

April 2004

6.19  
WEB July 2010

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## Forest Health Protection and State Forestry Organizations

# Management Guide for Variable Oakleaf Caterpillar

*Heterocampa manteo* (Doubleday)

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In North Dakota,  
outbreaks  
occurred in  
1971-73 and 1981.

#### Hosts:

- All oak species, especially white oak
- Paper birch
- Beech
- American basswood

### *Damage is mostly a matter of aesthetics*

Trees of all sizes may be attacked. Defoliation ranges from "shot hole" type feeding to complete stripping of leaves. Because defoliation occurs late in the summer, saplings or larger trees can withstand two or three years of extreme defoliation before any mortality occurs.

The major impact during an outbreak is unsightly defoliation that degrades forest recreation sites. Usually, there is no major economic impact caused by this insect.

#### Key Points

- Outbreaks are infrequent and cause little economic impact.
- "BT" is a biological control that provides temporary control.

#### Natural Controls

**Insect parasites and predators destroy eggs, larvae, and pupae. Winter mortality also helps keep most infestations in check.**

#### Biological Control

**The bacterium, *Bacillus thuringiensis*, can be used for aerial and ground applications to protect high value trees.**

**No chemical nor silvicultural control methods have been developed to control this moth.**

## Life History

### —CAUTION—

**Variable oakleaf caterpillars produce formic acid when disturbed. Excessive handling may result in skin irritations for susceptible people.**

Overwinters as prepupae in cocoons under forest litter. In northern latitudes of its range, pupation occurs the following spring and moths emerge in late June through July.

Females lay their eggs in clusters of 30 to 300 on the lower surface of host leaves. Larvae feed during July and August, then drop to the ground in early September to spin cocoons in the forest litter.

## Recognizing Variable Oakleaf Caterpillar



Photo by Ron Billings, Texas Forest Service

Look for larvae on leaves during July and August. Full-grown larvae are yellowish-green, variously marked, and usually have a broad band down the back. They are about 37 mm long.



Photo by Scott Tunnock, USDA Forest Service

## Other Reading

Ciesla, W. M. 1971. Status of the variable oakleaf caterpillar in North Dakota- 1971. USDA For. Serv., Div. of State and Private For. Insect and Disease Rept. 71-16, 4 pp., maps.

Wilson, L. F. and G. A. Surgeoner. 1979. Variable oakleaf caterpillar. USDA For. Serv., For. Insect and Disease Leaflet 67, 4 pp. illus.

### Forest Health Protection and State Forestry Organizations

#### Assistance on State And Private Lands

Montana: (406) 542-4300

Idaho: (208) 769-1525

Utah: (801) 538-5211

Nevada: (775) 684-2513

Wyoming: (307) 777-5659

#### Assistance on Federal Lands

US Forest Service  
Region One  
Missoula: (406) 329-3605  
Coeur d'Alene: (208) 765-7342

US Forest Service  
Region Four  
Ogden: (801) 476-9720  
Boise: (208) 373-4227

