

**A contribution to the study of China Dorcadionini
(Coleoptera, Cerambycidae). Part 2.**

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Key words: Cerambycidae, Lamiinae, *Dorcadion*, *Eodorcadion*, taxonomy, new species, new records, China.

Summary. *Eodorcadion* (s. str.) *virgatum taihangense*, **ssp. nov.** is described from Shanxi. *E.* (s. str.) *minicarinatum*, **sp. nov.** similar to *E.* (s. str.) *multicarinatum* (Breun.) is described from Anhui. *E.* (*O.*) *potaninellum*, **sp. nov.** close to *E.* (*O.*) *potanini* (Suv.) and *E.* (*O.*) *pseudornatum* **sp. nov.** similar to *E. ornatum* (Fald.) are described from Shaanxi. *E.* (*Humerodorcadion*) *humerale xinganum* Chiang & Wang, 2003, **nom. rest.** is redescribed and accepted as a widely distributed in NE China subspecies represented by numerous individual forms. *E.* (*H.*) *h. quadrilineatum* (Breit, 1915), **nom. rest.** is accepted as southernmost subspecies of *E. humerale* (Gebler) known from Hebei and south-east of Inner Mongolia. A first description of a female of *E.* (*O.*) *kaznakovi* (Suvorov, 1912) is proposed. New specimens of *E.* (*O.*) *heros* (Jak.) - two males and a female - are described. Several new geographical data of Chinese Dorcadionini are recorded.

INTRODUCTION

The first part (Danilevsky & Lin, 2012) of the revision of *Eodorcadion* materials from the collection of the Institute of Zoology, Chinese Academy of Sciences in Beijing (IZAS) was devoted to the taxa close to *E. chinganicum* (Suvorov, 1909).

Now we studied several China populations of *E. humerale* (Gebler, 1823), the species of *E. virgatum*-group and several species of subgenus *Ornatodorcadion* Breuning, 1947.

Several new geographical records for China *Dorcadion* Dalman, 1817 are proposed.

First author of the present work is responsible for the taxonomical constructions, nomenclature and for the arrangement of

photos. Second author is responsible for transliteration of China labels in English and for the identifications of localities.

Eodorcadion (s. str.) *virgatum taihangense*, ssp. nov.

(Fig. 1)

Type locality. China: Shanxi, Wutaishan.

Description. Only males known. The new taxon differs from *E. v. virgatum* (Motschulsky, 1854) by small body size and distinctly raised elytral intervals between numerous narrow setae stripes. Body black, antennae and legs slightly reddish; antennae a little longer than body; antennal joints without setae rings; prothorax in about 1.1 times wider at base, than long; lateral spines well developed; pronotum moderately convex, roughly tuberculate with rough irregular punctation; flattened at middle and here relatively flat, with wide glabrous rugous longitudinal line bordered by wide irregular setae stripes; elytra convex, regularly oval, widened near middle, about 1.6 times longer than wide; each elytron with 7 regular narrow dorsal pale setae stripes and wider humeral stripe sometimes divided anteriorly into two; curved elytral margin without white pubescence; glabrous elytral areas distinctly raised; ventral body side with very dense pale pubescence; body length 12.5-13.8mm; body width (near elytral middle): 5.1-5.7mm.

Materials (IZAS): Holotype, male [IOZ(E)1905769], China, Shanxi, Wutaishan, 2200m, 17.07.1996, Li Wenzhu leg. ; 3 paratypes [IOZ(E)1905766, IOZ(E)1905767, IOZ(E)1905768], males with same label.

Distribution: China, North Shanxi, Wutaishan (**fig. 32 – 1**).

Remark. Many other populations of *E. virgarum* could be described as new subspecies soon, but now too small number of specimens is known from different localities. For example a single small (14mm) female (IZAS) in very bad condition from Inner Mongolia (Shangdu, 1.8.1989, Li Wenzhu leg.) with strongly raised elytral intervals between numerous narrow setae stripes most probably also represent a new subspecies.

Eodorcadion (s. str.) *minicarinatum*, sp. nov.
(Figs. 2-3)

Type locality. China: Ahhui, Funan.

