

ISSN 2226-0773

INTERNATIONAL ALMANAC

HUMANITY SPACE

MIKHAIL L. DANILEVSKY AND MEI-YING LIN

*A contribution to the study of China Dorcadionini
(Coleoptera, Cerambycidae)
Parts 1-2*



Volume 1, Supplement 4

MOSCOW
2012

ISSN 2226-0773



9 772226 077005

ISSN 2226-0773

INTERNATIONAL ALMANAC

HUMANITY SPACE

MIKHAIL L. DANILEVSKY AND MEI-YING LIN

*A contribution to the study of China Dorcadionini
(Coleoptera, Cerambycidae)
Parts 1-2*

Volume 1, Supplement 4

MOSCOW
2012

Humanity space

***International almanac* VOLUME 1, Supplement 4, 2012**

Главный редактор / Chef Editor: **M.A. Lazarev**

E-mail: **cerambycidae@fromru.com**

Дизайн обложки / Cover Design: **M.A. Lazarev**

Scientific Editors: V.P.Podvoysky / O.V. Stukalova

E-mail: **chif599@gmail.com**

Website: **<http://www.humanityspace.com>**

Publishers: **Higher School Consulting**

Tovarishchensky side street, 19, office19, Moscow, Russia

Printed by: **AEG Group Design & Printing**

Gruzinsky Val, 11, Moscow, 123056 Russia

Advisory participation:

**Federal State Research Institution of the Russian Academy of
Education «Institute of Art Education»**

Date of issue: **10.06.2012**

Register: **ISSN 2226-0773**

Front species: *Eodorcaion chinganicum mandschukuoense* Breuning, 1944, **stat. nov.**

© Humanity space. *International almanac*
составление, редактирование
compiling, editing

EDITORIAL BOARD

Baklanova Natalya Konstantinovna Moscow Humanities Pedagogical Institute

Balbeko Anatoly Mikhaylovich Moscow State University and Municipal Management

Borch Anna University of Nature in Wroclaw (Poland); Institute of Landscape Architecture

Butov Alexandr Yurevich Federal State Research Institution of the Russian Academy of Education «Institute of Art Education»; International Higher Education Academy of Sciences

Grekova Tatyana Nikolaevna Moscow State University of Design and Technology

Dukkon Agnes Professor Budapest University named after Eötvös Loránd (ELTE); Doctor of Philological Sciences (in Russian literature); Doctor of the Hungarian Academy of Sciences (in Hungarian literature, Renaissance and Baroque)

Zotov Vladimir Vladimirovich Moscow State University of Design and Technology

Kiselev Genady Mikhaylovich Moscow Regional Socio-Economic Institute

Kshitsova Danushe University named after Masaryk and Institute of Slavic Studies (Brno)

Mann Yuriy Vladimirovich Russian State University for the Humanities; Russian Academy of Natural Sciences

Matytsin Alexandr Anatolevich Moscow Aviation Institute

Olenev Svyatoslav Mikhaylovich Moscow State Academy of Choreography

Piryazeva Elena Nikolaevna Federal State Research Institution of the Russian Academy of Education «Institute of Art Education»

Podvoysky Vasily Petrovich Moscow State Pedagogical University

Polyudova Elena Nikolayevna Santa Clara County Library (USA: California)

Szoke Katalin Institute of Slavic Studies of the University of Szeged (Hungary)

Smirnova Tamara Petrovna Moscow State University of Design and Technology

Stukalova Olga Vadimovna Federal State Research Institution of the Russian Academy of Education «Institute of Art Education»

Tabachnikova Olga Markovna University of Bath, UK

Shcherbakov Anna Iosifovna Russian State Social University

**A contribution to the study of China Dorceadionini
(Coleoptera, Cerambycidae). Part 1.**

Mikhail L. Danilevsky¹ and Mei-Ying Lin²

¹A. N. Severtzov Institute of Ecology and Evolution, Russian Academy of Sciences, Leninsky prospect 33, Moscow 119071 Russia.
E-mail: danilevskym1@rambler.ru, danilevsky@cerambycidae.net

²Key Laboratory of Zoological Systematics and Evolution, Institute of Zoology, Chinese Academy of Sciences, 1 # Beichen West Road, Chaoyang, Beijing, 100101, China. E-mail: linmeiying@ioz.ac.cn

Key words: Cerambycidae, Lamiinae, *Eodorcadion*, taxonomy, China, Mongolia.

Summary. The species rank *E. rubrosuturale* (Breuning, 1943) is restored. Several local populations of *E. chinganicum* (Suvorov, 1909) and *E. rubrosuturale* are partly described. Most of localities were never published before, so new distributional records are proposed for several taxa. Specimens from about all new localities are figured. Two names are downgraded to subspecies rank: *E. chinganicum mandshukuoense* (Breuning, 1944), **stat. nov.** and *E. chinganicum darigangense* Heyrovský, 1967, **stat. nov.** The taxon described as *E. chinganicum kerulenum* Danilevsky, 2007 is regarded as *E. rubrosuturale kerulenum* Danilevsky, 2007.

INTRODUCTION

A complete revision of the genus was published not long ago (Danilevsky, 2007) on the base of materials from Russian and West European Museums and collectors. Several specimens were also studied in National Museum of Natural History, Washington, USA. Unfortunately no materials were available from Chinese Museums, neither from Mongolian. Now we begin to study a very rich *Eodorcadion* collection of the Institute of Zoology, Chinese Academy of Sciences in Beijing.

A lot of *Eodorcadion* specimens close to poorly known *E. chinganicum* (Suvorov, 1909) are now available for study from numerous populations of North-East China from Inner Mongolia, Heilongjiang, Hebei and Liaoning. Nearly all of them were never reflected before in the publications.

The group is characterized by great degree of individual variability, that makes very difficult to join populations in natural

taxa. Among more than 50 specimens studied we cannot see a pair of beetles similar enough. Unfortunately most of populations are represented by single specimens only, so the reliable representation of their taxonomical rank is difficult. The present classification must be regarded as presumable. Now we are able to separate all populations in two species only with several subspecies: *E. (s. str.) chinganicum* (Suvorov, 1909) and *E. (s. str.) rubrosuturale* (Breuning, 1943).

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.

Sometimes other spellings of Chinese geographical names are added in brackets.

Abbreviations of collections:

IZAS - Institute of Zoology, Chinese Academy of Sciences, Beijing, China.

JV – collection of Jiří Vorišek, Jirkov, Czechia.

MD – collection of M.L. Danilevsky, A.N. Severtzov Institute of Ecology and Evolution, Russian Academy of Sciences, Moscow, Russia.

MHNL - Muséum d'Histoire Naturelle, Lyon, France.

SMTD – Staatliches Museum für Tierkunde, Dresden, Germany.

ZIN – Zoological Institute, Russian Academy of Sciences, Sankt-Petersburg, Russia.

ZMM – Zoological Museum of Moscow University, Russia.

**1. *E. (s. str.) chinganicum* (Suvorov, 1909)
(Figs. 1-23, 32-35)**

Neodorcadion chinganicum Suvorov, 1909: 90, part. - "In den Vorbergen von Chingan".

Neodorcadion mandschukoense Breuning, 1944: 15 - „Mandchourie: Moukden“.

Eodorcadion (s. str.) chinganicum, Gressitt, 1951: 340, part. - "China: Manchuria (Chingan Shan)".

