

## 한국산 바구미과(딱정벌레목) 9미기록종에 대한 보고

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## Newly Recorded Species of the Family Curculionidae in Korea (Coleoptera: Curculionidae)

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**ABSTRACT** : Nine species of Curculionidae, *Pimelocerus elongates* (Roelofs, 1873), *Phylaitis maculiventris* Voss, 1958, *Egiona picta* (Roelofs, 1875), *Cryptorhynchus electus* (Roelofs, 1875), *Rhadinopus confinis* Voss, 1958, *R. sulcatostriatus* (Roelofs, 1875), 1962, *Deiradocranus setosus* (Morimoto, 1962), *Rhadinomerus annulipes* (Roelofs, 1875), and *R. maebarai* Chûjô et Voss, 1960 are recorded for the first time in Korea. And the distribution of the species of *Shirahoshizo hiurai* Morimoto to Korea which its distribution was unclear is confirmed with this report. Habitus photos and descriptions of the species are given.

**KEY WORDS** : Coleoptera, Curculionidae, *Pimelocerus*, *Phylaitis*, *Egiona*, *Cryptorhynchus*, *Rhadinopus*, *Shirahoshizo*, *Deiradocranus*, *Rhadinomerus*, Korea

**초 록** : 본 연구를 통해 바구미과의 *Pimelocerus elongates* (Roelofs, 1873), *Phylaitis maculiventris* Voss, 1958, *Egiona picta* (Roelofs, 1875), *Cryptorhynchus electus* (Roelofs, 1875), *Rhadinopus confinis* Voss, 1958, *Rhadinopus sulcatostriatus* (Roelofs, 1875), *Deiradocranus setosus* (Morimoto, 1962), *Rhadinomerus annulipes* (Roelofs, 1875), *R. maebarai* Chûjô et Voss, 1960 등 9종을 한국에서 처음 보고하며, 분포가 불분명했던 *Shirahoshizo hiurai* Morimoto는 한국에 분포함을 확인하였다. 이들의 특징에 대한 기술과 형태 사진을 제시하였다.

**검색어** : 딱정벌레목, 바구미과, *Pimelocerus*, *Phylaitis*, *Egiona*, *Cryptorhynchus*, *Rhadinopus*, *Shirahoshizo*, *Deiradocranus*, *Rhadinomerus*, 한국

The faunal study of Korean weevils was started by Kolbe (1886). In 1986, Kwon and Lee have done a comprehensive historical review of the faunal study of Curculionoidea in Korea. After that, a catalogue of the family Curculionidae in Korea have been made by Hong *et al.*

(2000). After that, several new species and unrecorded species have been added to the Korean fauna (Hong *et al.*, 2000, Han et Yoon, 2000, Han et Yoon, 2001, Han 2002, Hong et Korotyayev, 2002, Hong, 2004, Korotyayev et Hong, 2004). Consequently, a total of 406 species

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of the family Curculionidae have been recognized from Korea. Recently, we have conducted the flora and faunal project and the forest pest survey with malaise trap and collected many weevils. Of them, we report 9 species new to Korean fauna with brief description and illustrations. As a result, a total of 415 species are enumerated. Materials are deposited in the collection room of the National Plant Quarantine Service, Seoul National University, Kyeongbuk National University and Forest Research Institute. And the abbreviations for the geographical name of the province in Korea are used in this paper as follows; GG: Gyeonggi-do, GW: Gangweon-do, CB: Chungcheongbug-do, CN: Chungcheongnam-do, JB: Jeonranam-do, JN: Jeonranam-do, GB: Gyeongsangbuk-do, GN: Gyeongsangnam-do, JJ: Jeju-do.

## Taxonomic Accounts

**Subfamily Molytinae, Schoenherr, 1829 참바구미아과(신칭)**

**Tribe Hylobiini Kirby, 1837**

**Genus *Pimelocerus* Lacordaire, 1863**

Histoire Naturelle des Insectes, 6: 455 (Type-species: *Hylobius macilentus* Boheman, 1842)

*Dyscerus* Faust, 1892, Stett. Ent. Zeit. 53: 198 (Type-species: *Hylobius macilentus* Boheman, 1842)

*Okikuruminus* Kôno, 1934, J. Fac. Agr., Hokkaido Imp. Univ., 33(3): 241 (Type-species: *Curculio roelofsi* Harold, 1878 = *Heilipus orientalis* Motschulsky, 1866)

*Hypophylobius* Voss, 1934, Entomologisches Nachrichtenblatt, 8(2): 78 (Type-species: *Hylobius subinflatus* Voss, 1934)

Distribution: Korea, Japan, China, Kuril Is., E. Siberia, Taiwan, Bangla Desh, Borneo, India, Java, Malaysia.

***Pimelocerus elongatus* (Roelofs, 1873) 흰모무늬곰보바구미(신칭, Fig 1. A, K)**

*Hylobius elongatus* Roelofs, 1873, Ann. Soc. Ent. Belg., 16: 190. (TL: Japan)

*Dyserus elongatus*: Faust, 1892, Stett. Ent. Zeit., 53: 198.

*Pagiophloeus elongatus*: Dalla Torre & Schenkling, 1932, Coleopterorum Catalogus, 122, Hylobiinae: 21.

