

# Attraction of the Gypsy Moth to Volatile Organic Compounds (VOCs) of Damaged Dahurian Larch

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Olfactory responses of the gypsy moth *Lymantria dispar* (L.) (Lepidoptera: Lymantriidae), a major defoliator of deciduous trees, were examined in Inner Mongolia, China. We studied whether the gypsy moth adults are attracted by the major volatile organic compounds (VOCs) of damaged *Larix gmelinii* (Dahurian larch) foliage and compared the attractiveness of the plant volatiles with that of the synthetic sex pheromone. Our results indicated that the VOCs of the Dahurian larch were effective in attracting gypsy moth males especially during the peak flight period. The VOCs also attracted moths significantly better than the sex pheromone of the moth. Our study is the first trial to show the responses of adult gypsy moths to volatile compounds emitted from a host plant. Electroantennogram responses of *L. gmelinii* volatiles on gypsy moths supported our field observations. A synergistic effect between host plant volatiles and sex pheromone was also obvious, and both can be jointly applied as a new attractant method or population management strategy of the gypsy moth.

*Key words:* *Lymantria dispar*, *Larix gmelinii*, Volatile Organic Compounds