- Eodorcadion (Ornatodorcadion?) mandschukuoense*, Gressitt, 1951: 344, part - “China: Manchuria”.
- Eodorcadion chinganicum*, Plavilstshikov, 1958: 444, part. – China, Inner Mongolia.
- Eodorcadion* (s. str.) *chinganicum*, Breuning, 1962: 21, part. – “Chingan-Berge”
- Eodorcadion (Ornatodorcadion) mandschukuoense*, Breuning, 1962: 25, part. – “Mandschurei: Mukden“.
- Eodorcadion darigangense* Heyrovský, 1967: 104 – Mongolia, „somon Dariganga“.
- Eodorcadion jilinense* Chiang, 1983: 60 (new name for *mandschukuoense* Breuning).
- Eodorcadion jilinense* [sic] Chiang, 1983: 66 (new name for *mandschukuoense* Breuning, misspelling, unavailable name).
- Eodorcadion* (s. str.) *chinganicum chinganicum*, Danilevsky, 2007: 35, part.; 2010: 256, part. – China;
- Eodorcadion* (s. str.) *darigangense*, Danilevsky, 2007: 48, part. – “South-East Mongolia”; Danilevsky, 2010: 256, part. – Mongolia;
- Eodorcadion* (s. str.) *mandschukuoense*, Danilevsky, 2007: 49, part. – “China – Liaoning: Shenyang (Mukden)”; Danilevsky, 2010: 256, part. – China;

Type locality: China: Dalaj-Nor lake (43°15'N, 116°40') environs in Inner Mongolia – according to the label of the lectotype (“from Mardyn-gol to Balaierek-gol”) designated by Danilevsky (2007).

Description of available specimens. The species is characterized by extreme degree of individual variability known in each population with enough number of available specimens. Marginal forms of color and design can be observed in any part of its very big area. Typical population was known up to now after three rather different males only (see **figs. 3a-1,2** in Danilevsky, 2007). But 3 females (see **figs. 3a-6,7** in Danilevsky, 2007) available from Xilin-Gol Reserve (Xilinhot environs, about 100km only NNW from the presumable type locality) are rather similar to typical males and could be attributed to the typical population.

Now we know two more rather different males from near Xilinhot. Big male (19.0mm long - **fig. 1**) is totally reddish, very wide, with regularly oval elytra is very similar to known females. Small male (14.5mm - **fig. 2**) belongs to another form with black

body. It is rather similar to Mongolian *E. chinganicum darigangense* Heyrovský, 1967, **new rank** distributed in about 200km north-westwards. Diffuse scattered white elytral pubescence in between longitudinal elytral stripes nearly indistinct, which is also normal for *E. darigangense*.

Four new populations are distributed along south-east slope of Khingan Ridge in Chifeng. The genital male structures were prepared in two males (**figs. 32-35**). Aedeagus apex is widely rounded, parameres distinctly curved.

Three specimens (2 males and 1 female) are available from Wengniuteqi (Ongniud B.), Haijinshanmuchang (42°55'53,83''N, 119°01'48,89''E). A female, (20.0mm, **fig. 5**), is similar to the typical form. Both males are considerably narrowed posteriorly; male (17.0mm, **fig. 3**) with black body has a very contrast system of longitudinal white elytral stripes: subsutural, two dorsal and humeral; reddish male (16.0mm, **fig. 4**) has less distinct longitudinal elytral stripes, and diffuse white pubescence between stripes is slightly arranged longitudinally.

Two black females (17.0mm and 20.0mm, **figs. 6-7**) from Balinyouqi (Bairin Right B.) (43°32'03,89'', 118°39'54,65'') in about 70km northwards have distinct longitudinal stripes. Bigger female is strongly elongated with rather wide internal dorsal elytral stripe, but subhumeral stripe is poorly pronounced. Smaller female is regularly oval with only internal dorsal and humeral stripes very distinct.

The population from Balinzuqi (Bairin Left B.), Hadayinggexiang (43°55'20,85'', 119°18'35,36'') is represented in our materials by 10 males (14.0-16.0mm) and 5 females (16.0-21.0mm). All specimens (**figs. 8-11**) are totally black with more or less regular longitudinal white stripes. Elytra could be more narrowed posteriorly or regularly oval; subsutural elytral stripe always indistinct; internal elytral stripes sometimes (always in females) wider than others (**figs. 10-11**), but usually in males (**fig. 8**) elytral design consist of very narrow 7-9 irregular white stripes.

The population from Alukeerqinqi (Ar Horqin B.), Baichengzi, Tianshancun (43°45'24,83'', 120°14'36,84'') is represented in our materials by 5 males (14.5-16.0mm) and 10

females (15.0-23.0mm). All specimens (**figs. 12-15**) are totally black and in general very similar to the specimens from the previous population.

Certain males from Balinzuqi (Bairin Left B.) and Baichengzi have just same elytral design as the holotype (see **fig. 6** in Danilevsky, 2007) of *Neodorcadion mandschukuoense* Breuning, 1944.

The western most population of *E. chinganicum* is represented by a single male (**fig. 16**) from the eastern part of Inn Shan mountains (Inner Mongolia, Hohohot, Saihan, Jinhezhen, Dayijianfangcun, about 40°48'N, 111°42'E). It also looks very close to the holotype of *Neodorcadion mandschukuoense*.

The available materials closest to the type locality of *Neodorcadion mandschukuoense* Breuning, 1944 („Mandchourie: Moukden“ = Liaoning: Shenyang) is represented by 2 males (14.0-17.0mm) and 1 female (18.0mm) from Liaoning, Zhangwu county, Zhanggutai (42°42'31,13'', 122°29'46,13). All 3 specimens (**figs. 17-19**) have elytral design similar to the holotype of *Neodorcadion mandschukuoense*, but body color is red or reddish.

Similar population (**figs. 20-21**) is situated in Jilin in about 250km north-eastwards in Changchun environs (43°49'01,50'', 125°19'24,75''), but only 2 reddish males (15.5-16.2mm) are available from here.

Taxonomic conclusions. All populations mentioned above don't show any constant differences on species level, but more or less geographical variability is clear. Unfortunately most of populations are represented by single specimens, so there morphological diagnoses cannot be arranged good enough.

Now we could preliminary include in the nominative subspecies *E. ch. chinganicum* (Suvorov, 1909) the typical population from near Dalaj-Nor (including Xilinhote environs), all four populations of Hingan Ridge (4 from Chifeng and one from near Hailar) and a population from near Hohhot, though the last one should be described as a new taxon after more materials available. More materials from the area of the nominative subspecies are rather desirable as well as its detail taxonomical differentiation in several taxa.

E. ch. darigangense Heyrovský, 1967, **stat. nov.** (figs. 22-23) is characterized by regularly oval elytral shape and by usually scattered diffuse pubescence between longitudinal stripes, which is never longitudinally arranged; reddish forms are not known from here. Up to now it is known only from the south part of Suhe-Bator aimak in Mongolian Republic.

Three populations could be preliminary included in *E. ch. mandschukoense* Breuning, 1944, **stat. nov.** (figs. 17-21) Only holotype is known from the type locality, so its reality needs to be proved. Populations from near Zhangwu and from near Changchun need to be better studied. The subspecies is characterized by rather distinct wide dorsal internal stripes and numerous narrow stripes between wide dorsal stripe and humeral stripe. Totally red specimens seem to be dominating in certain populations.