**Measurements.** Body length (excl. rostrum). 6.5-7.8 mm

**Descriptions.** Brownish black, antennae and tarsi reddish brown. Head, rostrum, tibia, apical margin of pronotum and femora, and first interval of elytra sometimes reddish brown in small specimens. Whole body covered with white hair except pronotum. Pronotum with white hairs on anterior margin and basal area before scutellum. Dorsal area of elytra with whitish powdery diamondback patch which is easily removed. Eye emarginated along with basal margin of rostrum. Rostrum almost as long as pronotum, moderately curved; dorsum with five indefinite keels and roughly punctured furrow which reach to the apical fourth of rostrum; apical area finely punctuate. Antennae inserted at the apical fourth of rostrum; scape reached at base of rostrum, as long as funicle and club taken together; 1<sup>st</sup> and 2<sup>nd</sup> segments of funicle longer than broad, 1<sup>st</sup> segment twice as long as the width and as long as 2<sup>nd</sup> and 3<sup>rd</sup> taken together, 2<sup>nd</sup> segment twice as long as 3<sup>rd</sup>, 3<sup>rd</sup>-7<sup>th</sup> segments transverse; club oblong oval and as long as the last four funicular segments taken together. Pronotum as long as broad, subparallel, straightly and slightly enlarged to the middle, broadest at the middle, slightly and somewhat roundly narrowed anteriorly. Dorsum strongly pustulate except small pustules on the apical constriction and three large pustules composed of several tubercles on the apical third. White powdery patch on the basal triangular area before scutellum. Scutellum oblique, bare and finely punctuate. Elytra twice as long as broad, parallel-sided from humeri to the apical third, subapical calli strong, basal area of odd intervals slightly raised, third interval distinctly raised to the subapical area. Apical declivity with whitish powdery patch. Procoxae close to each other, mesosternal process projected posteriorly and divided to the mesocoxae and reach to the metasternum between the middle of mesocoxae. Metasternum grooved behind the mesocoxae and the groove bisinuate to the middle. 1<sup>st</sup> ventrite grooved along with the anterior margin. Legs resemble to each others, hind femur somewhat longer than others, only reach to the subapical area of elytra. Femora slender, clavate, femoral teeth strong; tibiae