Description. The new taxon belongs to “*multicarinatum*-group” of species, but all numerous elytral carinae are poorly pronounced. Body, legs and antennae red-brown; male antennae a little longer than body (female antennae broken); antennal joints without setae rings; prothorax in male about 1.2 times wider at base, than long, but in female a little wider; lateral spines well developed; pronotum moderately convex, roughly tuberculate; flattened at middle and here relatively flat, with rough conjugated, rugous punctation, without central smooth longitudinal line, with a smooth posterocentral tubercle; with a pair of irregular longitudinal white setae stripes; elytra strongly convex, regularly oval, widened near middle, in male and in female about 1.4 times longer than wide; numerous elytral carinae very fine, less developed in male, obliterated along middle, with very fine scattered pale pubescence forming wide humeral and marginal stripes; humeral carinae about totally obliterated without granules anteriorly; ventral body side with very fine pale pubescence, disappearing near middle of anterior margin of each abdomen sternite; body length in male 15.3mm; body length in female: 17.0mm, body width (near elytral middle) in male: 6.6mm; body width in female: 7.1mm.

Remark. In *E. multicarinatum* (Breuning, 1943) elytra with numerous dorsal carinae well developed and with rather dense white pubescence. In *E. oligocarinatum* Danilevsky, 2007 only two dorsal carinae are very distinct, others – obliterated.

Materials (IZAS): Holotype, male [IOZ(E)1905779], China, Anhui, Funan (fig. 30 - 2); paratype, female [IOZ(E)1905785], China, Jiangxi (printed), Heyang (hand writing), 18.06.1980.

Distribution. Central China: Anhui (Funan) and (?)Jiangxi (Heyang).

Remark. We do not know a locality with the name “Heyang” in Jiangxi Province. But such locality is well known in Shaanxi Province. Probably somebody just used a printed label “Jiangxi” for the specimen out of the province.

Eodorcadion (Ornatodorcadion) potaninellum, sp. nov.
(Figs. 4-5)

Type locality. China: Shaanxi, Huanglongshan.

Description. The new species is close to *E. potanini* (Suvorov, 1912), but differs by less elongated totally black body and very rough dorsal sculpture. Antennae black, in male a little longer than body, in female – a little shorter than body; antennal joints with white basal setae rings; prothorax in male about 1.1 times wider at base, than long, in female – about 1.2 times; lateral spines relatively long; pronotum convex; pronotal sculpture very rough, granulated, with very narrow central glabrous line, also granulated, narrowly margined with white pubescence; most of pronotal area covered with white (male) or yellowish scattered recumbent setae; elytra regularly oval, widened near middle, about 1.9 times longer than wide in male and about 1.6 times – in female; dorsal elytral carinae slightly raised, humeral carinae anteriorly distinct without granulation, posteriorly obliterated; elytral sculpture very rough, rugous with deep dense punctation; each elytron with narrow sutural stripe, slightly wider internal dorsal stripe, wide humeral stripe and very wide regular marginal stripe; internal dorsal stripes absent, but the area between sutural and external dorsal stripe covered with pale pubescence (white in male, yellow in female), which is much denser in male arranging in numerous spots; legs totally black; ventral body side with dense white pubescence, with scattered partly glabrous small spots; body length in male: 15.5mm, in female: 24.5mm; body width (near elytral middle) in male: 5.3mm, in female: 9.5mm.

Materials (IZAS): Holotype, male [IOZ(E)1905760], Shaanxi, Huanglongshan (fig. 30 - 3), 24.08.1980; 1 paratype, female [IOZ(E)1905787] with same label.

Distributioin. South part of Shaanxi (Huanglongshan).

Remark. A totally broken female (25mm) in very bad condition from North Shaanxi (Yulin, 07.1977 - IZAS) could also belong to a new species because of similarly rough dorsal sculpture and elytral design, but seems to be closer to *E. potanini*, because of rather narrow body.

Eodorcadion (Ornatodorcadion) pseudornatum, sp. nov.
(Fig. 6)

Type locality. China: Shaanxi, Huanglongshan.