Available materials (IZAS). *E. ch. chinganicum*: 1 male, Inner Mongolia, Xilinhot, 19.07.1987; 1 male, Inner Mongolia, Xilinguolei, Xilingol League, 43°56'00,43'', 116°02'53,60'', 25.07.1972; 2 males and 1 female, Inner Mongolia, Chifeng, Wengniuteqi (Ongniud B.), Haijinshanmuchang, 42°55'53,83''N, 119°01'48,89''E, 18.06. 1957; 2 females, Inner Mongolia, Chifeng, Balinyouqi (Bairin Right B.), 43°32'03,89'', 118°39'54,65'', 23.06.1959; 10 males and 5 females, Inner Mongolia, Chifeng, Balinzuoqi (Bairin Left B.), Hadayinggexiang, 08.07.1980, Guan Jingqun leg.; 5 males and 10 females, Inner Mongolia, Chifeng, Alukeerqinqi (Ar Horqin B.), Baichengzi, Tianshancun, 43°45'24,83'', 120°14'36,84'', 18.08.1981; 1 male, Inner Mongolia, Hohohot, Saihan, Jinhezhen, Dayijianfangcun, about 40°48'N, 111°42'E, on *Lespedeza bicolor*, 11.07.1960; 1 female, [?]Lyao Si, 15.06.1951, Chzhan U leg. [the original label is in Russian]; 2 females, Manchoukuo, [?] Ta-Yngtse, [?] Linsisien, 06.1940, E. Bourgault leg.

E. ch. mandschukoense: 2 males and 1 female, Liaoning, Zhangwu county, Zhanggutai, 42°42'31,13'', 122°29'46,13, 13.06.1958; 2 males, Jilin, Changchun, 43°49'01,50'', 125°19'24,75'', 15.06.1977, Yang Liming leg.

Previously published materials (Danilevsky, 2007): *E. ch. chinganicum*, as “*E. chinganicum*”: 1 male (see fig. 3a-1 in Danilevsky, 2007), lectotype with four labels: (1) in Russian [“Khingang, from Mardyn-gol to Balairek-gol, 25.VII-1.VIII.87, Garnak”], (2) “*Neodorcadion chinganicum* Typ.m. G.Suworow. det.”; (3) “*Eodorcadion* s.s. *chinganicum* Suv. Voříšek det. 1976”, (4) red: “LECTOTYPE, *Eodorcadion* (s.str.) *chinganicum* Suvorov, 1909 M.Danilevsky det.,2004” - (ZIN); 1 male (see

fig. 3a-2 in Danilevsky, 2007), paralectotype [“from Mardyn-gol to Balairek-gol, 25.VII-1.VIII.87, Garnak”][in Russian] – (JV); 1 female (see **fig. 3a-5** in Danilevsky, 2007) with one label in Russian [“Khing., Imakhe-Khabu, 5.VII.99, Potanin exp.”] – (ZIN); 1 male, with same label – (ZMM); 1 male, [“Khingan, from Mardyn-gol to Balairek-gol, 1.VIII.87, Garnak”] [in Russian] – (ZMM); 3 females, “Mandzhuria bor.-occ., st. Chorchonte, 16.8.1933, Alin's coll.” [near Hailar] – (ZMM); 3 females (see **fig. 3a-6,7** in Danilevsky, 2007), China, Nei Mongol., NW border of Xilin-Gol Reserve, near Xilinhot, 26.7.2002, T. Shimizu leg. – (MD).

E. ch. mandschukoense as “*E. mandschukoense*”: 1 male (see **fig. 6** in Danilevsky, 2007), holotype with 5 labels: (1) “holotype” [red], (2) “Mukden, Mandschourie”, (3) “*Neodorcadion mandschukoense* mihi Typ det. Breuning” [Breuning’s hand], (4) “*Eodorcadion (Ornatodorcadion) mandschukoense* Br. P.Lepesme det.”, (5) “Coll. Lepesme 2002 Museum de Lyon” - (MHNL).

E. ch. darigangense as “*E. darigangense*”: holotype, male (represented by elytra only), “Mongolia, Suchebaator Aimak: Somon Dariganga, 1150m, 5.8.1965, exp. Dr. Z. Kaszab” – (HNHM); 5 males and 1 female (see **figs. 5-1-3** in Danilevsky, 2007), Suhe-Bator aimak, Dariganga env., Duut-Nuur, 20.7.1985, Ulykpan leg. – (MD); 1 male with same label – (JV); 1 male and 1 female, Dariganga env., Zeget-Nur, 20.7.1985, Ulykpan leg. – (MD); 1 male (see **fig. 5-4** in Danilevsky, 2007) and a pair of male elytra, 2km W Dariganga, 1230m, 45°18’N, 113°49’E, 14-15.8.2002, M.Danilevsky leg. – (MD).

2. *E. (s. str.) rubrosuturale* (Breuning, 1943), stat. rest. (Figs. 24-31, 36-39)

Neodorcadion chinganicum var. *melancholicum* Suvorov, 1909: 91, - “In den Vorbergen von Chingan” - unavailable name.

Eodorcadion (s. str.) *chinganicum*, Gressitt, 1951: 340 (with “var. *melancholicum*”), part. – “China: Manchuria (Chingan Shan)”.

Neodorcadion rubrosuturale Breuning, 1943: 98 - “Inn-Chan”.

Eodorcadion chinganicum, Plavilstshikov, 1958: 444 (with “morpha *melancholicum*”), part. – China, Inner Mongolia.

Eodorcadion (s. str.) *chinganicum*, Breuning, 1962: 21, part. – “Chingan-Berge”

Eodorcadion (s. str.) *chinganicum* m. *rubrosuturale*, Breuning, 1962: 22, part. – “Inn-shan”, “Charbin”.

- Eodorcadion* (s. str.) *chinganicum chinganicum*, Danilevsky, 2007: 37, part. – “in China Manchzhuria from about Hailar to Dalaj-Nor lake environs”; 2010: 256, part. – China;
- Eodorcadion* (s. str.) *chinganicum rubrosuturale*, Danilevsky, 2007: 40, part. – “China - Inn-Shan mountains northwards Ordos in Inner Mongolia”; 2010: 256, part. – China;
- Eodorcadion* (s. str.) *chinganicum kerulenum* Danilevsky, 2007: 41, part. – “East part of Mongolian Republic”; 2010: 256, part. – Mongolia;

Type locality: China: Inn-Shan mountains northwards Ordos in Inner Mongolia - according to the original description.

Remark. The type series of *Neodorcadion chinganicum* Suvorov, 1909 includes two species. Specimens described as *Neodorcadion chinganicum* var. *melancholicum* Suvorov, 1909 (unavailable name.) belong to the species with first available name *N. rubrosuturale* Breuning, 1943.

One of available types designated by Suvorov as “var. *melancholicum*” is supplied with exactly same label as typical specimens (including lectotype): “Khingian, from Mardyn-gol to Balairek-gol, 27.VII.1887, Garnak”, so the author expressly gave infrasubspecific rank (Article 45.6.4 of ICZN) to the name “var. *melancholicum*”.

The areas of *E. chinganicum* and *E. rubrosuturale* are largely overlap, though the area of *E. rubrosuturale* is much larger, covering the whole eastern half of Mongolian Republic and reaching southwards the latitude of Beijing in Hebei. Specimens of both taxa were originally described inside one species from the type locality of *Neodorcadion chinganicum*. Such point of view was generally accepted up to now. New investigation of China materials show the morphological hiatus between corresponding specimens in spite of very wide range of individual variability of *E. chinganicum*.

E. rubrosuturale (**figs. 24-31**) is characterized by small regularly oval wide body, always totally red, never strongly narrowed posteriorly; subsutural white stripe always indistinct; lateral pronotal glabrous area usually present. Genital structure (**figs. 36-39**) was prepared in two males and are rather different, though aedeagus apex (**figs. 37, 39**) is always widely rounded similar to its shape in *E. chinganicum*. Parameres in male without geographical

label are very narrow, relatively strait and strongly elongated (**fig. 38**) parameres in a male from Xilin Hot (**fig. 36**) are considerably shorter, so a little similar to parameres of *E. chinganicum*.

Only three localities are definitely known where both species are sympatric: Dariganga environs in Sukhe-Bator aimak of Mongolian Republic, Xilinhote environs in Inner Mongolia and Balinyouqi (Bairin Right B.) environs in Chifeng.

