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Herring Gulls stealing prey from Parasitic Jaegers.—Piracy is well-known among seabirds and is particularly common in the jaegers (*Stercorariidae*) and gulls (*Laridae*) (e.g., Bent, U.S. Natl. Mus. Bull. 113, 1921; Belopol'skii, Ecology of Sea Colony Birds of the Barents Sea, translated from Russian, Israel Program for Scientific Translations, Jerusalem, 1961; Hatch, Auk 87:244-254, 1970). Whereas instances of jaegers stealing food from gulls are well documented, reports of gulls stealing food from jaegers by direct attack are sparse. Parmelee and MacDonald (Natl. Mus. Canada Bull. 169:61, 1960) reported Glaucous Gulls (*Larus hyperboreus*) in the High Arctic attacking and stealing food from Long-tailed Jaegers (*Stercorarius longicaudus*) which had been foraging at the garbage dump at Eureka, Ellesmere Island. Belopol'skii (op. cit., p. 271) cited cases where Mew Gulls (*L. canus*) snatched fish dropped by birds being pursued by a jaeger.

This note describes observations of Herring Gulls (*L. argentatus*) stealing shorebird prey from Parasitic Jaegers (*S. parasiticus*), at North Point, Ontario, (51°29'N 80°27'W), on the southwest coast of James Bay, 27 km NE of Moosonee, during July and August in 1975 and 1976. Parasitic Jaegers are regular though not numerous migrants on this part of the coast (Manning, Natl. Mus. Canada Bull. 125:57, 1952; pers. obs.), and they prey regularly on small sandpipers which migrate through the area. On 5 August 1975, I was near the edge of the saltmarsh on the upper tidal flats at North Point when the approach of 2 light-phase Parasitic Jaegers was heralded by widespread panic flights amongst small parties of Semipalmated Sandpipers (*Calidris pusilla*), White-rumped Sandpipers (*C. fuscicollis*), Dunlin (*C. alpina*), and Red Knots (*C. canutus*). Each jaeger started chasing a Semipalmated Sandpiper, but 1 jaeger soon broke off to join the other and after a brief and dashing chase, in which the peep nearly escaped several times, 1 jaeger struck the Semipalmated Sandpiper, knocking it to the ground. The 2 jaegers landed near their prey and were about to eat it, when an adult Herring Gull swooped down, seized the sandpiper and flew off. The jaegers made no attempt to defend their prey, but simply continued their flight up the coast.

On 10 August 1976, I observed 2 Parasitic Jaegers hunting shorebirds along the edge of the saltmarsh and over a stony section of tidal flats. The jaegers pursued first a Semipalmated Sandpiper and then a Dunlin, both of which escaped, even though the flying ability of the latter appeared impaired owing to its being in heavy primary molt. The 2 jaegers then singled out another Semipalmated Sandpiper and, after a brief chase, succeeded in knocking it from the air. As the jaegers landed near the peep, an adult Herring Gull appeared, swooped down, carried off the prey and ate it after landing several hundred meters away. The jaegers gave up their prey immediately to the gull without any apparent resistance. They resumed their hunt, abandoning 1 Semipalmated Sandpiper which flew very close to me during the chase, before moving away along the tide edge. About 40 min later, 2 jaegers reappeared, hunting as a pair. They singled out another Semipalmated Sandpiper and the chase ended as 1 jaeger swooped upwards, seized the peep in mid-air and swallowed it without landing. The jaegers squabbled briefly and then started another chase. An adult Herring Gull flew rapidly towards the jaegers from the tide edge several hundred meters away and followed the hunt closely. The jaegers gave up the chase and flew off down the coast, being followed by the gull.

On 11 August 1976, I observed a Parasitic Jaeger chasing a flock of approximately 1,500 Semipalmated Sandpipers on the edge of the saltmarsh at high tide. The jaeger captured a peep by striking it from the air into the water near the shore, landed, and

presumably swallowed the prey. An adult Herring Gull flew rapidly towards the jaeger, which took off quickly, but the gull soon caught up with it. The jaeger managed to stay above the gull and outmaneuvered it successfully. The technique of gaining height and staying above a predator to avoid capture has been noted by Rudebeck (Oikos 2: 65-88; 3:204-231, 1950-51) and Campbell (Condor 77:485, 1975). The gull broke off its chase and landed on the water.

Incidents where gulls actively pursue jaegers and steal their food are apparently not widespread, and the submissive behavior of the jaegers in giving up their prey at North Point is of interest in this context. Parasitic Jaegers breed on arctic tundra, where small birds, including passerines and shorebirds, comprise the major portion of their diet (Maher, Pac. Coast Avif. No. 37, 1974). For most of the remainder of the year the species is pelagic and obtains much food through piracy. While on the tundra, the jaeger is unlikely to come into contact with any concentrations of gulls, whereas at sea, the jaeger assumes the role of the aggressor in stealing food from gulls. On the flats on James Bay, however, jaegers can find an abundant food supply (small sandpipers) which they are accustomed to and adept at catching, but do so in areas where they may come into contact with local concentrations of gulls. Hatch (Auk 87:244-254, 1970) noted that gulls stealing fish from terns appeared to be more responsive to another gull chasing a tern than to a tern with a fish, suggesting that the sight of a chase may stimulate a gull to investigate a possible food source. A similar behavioral response of Herring Gulls to jaegers chasing shorebird prey on the coastal flats in James Bay could have led to the observed instances of piracy. I do not know whether piracy is general amongst adult Herring Gulls on James Bay, or whether the instances observed involved 1 or a few individuals which had specialized in this behavior, as may occur elsewhere (Hatch, op. cit.).

The lack of response by jaegers to piracy by gulls may also have reflected an extremely abundant and easily obtainable food resource, so that it was not worthwhile for jaegers to expend energy and perhaps risk injury in fleeing or defending their prey. On the other hand, the food item was large enough to make it energetically worthwhile for the gull to respond to hunting jaegers and to attempt to steal their prey. These considerations were thought to be of importance in the examples of piracy discussed by Bird et al. (Wilson Bull. 85:480-482, 1973) and by Payne and Howe (Wilson Bull. 88:349-351, 1976).

It thus appears that cleptoparasitism involving unusual pairs of species may appear where they are brought together in the presence of locally abundant prey large enough to be worthwhile stealing by the aggressor and plentiful enough not to be worthwhile defending by the victim.

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The use of feeding areas outside of the territory of breeding Black Oystercatchers.—Cleland Island, off the west coast of Vancouver Island, B.C. is a breeding site for approximately 50 pairs of Black Oystercatchers (*Haematopus bachmani*). For 3 consecutive summers (1970-73) I investigated the foraging of these birds and I observed that, at times, 1 or both of a pair of breeding birds leave their territory and fly to a