Description. The new species seems to be close to poorly known *E. ornatum* (Faldermann, 1833); a single female known; body, legs and antennae totally black; antennae much shorter than body, reaching to about apical elytral third; antennal joints with narrow white basal setae rings distinct on 3rd -4th joint only; prothorax about 1.1 times wider at base, than long; lateral spines well developed, with wide bases; pronotum roughly tuberculate; flattened at middle and here relatively smooth, with very narrow central smooth longitudinal line, widely bordered with white pubescence; lateral pronotal areas with numerous scattered short white setae, partly joined in several spots; elytra elongated, regularly oval, widened near middle, about 2 times longer than wide; dorsal elytral carinae slightly raised, humeral carinae distinct along two anterior third, relatively smooth, without granules anteriorly; elytral sculpture relatively smooth with flattened scattered dots; each elytron with narrow sutural stripe, slightly wider internal dorsal stripe, wide humeral stripe and very wide regular marginal stripe completely covered curved margin; internal dorsal stripes totally absent; the area between sutural and external dorsal stripe with scattered white setae and several small white dots; ventral body side with dense white pubescence, without dark spots; body length 20.0mm; body width (near elytral middle): 6.7mm.

Materials (IZAS): Holotype, female [IOZ(E)1905786], Shaanxi, Huanglongshan (fig. 30 - 4), 24.08.1980.

Distribution. South part of Shaanxi.

Eodorcadion (Humerodorcadion) humerale xinganum Chiang &
Wang, 2003, nom. rest.
(Figs. 7-25)

Eodorcadion mongolicum, Wang, 2003: 300, part. – Jilin prov: Baicheng, Changchun, Zhenlai.

Eodorcadion xinganum Chiang & Wang, 2003: 304, 396 – “Jilin (Baicheng)”

Eodorcadion humerale trabeatum, Danilevsky, 2010: 257, part.
(=*xinganum* Chiang & Wang)

Type locality. China: Jilin prov., Baicheng environs – according to the original description

A single very strange female was described as *E. xinganum* Chiang & Wang, 2003 from Baicheng (prov. Jilin). Its attribution to *E. humerale* (Gebler, 1823) was quite clear from the original photo, so the name was preliminary synonymized (Danilevsky, 2010) with the nearest subspecies *E. h. trabeatum* Jakovlev, 1901. Similar forms of *E. h. trabeatum* are known from Russia (Danilevsky, 2007: 188, **fig. 36c(14)** – Radde in Amur valley), where they are mixed with normal *E. h. trabeatum*.

Now quite same female (**fig. 9**) was discovered in the collection of Institute of Zoology in Beijing. Unfortunately that female (as well as two other similar females, **figs. 10-11**) has no geographical labels. All three specimens have rather special convex pronotum with regular small punctation, with narrow glabrous central line, so their origin from same population as the holotype is evident.

A series of *E. humerale* from Baicheng (a male and 2 females – IZAS; **figs. 7-8**) – type locality of *E. xinganum* – show the real nature of the taxon inside *E. humerale*. It belongs to a very distinct rather variable new subspecies widely distributed in Jilin, southern Heilongjiang and south-eastern Inner Mongolia: *E. humerale xinganum* Chiang & Wang, 2003, **nom. rest.** No specimens of that beautiful taxon were known before with the exception of the holotype, though three males (as 2 males and a female) were published by Wang (2003) as “*E. mongolicum*”. In fact the individual variability of the subspecies is extremely strong and redescription is necessary.