All China populations of *E. rubrosuturale* are preliminary attributed to the nominative subspecies because of too small number of specimens available. But three males from about type locality (Inner Mongolia, Siziwangqi, Wulanchabu City (Ulanqub L.), Siziwang Banner), allow to revise the difference between the typical population and *E. r. kerulenum*: body in *E. r. rubrosuturale* is really more elongated, but posterior pronotal protuberance of the holotype of *E. r. rubrosuturale* absent in new males; glabrous lateral areas of pronotum in *E. r. rubrosuturale* much better developed; lateral pronotal tubercles in ceratin specimens of *E. r. rubrosuturale* relatively longer or shorter.

Available materials (IZAS). *E. r. rubrosuturale*: 3 males (13.0-14.0mm, **figs. 24-26**), Inner Mongolia, Siziwangqi, Wulanchabu City (Ulanqub L.), Siziwang Banner, 41°32'00,46'', 111°42'23,82'' [very close to the type locality], 28.06.1971; 1 male (12.5mm, **fig. 27**), Inner Mongolia, Xilinguolei, Zhongxinhe, 23.06.1971; 2 males (14.0-15.0mm, **figs. 28-29**), Inner Mongolia, Chifeng, Balinyouqi (Bairin Right B.), 43°32'03,89'', 118°39'54,65'', 23.06.1959; 1 female, Inner Mongolia, Chifeng, Kalaqinqi (Harqin Banner), Jinshanzhen, 890 m, 41°55'46''N, 118°40'32''E, 16.04.2006, Shi Hongliang leg.; 1 female (15.0mm, **fig. 30**), Inner Mongolia, Jalaid Banner (Zhalai Teqi), 46°43'28.92'', 122°54'25.85'', 21.06.1975; 1 male (13mm), Hebei, Chengde, 07.1981, Guan leg.; 1 female (15.0mm, **fig. 31**), Hebei, Weixian, Baile, 39°57'21,50'', 114°52'47,40'', 920m, 02.08.1964, Li Bingqian leg.; 1 male and 1 female with a label: "1.VII,27, Licent"; 1 female, Inner Mongolia, 26.06.1958.

Previously published materials (Danilevsky, 2007): *E. r. rubrosuturale*, as "*E. chinganicum rubrosuturale*": 1 male (see **fig. 3b-8** in Danilevsky, 2007), holotype with 6 labels: (1) "spec. angebot. aus Inn Shan, Mongol.", (2) "ex coll. Dr. Noesske", (3) "TYPE" [red], (4) "Coll. Prof. Dr. Noesske Ankauf 1947", (5) "Staatl. Museum für Tierkunde, Dresden", (6) „*Neodorcadion rubrosuturale* mihi Typ det. Breuning“ - (SMTD);

M.L.Danilevsky, M.Y.Lin

E. r. rubrosuturale, as “*E. chinganicum*”: 3 males, paralectotypes of *Neodorcadion chinganicum* (syntypes of *Eodorcadion chinganicum* var. *melancholicum* Suv.): 1 male (see **fig. 3a-3** in Danilevsky, 2007) with two labels: (1) in Russian [“Khingang, from Mardyn-gol to Balairek-, Garnak”], (2) “*Neodorcadion chinganicum* var. *melancholicum* Typ.m. G.Suworow. det.” – (ZIN); 1 male (see **fig. 3a-4** in Danilevsky, 2007) with two labels: (1) in Russian: “Khingang, ...[not readable], 25.VI.91, Garnak leg.”, (2) “*Neodorcadion chinganicum* var. *melancholicum* Typ.m. G.Suworow. det.” – (ZIN); 1 male with two labels, (1) in Russian [“Manchzhuria, Khuan-Tulutzy(?), 9.VI.1896”], (2) “*Neodorcadion chinganicum* var. *melancholicum* Typ.m. G.Suworow. det.” - (ZIN); 1 male and 1 female, “Charbin, Mandzhurei” wrongly designated by S.Breuning as “paratype” and “allotype” of “*Eodorcadion chinganicum rubrosuturale* Breun.” – (MHNL);

E. rubrosuturale kerulenum Danilevsky, 2007, as “*E. chinganicum kerulenum* Danilevsky, 2007”: 1 male, holotype (see **fig. 3c-9** in Danilevsky, 2007), Mongolia, Suhe-Bator aimak, Tumen-Tzogt, 2.7.1983, K. Ulykpan leg. – (MD); 113 paratypes from different localities of Mongolian Republic (Central aimak, Suhe-Bator aimak, East aimak); a female from same locality as holotype was figured (**fig. 3c-10** in Danilevsky, 2007).

Acknowledgement. We are very grateful to Sergey Mirzin (Moscow) for his valuable help in our contacts. The second author thanks Shi Hongliang for the generous donation of his Longicorn beetles collection from Inner Mongolia to National Zoological Museum of China, Institute of Zoology, Chinese Academy of Sciences.

REFERENCES

- Breuning S. [É.], 1943. Nouveaux Cérambycides paléarctiques (1re note).- *Miscellanea Entomologica*, 40, n°9: 89-104.
- Breuning S. [É.], 1944. Nouveaux Cérambycides paléarctiques (2^e note).- *Miscellanea Entomologica*, 41: 11-16.
- Breuning S. 1962. Revision der Dorcadionini (Coleoptera, Cerambycidae). *Entomologische Abhandlungen und Berichte aus dem Staatlichen Museum für Tierkunde in Dresden*, 27: 1-665.
- Chiang S.-N. 1983. [new names]. In: Chou I., Chao H.-F. & Chiang S.-N.: *Modification of Insect Scientific Names Connected with "Manchukuo"*.- *Entomotaxonomia*, 5: 60 & 66.

M.L.Danilevsky, M.Y.Lin

- Danilevsky M.L., 2007. Revision of the genus *Eodorcadion* Breuning, 1947 (Coleoptera, Cerambycidae). Collection systématique, Vol. 16, Magellanes: 1-230.
- Danilevsky M.L., 2010. tribe Dorcadionini, pp. 241-264. – In I. Löbl & A. Smetana (ed.): Catalogue of Palaearctic Coleoptera, Vol. 6. Stenstrup: Apollo Books, 924pp.
- Gressitt J.L. 1951. Longicorn beetles of China. - In: P. Lepesme: Longicornia, études et notes sur les longicornes, Volume 2. Paris: Paul Lechevalier, 667 pp., 22 pls.
- Heyrovský L. 1967. 98. Cerambycidae III. Ergebnisse der zoologischen Forschungen von Dr. Z. Kaszab in der Mongolei (Coleoptera).- Reichenbachia, Bd. 9, Nr. 12: 101-105.
- Plavilstshikov N.N. 1958. Fauna SSSR. Zhestokrylye. T. XXIII, vyp. 1. Zhukidrovoseki. Ch. 3. Podsemeistvo Lamiinae, ch. 1. Moskva - Leningrad: Izdatel'stvo Akademii Nauk SSSR, 591 + [1] pp.
- Suvorov G.L., 1909. Beschreibung neuer Arten der Neodorcadion Ganglb. (Coleoptera, Cerambycidae).- Revue Russe d'Entomologie, 9, 1-2: 80-92.

