The First Record of Anthicine Species (Coleoptera: Anthicidae) in Korea

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Abstract: Four species of the subfamily Anthicinae Latreille, Anthelephila bramina coiffaiti Bonadona, A. imperatrix LaFerté-Sénentère, Anthicus perileptoides Lewis and Clavicollis laevipennis Marseul, and the genus Anthelephila Hope are reported for the first time in Korea. Diagnostic descriptions, photographs of habitus and tegmen of aedeagus, and comparative table of identical characters among four species are provided.

Keywords: Anthelephila, Anthicus, Clavicollis, Anthicinae, Korea

Introduction

Anthicid beetles are small (1.6-15 mm) and over 3,000 species in about 100 genera are distributed from the world (Chandler 2002). Adults are omnivorous scavengers and opportunistic predators of small arthropods, but also may feed on pollen, plant exudates, fungal hyphae and spores (Werner and Chandler 1995), although very little is known of their actual feeding habits.

Subfamily Anthicinae are characterized by a combination of the following features: neck width at constriction one-fourth or less compared to head width; front coxal cavity externally open and internally closed; metacoxae moderately to widely separated; lacking longitudinal sulci at lateral margins of elytra (Abdullah 1969; Chandler 2002).

Taxonomic account

Genus Anthelephila Hope (Korean name: Gae-mi-bbul-beol-re-sok)

Anthelephila Hope, 1833: 63.

Type species: Anthicus cyaneus Hope, 1833.

Frontoclypeal sulcus fine but distinct. Pronotum with distinct apical flanged rim, somewhat prominent lateral antebasal impression in posterial half and with basal margin distinctly bordered dorsally by a thin, well defined sulcus originating lateral foveae (Kejval, 2003).

Anthelephila bramina coiffaiti (Bonadona) (Korean name: Gae-mi-bbul-beol-re) (Figs. 1a, 2a)

Formicomus braminus coiffaiti Bonadona, A. imperatrix LaFerté-Sénentère, Anthicus perileptoides Lewis and Clavicollis laevipennis Marseul, and the genus Anthelephila Hope are newly recognized from Korea. As a result of this study, a total of 28 species in 13 genera is recorded in Korea. We also provide diagnostic descriptions, photographs of habitus and tegmen of aedeagus, and comparative table (Table 1) of identical characters among four species. The specimens studied are deposited in the Natural History Museum, Hannam University (HUNHM), Daejeon, Korea.

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with scattered erect setae but basal portion without punctures and setae. Elytra convex, dorsal punctures small and shallow, setae mostly subdecumbent to appressed, with sparsely scattered erect setae, oblique and yellowish-brown fascia near of the basal portion. Male genitalia: tegmen of aedeagus slightly thinned, gradually tapered towards apex, the apex slightly divided, basal portion widely rounded.


**Diagnosis.** Body length 2.7-3.7 mm. Head, pronotum, elytra and legs dark reddish-black; highly glossy; antennae reddish-brown but antennomeres 8-11 increasingly darker. Head oval-shaped, 1.1 times as long as wide, surface smooth, dorsal punctures large, unevenly spaced, setae evenly short, mostly subdecumbent to appressed, with sparsely scattered short erect setae; eye clearly prominent; temple almost 2 times longer than eye, posterior temporal angles rounded. Pronotum 1.3 times as long as wide, much narrower than head, widely rounded anteriorly but strongly narrowing posteriorly, conspicuous median longitudinal groove by shallow impression, surface smooth as head, dorsal punctuation uneven, generally much finer and sparser than head. Elytra convex, truncate apically, with two paired oblique bands consisted of whitish thick setae and dense punctures. Male genitalia: tegmen of aedeagus trilobed apically, parallel-sided, middle lobe of tegmen narrowing towards bluntly pointed apex, lateral lobes rounded.

**Materials examined.** KOREA: Chungnam Prov. Daejeonsi, Yuseong-gu, Sinsung-dong, Tandongsancheon, 28.vii.2009, HK Min (3♂ 4♀); Hongseong-gun, Seobu-myeon, Geochari, 16.vi.2007, YB Cho (1♂); Seonhak-myeon, Janghang-eup, Songrim-ri, Songrim Sand dune, 19.viii.2010, HK Min (1♀); Seosan-si, Buseok-myeon, 16.vi.2007, HK Min (2♂); Taean-gun, Gwangyang-myeon, Janggane-ri, 16.vi.2011, KS Oh (1♂); Gwangyang-si, Dong-gu, Jisandong, Mt. Mudeungsan, 2007, YB Cho (1♂); Hongseong-gun, Seobu-myeon, Geocha-ri, 16.vi.2007, HK Min (1♀); Jangseong-gun, Baekyangsa IC, 2.vi.2006, HK Min (2♀); Jangseong-gun, Baekyangsa IC, 2.vi.2006, HK Min (2♀); Jangseong-gun, Baekyangsa IC, 2.vi.2006, HK Min (2♀).