Description. Pronotum and elytra with well developed white or yellowish setae spots longitudinally arranged or with longitudinal stripes; pronotum usually with wide central longitudinal smooth area, which sometimes can be narrow and hardly pronounced (**figs. 9-11**); white elytral spots can never be irregularly scattered as in *E. h. impluviatum* (Faldermann, 1833), but sometimes with irregularly scattered pale spots between sharp longitudinal carinae covered by very narrow pale lines (Figs. 19-20); more often spots in between

longitudinal carinae bearing white stripes are more or less longitudinally arranged (**figs. 8, 17, 21, 22**) and carinae could be covered with yellowish wide stripes (**fig. 25**); or intercalary spots fused in longitudinal stripes, and each elytron with more or less regular 7 longitudinal stripes (**fig. 15**); or elytral carinae more or less obliterated, without pubescence, and stripes in between can be wide and regular, so each elytron with regular subsutural, two dorsal and humeral lines; marginal lines wide, covering about whole curved margin, but usually irregular, several time interrupted; very rare elytral stripes can be partly (**fig. 10**) or totally (**fig. 9 and in holotype**) spread all over elytra, forming dense, regular dorsal elytral pubescence, but suture rests glabrous; forms with elytral stripes only along carinae (as in *E. h. trabeatum*) and without white spots in between are not known; elytral carinae (internal and external) in males indistinct – the corresponding areas are just a little convex; in females elytral carinae from about indistinct to strongly developed; humeral carinae in males well developed only anteriorly, in females – along whole elytral length; each population can be strongly variable in size, shape and elytral design; population from north-west and south-east of Jilin are very similar and definitely belong to one subspecies; all populations better represented in available materials include about all known forms of subspecies; body length in males: 13-19mm, in females: 18-25mm; body width (near elytral middle or near elytral base) in males: 5.0-6.2mm, in females: 7.0-10mm.

Distribution. NE China; Jilin prov.: Baicheng (**fig. 30 - 5**), Pingtai (**fig. 30 - 6**); Changchun (**fig. 30 - 7**), Shuangyang (**fig. 30 - 8**), Jiuzhan (**fig. 30 - 9**), southern Heilongjiang: Tailai (**fig. 30 - 10**); south-eastern Inner Mongolia: Tuquan (**fig. 30 - 11**).

Materials (IZAS). 1 female (similar to holotype), NE China, 25.06.1939; 1 female, no labels; 1 female, NE China, 30.06.1943; 1 male, Jilin, Baicheng, 06.1955; 2 females, Jilin, Baicheng; 2 males, 3 females, Jilin, Pingtai, 18-27.06.1957; 1 female, Jilin, Shuangyang county, 06.1963; 1 male, Jilin, Changchun environs [43°49'01,50''N, 125°19'24,75''E], 15.06.1957; 5 females, Jilin, Changchun environs [43°49'01,50''N, 125°19'24,75''E], 15.06.1977; 1 male, Jilin, Jiuzhan, 1957; 1 male, Inner Mongolia, Tuquan county, Beihe; 7 males, 14 females, Heilongjiang, Tailai, 17-19.06.1970; 1 male, Heilongjiang, Tailai;

Eodorcadion (Humerodorcadion) humerale quadrilineatum
(Breit, 1915), **nom. rest.**
(Fig. 26)

Neodorcadion quadrilineatum Breit, 1915: 355 („bei Kalgan in der Mongolei“); Winkler, 1929: 1199.

Eodorcadion (s. str.) *quadrilineatum*, Gressitt, 1951: 335, 341 (“Kalgan, Leangpaofu”); Breuning, 1958: 5, part. (“Mongolie”).

Eodorcadion humerale, Hua, 2002: 206 (= *trabeatum* Jak. = *quadrilineatum* Breit), part.

Eodorcadion quadrilineatum, Wang, 2003: 303 (Inner Mongolia: Chifeng area, Khingan area, Baotou area, Alxa area), part.

Eodorcadion (Humerodorcadion) humerale trabeatum, Danilevsky, 2007: 142 (= *quadrilineatum* Breit), part.; 2010: 257 (= *quadrilineatum* Breit), part.

Type locality. China: Hebei prov., Zhangjiakou environs.

The taxon was described on the base of a single male (16mm). Before (Danilevsky, 2007) the taxon was also attributed by me to the nearest subspecies of *E. humerale* – *E. h. trabeatum*. Now after new locality available and after separation of *E. h. xinganum* Chiang & Wang, 2003, **nom. rest.** the existence of a separate subspecies *E. humerale quadrilineatum* (Breit, 1915), **nom. rest.** became clear.

