

Sex Attractant of the Rosy Russian Gypsy Moth (*Lymantria mathura* Moore)*

James E. Oliver^a, Joseph C. Dickens^b, Marina Zlotina^c, Victor C. Mastro^d
and Galina I. Yurchenko^e

^a Insect Chemical Ecology Laboratory, Plant Sciences Institute, ARS Beltsville Agricultural Research Center, USDA, Beltsville, MD 20705–2350 USA

^b Vegetable Laboratory, Plant Sciences Institute, ARS, Beltsville Agricultural Research Center, USDA, Beltsville, MD 20705–2350 USA

^c Department of Entomology, University of Massachusetts, Amherst MA 01003 USA

^d Otis Plant Protection Center, USDA, APHIS, PPQ Building # 1398, Otis ANGB, MA 02542–5008 USA

^e Far East Forestry Research Institute, 71, Volchayevskaya St., Khabarovk, Russia, 680020

Z. Naturforsch. **54c**, 387–394 (1999); received January 21/March 1, 1999

Pheromone, Lymantriid, Epoxide, Triene, Gypsy Moth

We report identification of the sex attractant of the rosy Russian gypsy moth, *Lymantria mathura* Moore. Two compounds, *Z,Z,Z*-3,6,9-nonadecatriene **1** and its monoepoxide *Z,Z*-(9*S*,10*R*)-9,10-epoxy-3,6-nonadecadiene **4a**, have been identified from abdominal tip extracts of female moths based on coupled gas chromatography/electroantennogram detector responses and dose response curves. Single cell recordings showed that only one of the monoepoxide enantiomers (*S,R*) was active. In field tests, both the (*S,R*)-monoepoxide and the racemate were active. This type of pheromone system, unusual for a Lymantriid, is more typical of those found in the families Arctiidae, Noctuidae and Geometridae.

Reprint requests to J. Oliver. Fax: (301) 504-6580. E-mail: joliver@asrr.arsusda.gov