

3-3-5. Feeding Preference and Response of *Agelastica coerulea* Baly (Coleoptera: Galerucinae) to Host Plants Odors

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Feeding preference and response of Japanese alder leaf beetle, *Agelastica coerulea* Baly to host plants odors was investigated. In a no choice bioassay, nine plant species belonging to Betulaceae were tested. *A. coerulea* larvae accepted *Alnus hirsuta*, *Alnus japonica*, *Corylus sieboldiana* var. *mandshurica*, and *Corylus heterophylla* var. *thunbergii* easily. In a choice bioassay, feeding preference of eight plant species was compared to *A. hirsuta*. There is no difference in host preference between *A. hirsuta* and *A. japonica*. However, *A. coerulea* larvae showed strong preference for *A. hirsuta* leaves compared to other plant species. Response of *A. coerulea* adults to *A. hirsuta*, *A. japonica* and *C. sieboldiana* var. *mandsburica* odors was investigated by using olfactometer. Adults of *A. coerulea* were more attracted to *A. hirsuta*, *A. japonica* and *C. sieboldiana* var. *mandsburica* odors than clean air. Among three plant species, *A. coerulea* adult were more attracted to *A. hirsuta* than *A. japonica* and *C. sieboldiana* var. *mandsburica* odors. Volatile compounds of *A. hirsuta*, *A. japonica* and *C. sieboldiana* var. *mandsburica* were collected with steam distillation methods and compared with gas chromatography.

Key words: Feeding preference, *Agelastica coerulea*, *Alnus hirsuta*, volatile compounds, Betulaceae, Japanese alder leaf beetle, olfactometer, GC-MS