

Genus	Vol. 18(4): 759-771	Wrocław, 28 XII 2007
-------	---------------------	----------------------

Papers Celebrating the 80th Birthday of Professor ANDRZEJ WARCHAŁOWSKI

Warchalowskianus, a new genus of the tribe Elaterini from Laos and Vietnam (Insecta: Coleoptera: Elateridae)

RAINER SCHIMMEL¹, GIUSEPPE PLATIA² & DARIUSZ TARNAWSKI³

¹Wiesenstraße 6, D-66957 Vinningen, Germany, e-mail: rainer.schimmel@gmx.de

²Via Molino Vecchio 21, I-47030 Gatteo, Italia, e-mail: pinoplatia-@tele2.it

³Department of Biodiversity and Evolutionary Taxonomy, Zoological Institute, University of Wrocław, ul. Przybyszewskiego, 51-148 Wrocław, Poland, e-mail: elater@biol.uni.wroc.pl

ABSTRACT. In material of the family Elateridae, collected in Laos and Vietnam, we found specimens belonging to five different species, closely allied to those of the genus *Ludioschema* REITTER, 1891, but different in some characteristics which are important at genus level. In this paper we have described four of these species as new to sciences, and established a new name combination for one species. All of these species belonging to a new, so far unknown genus of the tribe Elaterini: new genus: *Warchalowskianus* n. gen.; new species: *Warchalowskianus laoticus* n. sp. (Laos), *W. rubriventris* n. sp. (Vietnam), *W. vietnamensis* n. sp. (Vietnam), and *W. villosus* n. sp. (Vietnam); new combination: *Warchalowskianus religiosus* (CANDÈZE) for *Agonischius religiosus* CANDÈZE, 1889.

Key words: entomology, taxonomy, Insecta, Coleoptera, Elateridae, *Warchalowskianus*, new genus, new species, new combination, Laos, Vietnam.

INTRODUCTION

The material used in this study is preserved in the collections of the Department of Biodiversity and Evolutionary Taxonomy, Zoological Institute, University of Wrocław, in the Natural History Museum, Basel, in that of Mr. S. RIESE, Genova (don. of Museo Civico di Storia Naturale, Genova), and in those of the authors of this paper. It has been collected in the environments of Laos and Vietnam, and represent a group of Elateridae which has not been known so far. The species of this group are closely allied to those of the genus *Ludioschema* REITTER, 1891, but easily to separate from them by a conspicuous semi-circular excavation on each of the posterior angles of

pronotum. In this paper, this group of species is established as a new genus and as a member of the tribe Elaterini, four of its species are described as new to science, and one species is transferred from the genus *Agonischius* Candeze, 1863 to the new genus *Warchalowskianus*.

ACKNOWLEDGEMENT

The authors are indebted to thank the collectors of the material used in this study: Mrs. S. BRANTLOVÁ, Mr. A. OLEXA, Mr. P. PACHOLÁTKO, Mr. J. STRNAD, and Mr. N. A. XUÂN. Our sincere thank to Dr. M. BRANCUCCI, Natural History Museum, Basel, and Mr. S. RIESE, Genova for providing this material for our study. Many thanks also to J. TARNAWSKI and M.L. BOROWIEC, Wrocław, for proofreading and correcting the English.

ABBREVIATIONS

CPG	Coll. PLATIA, Gatteo;
CRG	Coll. RIESE, Genova;
CSV	Coll. SCHIMMEL, Vinningen;
CTW	Coll. TARNAWSKI, Wrocław;
NMB	Coll. Natural History Museum, Basel.

DERIVATIO NOMINIS

The new genus *Warchalowskianus* is dedicated to Prof. Dr. A. WARCHALOWSKI, Wrocław, on the occasion of his 80th birthday. The authors hearty congratulate Prof. Dr. WARCHALOWSKI, an excellent, entomologist and scientist, and have the pleasure to honour his scientific work by naming the new genus after him.

DESCRIPTIONS

***Warchalowskianus* n. gen.**

(Figs 1-25)

TYPE SPECIES

Agonischius religiosus CANDÈZE, 1889.