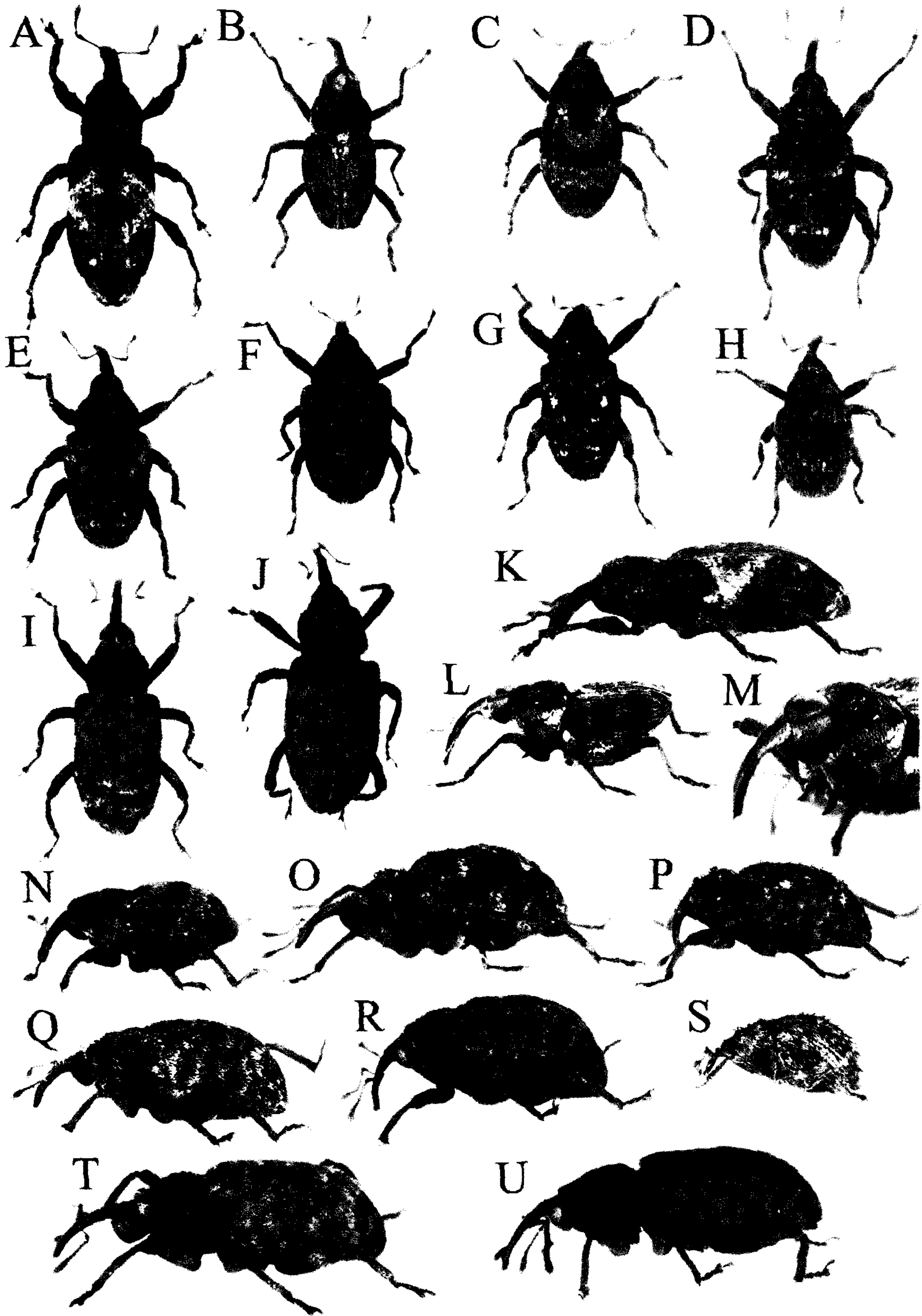


Fig. 1. Adults. (A, K: *Pimelocerus elongates* B, L, M: *Phylaitis maculiventris*, C, N: *Egiona picta*, D, O: *Cryptorhynchus electus*, E, Q: *Rhadinopus confinis*, F, R: *R. sulcastriatus*, G, P: *Shirahoshizo hiurai*, H, S: *Deiradocranus setosus*, I, T: *Rhadinomerus annulipes*, J, U: *R. maebarai*)

uncinate, slightly arched and internally enlarged the middle, and obliquely fringed at each sides. Tarsi with third segment widely bilobed, much wider than preceding, claws free.

**Material examined.** GG. 1ex., Gwangreung, Namyangjusi, 27. VIII. 1998; 1ex. ditto, 6. VIII. 1999; GW. 1ex., Gangwon Univ, Chuncheonsi, 6. V. 1997; 1ex., Jukwangmyeon, Goseonggun, 26. VII. 1999; 1ex. Cheolwon, 4. X. 1997; GN, 1ex. Mt. Jirisan, Samjeongri, Macheonmyeon, Hamyanggun, 5. V. 2006; JJ, 1ex. Donneko, Seoguiposi, 27. IX. 2000; 2exs., Kwaneumsa, Jejusi, 11. VI. 1997; 2exs., Jeolmul, Donggye-dong, Jejusi, 19-25. IV. 2007.

**Distribution.** Korea (new record - Central, South, Is. Jejudo), Japan (Izu Is., Tsushima, Yakushima).

### Subfamily Conoderinae Schoenherr, 1833 거미바구미아과

#### Tribe Mecopini Lacordaire, 1866

#### Genus *Phylaitis* Pascoe, 1871

Ann. Mag. Nat. Hist. 7(4): 213 (Type-species: *Phylaitis v-album* Pascoe, 1871).

Distribution: Korea, Japan, E. Siberia, China, Taiwan, Borneo, Sulawesi, Moluccas, India, Madagascar, S. Africa.

#### *Phylaitis maculiventris* Voss, 1958 뽕거미바구미(신칭, Fig. 1. B, L, M)

*Phylaitis maculiventris* Voss, 1958, Decheniana Beihefte 5: 59 (TL: China; Kuatun)

**Measurements.** Body length (excl. rostrum). 4.0-4.9 mm.

**Descriptions.** Brownish black, antennae reddish brown. Scales on dorsum mainly black, on 3<sup>rd</sup> and 4<sup>th</sup> abdominal sternites with common deep black spots, on 5<sup>th</sup> sternite with a little narrower brown spot. Underside of prothorax more greyish-brown, upperside before scutellum and 5<sup>th</sup> interval with short, bright wedge-shaped spot. Elytra with indistinct sutural band and indistinct transverse bands behind the middle formed by yellowish grey scales. The base beside scutellum a little conspicuously red. Femora black, on the posterior part or at least in the apical part with greyish scales. Head almost hemispherical-shaped; eyes large, separated narrowly with lines-like on frons.

Rostrum almost as long as head and pronotum taken together, moderately strongly and steadily curved; dorsum with five fine keels and four punctured furrows which reach to the apical third of rostrum; finely and very closely punctate in the top third. Antennae inserted into the front third of rostrum; scape not reached at base of rostrum, as long as funicle and club taken together; funicular segments short and broad, 1<sup>st</sup> and 2<sup>nd</sup> segments longer than broad, 2<sup>nd</sup> segment a little longer than 1<sup>st</sup>, the remaining segments transverse, club elongate-oval, as long as the last four funicular segments taken together. Pronotum broader than long, moderately strongly and steadily rounded at sides, collar-like at frontal part, however, not sharply edged, but with small concave radius; punctures quite finely and very close; ocular lobe very weak; weakly bisinuate at base. Scutellum small, scaly. Elytra a little longer than broad, shoulders briefly rounded, about them a little broader than pronotum; quarter a little widened at base, then weakly circular, but strongly narrowed to the posterior part, weakly rounded at apex; Subapical calli moderately strong; a little fringed convex at base; striae line-like; intervals broad and level up. Prosternum deeply hollow and with a pair of long thoracic spines at both sides in male. Legs long, straight, femora barely clavate, the apex of hind femora passing over apex of elytra with moderate tooth; Tibia slender, a little outwardly curved just in the apical part; fore tibia longer than the remaining ones; 1<sup>st</sup> tarsal segment elongate straightened, half as long as tibiae; 3<sup>rd</sup> tarsal segment short; claws free.

