

off-white eggs, splotted olive, brown, and pinkish, is the usual clutch. Incubation lasts for about two weeks, and is done mostly or exclusively by the female that is brought food by the male. The fledging period is about three weeks.

Northern Shrikes are versatile foragers and alter their diet in response to conditions. They prefer small mammals—shrews, mice, voles—and insects, but shift to a diet largely of birds when the snows of winter eliminate or obscure their preferred prey. Shrikes may wait and watch from a perch and then pounce on prey, or fly low over the ground, presumably to avoid detection. Birds are caught more easily by surprise at perches than in direct pursuit. Shrikes may search for insect prey by hopping along on the ground. They lack the talons and strong grasping feet of raptors, and so rely mainly on their hooked beaks for subduing prey. Shrikes kill vertebrate prey by severing the spinal cord at the base of the skull, and occasionally strike the base of the skull with their bill. Birds caught in flight are usually driven to the ground before being killed. Shrikes remove the stingers of bees and wasps by mashing the insects with their bill and wiping the stinger out on branches. Largely solitary outside of the breeding season, Northern Shrikes may defend winter territories. Like raptorial species, shrikes regurgitate pellets of bone, fur, and feathers.

The irruptive behavior of Northern Shrikes, and their proclivity for frequenting winter birdfeeding stations, occasionally has brought them into hazardous conflict with humans. In the late nineteenth century, about 50 were shot in a single winter by wardens of the Boston Common, who were protecting the newly introduced European House Sparrows! In the large flight of 1926-1927, 62 shrikes were reported "destroyed" by bird banders along the east coast. Their arctic breeding grounds free them, however, from most human disturbance and pesticides. Northern Shrikes do not occupy all of the potentially suitable breeding habitat of the far north, and it is suggested that winter resources and severe climatic conditions are the principal factors which limit their populations. Presumably, it is harsh conditions that render small mammal prey inaccessible, and/or a failure of the prey populations, that drive these magnificent predators into our area to brighten our winters.

W.E. Davis, Jr.

### ABOUT THE COVER ARTIST

Barry van Dusen, an artist and illustrator based in central Massachusetts, appears frequently on *Bird Observer* covers. One of Barry's recent projects was providing plates (mainly terns and gulls) for a section called "The Aerialists" in *All the Birds of North America*, a new field guide produced by the American Bird Conservancy. The largest exhibition to date of Barry's art was held April 25 through May 23 in the Crocker House at Wachusett Meadow Sanctuary. M.L.P.