Description. Only males known. Antennae a little shorter than body; pronotum roughly sculptured with moderately wide glabrous central line; elytra smooth, glabrous, shining, with obliterated carinae, dorsally with very narrow, complete, longitudinal, white setae stripes: subsutural, two dorsal and humeral; legs and antennae red or reddish; posterolateral elytral areas also can be reddish; body length of a single available male (from mandibles to elytral apex) 16.8mm, body width (near elytral middle): 5.7mm.

Distribution. The southern-most subspecies; NE China; three localities known; Hebei prov.: Zhangjiakou (Kalgan – type locality); south-eastern Inner Mongolia: Jining (Danilevsky, 2007) and Huanggangliang national forest garden.

Materials. 1 male, Inner Mongolia, Chifeng, Keshiketengqi (Hexigten Banner), Huanggangliang national forest garden, alt. 1250-1300 m, 13.7.2006, Shi Hongliang leg. – private collection (Tianjin).

Review of other Dorcadionini materials

Many other Dorcadionini materials (IZAS) belong to very rare or rather interesting taxons described before, but represented here by peculiar specimens from new localities.

Dorcadion (s. str.) cephalotes (Jakovlev, 1889)

A single small male (17mm – the smallest ever known specimen of the species) available: Xinjiang, Tuoli [45°55'N, 83°36'E], 4.07.1955, Ma Shijun et al. leg.

Dorcadion (Acutodorcadion) songaricum Ganglbauer, 1884

A single female (16mm) available: Xinjiang, Tacheng [46°44'N, 82°57'E], 1981, Fu Zhensheng leg.

***Eodorcadion (Ornatodorcadion) heros (Jakovlev, 1899)*
(Figs. 27-28)**

Two males (18.0-19.3mm) and a female (23.3mm) available: Ningxia, Yinchuan, Lingwu, Langpiliang, 4.08.1990.

Only holotype (female) and a very old male were known before (Danilevsky, 2007). Specimens of new series are smaller, with totally black legs. All three are characterized by rather smooth shining elytral sculpture, humeral carinae without granules anteriorly; while in related *E. zichyi* (Csiki, 1901) from Mongolia elytra with roughly rugous punctation and granulated humeral carinae.

***Eodorcadion (Ornatodorcadion) kaznakovi kaznakovi*
(Suvorov, 1912)
(Fig. 29)**

A male (12.0mm - the smallest ever known specimen of the species) and a female (length: 15.0mm, width: 6.0mm) available:

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male, Ningxia, West of Helanshan, 12.08.1982; female, Ningxia, Zuoqishanpo, 12.08.1982.

Females of the species were not known before. A single available specimen is totally black with black legs and antenna; most of antennal joints with wide basal white antennal rings; prothorax with long lateral spines; pronotum roughly tuberculated, with narrow glabrous central line narrowly bordered with white; elytra regularly oval, relatively smooth, with very narrow sutural stripe, narrow external and humeral stripes and very wide marginal stripes; internal dorsal stripes replaced by poorly developed yellowish rudiments near elytral base.

Eodorcadion (Ornatodorcadion) oreadis (Ganglbauer, 1884)

Two males and a female available: male, Xinjiang, Tulufan [=Turpan], Huoyanshangongshe, 25.08.1967, Song Shaozong leg.; male (totally reddish), Xinjiang, Hami, Balikun county, 11.07.1968; female (in very bad condition, without antennae and legs, with deformed elytra), Yiwu [43°14'N, 94°37'E], Qianshanmuchang, 29.08.1967, Chen Yonglin leg.

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INSCRIPTION FOR FIGURES

Fig. 1. *E. virgatum taihangense*, **ssp. nov.** male, holotype.

Figs. 2-3. *E. minicarinatum*, **sp. nov.**

2 – male, holotype; 3 – female, paratype.

Figs. 4-5. *E. potaninellum*, **sp. nov.**

4 – male, holotype; 5 – female, paratype.

Fig. 6. *E. pseudornatum*, **sp. nov.**, female, holotype.