INSCRIPTION FOR FIGURES

Figs. 1-16. *E. ch. chinganicum*. 1 - male, Inner Mongolia, Xilinhot, 19.07.1987; 2 - male, Inner Mongolia, Xilinguolei, Xilingol League, 43°56'00,43'', 116°02'53,60'', 25.07.1972; 3-4 - males, Inner Mongolia, Chifeng, Wengniuteqi (Ongniud B.), Haijinshanmuchang, 42°55'53,83''N, 119°01'48,89''E, 18.06. 1957; 5 - female with same label; 6-7 - females, Inner Mongolia, Chifeng, Balinyouqi (Bairin Right B.), 43°32'03,89'', 118°39'54,65'', 23.06.1959; 8-9 - males, Inner Mongolia, Chifeng, Balinzuoqi (Bairin Left B.), Hadayinggexiang, 08.07.1980, Guan Jingqun leg.; 10-11 - females, Inner Mongolia, Chifeng, Balinzuoqi (Bairin Left B.), Hadayinggexiang, 08.07.1980, Guan Jingqun leg.; 12-13 - males, Inner Mongolia, Chifeng, Alukeerqinqi (Ar Horqin B.), Baichengzi, Tianshancun, 18.08.1981; 14-15 - females, Inner Mongolia, Chifeng, Alukeerqinqi (Ar Horqin B.), Baichengzi, Tianshancun, 18.08.1981; 16 - male, Inner Mongolia, Hohohot, Saihan, Jinhezhen, Dayijianfangcun, 11.07.1960

Figs. 17-21. *E. ch. mandschukuoense*. 17-18 - 2 males, Liaoning, Zhangwu county, Zhanggutai, 13.06.1958; 19 - female, same locality; 20-21 - males, Changchun, 15.06.1977, Yang Liming leg

Figs. 22-23. *E. ch. darigangense*. 22 – male, Mongolia, Sukhe-Bator aimak, Dariganga env., Duut-Nuur., 20.7.1985, Ulykpan leg. – MD;

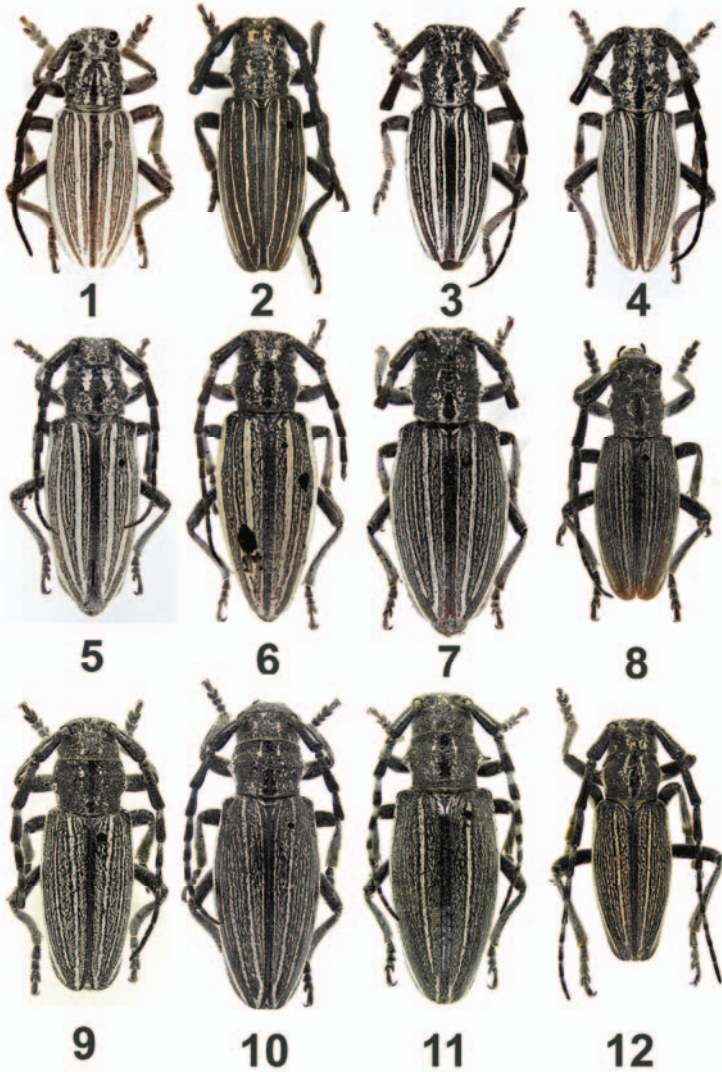
23 - male, Mongolia SE, Moltzog Else, 45°18'N, 113°51'E [near Dariganga], 1250m 27.7.2007 J.Halada leg. – MD.

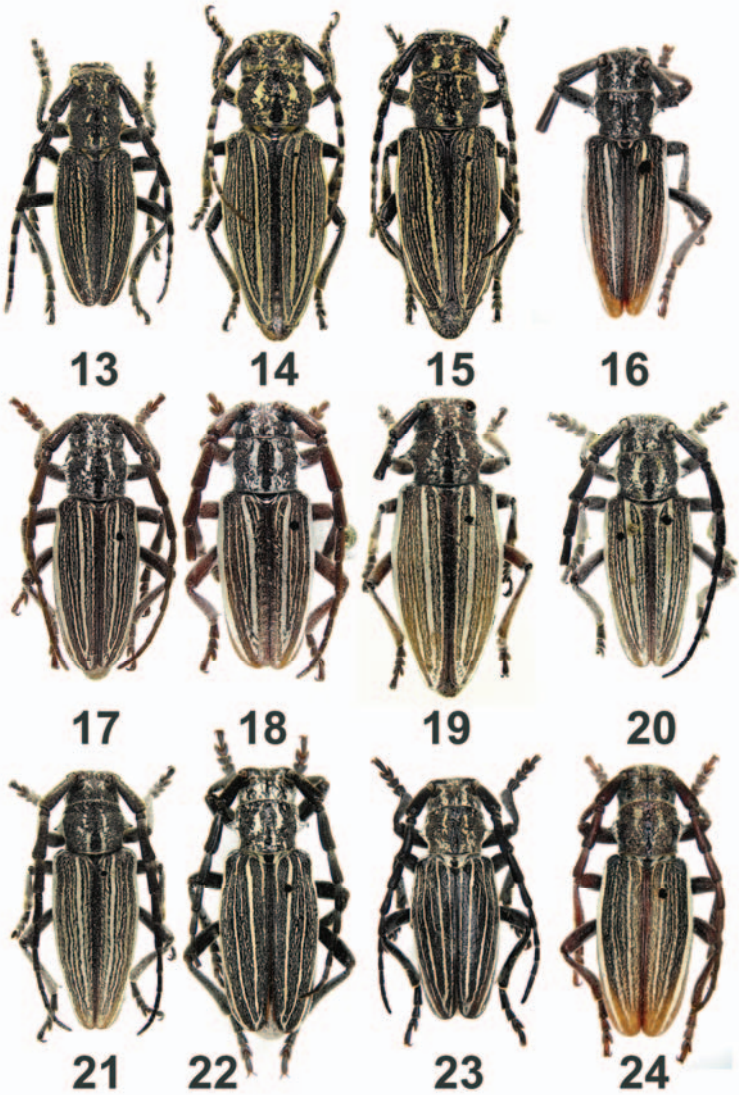
Figs. 24-31. *E. r. rubrosuturale*. 24-26 – males, Inner Mongolia, Wulanchabu City (Ulanqub L.), Siziwang Banner 28.6.1971; 27 – male, Inner Mongolia, Xilinguolei, Zhongxinhe; 28-29 – males, Inner Mongolia, Chifeng Balinyouqi (Bairin Right B.); 30 – female, Inner Mongolia, Jalaid Banner; 31 – female, Hebei, Weixian, Baile.