DIAGNOSIS

Elongate, sub-parallel, feebly raised species of 11.3 mm to 12.4 mm in length (from apical margin of frons up to apex of elytra). Body blackish-brown to black, legs yellowish-brown to yellowish, antennae brownish to reddish, ventral side reddish, yellowish and brownish. Pubescence yellowish brown, long, dense, fine and tightly, on pronotum inclined from apex to base, and from median area to lateral sides, on elytra inclined from base to apex and to lateral margins.

Head with dense and umbilicate punctures, and pubescence inclined to apex. Frons depressed, its margin absent in middle, apically edged, and raised above the base of antennae. Eyes small, spherical, and little prominent. Antennae short, not reaching

posterior angles of pronotum for the length of the last antennomere, or just reaching it. Second antennomere short, little longer than wide, little extended at apex, third antennomere longer than second, and both together as long as or little longer than fourth and each of the following antennomeres, those are extended at apex, final antennomere oval, sub-apically bevelled.

Pronotum campaniform, trapezoid or sub-parallel, along median area slightly longer than wide at the posterior angles (length/width ratio 1.1:1.0 to 1.2:1.0), raised at disc, slightly bent laterally to straight, and more or less constricted at basal third, posterior angles are divergent, and acute at apex, their inner sides with a conspicuous semi-circular excavation (figs. 4, 9, 14, 19, 24). Pronotum raised along sub-base, and depressed on both sides of median line. Puncturation of pronotum fine, regularly rounded and umbilicate, interstices of points one to two times their diameter. Posterior angles of pronotum with a distinct or indistinct carina, without median furrow or mould.

Scutellum lingulate, straight to little concave at base, laterally narrowed and rounded at apex. Surface nearly flat, just little raised, punctures fine and simple. Pubescence fine and short, inclined from disc to apex and to lateral margin.

Elytra sub-parallel, slender and cuneate, after base regularly narrowed to apex. Apex orbicular, with inner just visible tooth. Basis of elytra in width equal to that of pronotum, in area around scutellum prominently depressed, base margin with a conspicuous tooth, shoulders prominent (winged species). Striae of elytra as well as their interstices covered with fine and small, simple punctures, interstices at base of elytra prominently raised, body semi-dull to shiny.

Pro-, meso- and metathorax with fine, and simple punctures, interstices flat and dull. Pubescence short and adherent.

Legs slender, moderately long and thin, tarsomeres up to claws of decreasing length, ventrally with just visible, fine pubescence, and fine upholstery, tibia covered with short, and fine pubescence.

Aedeagus almost rectangular, with median lobe slightly bevelled apically, just extending parameres; parameres rectangular, slightly excavated at apex, and covered with short pubescence.

DIFFERENTIAL DIAGNOSIS

Warchalowskianus n. gen. is closely allied to the genus *Ludioschema* REITTER, 1891, due to the characteristics of the male genitalia, and general form of body, but is easily to separate by the divergent posterior angles of pronotum (figs. 3, 8, 13, 18), and its inner sides which have a conspicuous semi-circular excavation (figs. 4, 9, 14, 19), and by the prominent tooth on the base of elytra.

DISTRIBUTION

Laos and Vietnam.

ECOLOGICAL REMARKS

Nothing is known so far about the ecology of the species of the new genus.

SYSTEMATIC POSITION

The new genus *Warchalowskianus* is placed here as a member of the subfamily Elaterinae LEACH, 1815, and included into the tribe Elaterini LEACH, 1815, on account of following characteristics: head deflexed, frontal carina acute above antennae base, but absent in the middle, antennae serrate, prosternal sutures excavated anteriorly, scutellum lingulate, mesocoxae open to mesepimeron and mesepisternum, tarsi and claws simple. In 1891 E. REITTER placed the genus *Ludioschema* beside the genus *Sericus*, and compared the type-species of *Ludioschema*, *L. emerichi*, with species of *Limonius* and *Ludius* (*Corymbites* sensu REITTER). Undoubtedly, *Ludioschema*, as well as the new genus *Warchalowskianus* have to be treated as members of the tribe Elaterini LEACH, 1815, and being closely allied to the genera *Campylomorphus* JACQUELIN DU VAL, 1860, *Sericus* ESCHSCHOLTZ, 1829, *Elater* LINNAEUS, 1758, *Mulsanteus* GOZIS, 1875, and *Pittonotus* KIESENWETTER, 1859.

