



The Ferrum Nature Society Bulletin

Dedicated to the appreciation and conservation of our natural world

Editors: Todd Fredericksen tfedericksen@ferrum.edu
Nell Fredericksen nfedericksen@ferrum.edu

2007 Winter bird

count results:

The annual FNS Franklin County winter bird count on December 8 tallied a record total of 72 confirmed species and 3388 individual birds. (See page 2 for the species counts). There were 19 participants who logged a total of 40 hours of bird watching. Thanks to all who helped with the count! Species with unusually high numbers of birds this year included Red-breasted Nuthatch and Pine Siskin. Notably absent were Fox Sparrow and Wild Turkey. The species with the largest number of individuals was American Crow (442), followed by European Starling (285), and Mourning Dove (213).

Sky calendar:

Full moon - January 22, called the moon after yule, the old moon, or the wolf moon.

Planets - Mars is the brightest planet in the sky early in the month. Saturn is in the southern sky. Venus is visible in the morning. Uranus and Neptune are also visible with binoculars or small telescopes.

Quadrantid meteor shower - peaks on January 3.

Volume 6, Issue 1

January 2008

Winter Bats

Todd Fredericksen

The vast majority of bat species occur in the tropics. Some species, however, have adapted to temperate areas where they face a prolonged winter period with a shortage of food (mostly insects) and cold temperatures that require higher metabolic rates to maintain thermal homeostasis.

The most common solution to this problem is hibernation. Of the 18 species of bats in Virginia, nearly all hibernate to some extent. Some bat species, such as the Eastern Big-eared Bat (*Plecotus rafinesquii*), only hibernate in the northern part of their range. Many species will hibernate colonially in caves or mines, but some, such as the Big Brown Bat (*Eptesicus fuscus*), prefer to hibernate in buildings.

Most hibernating bats do not feed during the winter and live only off slow-burning brown fat stored during the summer. They often huddle in dense clusters for warmth. In some species, hibernation is interrupted by periods of activity when the bats will awaken to defecate or drink. Hibernating bats are easily aroused by cavers and the higher metabolic rates of awakened bats will deplete their fat reserves. It is best to avoid disturbing hibernating bats for this reason.

The time of entry or departure from hibernacula varies by species. The endangered Indiana Bat (*Myotis sodalis*) enters its hibernaculum in October and stays until April, while the Small-Footed Myotis (*Myotis leibii*) will hibernate only during the coldest part of the winter.

Many hibernating bat species breed in the Fall, but the females store sperm in their reproductive tract, only becoming pregnant late in the hibernation period. This delayed fertilization leads to the birth of bat pups in April and May, a time coinciding with a high abundance of insect prey.

Another solution to the stress of winter is migration, which is a common strategy

in vesper bats (*Lasiurus*). Many bats will also migrate to the southern part of their range to hibernate, a compromise solution between long-flights and colder temperatures. The Indiana bat



Virginia Big-eared Bats— U.S. Fish and Wildlife Service migrates 300 miles to limestone caves in the southern Appalachians, but most bat species do not migrate as far. Since Virginia has a fairly mild winter, some bat species, such as the Silver-haired Bat (*Lasionycteris noctivagans*), will spend the summer in the northern U.S. and Canada and return to Virginia and the Carolinas to spend the winter. The extent of migration and the migratory routes of many bat species is unknown.

During the winter, one may be surprised to find bats flying about at dusk. These are most commonly Red Bats (*Lasiurus borealis*) or perhaps Big Brown Bats, light-sleeping species that awake when temperatures rise above 55°F to take advantage of winter moths and flies. In the past two years, I have observed bats flying during the first week of January when temperatures have hovered between 60-70° for several days.

2007 FNS Winter Bird Count Results

Common Loon	3
Pied-billed Grebe	9
Horned Grebe	1
Canada Goose	124
Double-crested Cormorant	4
Mallard	72
Ring-necked Duck	1
American Black Duck	1
Gadwall	2
Bufflehead	15
Hooded Merganser	9
Common Merganser	1
American Coot	53
Great Blue Heron	7
Ring-billed Gull	93
Killdeer	1
Bald Eagle	1
Accipiter sp.	1
Sharp-shinned Hawk	2
Cooper's Hawk	1
Red-shouldered Hawk	2
Red-tailed Hawk	14
American Kestrel	2
Barred Owl	2
Turkey Vulture	115
Black Vulture	23
Wild Turkey	0
Mourning Dove	213
Eurasian Collared Dove	4
Rock Dove	23
Belted Kingfisher	10
Pileated Woodpecker	19
Northern Flicker	26
Red-bellied Woodpecker	42
Downy Woodpecker	31
Hairy Woodpecker	4
Yellow-bellied Sapsucker	14
Eastern Phoebe	10

Common Raven	6
American Crow	432
Blue Jay	104
Horned Lark	91
Carolina Chickadee	92
Tufted Titmouse	96
White-breasted Nuthatch	43
Red-breasted Nuthatch	56
Brown-headed Nuthatch	16
Carolina Wren	59
Winter Wren	6
Golden-crowned Kinglet	57
Ruby-crowned Kinglet	11
Brown Creeper	2
Cedar Waxwing	150
Northern Mockingbird	34
Eastern Bluebird	160
American Robin	129
Hermit Thrush	17
Yellow-rumped Warbler	4
Pine Warbler	4
European Starling	285
House Sparrow	46
Dark-eyed Junco	115
Northern Cardinal	67
Common Grackle	1
Eastern Towhee	6
House Finch	24
Purple Finch	17
Pine Siskin	49
American Goldfinch	115
White-throated Sparrow	72
White-crowned Sparrow	3
Song Sparrow	53
Swamp Sparrow	5
Fox Sparrow	0
Field Sparrow	6