**Material examined.** JJ 2 exs., Seguipo-Siheomrim, Sequiposi, 24. VII-4. VIII. 2007.

**Distribution.** Korea (new record - Is. Jejudo), Japan (Honshu, Kyushu), China (Fujian), Taiwan.

#### Tribe Othippiini Morimoto, 1962

#### Genus *Egiona* Pascoe, 1874

J. Linn. Soc. Lond. 12: 51 (Type-species: *Egiona laeta* Pascoe, 1874).

*Apiophorus* Roelofs, 1875, Ann. Soc. Ent. Belg. 18: 173 (Type-species: *Apiophorus pictus* Roelofs, 1875).

Distribution: Korea, Japan, China, Borneo, Sulawesi.

***Egiona picta* (Roelofs, 1875) 검정맵시거미바구미(신칭, Fig 1. C, N)**

*Apiophorus pictus* Roelofs, 1875, Ann. Soc. Ent. Belg. 18: 173 (TL: Japan).

**Measurements.** Body length (excl. rostrum). 2.6-2.8 mm.

**Descriptions.** Elliptical; underside, rostrum and head black; pronotum grayish black, its anterior margin red. Elytra dark red; legs and antenna red; dorsum, sides of pronotum and legs with grayish red scales, decorated the velvety pattern on dorsum by the black scales and the remaining areas with yellow and black scales. Rostrum punctate, more densely punctate at base, with smoothed median line. Head finely punctate, covered with brown scales and yellow scales around eyes. Pronotum bisinuate at base, slightly narrowed, rounded and shortly tubulate at anterior part; very finely shagreened; decorated with a big velvety black spot before scutellum, which is more or less cordiform; a small spot of the same color is next to this one; edge of the middle spot with yellow scales; this color scales formed a lateral band and are scattered on the basal margin. Elytra trisinate and exactly same broad as pronotum at base; shortly oval, isolated roundly on apex, striae regularly and deeply punctate, intervals flat and rough. Decorated to the big spot around the scutellum and to other spots of the even color at the base of the 4<sup>th</sup> interval which are separated by the yellow scales, formed the reddish gray transverse band in arch beyond of middle of elytra. Underside punctate; sides of mesosternum and metasternum with one or two black spots.

**Material examined.** GN 1ex., Dapcheon-ri, Ilbanseong-myeon, Jinju, 19-25. IV. 2007; 1ex., ditto, 10-16. V. 2007.

**Distribution.** Korea (new record - South), Japan (Honshu, Kyushu).

**Subfamily Cryptorhynchinae Schoenherr, 1825  
버들바구미아과**

**Tribe Cryptorhynchini Schoenherr, 1825**

**Subtribe Cryptorhynchina Schoenherr, 1825**

**Genus *Cryptorhynchus* Illiger, 1807**

Mag. Ins. 6: 330 (Type-species: *Curculio lapathi* Linnaeus,

1758).

*Arachnipes* Villa et Villa, 1833, 22 (Type-species: *Curculio lapathi* Linnaeus, 1758).

*Cryptorhynchidius* Pierce, 1919, Proc. Entomol. Soc. Wash. 21(2): 25 (Type-species: *Curculio lapathi* Linnaeus, 1758).

*Cryptorhynchobius* Voss, 1965, Reichenbachia, 6: 90 (Type-species: *Curculio lapathi* Linnaeus, 1758).

Distribution: Cosmopolitan.

***Cryptorhynchus electus* (Roelofs, 1875) 두니버들바구미(신칭, Fig 1. D, O)**

*Coelosternus electus* Roelofs, 1875, Ann. Soc. Ent. Belg. 18: 170 (TL: Japan - Kobe).

**Measurements.** Body length (excl. rostrum). 4.4 mm.

**Descriptions.** Brownish black to reddish brown; rostrum, antennae and legs brownish testaceous; with various dark and white hair-like scales. Rostrum about as long as pronotum, curved, not much enlarged and almost as thick as broad at base. Antennal scrobes beginning before middle of rostrum. First 2 segments of antennal funicle oblong reversely conical, equal to length, 1<sup>st</sup> segment bigger, the following segments gradually a little rounded and transverse. Head depressed between eyes, densely punctate with blackish brown scales, more clear around eyes. Pronotum shorter than broad at base, which is bisinuate, rounded on sides, slightly shrunk forward, constricted laterally before the anterior margin, densely punctate with clear, brown elongated scales on the median line and on sides; black scales formed two spots in the middle of the disc. Scutellum black, punctate, rounded. Elytra broader than pronotum, trisinate at base, rectangular in shoulders, subparallel-sided to their posterior third and then narrowed towards the end, which is subacuminate; striae with rather deep punctures; the odd intervals a little more leveled up septa between punctures of striae. Elytra with various dark hair-like scales; forming spots on odd intervals and appearing the transverse bands towards the base or middle and towards end; white scales forming a small oblique band on the 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> intervals, before middle and other transverse band towards the posterior third of the elytra. Underside with

large punctures with a yellowish scale. Abdominal segments separated by sutures rather shallow. Intercostal process angulate. Legs with the same vestiture variated blackish brown, the clear color forming rings on femora. Femora bidentate. Tarsi elongate; their 1<sup>st</sup> segment as long as the following segments combined.