***Warchalowskianus religiosus* (CANDÈZE, 1889) n. comb.**

(Figs. 1-5)

Agonischius religiosus CANDÈZE, 1889, Ann. Soc. Ent. B., 33: 121.

LOCUS TYPICUS

Vietnam: Cochin Chine.

TYPE MATERIAL

Holotypus ♀ (IRSNB): Vietnam: Cochin Chine, Beauchene.

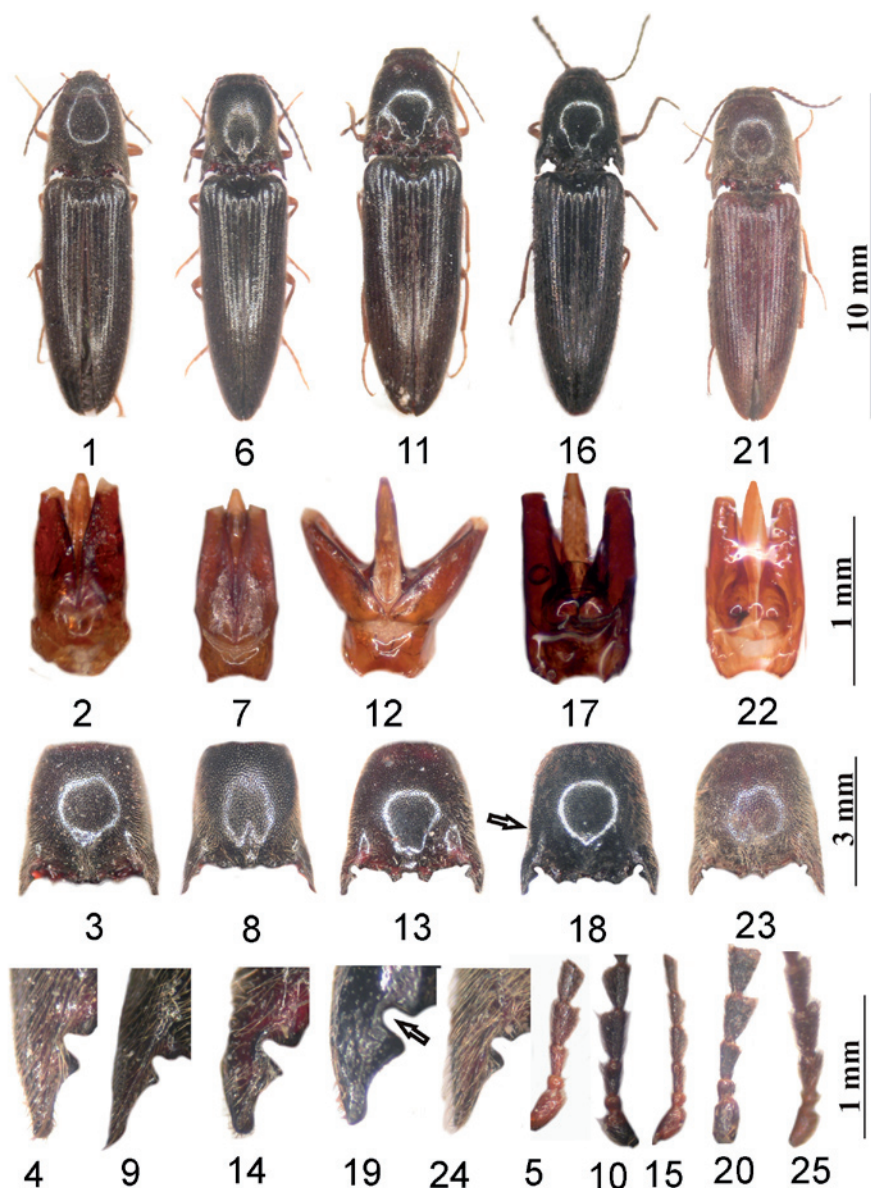
NEW MATERIAL

Vietnam: Tonkin, Lac Thò, Hoa-Binh, 1 spm., ex. Coll. Fleutiaux, without further data; Vietnam: Tam Dao, 20.-28.VI.1990, 2 spm., leg. S. Brantlová; same location but 20.-27.VI.1990, 6 spm., leg. A. Olexa; same location but 27.V.-2.VI.1986, 1 spm., leg. A. Olexa; same data but Vinh Phu, 20.-28.VI.1990, 4 spm., leg. J. Strnad; Vietnam: Hong Lien Son-Province, Sa-Pa, 11.-19.VI.1990, 1 spm., without further data; Chu Phuang, 2.-11.V.1991, 31 spm., leg. J. Strnad