### Table 1. Differences among four Anthine species

<table>
<thead>
<tr>
<th>Scientific name</th>
<th>Body length (mm)</th>
<th>Gloss of body</th>
<th>Color of body</th>
<th>Pronotum</th>
<th>Pattern of elytra</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthelephila bramina coiffaiti</td>
<td>2.6-4.0</td>
<td>strong</td>
<td>dark reddish-brown</td>
<td>1.4 times as long as wide (Narrower than head)</td>
<td>present (one oblique band)</td>
</tr>
<tr>
<td>A. imperatrix</td>
<td>2.7-3.7</td>
<td>strong</td>
<td>dark reddish-black</td>
<td>1.3 times as long as wide (Much narrower than head)</td>
<td>present (two oblique bands)</td>
</tr>
<tr>
<td>Anthicus perileptoides</td>
<td>1.8</td>
<td>weak</td>
<td>reddish-brown</td>
<td>1.1 times as long as wide (Slightly narrower than head)</td>
<td>absent</td>
</tr>
<tr>
<td>Clavicollis laevipesnis</td>
<td>1.9-2.4</td>
<td>strong</td>
<td>black</td>
<td>1.2 times as long as wide (Much narrower than head)</td>
<td>absent</td>
</tr>
</tbody>
</table>

**Anthelephila imperatrix** LaFerté-Sénentére (Korean name: Ex-mu-nui-gae-mi-bbul-beol-re) (Figs. 1b, 2b)
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Distribution. Korea, China, Japan and Russia (Far East).

Genus Anthicus Paykull (Korean name: Bbul-beol-re-sok)

Anthicus Paykull, 1798: 253.
Type species: Meloe antherinus Linnaeus, 1760

Head subquadrate to oval, pronotum evenly convex on anterior margin, mostly widest in apical third, with lateral margins nearly straight, elytra with tactile setae mostly distinct (Chandler, 2002).

Anthicus perileptoides Lewis (Korean name: Bul-gae-mi-bbul-beol-re) (Figs. 1c, 2c)

Anthicus perileptoides Lewis, 1895: 431; Chandler et al., 2008: 428.

Diagnosis. Body length 1.8 mm. Head reddish-brown, pronotum, elytra, antennae and legs yellowish-brown, slightly glossy. Head broadly quadrate, 1.0 times as long as wide, surface smooth, dorsal punctures small and shallow, unevenly spaced, setae subdecumbent to appressed, longitudinal middle area of vertex without setae and punctures; eye clearly prominent; temple about 1.5 times as long as eye, posterior temporal angles rounded; base excavated at the middle. Pronotum 1.1 times as long as wide, slightly narrower than head, widely rounded anteriorly but narrowing posteriordiad two-fifth in dorsal view, surface smooth as head, dorsal punctures small and rather shallow, setae subdecumbent to appressed. Elytra slightly flattened, lateral sides subparallel, punctures small and shallow, setae small and densely covered. Male genitalia: tegmen of...
aedeagus slightly thick, nearly parallel-sided, the lateral sub-apical area slightly convex, apical portion abruptly narrowing toward the apex.

**Materials examined.** KOREA: Gyeongbuk Prov. Sangju-si, Nambocheon, Black light, 2.vi.2011, JK Park (1♂ 1♀). **Distribution.** Korea, China and Japan.

**Genus Clavicollis** Marseul (Korean name: Jom-gae-mi-bbul-beol-re-sok)

*Clavicollis* Marseul, 1879: 66.
Type species: *Anthicus longiceps* LaFerté-Sénentére, 1849.

Head oval to suboval, pronotum long, with lateral margins broadly constricted in basal half, elytra gradually broading posteriad with the widest at apical third.

**Clavicollis laevipennis** (Marseul) (Korean name: Jom-gae-mi-bbul-beol-re) (Figs. 1d, 2d)

*Anthicus laevipennis* Marseul, 1877: 471.


**Diagnosis.** Body length 1.9-2.4 mm. Body black, antennae piceous and legs dark yellowish brown, highly glossy. Head oval-shaped, 1.1 times as long as wide, dorsal punctures small, shallow and unevenly spaced, setae subdecumbent to appressed; eye clearly prominent; temple about 1.3 times as long as eye, posterior temporal angles and base rounded. Pronotum 1.2 times as long as wide, much narrower than head, strongly narrowing posteriorial half in dorsal view, dorsal punctures large and dense, setae scattered and subdecumbentated. Elytra convex, punctures scattered, setae scattered and subdecumbentated to appressed, with sparsely scattered erect setae. Male genitalia: apical portion of tegmen gradually narrowed anteriad, the apex bluntly pointed, lateral margin curled and slightly convexed at the middle portion.


**Distribution.** Korea, China and Japan.

**References**


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