

# INTERACTION BETWEEN GYPSY MOTH (*LYMANTRIA DISPAR* L.) AND SOME COMPETITIVE DEFOLIATORS

Milka M. Glavendekić and Ljubodrag S. Mihajlović

University of Belgrade, Faculty of Forestry, Department of Landscape  
Architecture and Horticulture,  
Kneza Visislava 1, 11030 Belgrade, Serbia and Montenegro

## ABSTRACT

Insect defoliators liable to frequent or occasional outbreaks can endanger forestry production and disturb the stability of forest ecosystems. There were studied life cycles, parasitoids, predators and population dynamics of leaf rollers, the winter moths, noctuids and gypsy moth, which occur in oak forests.

Investigations on population dynamics of oak defoliators and complex of their parasitoids were done at the permanent sample plots at the localities in N. P. Fruška Gora, Forest Estate Belgrade and at several localities in Serbia.

During the last 50 years in former Yugoslavia gypsy moth had five outbreaks of acute type: 1945-1950, 1952-1957, 1961-1966, 1995-1998 and 2003-2005. Between 1966 and 1995 there was observed chronic type of outbreak at some localities. There was a marked upswing in abundance but phase of progradation was short and did not cause forest defoliation on large areas. Gypsy moth overpopulated alone.

Investigation on parasitoids and hyperparasitoids (1984-2002) showed that 38 parasitoids and 12 hyperparasitoids were trophically related with nine winter moth species belonging to following genera: *Colotois*, *Agriopis*, *Erannis*, *Alsophila*, *Operophteri* and *Apocheima* (Glavendekić 2002).

Investigations on natural enemies of leaf rollers (1974-1986) showed that 56 parasitoids and 10 hyperparasitoids were found on altogether 46 leaf rollers which occur in oak forests in Serbia. The most important and abundant were *Tortix viridana* L. and *Aleimma loeflingiana* L. (Mihajlović 1986).

There were found on gypsy moth in former Yugoslavia all together 50 parasitids and 34 hyperparasitoids (Ristić et al. 1998). Comparing qualitative composition of parasitoids on gypsy moth, leaf rollers, noctuids and the winter moths it could be concluded that there are few of them related to all hosts (Table 3).

The recent studies indicate that the outbreak of Tortricidae, Noctuidae and Geometridae overlap with gypsy moth outbreaks. Harmful effect on oak trees is prolonged from April when majority of Tortricidae, Noctuidae and Geometridae feed till the end of June when gypsy moth caterpillars complete their development. Due to defoliation and new emergence of leaves, physiological weakening is the most intensive in second half of May till the middle of June. It is common that powdery mildew attack new leaves in June.