REDESCRIPTION

Male: Elongate, sub-parallel, feebly raised species of 11.3-11.9 mm in length (from apical margin of frons up to apex of elytra), and 2.7-2.8 mm in width (across base of elytra). Body blackish-brown, legs yellowish, antennae reddish, first three antennomere, and ventral side of body yellowish. Pubescence yellowish brown, long, dense, fine and on pronotum tightly inclined from apex to base, and from median area to lateral sides, on elytra inclined from base to apex and to lateral margins.

Head with dense, and umbilicate punctures, and pubescence inclined to apex. Frons depressed, its margin absent in middle, edged at apex, and raised above the base of antennae. Eyes small, spherical, and little prominent. Antennae short, not



1-25. Habitus, aedeagus, pronotum, left posterior angle of pronotum, and antennomere 1-5 of *Warchalowskianus* species (in dorsal view): 1-5. *Warchalowskianus religiosus* (CANDÈZE, 1889): 1 – habitus, 2 – aedeagus, 3 – pronotum, 4 – left posterior angle of pronotum, 5 – antennomere 1-5; 6-10. *W. laoticus* n. sp.: 6 – habitus, 7 – aedeagus, 8 – pronotum, 9 – left posterior angle of pronotum, 10 – antennomere 1-5; 11-15. *W. rubriventris* n. sp.: 11 – habitus, 12 – aedeagus, 13 – pronotum, 14 – left posterior angle of pronotum, 15 – antennomere 1-5; 16-20. *W. vietnamensis* n. sp.: 16 – habitus, 17 – aedeagus, 18 – pronotum, 19 – left posterior angle of pronotum, 20 – antennomere 1-5; 21-25. *W. villosus* n. sp.: 21 – habitus, 22 – aedeagus, 23 – pronotum, 24 – left posterior angle of pronotum, 25 – antennomere 1-5

reaching posterior angles of pronotum for the length of the last antennomere. Second antennomere short, longer than wide and little extended at apex, third antennomere longer than second, cylindrical, and both together little longer than fourth and each of the following antennomeres, those are extended at apex, final antennomere oval, sub-apically bevelled.

Pronotum trapezoid, along median area slightly longer than wide at posterior angles (length/width ratio 1.1:1.0), raised at disc, slightly bent laterally, and less constricted at basal third, almost sub-parallel, posterior angles slightly divergent and acute at apex, their inner sides with a conspicuous semi-circular excavation. Pronotum raised along sub-basal area, and depressed on both sides of median line. Punctuation of pronotum fine, foveolae regularly rounded and umbilicate, interstices of points one to two times their diameter. Posterior angles of pronotum with a distinct carina, pronotum base without any median furrow or mould.

Scutellum lingulate, straight to a little concave at base, laterally narrowed, rounded at apex. Surface nearly flat, just little raised, punctures fine and simple. Pubescence fine and short, pointed from disc to the apex and to lateral margin.

Elytra sub-parallel, slender and cuneate, after base regularly narrowed to apex. Apex orbicular, and with a very small, just visible inner tooth. Width of base of elytra equal to that of pronotum, in scutellar area prominently depressed, basal margin with conspicuous tooth, shoulders prominent (winged species). Striae of elytra as well as their interstices covered with fine and small, simple punctures, interstices at elytral base prominently raised, body semi-dull to shiny.

Pro-, meso- and metathorax with fine and simple punctures, interstices flat and dull. Pubescence short and adherent.

Legs slender, moderately long and thin, tarsomeres up to claws of decreasing length, ventrally with just visible, fine pubescence, and fine upholstery, tibia covered with short and fine pubescence.

Aedeagus almost rectangular, with median lobe thick centrally, a little bevelled at apex, and slightly extending parameres. Parameres rectangular, slightly excavated at apex, and covered with short pubescence.