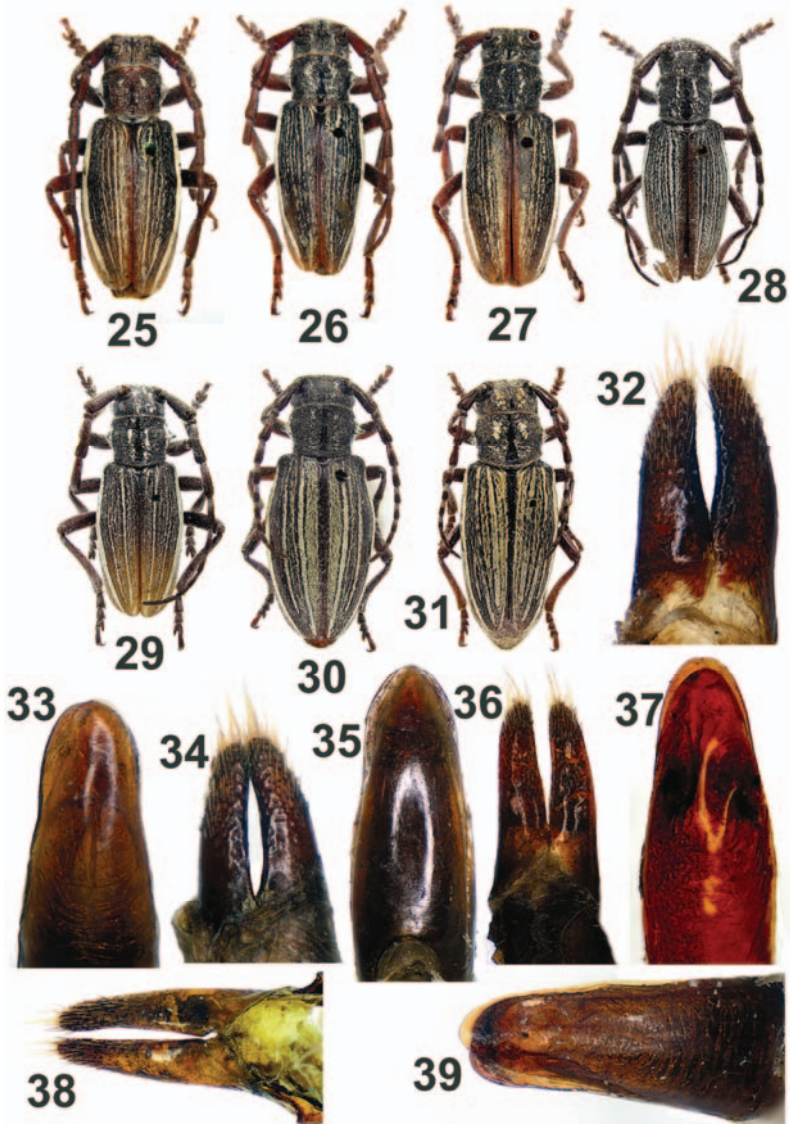
Figs. 32-35. *E. ch. chinganicum*, male genitals. 32-33 – Balinzuoki; 34-35 – Bauchengzi.

Figs. 36-39. *E. r. rubrosuturale*, male genitals, 36, 38 – parameres, 37, 39 - aedeagus; 36-37 – Balinyouqi (Bairin Right B.); 38-39 - NE China 1.7.1927 Licent.

Map of localities. 1-8 – *E. chinganicum chinganicum*: 1 - Dalaj-Nor lake (probable type locality); 2 – Xilinguolei, Xilingol League; 3 - Chifeng, Wengniuteqi (Ongniud B.), Haijinshanmuchang; 4 - Chifeng, Balinyouqi (Bairin Right B.); 5 – Chifeng, Balinzuoqi (Bairin Left B.), Hadayinggexiang; 6 - Chifeng, Alukeerqinqi (Ar Horqin B.), Baichengzi, Tianshancun; 7 – Hohhot; 8 – Hailar environs; 9-11 - *E. chinganicum mandschukoense*: 9 – Shenyang environs (type locality); 10 – Zhanggutai environs; 11 – Changchun environs; 12 - *E. chinganicum darigangense*: South-East Mongolia, Dariganga environs; 13-19 – *E. rubrosuturale rubrosuturale*: 13 – Yinn Shan Mountains (type locality); 14 - Wulanchabu City (Ulanqub L.), Siziwang Banner; 15 - Xilinguolei, Xilingol League; 16 - Chifeng, Balinzuoqi (Bairin Left B.), Hadayinggexiang; 17 - Zhalai Teqi; 18 - Chifeng, Kalaqinqi, Jinshanzhen; 19 – Chengde; 20 - Hebei, Weixian, Baile; 21-22 - *E. rubrosuturale kerulenum*: 21 - localities in Mongolian Republic (according to Danilevsky, 2007); 22 - Suhe-Bator aimak, Tumen-Tzogt (type locality).









Получена / Received: 03.03.2012
 Принята / Accepted: 11.03.2012

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

Mikhail L. Danilevsky¹ and Mei-Ying Lin²

¹A. N. Severtzov Institute of Ecology and Evolution, Russian Academy of Sciences, Leninsky prospect 33, Moscow 119071 Russia.
E-mail: danilevskym1@rambler.ru, danilevsky@cerambycidae.net

²Key Laboratory of Zoological Systematics and Evolution, Institute of Zoology, Chinese Academy of Sciences, 1 # Beichen West Road, Chaoyang, Beijing, 100101, China. E-mail: linmeiying@ioz.ac.cn

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:

M.L.Danilevsky, M.Y.Lin

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.

Acknowledgement. We are very grateful to Sergey Murzin (Moscow) for his valuable help in our contacts and to Mr. Feng-Bo for kind help with Chinese publications.

REFERENCES

- Chiang S.-N. & Wang Z., 2003: [new taxon], pp. 304, 396.- In: Wang Z. Monographia of original colored longicorn beetles of China's north-east. Jilin Science and Technology Publishing House, 420 + [1] pp. (in Chinese with English abstract).
- Breit J., 1915. Beitrag zur Kenntnis der paläarktischen Cerambyciden-Fauna.- Wiener Entomologische Zeitung, 34: 353-356.
- Breuning S., 1943. Nouveaux cérambycides paléarctiques (2^e note).- *Miscellanea Entomologica*, 40: 89-104.
- Breuning S., 1947. Nouveaux cérambycides paléarctiques (Col.) (3e note).- *Miscellanea Entomologica*, 43 [1946]: 21-24.
- Danilevsky M.L., 2007. Revision of the genus *Eodorcadion* Breuning, 1947 (Coleoptera, Cerambycidae).- *Collection systématique*, Vol. 16, Magellanes: 1-230.

M.L.Danilevsky, M.Y.Lin

- Danilevsky M.L., 2010. tribe Dorcadionini, pp. 241-264. – In I. Lobl & A. Smetana (ed.): Catalogue of Palaearctic Coleoptera, Vol. 6. Stenstrup: Apollo Books, 924pp.
- Danilevsky M.L. & Lin M.-Y., 2012. A contribution to the study of China Dorcadionini (Coleoptera, Cerambycidae). Part 1.- Humanity Space. International Almanac, Vol. 1, No. 2: 4-19.
- Faldermann F., 1833. Species novae Coleopterorum Mongoliae et Sibiriae incolarum.- Bulletin de la Société Impériale des Naturalistes de Moscou, 6: 46-72, 1 pl.
- Ganglbauer L., 1884. Bestimmungstabellen europäischer Coleopteren: VIII. Cerambycidae. Schluss. Mit Berücksichtigung der Formen Algiers und des paläarktischen Asiens, exclusive jener von Japan.- Verhandlungen der Kaiserlich-Königlichen Zoologisch-Botanischen Gesellschaft in Wien, 33 [1883]: 437-586.
- Gebler F.A., 1823. Coleoptera Sibiriae Orientalis.- Memoires de la Société Impériale des Naturalistes de Moscow, 6: 127-131.
- Jakovlev B. E. [Jakowlew], 1889. Insecta, a cl. G. N. Potanin in China et in Mongolia novissime lecta. X. Coleoptera (Neodorcadion et Compsodorcadion).- Horae Societatis Entomologicae Rossicae, 24: 244-253.
- Jakovlev B. E. [Jakowlew], 1899. De speciebus novis generum Dorcadion Dalm. et Neodorcadion Ganglb.- Annuaire du Musée Zoologique de l'Académie Impériale des Sciences de St.-Petersbourg, 4: 237-244.
- Motschulsky V., 1854. Coléoptères du nord de la Chine (Shingai).- Études Entomologiques, 3: 63-65.
- Suvorov G.L., 1909. Beschreibung neuer Arten der Neodorcadion Ganglb. (Coleoptera, Cerambycidae).- Revue Russe d'Entomologie, 9, 1-2: 80-92.
- Suvorov G. L., 1912
Vier neue Neodorcadion-Arten (Coleoptera, Cerambycidae).- Revue Russe d'Entomologie 12: 70-75.
- Wang Z., Monographia of original colored longicorn beetles of China's north-east. Jilin Science and Technology Publishing House, 420 + [1] pp. (in Chinese with English abstract).

