

The female nests in a depression in the ground, often in moss, lined with conifer needles, leaves, and sometimes a few feathers. The nest is well hidden, often under a low conifer branch. The eggs are light cinnamon in color with brown spots. Older reports suggest clutch sizes of ten to twelve, but recent data suggest clutches of about five to eight are more usual. Incubation lasts for about three weeks. The young birds develop quickly and are able to fly after ten to twelve days. The female aggressively defends the young, possibly attacking humans that wander too near or giving distraction displays. Females defend territories against other females.

In summer Spruce Grouse feed heavily on buds, leaves, and berries, and will eat animal food including spiders and grasshoppers. In winter they apparently feed exclusively on conifers. They specialize in spruce buds and needles and other short-leaved conifers, but will eat long-leaf pine needles as well. Their physiology is geared to this specialized diet, as their intestines become enlarged during the winter months.

The Spruce Grouse has become extirpated from much of the southern part of its range due to contact with man. Their tameness makes them easy prey to hunters, although in winter their diet of spruce needles gives them a flavor of turpentine, and most people would have to be pretty hungry to eat one! They are still relatively common in more remote areas, and although cryptic and hard to find, the thrill of encountering one in tangled spruce bog is long remembered, and well worth the trek into the wilderness.

W. E. Davis, Jr.

MEET OUR COVER ARTIST

Paul Donahue's artwork has been widely published in the bird literature. Paul spends about half of the year leading tours or working in the rainforest canopy of Manu Lodge in Manu National Park, Peru. The remainder of the year he resides in Machias, Maine, where he paints during the winter after a fall of hawkwatching. Paul can be reached at P.O. Box 554, Machias, Maine 04654.

The Spruce Grouse drawing first appeared in a catalog of Victor Emanuel Nature Tours, Inc. (VENT). *Bird Observer* appreciates the permission granted by VENT to use Paul's drawing for the cover. VENT conducts birding tours around the world. Their address is P.O. Box 33008, Austin, Texas 78764.

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