

Gypsy Moth Monitoring at Isle Royale National Park, 2000

Author: Alexander Egan, Biological Technician

Introduction:

The gypsy moth (Lymantria dispar) is an exotic species in North America, and has spread across much of the northeastern United States. Michigan's lower peninsula is considered completely infested, while the upper peninsula is slowly becoming infested as well. In 1997, Houghton and Keweenaw counties recorded no gypsy moths, but surrounding counties were already occupied by low numbers. The USDA, with cooperation from other state and federal agencies, has initiated Federal regulations and a nationwide integrated pest management approach to managing the gypsy moth. Isle Royale National Park is cooperating with these nationwide efforts.

Description:

Gypsy moth caterpillars have few natural enemies in North America, and consequently they survive in high numbers to become major defoliators of trees and shrubs. There are 4 stages of development: egg, larva (caterpillar), pupa (cocoon), and adult (moth). Egg masses are velvety, buff or yellow colored, and average about 1.5" x .75" in size. Caterpillars are grayish, hairy, 1.5" to 2.5" long, and display red and blue dots on their backs when half grown. Female adults are generally white, but cannot fly. Male adults are tan to brown, have wavy patterns on their wings, and a 1.5" wingspan. A USDA pamphlet in Natural Resource Management files shows photographs of all stages.

Location of traps in 2000:

Gypsy moth traps were set out in 2000 as a precautionary measure to identify possible populations on Isle Royale. The locations have been the same for the 1998-2000 period and are specified on trapping forms in NRM files. General locations were: the Daisy Farm campground, Moskey Basin Campground, Mott Island (2 traps), Rock Harbor marina (2 traps), Windigo (2 traps), Belle Isle campground, and Birch Island campground. The most likely method of spreading the gypsy moth to Isle Royale would be egg masses attached to boats or hiking equipment, so traps were placed in high visitor-use areas. The traps contain a pheromone designed to attract male gypsy moths.

No moths of any species were recorded in 1998-1999. In 2000, the Mott Island/Dollar Bay trap contained five moths that could not be identified, but strongly resembled the Scalloped Hazel (Odontopera bidentata) of Europe (photo attached). The Moskey Basin trap contained a single moth that matched photos and descriptions of a gypsy moth male. This trap was sent into the USDA Forest Service office in St. Paul for confirmation.

Recommendations:

This monitoring program is low cost, with materials donated by the U.S. Forest Service, and it involves few personnel hours. The need to continue monitoring is very high due to the suspected male gypsy moth caught this season. In 2001, traps should be placed at all dock and marina areas.

Contact:

Gypsy Moth Trapping Coordinator, USDA Forest Service
1992 Folwell Avenue, St. Paul, Minnesota 55108
(612) 649-5262