**Material examined.** GG 1ex., Mt. Surisan, Gunpo, 13. V. 2000; CB 1ex., Miwon-ri, Miwon-myeon, Cheongju, 4-10. X. 2007; 1ex., ditto, 25-31. X. 2007; GN 1ex., Cheolma (surface 1-5), Gijang, Busan, 3. VI. 2001; JJ 1ex., Sangumburi, 28. V. 1992.

**Distribution.** Korea (new record - Central, South, Is. Jeju), Japan (Hokkaido, Honshu, Shikoku, Kyushu).

### Genus *Rhadinopus* Faust, 1894

Annali del Museo Civico di Storia Naturale di Genova 34: 288 (Type-species: *Rhadinopus centriformis* Faust, 1894).

*Sculptosternellum* Morimoto, 1962, J. Fac. Agr., Kyushu Univ. 11: 398 (Type-species: *Coelosternus sulcatostriatus* Roelofs, 1875).

Distribution: Korea, Japan, China, Myanmar, Malaysia, India.

### *Rhadinopus confinis* Voss, 1958 제주거칠버들바구미 (신칭, Fig 1. E, Q)

*Rhadinopus confinis* Voss, 1958, Decheniana Beihefte 5: 57 (TL: China; Kuantun)

*Shirahoshizo rugipennis* (non Morimoto, 1962); Hong *et al.*, 2000, Insects of Korea Ser. 5: 139.

**Measurements.** Body length (excl. rostrum). 4.0-5.2 mm.

**Descriptions.** Scaling clearly with red and yellowish scales. Hairs on pronotum a little shorter. Elytra covered more distinct reddish brown scales. Rostrum a little shorter, the medial keel on basal half of the rostrum continues on frons, mostly ends on height of posterior margin of eye mostly in a tubercle-like widening. Antennae inserted in the middle of rostrum; club oval, barely twice as long as broad. Pronotum clearly roundly narrowed at base and broadest a little before the base; sometimes with the median keel. Elytra with the round shoulders, consi-

derably broader than pronotum; intervals as broad as or a little broader than striae. The pectorial canal reached at the posterior margin of mesosternum. Last abdominal segments with transverse impression. Mid and hind tibia noticeably curved outward.

**Material examined.** JJ 1ex., Seondeul, Jeju, 18. VIII. 1994; 4exs., Jeolmul (R.F.), Jeju, 9-16. VII. 2005; 2exs., ditto, 6-13. VIII. 2005; 1 ex., ditto, 13-20. VIII. 2005; 3exs., ditto, 20-27. VIII. 2005; 1ex., ditto, 27. VIII-3. IX. 2005; 1ex., ditto, 16-24. IX. 2005; 1ex., ditto, 19-25. IV. 2007; 1ex., ditto, 1-7. VI. 2007; 2exs., ditto, 21-27. VI. 2007; 1ex., ditto, 23-30. VII. 2005.

**Distribution.** Korea (new record - Is. Jeju), Japan (Honshu, Kyushu), China (Fujian).

**Remarks.** Hong *et al.* (2000) misidentified a specimen of *Rhadinopus confinis* Voss which collected at Seondeul of Jeju Is. (18. viii. 1994) to *Shirahoshizo rugipennis* Morimoto.

### *Rhadinopus sulcatostriatus* (Roelofs, 1875) 거칠버들바구미(신칭, Fig 1. F, R)

*Coelosternus sulcatostriatus* Roelofs, 1875, Ann. Soc. Ent. Belg. 18: 168 (TL: Japan - Nagasaki).

**Measurements.** Body length (excl. rostrum). 4.2-5.0 mm.

**Descriptions.** Shortly oval, brownish black, rostrum reddish, antenna and tarsi bright reddish brown; with grayish yellow scales. Rostrum as long as the pronotum, a little broader than thick at base, gradually tapered towards apex; punctated striate at base, with a keel which gone against the head, almost smooth on the rest part, scrobes beginning before middle. Antennal club longer, indistinct articulation, velvety. Head appearing densely punctate across the vestiture. Pronotum shorter than broad, bisinuate at base, rather strongly constricted forwardly, rounded at sides; disk deeply, roughly and densely punctate, each puncture with a narrow, elongated, yellowish scale. Scutellum punctate, concave. Elytra shortly oval, trisinuate and a little broader than pronotum at base, subrounded at shoulders, regularly rounded to apex; the striae which composed of contiguous large squared punctures; the intervals as broad as striae, rough; disk with small narrow, yellowish and whitish scales forming irre-

gular spots. Underside rugosely punctate, with yellowish filiform scales. The first two segments of the abdomen separated by a superficial suture. Intercostal process broad, ogival. Legs with scales of the same color, a little elongate. Femora with a small tooth. Tarsi rather narrow.