Females slightly broader than males, their antennae slightly shorter.

DIFFERENTIAL DIAGNOSIS

Warchalowskianus religiosus is closely allied to *W. vietnamensis*, but may be easily separated by the shorter body and lighter colour of pronotum, elytra and legs, the yellowish ventral sides of body, the cylindrical form of third antennomere, the nearly sub-parallel sides at posterior angles of pronotum, and by a distinct carina of its posterior angles.

DISTRIBUTION

Vietnam.

***Warchalowskianus laoticus* n. sp.**

(Figs. 6-10)

LOCUS TYPICUS

Laos: Phongsaly.

TYPE MATERIAL

Holotypus ♂ (NMB): Laos: Phongsaly province, Phongsaly environment, 1500 m, 6.-17.V.2004, leg. P. Pacholátko. **Paratypes** 2 ♂♂, 5 ♀♀ (CSV, NMB): Same data as holotype, 7 spm., leg. P. Pacholátko.

DESCRIPTION

Holotypus: Elongate, sub-parallel, feebly raised species of 11.1 mm in length (from apical margin of frons up to apex of elytra), and 2.8 mm in width (across base of elytra). Body blackish, legs yellowish, antennae brownish, second antennomere and ventral side of body reddish. Pubescence yellowish brown, long, dense, fine and on pronotum tightly inclined from apex to base, and from median area to lateral sides, on elytra inclined from base to apex and to lateral margins.

Head with dense, and umbilicate punctures and pubescence inclined to apex. Frons depressed, its margin absent in middle, edged at apex, and raised above the base of antennae. Eyes small, spherical, and little prominent. Antennae short, just reaching posterior angles of pronotum. Second antennomere short, as long as wide and little extended at apex, third antennomere longer than second and cylindrical, and both together a little longer than fourth and each of the following antennomeres, those are extended at apex; final antennomere oval, sub-apically bevelled.

Pronotum sub-parallel, along median area slightly longer than wide at posterior angles (length/width ratio 1.2:1.0), raised at disc, straight laterally, and less constricted at basal third, almost sub-parallel, posterior angles slightly divergent, and acute at apex, their inner sides with a conspicuous semi-circular excavation. Pronotum raised along sub-basal area and depressed on both sides of median line. Punctures of pronotum fine, regularly rounded and simple, not umbilicate, interstices of points one to two times their diameter. Posterior angles of pronotum with a distinct carina, pronotal base with a short median furrow.

Scutellum lingulate, straight to little concave at base, laterally narrowed and rounded at apex. Surface nearly flat, just little raised, punctures fine and simple. Pubescence fine and short, pointed from disc to apex and to lateral margin.

Elytra sub-parallel, slender and cuneate, after base regularly narrowed to apex. Apex orbicular, and with a very small, just visible inner tooth. Width of base of elytra equal to that of pronotum, in scutellar area prominently depressed, basal margin with a conspicuous tooth, shoulders prominent (winged species). Striae of elytra as well as their interstices covered with fine and small, simple punctures, interstices at elytral base prominently raised, body semi-dull to shiny.

Pro-, meso- and metathorax with fine and simple punctures, interstices flat and dull. Pubescence short and adherent.

Legs slender, moderately long and thin, tarsomeres up to claws of decreasing length, ventrally with just visible, fine pubescence, and fine upholstery, tibia covered with short, and fine pubescence.

Aedeagus almost rectangular, with median lobe thick centrally, a little bevelled at apex, and slightly extending parameres. Parameres rectangular, slightly excavated at apex, and covered with short pubescence.

Females slightly broader than males, their antennae slightly shorter.

DIFFERENTIAL DIAGNOSIS

Warchalowskianus laoticus is closely allied to *W. religiosus*, but may be easily separated by the longer antenna, by the sub-parallel pronotum, and by its simple punctures.

DERIVATIO NOMINIS

Named after the locus typicus.

DISTRIBUTION

Laos.

Warchalowskianus rubriventris n. sp.

(Figs. 11-15)

LOCUS TYPICUS

Vietnam: Tam Dao.