Figs. 7-25. *E. humerale xinganum* Chiang & Wang, 2003, **nom. rest.**

7 – male, Jilin, Baicheng, 8 – female from same locality; 9-11 – females without geographical labels, but most probably from Baicheng, 12 - male, Jilin, Pingtai, 13 – female from same locality, 14 – male, Inner Mongolia, Tuquan, 15-18 – males, Heilongjiang, Tailai, 19-22 – females from same locality, 23 – male, Jilin, Changchun, 24-25 – females from same locality.

Fig. 26. *E. humerale quadrilineatum* (Breit, 1915), **nom. rest.**, male.

Figs. 27-28. *E. heros* (Jak.), Ningxia, Yinchuan, Lingwu, Langpiliang.

27 – male, 28 – female.

Fig. 29. *E. kaznakovi* (Suv.) – female.

Map of localities.

1 – *E. virgatum taihangense*, **ssp. n.**: Shanxi, Wutaishan;

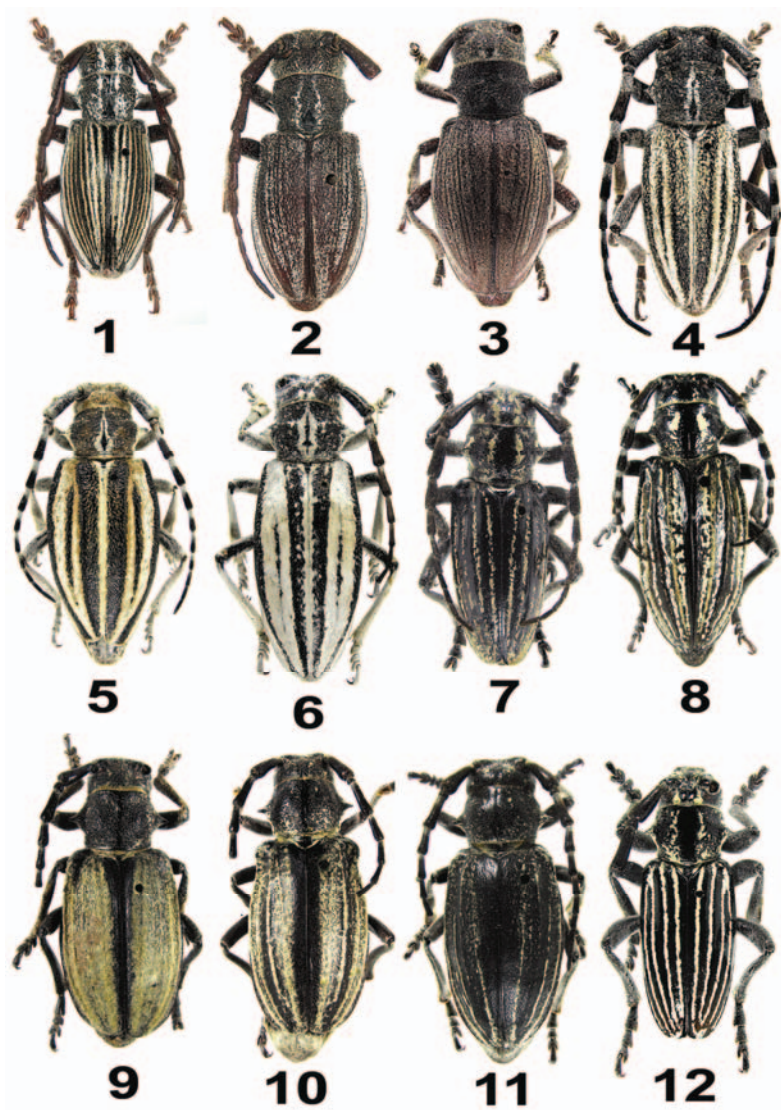
2 - *E. minicarinatum*, **sp. n.**: Anhui, Funan;