**Material examined.** GG 1ex., Mt. Myeongjisan, Gapyeong, 25. VI. 1983; 3exs., Mt. Chukryeongsan, Namyangju, 11. VI-16. VIII. 1999; 1ex., Tp. Yongjusa, Anryeong-ri, Taean-eub, Hwaseong, 28. VI-4. VII. 2005; 1ex., ditto, 31. V-7. VI. 2007; GW 1ex., Jinnae-ri, Dong-myeon, Chuncheon, 25-31. V. 2007; 1ex., ditto, 29. VIII-4. IX. 2007; CB 1ex., Miwon-ri, Miwon-myeon, Cheongju, 2-9. IX. 2005; CB 1ex., ditto, 1-7. VI. 2007; 1ex., ditto, 23-29. VIII. 2007; CN 1ex., Donam-ri, Banpo-myeon, Gongju, 2-8. VI. 2007.

**Distribution.** Korea (new record - Central), Japan (Honshu, Shikoku, Kyushu).

### Genus *Shirahoshizo* Morimoto, 1962

Bull. Gov. For. Exp. Sta. 135: 36 (Type-species: *Cryptorhynchus rufescens* Roelofs, 1875).

Distribution: Korea, Japan, China, South of the Russian Far East, India.

#### *Shirahoshizo hiurai* Morimoto, 1962 왜흰점박이바구미(신칭, Fig 1. G, O)

*Shirahoshizo hiurai* Morimoto, 1962, Bull. Gov. Forest Exp. Sta. 135: 38 (TL: Japan - Honshu);

*Shirahoshizo ?hiurai*: Hong et Korotyayev, 2002, Korean J. Appl. Entomol. 41(3): 161 (Korea; North).

**Measurements.** Body length (excl. rostrum). 4.5-5.2 mm.

**Descriptions.** Black. Antennae, apex of rostrum and tarsi reddish brown. Derm closely covered with whitish, brownish and blackish scales, white scales forming a pair of spots on the 4<sup>th</sup> interval of elytra a little before the middle, blackish suberect scales are spotted on the median and anterior areas of pronotum. Head and rostrum similar to *Sh. pini* Morimoto, median keel weak but distinct. Antennae inserted into the middle of rostrum, scape clubbed in the apical one-fourth, 1<sup>st</sup> segment of funicle robust, conical, 1.5 times as long as wide and as long as the

2<sup>nd</sup>, 3<sup>rd</sup> segment nearly half as long as the 2<sup>nd</sup>, 4<sup>th</sup> segment as long as the 3<sup>rd</sup>, 5<sup>th</sup> segment oval, 6<sup>th</sup> and 7<sup>th</sup> segments subglobular, club oblong-oval, twice as long as wide. Pronotum broader than long (5:4), anterior margin 3/5 the width of the posterior one, broadest at the posterior 1/3, thence scarcely narrowed posteriorly, disc reticulate with shallow punctures, median keel fine. Scutellum round in outline, convex, sparsely with minute punctures, glossy. Elytra 1.7 times as long as wide, humeri rectangular, the sides sub-parallel from humeri to the middle, thence gently rounded and narrowed posteriorly, sub-apical swellings weak, the apices conjointly rounded, 1<sup>st</sup> interval a little flattened, the punctures and scales on the 1<sup>st</sup> interval smaller than those on the other intervals, 1<sup>st</sup> to 5<sup>th</sup> intervals with a row of glossy granules, each of which bears suberect scales, striae shallow and much narrower than the intervals. Abdominal process similar to *Sh. insidiosus* (Roelofs) and bearing large punctures, 2<sup>nd</sup>-4<sup>th</sup> segments similar to *Sh. pini* Morimoto. Femora quite similar to *Sh. rugipennis* Morimoto. Posterior two parts of tibiae slightly narrowed towards the apex. Penis with the apex very shortly acuminate.

**Material examined.** GW 1ex., Mt. Myeongseongsan, Cheolwon, 16. VI. 1999; CB 2exs., Mt. Wolaksan (E128.05/N36.51), 20. V. 2004 (Coll. No. 02106-02107); GB 1ex., Mt. Palgongsan, Daegu, 28. V. 1985.

**Distribution.** Korea (North, Central, South), Japan (Honshu).

**Remarks.** Authors could not confirmed the specimen from North Korea (Coll. No. 350, preserved in HNHM) that referred to Hong and Korotyayev (2002; p.161). Kojima and Morimoto (2004) recorded this species to Korean fauna, but it may refered to Hong and Korotyayev (2002). So, the distribution of this species to the Korean fauna was somewhat doubtful. But, we confirmed the distribution of the species with this result.

### Tribe Aedemonini Faust, 1898

#### Genus *Deiradocranus* Marshall, 1953

Publicagoes Culturais da Companhia de Diamantes de Angola 16: 112 (Type-species: *Deiradocranus latebris* Marshall, 1953).

*Deiradocranoides* Morimoto, 1962, J. Fac. Agr., Kyushu

Univ. 11: 401 (Type-species: *Deiradocranoides setosus* Morimoto, 1962).

Distribution: Korea, Japan, Angola.

***Deiradocranus setosus* (Morimoto, 1962) 가시털벼들바구미(신칭, Fig 1. H, S)**

*Deiradocranoides setosus* Morimoto, 1962, J. Fac. Agr., Kyushu Univ. 11: 402 (TL: Japan - Nagasaki).