TYPE MATERIAL

Holotypus ♂ (NMB): Vietnam: Tam Dao, 20.-28.VI.1990, leg. S. Brantlová. **Paratypes** 15 ♂♂, 42 ♀ (CSV, CTW, CPG, CRG, NMB): Same date as holotype, 9 spm.; Same data as holotype but 5.-10.VI.1989, 7 spm., leg. S. Brantlová; Same location but 27.V.-2.VI.1986, 2 spm., leg. A. Olexa; Same location but 20.-27.VI.1990, 1 spm., leg. A. Olexa; Same location but 5.-10.VI.1989, 1 spm., leg. Blažiček; Same location but 20.-22.VI.1990, 1 spm., leg. Blažiček; Same location but 20.-28.VI.1990, 20 spm., leg. J. Strnad; Vietnam: Tam Dao, 80 km north-west of Hanoi, 1000 m, summer 1996, 4 spm., leg. by local collectors; Chu Phuang, 2.-11.V.1991, 12 spm., leg. J. Strnad.

DESCRIPTION

Holotypus: Elongate, sub-parallel, feebly raised species of 12.4 mm in length (from apical margin of frons up to apex of elytra), and 3.3 mm in width (across base of elytra). Body black, base of pronotum and ventral side red, legs yellowish, antennae black except reddish first two antennomeres. Pubescence yellowish brown, long, dense, fine and on pronotum tightly inclined from apex to base, and from median area to lateral sides, on elytra inclined from base to apex and to lateral margins.

Head with dense and umbilicate punctures, and pubescence inclined to apex. Frons depressed, its margin absent in middle, edged at apex, and raised above the base of

antennae. Eyes small, spherical and little prominent. Antennae short, not reaching posterior angles of pronotum for the length of the last antennomere. Second antennomere short, little longer than wide, and little extended at apex, third antennomere longer than second, cylindrical, and both together clearly longer than fourth and each of the following antennomeres, those are extended at apex, final antennomere oval, sub-apically bevelled.

Pronotum campaniform, along median area slightly longer than wide at posterior angles (length/width ratio 1.1:1.0), raised at disc, bent laterally, and strongly constricted at basal third, posterior angles divergent and acute at apex, their inner sides with a conspicuous semi-circular excavation. Pronotum raised along sub-basal area, and depressed on both sides of median line. Punctures of pronotum fine, regularly rounded and umbilicate, interstices of points one to three times their diameter. Posterior angles of pronotum with distinct carina, pronotal base without any median furrow or mould.

Scutellum lingulate, concave at base and little rounded laterally and at apex. Surface nearly flat, just little raised, punctures fine and simple. Pubescence fine and short, pointed from disc to the apex and to the lateral margin.

Elytra sub-parallel, slender and cuneate, after base regularly narrowed to apex. Apex orbicular, with a just visible inner tooth. Width of base of elytra equal to that of pronotum, in scutellar area prominently depressed, base margin with a conspicuous tooth, shoulders prominent (winged species). Striae of elytra as well as their interstices covered with fine and small, simple punctures, interstices at elytra-base prominently raised, body semi-dull to shiny.

Pro-, meso- and metathorax with fine and simple punctures, interstices flat and dull. Pubescence short and adherent.

Legs slender, moderately long and thin, tarsomeres up to claws of decreasing length, ventrally with just visible, fine pubescence, and fine upholstery, tibia covered with short and fine pubescence.

Aedeagus almost rectangular, with median lobe thin centrally, a little bevelled at apex, and slightly extending parameres. Parameres rectangular, slightly excavated at apex and covered with short pubescence.

Females slightly broader than males, their antennae slightly shorter.

DIFFERENTIAL DIAGNOSIS

Warchalowskianus rubriventris is closely allied to *W. vietnamensis*, but may be easily separated by reddish base of pronotum and ventral side of body, the finer punctures of pronotum, and by the finer pubescence, as well as by the thin penis of aedeagus.

DERIVATIO NOMINIS

Named after the colour of the ventral side of the species.

DISTRIBUTION

Vietnam.

Warchalowskianus vietnamensis n. sp.

(Figs. 16-20)

LOCUS TYPICUS

Vietnam.

TYPE MATERIAL

Holotypus ♂ (CTW): Vietnam: 1996, leg. N. A. Xuân, without further data. **Paratypes** 1 ♂, 1 ♀ (CPG, CSV): Same data as holotypus.

