to OBServ Tours and Focus On Nature Tours, to Robert Odear and Armas Hill, for the opportunities to participate in their pelagic excursions, and to David Lee and Todd Hass, who reviewed this note and made suggestions for revision. Thanks also to Alan Brady for supplying the photograph in Figure 1.

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BRIEFS FOR THE FILES

HARRY E. LeGRAND JR.

(All dates Winter 1992–93 [December to March] unless otherwise indicated; CBC = Christmas Bird Count)

RED-THROATED LOON: The sole inland report was one seen by Steve Dinsmore at Jordan Lake in Chatham County, N.C., on 16 February.

HORNED GREBE: A good local count of 40+ was made by Gene Howe at Goldsboro, N.C., on 14 December.

RED-NECKED GREBE: The only winter reports, surprisingly, came from inland locales — at Lake Townsend near Greensboro, N.C., from 3 January to the end of February (Herb Hendrickson et al.), and at Jordan Lake, N.C., from 7 to 14 February (Haven Wiley, Jeff Hole, et al.).

EARED GREBE: There was an excellent flurry of sightings from the Carolinas, all from inland sites. In North Carolina, single birds were seen at Lake Wheeler near Raleigh from 6 December to 7 February (Steve Dinsmore, Jeremy Nance, et al.), at Lake Mattamuskeet from December to 15 January (Nance, Dinsmore, et al.), at Goldsboro on 24 December (Eric Dean), at Lake Townsend near Greensboro from 4 to 18 January (Henry Link, Herb Hendrickson), and at Jordan Lake on 7 February (Haven Wiley, Jeff Hole). In South Carolina, one was seen on a pond in Columbia on 19 December by Lex Glover and party, and an outstanding six birds were seen on a pond at Sumter on 11 February by Lex Glover and Evelyn Dabbs.

NORTHERN GANNET: John Fussell observed six gannets over Bogue Sound between Morehead City and Atlantic Beach, N.C., on 6 January; and he saw another bird between Pivers Island and Radio Island, in that same vicinity, on 8 January. Two gannets were likewise rare away from the ocean over Pamlico Sound at Middletown, N.C., on 31 December (Harry LeGrand).

AMERICAN WHITE PELICAN: Two were observed by Steve Dinsmore at the Cape Fear River near Fort Fisher, N.C., on 3 January; and Henry Haberyan observed four at Cedar Point in Carteret County, N.C., on 21 January. The only winter report for South Carolina was one seen between Harbor Island and Hunting Island on 3 January (Jack Cooper) and 31 January (Robin Carter, Caroline Eastman).