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;

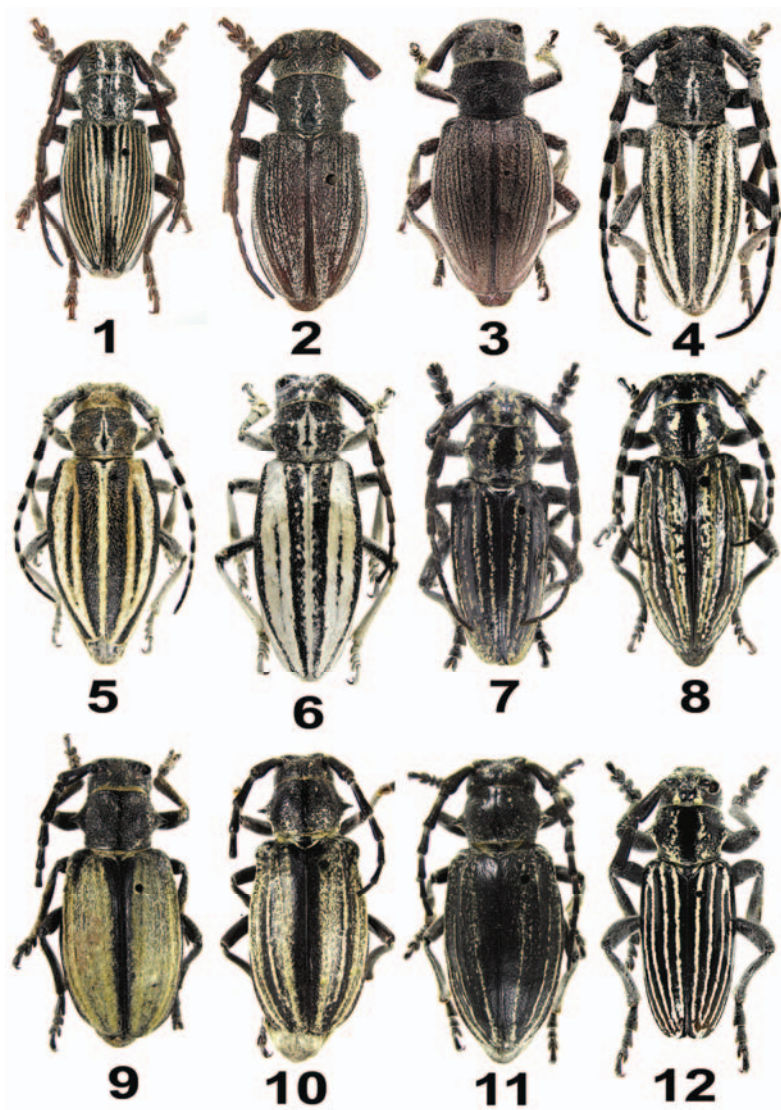
2 - *E. minicarinatum*, **sp. n.**: Anhui, Funan;

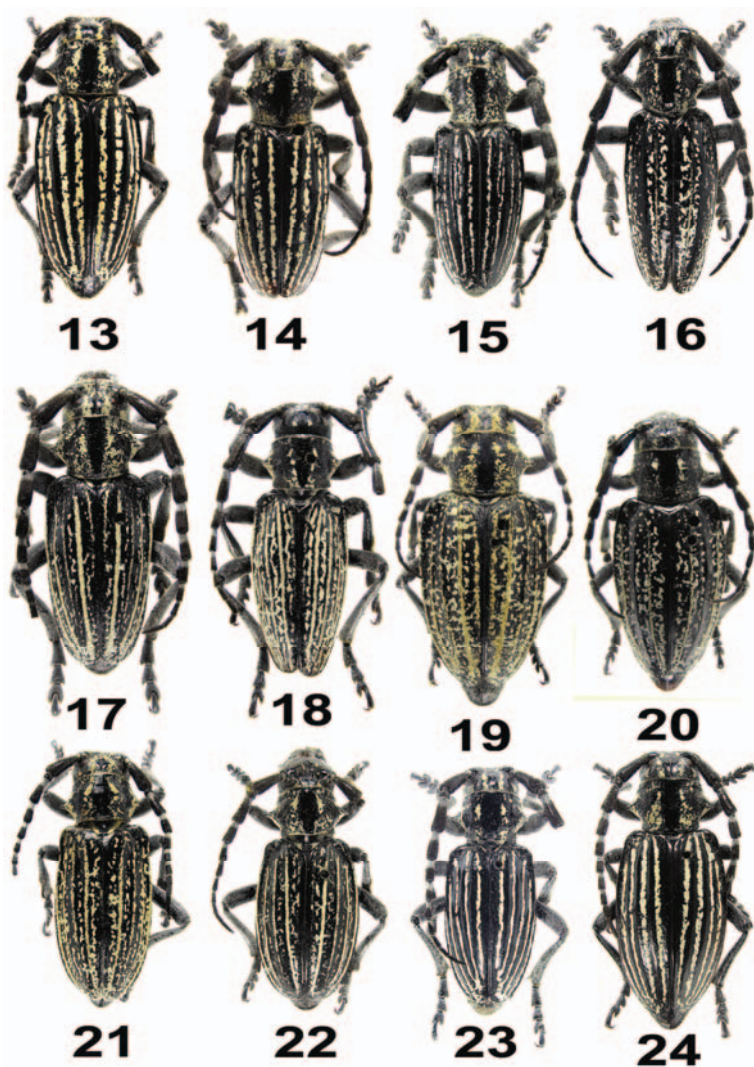
3 - *E. potaninellum*, **sp. n.**: Shaanxi, Huanglongshan;

