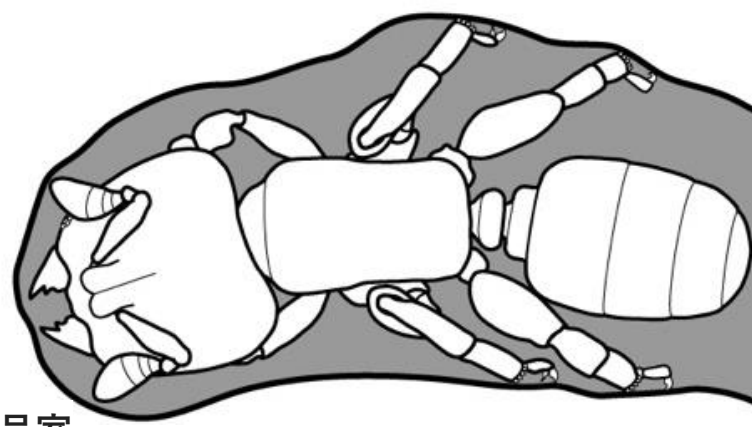


## 第 42 回 昆虫学格致セミナー

とき : 2019 年 12 月 9 日 (月)

15 時 00 分 ~ 17 時 00 分

ところ : 京都大学農学部 地下 1 階 N-074 号室



Engineering a novel lifestyle:

*Melissotarsus* and *Rhopalomastix* ants chew tunnels in live wood for their scale insect partners (Diaspididae)

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Ants cannot eat leaves but they can feed on plants via sap-sucking insects. Thousands of arboreal ant species interact with scale insects, giving protection against predators and weather in return for obtaining honeydew. Family Diaspididae is the largest and most advanced among scale insects, yet they engage in mutualisms with only two genera of ants, partly because they do not excrete honeydew. *Melissotarsus* and *Rhopalomastix* are sister genera with minute workers exhibiting a combination of unique morphologic ecological niche : they live permanently inside a broad range of living trees, where adults and larvae feed on the diaspidids (meat and shield secretions). In *Melissotarsus*, mid- and hindlegs are modified as anchors for tunnelling, hence workers cannot walk on flat surfaces. Such extreme specialization of ant workers is possible because the queen caste can disperse by flight and walk on the outside of host trees during colony foundation.