**Measurements.** Body length (excl. rostrum). 1.8-2.1 mm.

**Descriptions.** Chestnut brown to blackish brown. Derm covered with recumbent white and brown scales, brown scales are faded into grey in old weevils; head, pronotum and elytra with their bases and odd-numbered intervals covered with brown scales, white scales are aggregated into spots along even-numbered intervals of elytra; under-surface and legs covered with grayish scales; derm clothed further sparsely white and black setae. Head closely punctured, frons flat; rostrum as long as head and pronotum taken together, glossy, with two punctured sulci on each side; antennae with 1<sup>st</sup> segment of funicle robust, 3/2 times as long as wide and 5/2 times as long as 2<sup>nd</sup>, each of 4<sup>th</sup>-6<sup>th</sup> segments broader than long, club oval, twice as long as wide. Pronotum transverse (3:2), broadest at the base, subtrapezoidal, anterior margin 2/3 the width of the posterior one, the sides narrowing straightly to the apex, which is not constricted laterally, but weakly depressed dorsally, dorsum closely punctate. Scutellum rounded, with dense white scales. Elytra longer than wide (4:3), shoulders rectangular, basal half parallel-sided, subapical swelling obsolete, the apices conjointly rounded; striae sharply incised, narrow, intervals flat, glossy, impunctate, much broader than striae. Pectorial canal extending to metasternum, which is deeply excavate to receive the apex of rostrum, posterior margin of the canal bordered with an arched costa, which is a little raised above the level of metasternum; metasternum between meso- and metacoxae as broad as 1<sup>st</sup> segment behind coxa, longitudinally sulcate behind the receptacle. 2<sup>nd</sup> segment of abdomen a little shorter than 3<sup>rd</sup> and 4<sup>th</sup> taken together, posterior margin of 2<sup>nd</sup> and 4<sup>th</sup> segments weakly curved posteriorly on each side; metasternum and 1<sup>st</sup> segment of abdomen depressed at the middle. Femora not

clavate, parallel-sided, median and hind femora weakly clavate, hind femora not reaching the apex of elytra. Tibiae slightly widened terminally. Tarsi with 3<sup>rd</sup> segment bilobed and broader than 2<sup>nd</sup>, claws small, free, but close together. Rostrum less strongly punctate sulcate. Metasternum less strongly depressed, 1<sup>st</sup> segment of abdomen convex.

**Material examined.** GG 1ex., Tp. Yongjusa, Anryeong-ri, Taean-eub, Hwaseong, 5-12. VII. 2005; GB 1ex., Namsa-ri, Hyeongog-myeon, Gyeongju, 30. VI-14. VII. 2005; 1ex., ditto, 25. VIII-2. IX. 2005; JJ 1ex., Jeol-mul (R.F), Donggye-dong, Jeju, 10-16. IX. 2005; 1ex., ditto, 20-27. VIII. 2005.

**Distribution.** Korea (new record - Central, South, Is. Jeju), Japan (Honshu, Kyushu).

### Genus *Rhadinomerus* Faust, 1892

Stett. Ent. Zeit. 53: 46 (Type-species: *Mechistocerus mastersi* Pascoe, 1870).

Distribution: Korea, Japan, China, Kuril Is., Afrotropical, Oriental and Australian Regions.

***Rhadinomerus annulipes* (Roelofs, 1875) 주름목도리바구미(신칭, Fig 1. I, T)**

*Cryptorhynchus annulipes* Roelofs, 1879, Ann. Soc. Ent. Belg., 22, compt. -rend.: 54 (TL: Japan).

**Measurements.** Body length (excl. rostrum). 5.1-6.0 mm.

**Descriptions.** Derm dull black; pronotum with scattered clavate short setae, one in each puncture, and with three dirty red scaly patches along anterior margin, median one usually smaller; elytra predominantly covered with dirty brick-red, brownish red or grayish red scales, basal margin except for third interval and humeri scarcely scaled and visibly black, apical area behind subapical calli with brownish black scales and/or with scarce reddish scales and visibly black. Head with vertex bare, coarsely with shallow punctures, forehead minutely punctate smooth median area including a short sulcus, each puncture with a short scale. Rostrum as long as pronotum, constricted at the base, coarsely punctate and tricarinate on basal half, the median carina distinct, sparsely with



very fine punctures on apical half. Antennae inserted in the middle of rostrum, scape clavate, with a few scales, three basal segments of funicle not pubescent, 1<sup>st</sup> segment as long as 2<sup>nd</sup>, robust, 3<sup>rd</sup> segment subequal to each of subsequent segment in length, 5/8 times as long as 2<sup>nd</sup>, 4<sup>th</sup> segment sparsely pubescent, 1.5 times as long as broad, 5<sup>th</sup>-7<sup>th</sup> segments pubescent, a little broader than 4<sup>th</sup>, club compact, 2.6 times as long as broad, 1<sup>st</sup> segment oblique at apex, about as long as the rest. Pronotum slightly broader than long, broadest just before the middle, straightly and weakly narrowed posteriorly, roundly narrowed anteriorly to shallow subapical constriction, dorsum longitudinally convex basally and depressed in front, granulate-punctate, with a shiny median short carina. Scutellum circular, convex, bare, dull. Elytra 1.6 times as long as broad, parallel-sided from humeri to the middle, subapical calli weak, striae with subquadrate close punctures that diminish behind the middle, intervals as broad as or slightly narrower than striae on basal half, 3<sup>rd</sup> interval a little raised at base, each interval with a row of scattered suberect scales. Underside coriaceous, with slight luster; metasternum with reticulate deep punctures, more or less sulcate longitudinally in the middle, anterior and posterior ends of the sulcus deeper especially at sides, 2<sup>nd</sup>-4<sup>th</sup> ventrites with small dense punctures at sides and scattered fine punctures in the middle, each puncture with a scale, 3<sup>rd</sup> and 4<sup>th</sup> ventrites each with a row of scales in the middle, 5<sup>th</sup> ventrite with small punctures, their interstices as broad as the diameters. Legs dull black, femora predominantly with brownish red scales, with dark median and apical indefinite rings; tibiae straight externally, blackish on basal half in general. Aedeagus with penis dilated apically, broadly truncate at apex, apical orifice one third the width of penis, without a median sensillum, gonopore with two short juxtaposed hairpin-shaped sclerites.