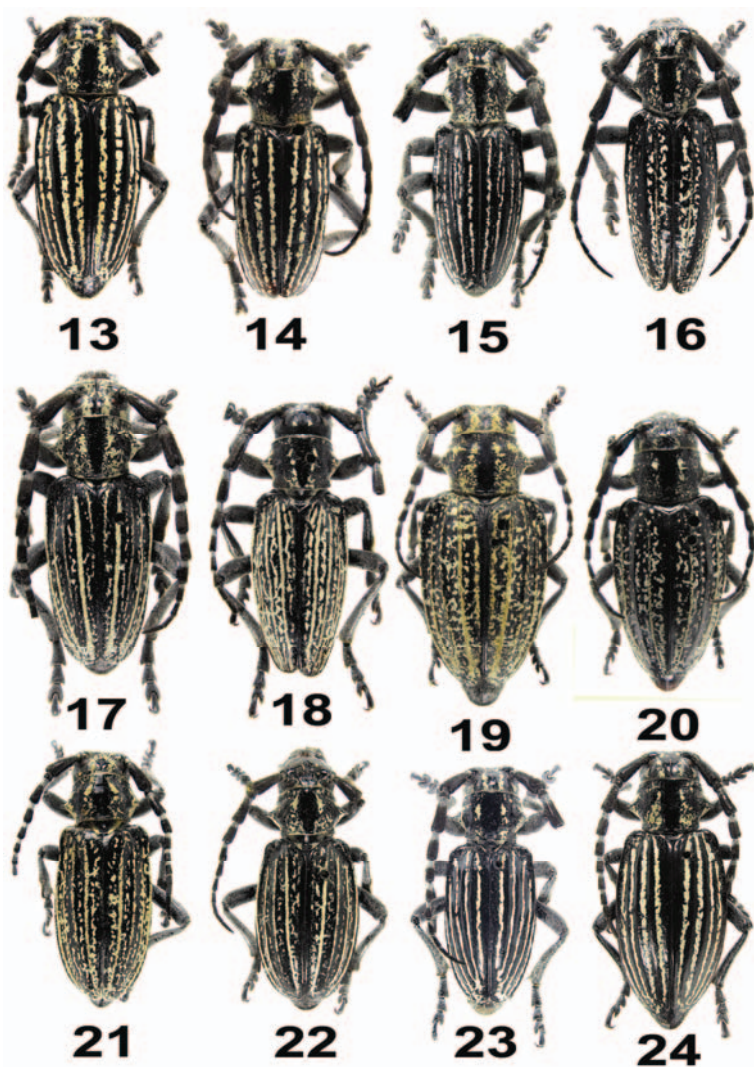
3 - *E. potaninellum*, **sp. n.**: Shaanxi, Huanglongshan;

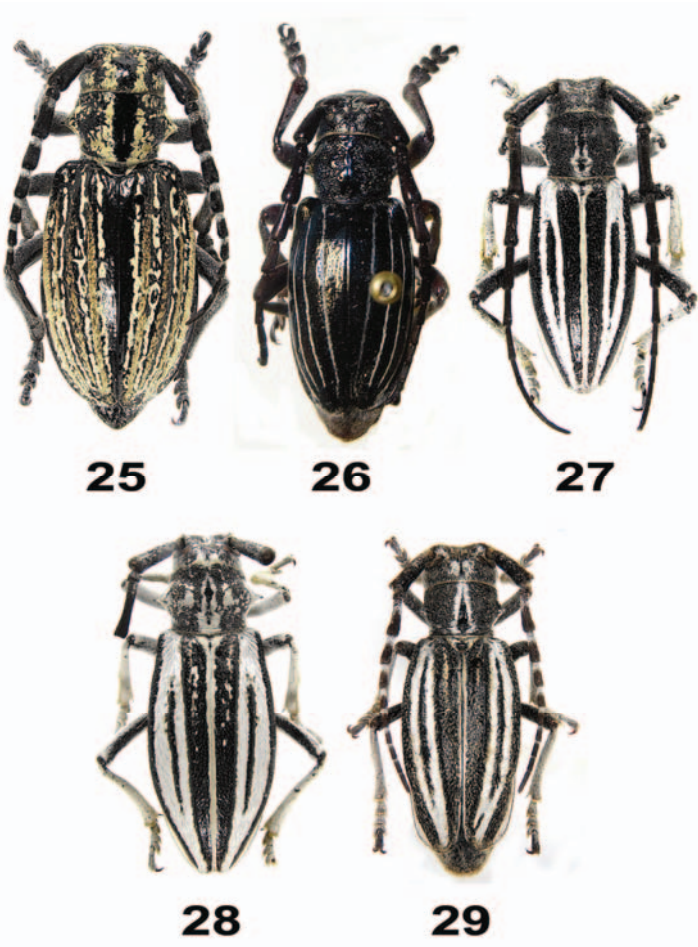
4 - *E. pseudornatum*, **sp. n.**: Shaanxi, Huanglongshan;

