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The Aroid Scarab *Peltonotus nasutus* (Coleoptera: Scarabaeidae) in Thailand and its Association with *Amorphophallus paeoniifolius* (Araceae)

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Many plant species have specific morphological or chemical strategies to attract insects as pollinators. Of the chemical strategies, some plant species produce aromatic compounds that to humans are either imperceptible or range from intoxicatingly delightful to intensely disgusting. Insects across a wide range of orders act as pollinators, some with structures specialized to hold pollen (e.g. bees), which facilitates cross-pollination. Members of the order Coleoptera (beetles) are primitive pollinators (Faegri & van der Pijl, 1978) because their differentiation preceded that of the angiosperms. Flower-visiting (anthophily) in Coleoptera evolved several times (Kevan & Baker, 1983) and some families (e.g. Oedemeridae) are exclusively anthophilous as adults. Typical flower characteristics that tend to attract some beetles include robustness, open-bowl shape, and the production of aminoid or fermenting fruit odors (Kevan & Baker, 1983). In these flowers, the beetles tend to be cantharophilic, eating pollen and chewing on various floral parts.

Beetles of the genus *Peltonotus* (Scarabaeidae) are attracted to the aromatic plants in the arum family Araceae (Jameson & Wada, 2004). The arum genus *Amorphophallus* comprises nearly 200 species from the Old World tropics and subtropics. *Amorphophallus paeoniifolius* (Dennstedt) Nicolson occurs in the wild from India to Australia and the Philippines, and is raised as a tuber crop throughout the region and in Africa. It is commonly known as the elephant foot yam, stink lily, or corpse plant and gives off a putrid odor. This odor smells like decaying animal flesh and is attractive to a variety of insects, including the scavenger scarabs *Phaeochrous dissimilis* Arrow, *P. emarginatus* Laporte, *P. intermedius* Pic (Hybosoridae), and the aroid scarab *Peltonotus nasutus* Arrow (Scarabaeidae) (Grimm, 2009).

Peltonotus nasutus has been recorded from Nepal and Bangladesh (Machatschke, 1972, 1974), although these records have not been confirmed (Jameson & Wada, 2004). It is common throughout Indochina, having been recorded from Cambodia, southern China, Laos, Myanmar, Thailand, and Vietnam (Jameson & Wada, 2004; Jameson & Drumont, 2013) and is attracted to the arum flowers of *Amorphophallus* and *Epipremnum* for feeding and mating. Specifically in Thailand, it has been recorded in association with *A. paeoniifolius* (Grimm, 2009) and is known from a few scattered records in the northern half of the country: Chiang Mai, Chiang Rai, Kanchanaburi, Nakhon Ratchasima, and Nan provinces (Jameson & Wada, 2004).

Here, I provide additional records from the northern half of Thailand and extend the known range of the insect south through the Isthmus of Kra. Specifically, the records from Chumphon and Prachuap Khiri Khan provinces are now the southernmost reported for the species. These records are important because they are in the transition zone between the Indochinese and Sundaic biotas. This beetle species has not been reported from Sundaland.

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On a flowering specimen of *Amorphophallus paeoniifolius* in Nan Province, 39 specimens of *P. nasutus* were collected (Figs.1, 2); several others escaped. Approximately 2/3 of the individuals were males. Most of the beetles were on the spadix; others were deep inside the spathe. In addition, one female specimen of *Phaeochrous d. dissimilis* was in the aggregation. Multispecific assemblages of beetles on *A. paeoniifolius* have been recorded with as many as four species including those collected here (GRIMM, 2009).

Material examined: *Peltonotus nasutus* records only. All specimens deposited in the Enns Entomology Museum, University of Missouri, USA (UMC); and Paul K. Lago Collection, University, Mississippi (PKLC), USA.

THAILAND: **Chumphon Province**: May 1996, Wattana (1♂ UMC). **Kanchanaburi Province:** Koeng Ka Wia Reforestation Stn., 14°50′N 98°39′E, 184 m, 14 April 2002, black light, colls. Vitheepradit & Kirawanich, L-342 (5♂, 5♀ UMC; 3♂, 1♀ PKLC); Thong Pha Phum Reforestation Stn., 14°39′N 98°35′E, 211 m, 12 April 2002, black light, colls. UMC and CMU teams, L-337 (2♂, 2♀ UMC; 1♀ PKLC). **Nakhon Ratchasima Province:** Amphoe Wang Nam Kiew, 14 April 2004, fluorescent light, colls. Sites & Vitheepradit (1♀ UMC). **Nan Province:** Nan River at Srinan River, 16 April 2009, Sites & Prommi, ex: *Amorphophallus paeoniifolius* (Denn.) Nicol. (21♂, 10♀ UMC; 4♂, 4♀ PKLC). **Prachuap Khiri Khan Province:** Amphoe Kui Buri, Forest Plantation Stn., 147 m, 12°04′N 99°43′E, 22 April 2002, black lt., colls. Vitheepradit & Kirawanich, L-361 (9♂, 7♀ UMC; 2♂, 1♀ PKLC).

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Figure 1. Male (left) and female (right) specimens of *Peltonotus nasutus* Arrow collected from *Amorphophallus paeoniifolius* (Dennstedt) Nicolson in Nan Province.

Figure 2. Flowering specimen of *Amorphophallus paeoniifolius* (Dennstedt) Nicolson in Nan Province with aggregation of beetles.