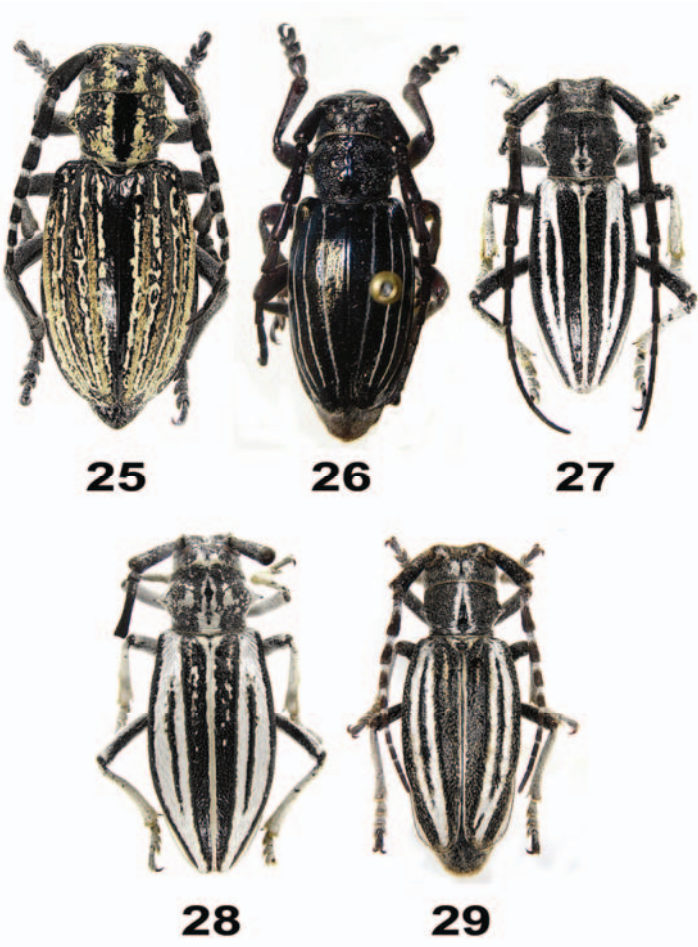
4 - *E. pseudornatum*, **sp. n.**: Shaanxi, Huanglongshan;

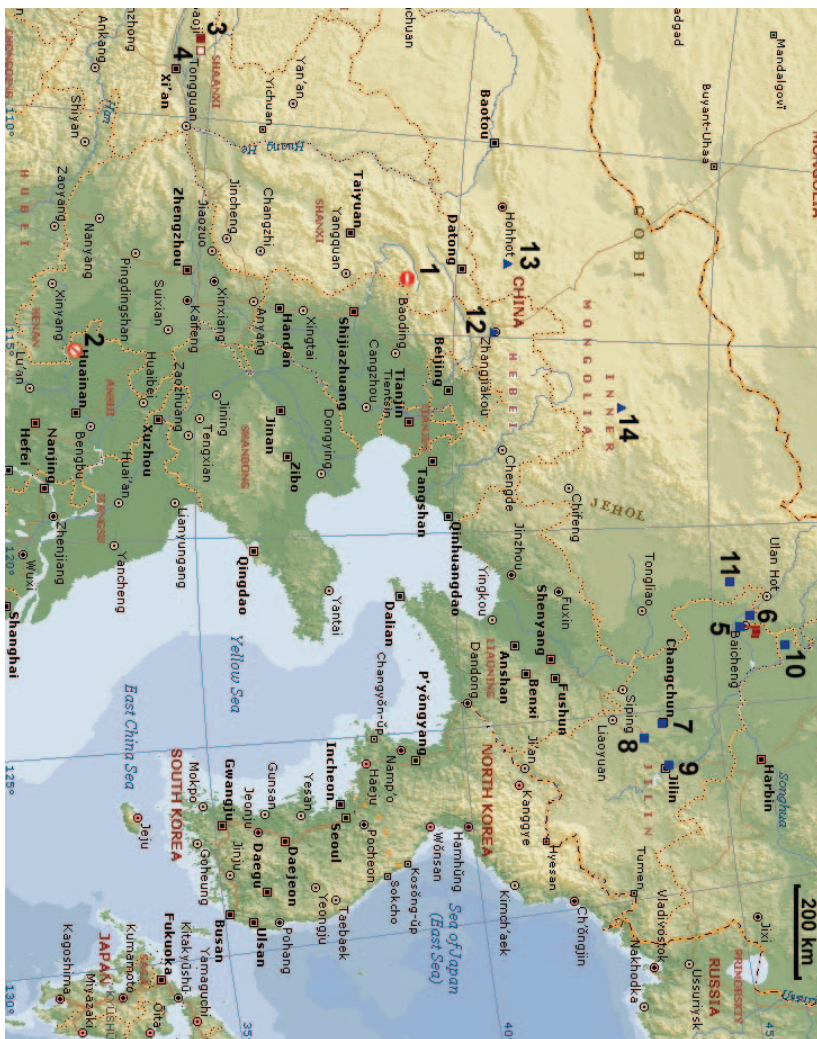
5–11 - *E. humerale xinganum*, **nom. rest.**: 5 – Jilin, Baicheng (type locality), 6 – Jilin, Pingtai, 7 – Jilin, Changchun, 8 – Jilin, Shuangyang, 9 – Jilin, Jiuzhan, 10 – Heilongjiang, Tailai, 11- Inner Mongolia, Tuquan.

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









Получена / Received: 21.03.2012
Принята / Accepted: 28.03.2012

INSTRUCTIONS TO AUTHORS

Journal “Humanity space” international almanac publishes research articles. Texts could be original research, containing new, previously unpublished results, reviews, analysis and conceptual manuscripts on the specific problems of the humanities, natural and medical sciences.

The decision on edition is taken by the editorial board of the almanac. The editorial staff reserves the right to make editorial changes and the reduction of manuscripts and return the manuscripts which are not corresponded to the rules and requirements.

The editors are not responsible for the completeness of the content and accuracy of the information and materials.

It is author’s responsibility for the manuscripts’ content, proper translation, quotes, bibliography, abstracts and etc.

Article had to be sent in one file, called the author's name or the first author (coauthors). Example: Ivanov_2011.doc

The manuscript had to be corresponded to the following requirements:

- Article had to be clearly and logically structured
- Name (in English and Russian)
- Surname, first name [full] (in English and Russian)
- The title, degree, position (in English and Russian)
- Place of work [including a full index, e-mail] (in English and Russian)
- Key words (in English and Russian)
- Abstract (in English and Russian)
- A brief introduction to the issue’s problem
- Methods
- Description and analysis of research results
- Discussion and conclusion
- Gratitude and links to the numbers of grants
- A list of references
- A table in black and white with no graphics and semitones (each on separate page)
- Manuscript’s volume should not exceed 10 000 characters including spaces (6 pages)
- Paper size: A4
- Editor: Microsoft Word [Word for Windows 2003]
- Format: *. Doc

M.L.Danilevsky, M.Y.Lin

- Font: Times New Roman a size 14 regular
- Seal text without hyphenation Line spacing - one and a half (computer)
- Full justification margins: top, bottom, right, left - at least 2 cm
- Page numbers at the bottom of the center
- Indent 1.2 cm
- There are no footnotes
- References are given in the text in parentheses
- references located at the end of the text (included in the total amount of the article)

Manuscripts should not contain charts, diagrams, photographs, drawings

Authors will receive a reprint of his article as a PDF-file.

The sample design of the article:

Ivanova Ekaterina Pavlovna

Ph.D., professor of the Faculty of Philosophy

Methodological aspects of transition from training to selfeducation paradigms

E.P. Ivanova

Moscow State Pedagogical University

Malaya Pirogovskaya str. 1, Moscow, 119991 Russia

E-mail: info@info.com

Key words: kinds of paradigms, training paradigm, self-education paradigm, peculiarity of self-education paradigm at a higher school, didactical complex of selfeducation.

Abstract: The article settles the self-education paradigm in comparison with particular and local pedagogical paradigms. Historical succession, information trend and realization in attributes of training are considered as a methodological basis of self-education paradigm.

[Text of article]

REFERENCES

Bedini S.A. 1965. The evolution of science museums. - Technology and culture. 5: 1-29.

Boettiger C. 1808. Uber Museen and Antikensammlungen. Leipzig: Behr. 31 s.

M.L.Danilevsky, M.Y.Lin

Contents

Danilevsky M.L., Lin M. A contribution to the study of China Dorcadionini (Coleoptera, Cerambycidae). Part 1.....	4
Danilevsky M.L., Lin M. A contribution to the study of China Dorcadionini (Coleoptera, Cerambycidae). Part 2.....	20