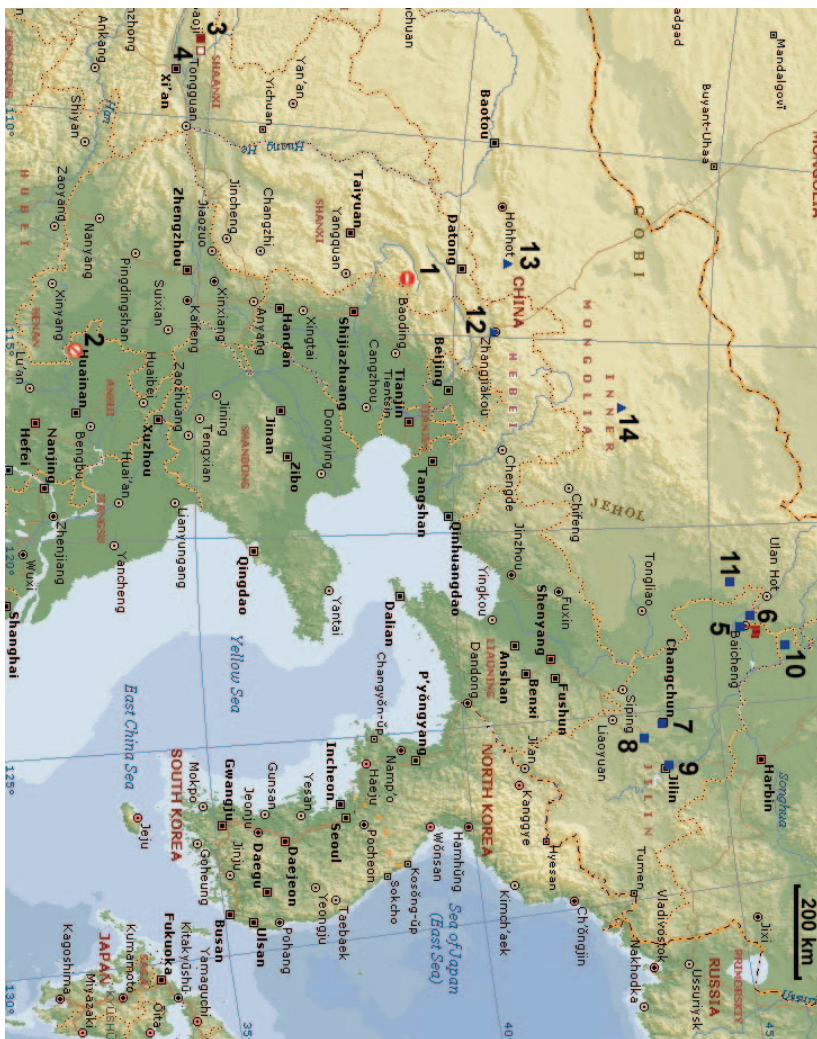
5–11 - *E. humerale xinganum*, **nom. rest.**: 5 – Jilin, Baicheng (type locality), 6 – Jilin, Pingtai, 7 – Jilin, Changchun, 8 – Jilin, Shuangyang, 9 – Jilin, Jiuzhan, 10 – Heilongjiang, Tailai, 11- Inner Mongolia, Tuquan.

12-14 - *E. humerale quadrilineatum*, **nom. rest.**: 12 - Hebei prov.: Zhangjiakou (type locality), 13 - Inner Mongolia, Jining, 14 - Inner Mongolia, Huanggangliang national forest garden.









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