

have been healthy and exhibiting normal behavior. While it may be true that the behavior exhibited by Illinois' Long-tailed Jaegers may be different than behaviors observed by some "experienced pelagic birders" (see D. Sibley in Sherony and Brock 1997), I would suggest that many of the interesting behaviors noted in the Illinois (and Colorado) Long-taileds are normal for this species, as they have been described by others on both the breeding and wintering grounds (see above). In fact, should such behavior be noted by observers of migrant jaegers, it should be used along with other clues to identification, such as timing and plumage, to evaluate any purported sighting of a Long-tailed. Just as the undulating flight of a small bird 100 yards away over a thistle-covered field can identify that species as an American Goldfinch for the experienced birder even without a hint of plumage, so should the "pitter-patter" flight or the frequent feeding on grasshoppers and/or midges along with a few key plumage traits, be a sign that one is likely observing a Long-tailed Jaeger. I would disagree with D. Sibley (in Sherony and Brock 1997) who stated birders would be better off ignoring shape and flight style entirely for separating jaeger species. Although shape and flight style alone may not be diagnostic when identifying jaegers, they may likely be used in conjunction with other characters, including plumage, to determine species. Olsen and Jonsson (1989) discuss the four main flight styles of jaegers: migration, piratical, soaring, and tail-wind. Each of the three smaller jaegers (Pomarine, Parasitic, and Long-tailed) have various nuances in their flight styles related to structure (wing shape, body weight, etc.), weather (especially wind during migration), and other traits such as feeding habits, etc. Such flight styles, combined with other characteristics, should be noted when observing juvenile jaegers.

Food

Again, there is little in the literature concerning the prey of this species taken on migration. However, food obtained at other seasons gives a clue to what might be taken while migrating. Concerning feeding habits, Andersson (1971) showed through both direct observation and pellet analysis, the Long-tailed is more "flexible and opportunistic, taking a wide range of foods, which require different feeding methods," compared with the other two jaeger species. In his list of prey taken on the breeding grounds, there were at least two species of voles, shrews, and birds, most of which were juveniles. Beetles, crane flies, and "house" flies were the most common insects captured, and even berries (crowberries and cloudberry) were taken. Bell (1965) also speaking of jaegers on their breeding grounds, added shorebird species including turnstones (*Arenaria sp.*) and Purple Sandpipers (*Calidris maritima*) to the

list as well as crustacea, and also mentions that "insects are caught in straight pursuit or by soaring." He also states the Long-tailed Jaeger is less piratical than the other jaegers, and feeds by hovering (much like terns, [*Chlidonias sp.*]), both away from the breeding grounds and during the breeding season when they hover when seeking lemmings. Wiley and Lee (1998) liken this hovering flight to a kestrel, and Andersson (1973) states that Long-taileds "weighing less than half as much as the Pomarine Jaeger should therefore be better adapted for hovering." Murphy (1936), relating observations by Alexander Wetmore, speaks of a Long-tailed that "dropped lightly to the beach near the water mark to pick up a few beetles that had drifted ashore after the storm." Cramp and Simmons (1983) state that little data exist on food (or behavior) outside of the breeding season, but do list offal, carrion, and rubbish for the non-breeding season. They also mention that during the breeding season these birds use "agile and graceful flight, while soaring to hawk for insects," and specifically mention these birds picking up crane fly (*Tipulidae sp.*) larvae, dead midges (*Chironomidae sp.*) washed up at edges of water, spiders (*Arachnida sp.*), flies (*Diptera sp.*), bees (*Hymenoptera sp.*), and butterflies and moths (*Lepidoptera sp.*). Interestingly, stomachs of non-breeding birds (on the breeding grounds) contained a much higher percentage of insects (62% to 0%) compared with breeding birds (Maher 1974).



Figure 7. Notice the overall dark-brown coloration of this bird, with little or no reddish tinge to the feathers (seen in color photo). This characteristic likely contributed to the confusion of this Parasitic Jaeger with its initial identification as a Pomarine Jaeger. Notice the rather petite bill, lacking an obvious gonydeal angle that would be present in Pomarine. Also, note the proportionally, considerably less amount of black on the bill, mainly confined to the tip. Other characters separating this bird from Long-tailed Jaeger (and Pomarine) are the more flattened or peaked head shape, the strong and heavy amount of streaking on the nape, and the strong amount of barring from the upper breast to the lower belly. Note a distinct light spot at the base of the upper mandible. Dennis Oehmke took this photo 20 September 2000 of the Lake Chautauqua Parasitic Jaeger.