New Sex Attractants for Five *Chamaesphecia* Species (Lepidoptera, Sesiidae) from the Ukraine and Turkmenistan

Raimondas Mozūraitis^{a,b}, Vincas Būda^a and Jan Metleuski^a

a Institute of Ecology, Akademijos 2, Vilnius 2600, Lithuania

^b Royal Institute of Technology, Department of Chemistry, Organic Chemistry, SE-100 44 Stockholm, Sweden

Z. Naturforsch. **54c**, 253–258 (1999); received September 29/November 9, 1998

Octadecadienols, Octadecadienyl Acetates, Attraction Periods

Field screening tests of (3Z,13Z)- and (3E,13Z)-octadecadienols, (2Z,13Z)- and (2E,13Z)octadecadienols and their acetates as well as some binary mixtures of these compounds in dosages of 0.5 mg/dispenser were carried out in the Crimea, the Ukraine, and in the West Kopetdag mountains, Turkmenistan, in 1989–1993. New sex attractants for five clearwing moth species of the genus Chamaesphecia (Lepidoptera, Sesiidae) were discovered. Males of Ch. chalciformis were attracted by a 1:1 mixture of 3Z,13Z-18:OH and 2E,13Z-18:OAc, Ch. schmidtiformis by a 9:1 mixture of 3Z,13Z-18:OAc and 3Z,13Z-18:OH in the Ukraine as well as in the ratios 9:1 and 1:1 in Turkmenistan, Ch. mezentzevi by a 9:1 mixture of 3Z,13Z-18:OAc and the corresponding alcohol, Ch. zimmermanni by a 1:9 mixture of 3Z,13Z-18:OAc and 3E,13Z-18:OH, and Ch. specia nova in Turkmenistan by a 1:1 mixture of 3Z,13Z-18:OH and 3E,13Z-18:OAc. Two inhibitors, 3Z,13Z-18:OH and 3E,13Z-18:OAc, of the sex attractant were found for Ch. zimmermanni. The periods of attraction to the traps were registered for males of Ch. zimmermanni and Ch. specia nova and were found to occur at $19^{\bar{0}0}-21^{00}$ and 14³⁰–17⁰⁰ local time, respectively. Males of *Ch. chalciformis* and *Ch. schmidtiformis* were attracted to the traps in the afternoon.

Reprint request to Dr. R. Mozuraitis. Fax: +3702729257, e-mail: chemekol@julius.ktl.mii.lt