

The Sex Pheromone of the Sand Sagebrush Carpenterworm, *Holcocerus artemisiae* (Lepidoptera, Cossidae)

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(Z)-5-dodecen-1-ol (Z5–12:OH), (Z)-5-dodecenyl acetate (Z5–12:Ac), and (Z)-5-tetradecenyl acetate (Z5–14:Ac) were found in the extracts of the female sex pheromone gland of the carpenterworm moth *Holcocerus artemisiae* Chou et Hua, a pest of *Artemisia filifolia*. The average amounts of Z5–12:OH, Z5–12:Ac, and Z5–14:Ac in a single sex pheromone gland of a calling moth were (7.14 ± 0.73) ng, (54.20 ± 0.34) ng, and (38.70 ± 0.46) ng, respectively. Electroantennography (EAG) of these compounds and their analogues demonstrated that Z5–12:Ac excited the largest male EAG response, followed by Z5–14:Ac. Traps baited with rubber septa impregnated with Z5–12:Ac (500 µg/septum) and Z5–14:Ac (300 µg/septum) were more effective than traps with other baits or virgin females. Addition of Z5–12:OH to rubber septa did not enhance the trap catches, but (E,Z)-3,5-dodecadienyl acetate (E3,Z5–12:Ac) enhanced the trap catch.

Key words: Sex Pheromone, (Z)-5-Dodecenyl Acetate, *Holcocerus artemisiae*