DESCRIPTION

Elongate, sub-parallel, feebly raised species of 12.0 mm in length (from apical margin of frons up to apex of elytra), and 3.2 mm in width (across base of elytra). Body black, legs yellowish-brown, antennae brownish, ventral side brownish black. Pubescence yellowish brown, long, dense, fine and on pronotum tightly inclined from apex to base and from median area to lateral sides, on elytra inclined from base to apex and to lateral margins.

Head with dense and umbilicate punctures, and pubescence inclined to apex. Frons depressed, its margin absent in middle, edged at apex and raised above the base of antennae. Eyes small, spherical and little prominent. Antennae short, not reaching posterior angles of pronotum for the length of the last antennomere. Second antennomere short, little longer than wide, and little extended at apex, third antennomere longer than second, extended at apex and both together as long as fourth and each of the following antennomeres, those are extended at apex, final antennomere oval, sub-apically bevelled.

Pronotum campaniform, along median area slightly longer than width at the posterior angles (length/width ratio 1.1:1.0), raised at disc, slightly bent laterally, and strongly constricted at basal third, posterior angles divergent and acute at apex, their inner sides with a conspicuous semi-circular excavation. Pronotum raised along sub-basal area, and depressed on both sides of median line. Punctures of pronotum fine, regularly rounded and umbilicate, interstices of ponts one to two times their diameter. Posterior angles of pronotum with indistinct carina, pronotum base rugged, but without median furrow or mould.

Scutellum lingulate, straight to little concave at base, lateral narrowed, rounded at apex and wedge-shaped. Surface nearly flat, just little raised, punctures fine and simple. Pubescence fine and short, pointed from disc to the apex and to the lateral margin.

Elytra sub-parallel, slender and cuneate, after base narrowed to apex. Apex orbicular, with just visible inner tooth. Width of base of elytra equal to that of pronotum, in scutellar area prominently depressed, basal margin with a conspicuous tooth, shoulders prominent (winged species). Striae of elytra as well as their interstices covered with fine and small, simple punctures, interstices at elytral base prominently raised, body semi-dull to shiny.

Pro-, meso- and metathorax with fine and simple punctures, interstices flat and dull. Pubescence short and adherent.

Legs slender, moderately long and thin, tarsomeres up to claws of decreasing length, ventrally with just visible, fine pubescence, and fine upholstery, tibia covered with short and fine pubescence.

Aedeagus almost rectangular, with median lobe thick centrally, a little bevelled at apex, and slightly extending parameres. Parameres rectangular, slightly excavated at apex, and covered with short pubescence.

Females slightly broader than males, their antennae slightly shorter.

DIFFERENTIAL DIAGNOSIS

Warchalowskianus vietnamensis is closely allied to *W. religiosus*, but may be easily separated by the larger body and the darker colour of pronotum, elytra and legs, by the brownish ventral side of body, the apically extended third antennomere, by the convex sides at posterior angles of pronotum, and by its indistinct carina.

DERIVATIO NOMINIS

Named after the locus typicus.

DISTRIBUTION

Vietnam.

Warchalowskianus villosus n. sp.

(Figs. 21-25)

LOCUS TYPICUS

Vietnam.

TYPE MATERIAL

Holotypus ♂ (CTW): Vietnam, Ninh Bình province, Cúcphuong, 6.VI.1966, leg. R. Bielawski & B. Pisarski. **Paratypes** 6 ♂♂, 2 ♀♀ (CTW, CPG, CSV): Same data as Holotypus.

DESCRIPTION

Holotypus: Elongate, sub-parallel, feebly raised species of 10.3 mm in length (from apical margin of frons up to apex of elytra), and 2.8 mm in width (across base of elytra). Body dark reddish-brown, base of pronotum and its posterior angles blackish, elytra reddish-brown, antennae black except reddish first two antennomeres, legs yellowish, ventral side reddish, medially blackish. Pubescence yellowish, long, dense and bristly, on pronotum inclined from median area to lateral sides, on elytra inclined from base to apex and to lateral margins.

