Sex Pheromone of the Brazilian Apple Leafroller, *Bonagota cranaodes* Meyrick (Lepidoptera, Tortricidae)

Alvaro E. Eiras\textsuperscript{a,\*}, Adalecio Kovaleski\textsuperscript{b}, Evaldo F. Vilela\textsuperscript{c}, Jean P. Chambon\textsuperscript{d}, C. Rikard Unelius\textsuperscript{e}, Anna-Karin Borg-Karlson\textsuperscript{e}, Ilme Liblikas\textsuperscript{e}, Raimondas Mozuraitis\textsuperscript{e}, Marie Bengtsson\textsuperscript{f} and Peter Witzgall\textsuperscript{f}

\textsuperscript{a} Departamento de Parasitologia – ICB/UFMG, Universidade Federal de Minas Gerais, Cx.P. 486, Belo Horizonte, MG, 31270–901 Brazil. Fax: +55 31 4992970. 
E-mail: alvaro@mono.icb.ufmg.br

\textsuperscript{b} Departamento de Entomologia, CNPUBEPRAPA, 25200–000, Vacaria, RS, Brazil

\textsuperscript{c} Departamento de Biologia Animal, Universidade Federal de Viçosa, 36.570–000, Viçosa, MG, Brazil

\textsuperscript{d} INRA, Station de Zoologie, 78026 Versailles Cedex, France

\textsuperscript{e} Department of Chemistry Organic, Royal Institute of Technology, 100 44 Stockholm, Sweden

\textsuperscript{f} Department of Plant Protection Sciences, Swedish University of Agricultural Sciences, 230 53 Alnarp, Sweden

* Author for correspondence and reprint requests

Z. Naturforsch. 54c, 595–601 (1999); received February 24/March 3, 1999

Sex Pheromone, (3\textit{E},5\textit{Z})-3,5-dodecadienyl Acetate, *Bonagota cranaodes*, Brazilian Leaf Roller, Tortricidae

The female sex pheromone of *Bonagota (=Phthteochroa) cranaodes* (Meyrick) is a blend of (\textit{E},\textit{Z})-3,5-dodecadienyl acetate (\textit{E}3,\textit{Z}5–12:Ac) and (\textit{Z})-9-hexadecenyl acetate (\textit{Z}9–16:Ac) according to analysis of pheromone – gland extracts and field trapping in apple orchards. This is the first time that \textit{E}3,\textit{Z}5–12:Ac has been identified as a lepidopteran sex pheromone. Traps baited with 100 µg \textit{E}3,\textit{Z}5–12:Ac were attractive over 15 weeks in the field and were as effective as traps baited with virgin females. Addition of \textit{Z}9–16:Ac to \textit{E}3,\textit{Z}5–12:Ac at ratio of 1:10 had a significantly increase of male moths. The addition of the \textit{Z},\textit{E} and \textit{Z},\textit{Z} isomers to rubber septa baited with \textit{E}3,\textit{Z}5–12:Ac did not modify \textit{B. cranaodes} male attraction, but 10% of \textit{EE} enhanced trap catch.