生存圏研究所学際萌芽研究センター　第 182 回定例オープンセミナー資料
2014/7/16

Paederus: an agricultural beneficial insect and its impact on human health

Speaker: Lee-Jin Bong (Mission Researcher, RISH, Kyoto University)

Related mission: Mission 4

Abstract:
Paederus (Coleoptera: Staphylinidae) constitutes one of the largest groups in the subtribe Paederina, with at least 650 described species distributed worldwide. They are identifiable by the orange and dark coloration, with the head and abdominal apex black in color; and the elytra metallic blue or green in color. Some species are entirely orange. *Paederus* spp. are well adapted to moist habitats. They are commonly found to reside in crop fields which are moist and grassy. Similar to other staphylinids, *Paederus* is a polyphagous predator of several insect pests. In the crop fields, the assemblages of these beetles are reported to suppress many insect crop pests. However, contact with these beetles will cause blister on the skin – dermatitis linearis. The first outbreak of dermatitis linearis caused by *Paederus* spp. was reported in 1891, in Java, Indonesia. Since then, the medical importance of these beetles has caught the public attention especially when the beetles disperse and infest human settings. These beetles are attracted to incandescent and fluorescent lights, thus disperse and infest, especially, human settings during dusk. They neither bite nor sting, however, accidental brushing against or crushing the beetle provokes the release of its toxic haemolymph called paederin, the potent vesicant that causes dermatitis linearis on human skin. Considering its role as agricultural beneficial insect in the crop fields, insecticide application in the crop fields to reduce the population is impractical. This might also expel the beetles and exaggerate their dispersion to human settings. So, control programs especially in human settings are in dire needs.