

raised. On the ground the male drops a lemming he has brought in and postures with head down, tail fanned, and wings somewhat spread. Threat displays involve feather fluffing, wing spreading, and thrusting the head and neck down and forward. It is thought that males select the territory, females the nest site. The nest is usually an unlined scrape, shaped by the female's body into a shallow depression. Incubation begins with the first egg, and subsequent eggs appear at two-day intervals. This leads to asynchronous hatching. In an eleven-egg clutch the first chick may be twenty days old when the last egg hatches! In times of food (i.e., lemming) abundance the entire brood may survive to fledging.

The female is fed by the male and remains on the nest until the young fledge. The incubation period is four to five weeks, and although the chicks may leave the nest by two weeks of age, they may return to the nest until the third or fourth week, fly by the seventh or eighth week, and may be fed by the male for five weeks after fledging. The male brings in prey, which the female then feeds to the chicks. Hatchlings are fed by regurgitation, small chicks are fed small pieces of lemming soft parts, and older chicks dismembered lemmings. By one week of age chicks may begin to cast pellets of bone and fur.

Adult owls are diurnal predators that rely on their keen vision to find their prey, although they may use hearing to locate prey under snow. They attack while flying or from a perch. Although the Snowy Owl's principal prey are lemmings, they also take other rodents, as well as rabbits, birds, fish, and even marine invertebrates if other prey is scarce. In Massachusetts they take mainly rats and voles, as well as a variety of bird species.

Midden remains in caves suggest that Snowy Owls have been hunted by man since the last glaciation. Recently, however, they have received legal protection from hunting or trapping, except by Native Americans who still hunt them for food and feathers. In the vast arctic tundra their greatest dangers lie with the vagaries of weather conditions and their highly variable food supply, which periodically brings numbers of these magnificent birds to our winter marshes.

W. E. Davis, Jr.

ABOUT THE COVER ARTIST

Keith Hansen began birdwatching in the sixth grade in Maryland and illustrating birds in high school. He is currently working on the fourteenth book that he has illustrated, among which are *Discovering Sierra Birds*, *Checklist of North American Birds*, *The Natural History of the Point Reyes Peninsula*, and *More Tales of a Low-rent Birder*. He has watched birds all over North America, Central and South America, and many islands of the tropical Pacific. He spends

time on the Farallon Islands and at Point Reyes Bird Observatory. The Keith Hansen Wildlife Gallery in Marin County, California (address: P.O. Box 332-A, Bolinas, CA 94924, telephone 415-868-0402), includes nearly a hundred original works of art, western waterfowl identification cards, wildlife T-shirts, and wildlife stationery. The Snowy Owl first appeared on the cover of a Christmas Bird Count issue of *American Birds* in 1990. M. Steele

AT A GLANCE *October 1995* _____ *Wayne R. Petersen*

Seabirds represent identification challenges found in few other bird groups. Because they are so often seen at a great distance and under adverse lighting and sea conditions, and because some observers have relatively little opportunity to observe them at all, they can be especially difficult to identify with confidence and accuracy.

Perhaps of all the seabird species that regularly occur in Massachusetts waters, none present more identification problems than do jaegers, one of which is the October mystery bird. Jaeger identification problems include those associated with plumage variation due to age, season, sex, and morph type. Indeed, jaeger identification, much like hawk identification, relies as much on structure of the bird, flight style, behavior, geographic location, and seasonality as it does on actual plumage characteristics.

As a primer to jaeger plumages, it is helpful to remember that jaegers, like gulls, require anywhere from three to five years to acquire their breeding plumage; they have distinct winter and summer plumages; juvenile and immature jaegers often look quite different from adults in breeding plumage; and due to polymorphism, melanistic individuals are nearly totally dark, while light-morph adults have light underparts and a pectoral collar of varying extent across their upper breast. Given these plumage realities, it is possible to make some assumptions about the jaeger in the photograph.

First, because the pictured bird has a white lower breast and belly, it is a light morph. Second, the extensive barring on the wing linings, flanks, and undertail coverts indicate that the bird is not an adult, a point further suggested (but not conclusively made) by the short central tail feathers. It is further possible to determine that the bird is an immature (a bird at least one year old), not a juvenile. Juvenile Pomarine and Parasitic jaegers are ordinarily extensively dark below; Long-tailed Jaegers, although occasionally pale-bellied as juveniles, would be unlikely to show such a wide, dusky pectoral collar and would normally appear pale-headed, rather than dark-capped as in the jaeger in the