

第7回 昆虫学格致セミナー

日時:2013年10月11日(金) 午後13時30分~15時30分

場所:京都大学農学部1階 E-103号室

タイトル: ***Wolbachia* infection and microbial community of *Vollenhovia emeryi*, and future**

講演者: **Professor Gilsang Jeong (Ewha Womans University)**

The ant, *Vollenhovia emeryi*, is categorized by its wing morphology of the queen caste, i.e. the long-winged and short-winged morph. Our nationwide collection indicated that the long-winged is dominant and the short-winged is limited in only two localities in Korea. We also collected the ant in Washington DC, USA. The mitochondrial genotyping reveals that there are 31 haplotypes including only two from the short winged and one from the USA.

The survey also showed that only the long-winged morph is infected with the microbial reproductive manipulator, *Wolbachia*. This gave us a good opportunity to investigate the effect of the *Wolbachia* infection on the bacterial community diversity using the next generation sequencing technique. We find that there are about 180 bacterial symbionts in the short-winged morph. On the other hand, the long-winged morph harbors only about 20 bacterial symbionts. This strongly suggests that the bacterial community diversity is subject to the existence of *Wolbachia*.

In this seminar, future research plans focusing on sex determination, sociality, and communication will also be discussed with various evolutionary perspectives.