Head with dense and umbilicate punctures, and pubescence inclined to apex. Frons depressed, its margin absent in middle, and raised above the base of antennae. Eyes small, spherical and little prominent. Antennae short, not reaching posterior angles of pronotum for the length of the last antennomere. Second antennomere short, as long as

wide, and extended at apex, third antennomere longer than second, extended at apex, and both together clearly longer than fourth and each of the following antennomeres, those are extended at apex, final antennomere oval, sub-apically bevelled.

Pronotum campaniform, along median area slightly longer than width at the posterior angles (length/width ratio 1.1:1.0), raised at disc, slightly bent laterally and constricted at basal third, posterior angles divergent and acute at apex, their inner sides with a conspicuous semi-circular excavation. Pronotum regularly raised medially. Punctures of pronotum fine, regularly rounded and umbilicate, interstices of points half to one times their diameter. Posterior angles of pronotum with indistinct distal carina, and a second, short carina laterally, pronotal base with a short median mould.

Scutellum lingulate, little concave at base, laterally straight and rounded at apex. Surface nearly flat, just little raised, punctures fine and simple. Pubescence fine and short, pointed from disc to the apex and to the lateral margin.

Elytra sub-parallel, slender and cuneate, after base narrowed to apex. Apex orbicular, with just visible inner tooth. Width of base of elytra equal to that of pronotum, in scutellar area prominently depressed, basal margin with a conspicuous tooth, shoulders prominent (winged species). Striae of elytra as well as their interstices covered with fine and small, simple punctures, interstices at elytral base prominently raised, body semi-dull to shiny.

Pro-, meso- and metathorax with fine and simple punctures, interstices flat and dull. Pubescence short and inclined.

Legs slender, moderately long and thin, tarsomeres up to claws of decreasing length, ventrally with just visible, fine pubescence, and fine upholstery, tibia covered with short and fine pubescence.

Aedeagus almost rectangular, with median lobe thick centrally, a little bevelled at apex, and slightly extending parameres. Parameres rectangular, excavated at apex and covered with short pubescence.

Females slightly broader than males, their antennae slightly shorter.

DIFFERENTIAL DIAGNOSIS

Warchalowskianus villosus is closely allied to *W. vietnamensis*, but may be easily separated by the colour of body, the denser punctures of pronotum and by the short median base mould of pronotum.

DERIVATIO NOMINIS

Named after the bristly pubescence.

DISTRIBUTION

Vietnam.

KEY TO SPECIES

1. Ventral side of body brownish black 2.
- Ventral side of body reddish or yellowish 3.
2. Antenna unicoloured brownish (fig. 20) *W. vietnamensis* n. sp.
- Antenna bi-coloured, blackish brown, first two antennomere reddish
..... *W. villosus* n. sp.
3. Ventral side of body yellowish, antenna reddish, the first three antennomeres yellowish (fig. 5), pronotum trapezoid (fig. 3) *W. religiosus* (CANDÈZE, 1889)
- Ventral side of body reddish, first one or two antennomeres reddish 4.
4. Antenna black, the first two antennomere reddish (fig. 15), pronotum campaniform (fig. 13) *W. rubriventris* n. sp.
- Antenna black, the first antennomere reddish (fig. 19), pronotum sub-parallel (fig. 8) *W. laoticus* n. sp.

REFERENCES

- CANDÈZE, E., 1889. Élatérides nouveaux, 4. fasc. Ann. Soc. Ent. B., **33**: 67-123.
- ESCHSCHOLTZ, J. F., 1829. Elateriden, Eintheilung derselben in Gattungen. In: Thon. Entomol. Arch., **2** (1): 31-35.
- JACQUELIN DU VAL, C., 1859-63. Genera des Coléoptères d'Europe. Paris, **3**: 1-456.
- JAKOBSON, G. G., 1913. Beetles of Russia and Western Europe. St. Petersburg: 1-1024.
- KIESENWETTER, H., 1858. In: W. ERICHSON: Naturgeschichte der Insecten Deutschlands. Erste Abtheilung Coleoptera. 745 pp., Berlin.
- LEACH, W. E., 1815. Entomology. Brewster's Edinburgh Encycl., **9** (1): 1-384.
- LINNAEUS, C., 1758. Systema naturae. 10 ed., Holminae: 1-824.
- REITTER, E., 1891. Vierter Beitrag zur Coleopteren-Fauna des russischen Reiches. Wiener ent. Z., **10**: 238.