**Female.** Antennae inserted in the middle of rostrum; rostrum tricarinate on basal third; metasternum with a median longitudinal depression; 1<sup>st</sup> ventrite convex ventrally.

**Material examined.** JJ 1ex., Donggye-dong, Jeju, 2-9. VII. 2005; 1ex., ditto, 16-23. VII. 2005; 1ex., Seoguipo Experimental Forest, Seoguipo, 30. VI-6. VII. 2006.

**Distribution.** Korea (new record - Is. Jeju), Japan

(Honshu, Kyushu).

*Rhadinomerus maebarai* Chûjô et Voss, 1960 **참목**  
도리바구미(신칭, Fig 1. J, U)

*Rhadinomerus maebarai* Chûjô et Voss, 1960, Mem. Fac. Liberal Arts & Educ., Kagawa Univ., Part II, No. 94: 6 (TL: Japan - Berg Takachiho, Berg Seppiko, Hyogo; Hirayu, Gifu).

**Measurements.** Body length (excl. rostrum). 5.0-6.2 mm.

**Descriptions.** Derm dull black, septa of elytral striae often shiny and bare, pronotum with three indefinite stripes formed of scattered dirty grey scales; elytra variegated with grayish and brownish scaly small indefinite patches, each interval with a row of scattered suberect scales on apical third. Head with vertex with bare, shiny, reticulate shallowed punctures, forehead coriaceous rugulose, scaled, deep median sulcus bordered laterally by narrow smooth areas. Rostrum as long as pronotum, constricted at the base, tricarinate on basal half, with two rows of scaled punctures between carina, scales denser at the base, with sparse small punctures on apical half. Antennae inserted in the middle of rostrum, funicle sparsely pubescent on 1<sup>st</sup> and apical 3 segments, 1<sup>st</sup> segment robust, 9/7 times as long as 2<sup>nd</sup>, 3<sup>rd</sup> segment a little longer than 4<sup>th</sup>, remaining segments equal in length and successively broadened, 6<sup>th</sup> segment as long as broad, club 2.4 times as long as broad, as long as three basal segments of funicle combined, 1<sup>st</sup> segment as long as broad, oblique or weakly sinuate at apex, a little longer than 2<sup>nd</sup>. Pronotum as long as broad, broadest in the middle, straightly narrowed posteriorly or very slightly constricted before the base, roundly narrowed anteriorly to the weak subapical constriction, dorsum longitudinally convex basally, median area more or less flattened and depressed in front, reticulately punctate, coriaceous, with a short median carina before the middle. Scutellum bare, shiny, at most with a few minute punctures. Elytra 1.6 times as long as broad, parallel-sided from humeri to the middle, subapical calli weak, striae with subquadrate punctures that diminished behind the middle, their septa as long as the width of punctures and much narrower than intervals on basal half, intervals almost as broad as striae on basal half, each

interval with a row of scattered suberect scales at least on declivity. Underside coriaceous, metasternum with dense punctures, their interstices much narrower than the diameters, median sulcus deeper anteriorly, often interrupted near the base; 1<sup>st</sup> ventrite punctate as on metasternum, 2<sup>nd</sup> ventrite as densely punctate as on 1<sup>st</sup>, but they are much smaller and their interstices are broader than their diameters, 3<sup>rd</sup> and 4<sup>th</sup> ventrites each with a row of scales, punctures indistinct in the middle. Legs without scaly ring, femora scarcely clavate, not naked in ventral aspect; tibiae straight. Aedeagus with penis weakly dilated apically and broadly truncate at apex with round corners, without a median sensillum, internal sac with two short juxtaposed hairpin-shaped sclerites.

**Female.** Antennae inserted behind the middle of rostrum; rostrum with weak three carinae at basal fourth and scaled at the base; metasternum with a shallow median sulcus often interrupted at basal third; 1<sup>st</sup> ventrite not flattened in the middle.

**Material examined.** CB 1ex., Miwon-ri, Miwon-myeon, Cheongju, 22-29. VII. 2005; 1ex., ditto, 29. VII-5. VIII. 2005; 1ex., ditto, 21-27. VI. 2007; 1ex., ditto, 12-18. VII. 2007; 1ex., ditto, 2-8. VIII. 2007; GB 1ex., Mt. Tonggosan, 13. VIII. 1992.

**Distribution.** Korea (new record - Central, South), Japan (Hokkaido, Honshu, Shikoku, Kyushu, Tsushima).

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