Special Lecture by Visiting Researcher

Diversification of Colourful *Pachyrhynchus* Weevils

多様な色彩をもつカタゾウムシ(鞘翅目ゾウムシ科) の進化に関する生物地理学的研究

by: Visiting Professor **Chung-Ping Lin** from National Taiwan Normal University 台湾師範大学

(Lab. of Forest Ecology 森林生態学研究室)



February 6, Tue 14:45-農学部総合館 W502 Room W502



Summary:

Pachyrhynchus (Coleoptera: Curculionidae) are a group of brilliant, metallic-coloured weevils distributed in the Old World tropics. We are interested in studying the ecology and evolutionary histories of these beetles, and testing a few long-standing hypotheses proposed by Alfred Russel Wallace nearly 150 years ago regarding the biological functions and ecological

significance of their diverse colours. Our current findings suggest: (1) The conspicuous colouration of *Pachyrhynchus* weevils can function as aposematic signals (primary defense) that deter attacks by sympatric lizard predators; (2) The hardness of aposematic *Pachyrhynchus* weevils is an effective secondary defense against small vertebrate predators; (3) The inter-island speciation of endemic *Pachyrhynchus* weevils inhabiting neighboring oceanic islands may be more common than previously thought; (4) Speciation of the *P. orbifer* complex may have occurred only between islands, indicating that peripatric speciation through the founders of stochastic dispersals was the major evolutionary driver.