

## ABOUT THE COVER: MANX SHEARWATER

Manx Shearwaters (*Puffinus puffinus*) are an increasingly common sight off the Massachusetts coast, particularly in the fall. Bobbing on the ocean surface like black-and-white corks, or scaling over wave troughs, these small procellariids may be seen singly or in small groups, often in the company of Greater Shearwaters and other pelagic birds. They are easily distinguished from Sooty, Greater, and Cory's shearwaters by their smaller size, uniform black dorsal coloration, and gleaming white underparts. They may be separated from the more southern Audubon's Shearwater by their gliding and banking flight, interspersed with periodic bursts of flapping. Audubon's Shearwaters typically have a lower and more fluttering flight. Adults and immatures are similar in appearance. The Manx Shearwater is part of a complex and difficult taxonomic cluster of eight "forms," which are variously considered distinct species or subspecies by different scientists. The birds seen in Massachusetts are generally considered members of the subspecies, *P. p. puffinus*.

Manx Shearwaters are pelagic most of the year, concentrating in the Atlantic Ocean off South America in winter, and returning to their breeding grounds in the North Atlantic from March to May. They have remarkable navigational abilities. For example, one bird released in Boston returned to its colony in Wales, three thousand miles away, thirteen days later! The bulk of the population breeds on islands in the North Atlantic, especially in Great Britain and Iceland, and as far south as the Azores. Recently, however, Manx Shearwaters have expanded their range to Newfoundland. In 1973 a single nesting was also confirmed on Penikese Island at the end of the Elizabeth Island chain south of Martha's Vineyard, Massachusetts. The Newfoundland colony has been especially well documented and was founded initially by young birds from colonies in Wales.

Manx Shearwaters usually breed on small islands, in two- to six-foot burrows, either in rocky crevices of cliffs or in burrows excavated in peat or soft soil. Pairs are only marginally territorial, tenaciously defending only their burrows. These disputes, however, often end in fights. They are monogamous and often mate for life. Like most long-lived, colonially-nesting pelagic species, these small shearwaters characteristically exhibit delayed maturation, not usually breeding until their fifth or sixth year of life. Once mature, they may breed for a decade or more, and have actually been recorded living more than thirty-five years. They are gregarious during the breeding season, often forming large aggregations near their colony at dusk. The males prospect for burrows and then advertise vocally from the burrows. The vocalizations of these shearwaters are bizarre, being variously reported as "crowing, cooing, and screaming noises," as well as "screams, gurgles, and cackles." The vocalizations are mostly nocturnal and are given less frequently on moonlit nights, possibly to

lessen the threat from predatory gulls. Masters of graceful flight at sea, Manx Shearwaters are clumsy on land, sometimes stumbling along using their beak and wings to help them get to their burrows or to flight launching sites.

Courtship in this species is not well known; however, courtship feeding has been observed. The single egg is white and incubated by both parents for about seven weeks, with parental shifts lasting an average of six days. Both parents feed the chick at night, with a day or two between feedings. The parent birds forage up to several hundred miles from the colony. They feed while hovering over or swimming at the surface, or by making shallow dives. They frequently flap their half-open wings and paddle with their feet while chasing prey underwater. They have a well-developed sense of smell that may help them locate food. They feed the young bird mostly partially digested fish and oil. The adults also feed on small crustaceans, squid, and floating offal. The chicks weigh up to twice the weight of the adult by the end of seven or eight weeks, at which time they are gradually fed less until they are finally abandoned. The chicks then move to the mouth of the burrow, exercise their wings, and eventually fledge on their own at an age of about ten weeks.

The major predators of Manx Shearwaters are large gull species, but some colonies have been exterminated by introduced rats. Nevertheless, they appear to be expanding their range. Regular sightings of the Manx Shearwater in Massachusetts waters began in the early 1950s, and they have been increasing in frequency since then. They are commonly sighted on Stellwagen Bank, east of Boston, from July through September, where up to two hundred have been reported in a single day. If their range expansion continues, they may become an even more common sight for Massachusetts birdwatchers. W. E. Davis, Jr.

### MEET OUR COVER ARTIST

*Bird Observer* subscribers are now familiar with Barry Van Dusen's superb artwork. Barry has been an independent professional artist for nearly fifteen years. He continues to garner national recognition for his work. For the second year in a row, his artwork will be included in the important international show, "Birds in Art," at the Leigh Yawkey Woodson Art Museum in Wausau, Wisconsin. This year's piece is titled "Among the Hickory Buds: American Redstart." Closer to home, Barry's work will be included in the exhibit, Birds of the Coast, to be held at the Massachusetts Audubon Society's South Shore Regional Center in Marshfield, Massachusetts, from September 4-30, 1992. For exhibit hours, call 617-837-9400. For future scheduled exhibits or additional information, Barry can be reached at 13 Radford Road, Princeton, Massachusetts 01541.

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