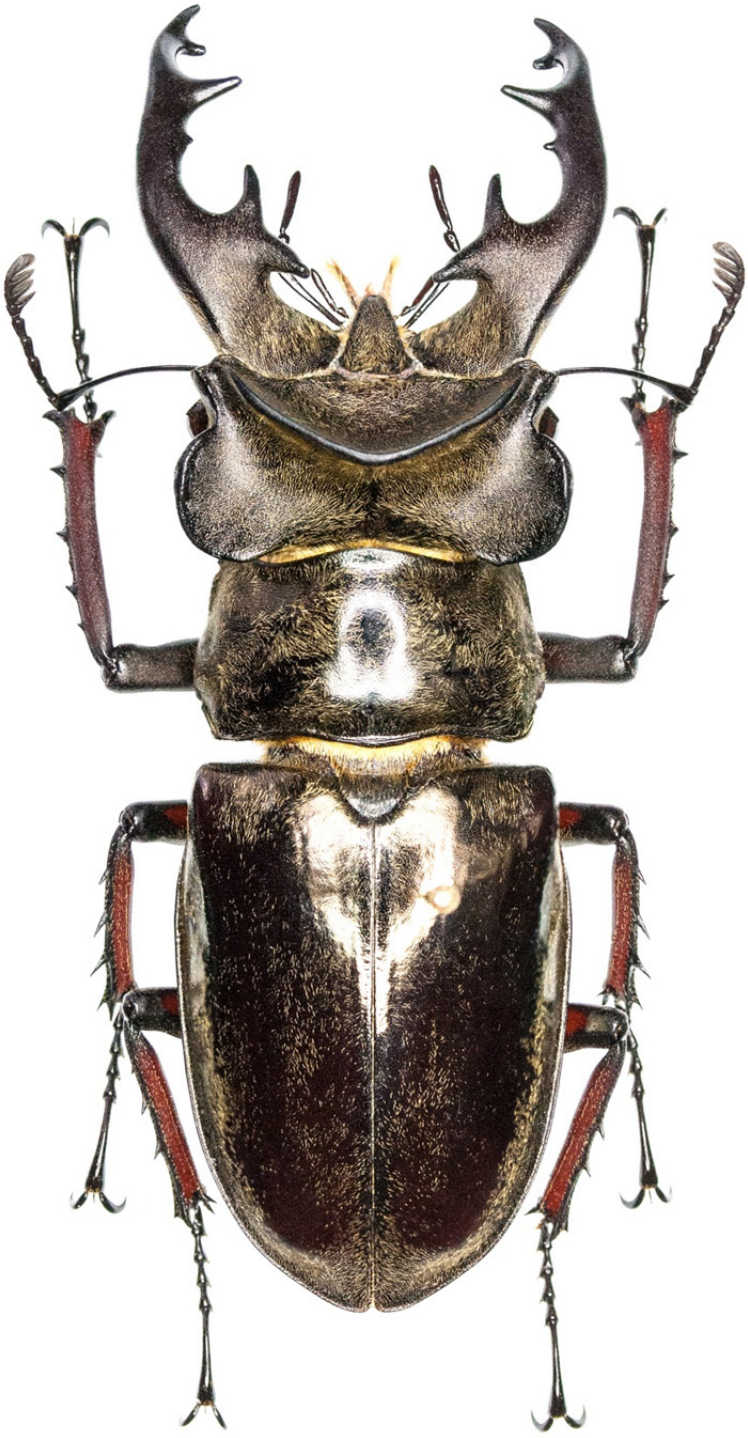
Beetles World

Journal of biodiversity in Coleoptera



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Cover
Lucanus wemckeni SCHENK, 2006

Notes on Asian stag beetles and description of new taxa (Coleoptera, Lucanidae).

Klaus-Dirk Schenk

Abstract

Two new species of the genus *Lucanus* SCOPOLI, 1763 (*Lucanus viheari* spec. nov. from northern Cambodia and *Lucanus bidentis* spec. nov. from southern Vietnam), a new species of the genus *Neolucanus* THOMSON, 1862 (*Neolucanus latissimus* spec. nov. from China, Zheijang province) and a new subspecies of the genus *Cyclommatus* PARRY, 1863 (*Cyclommatus weinreichi yapensis* sspec. nov. from western New Guinea and Yapen Island) are described, pictured and compared with the related species. Further a new place of discovery for *Lucanus fujianensis* SCHENK, 2008 in Guangdong province, China is reported and the largest known male of *Lucanus wemckeni* SCHENK, 2006 is pictured.

Key words

Coleoptera, Lucanidae, Lucanus viheari, Lucanus bidentis, Lucanus fujianensis, Lucanus wemckeni, Neolucanus latissimus, Cyclommatus weinreichi yapensis, Cambodia, Vietnam, China, India, Arunachal Pradesh, New Guinea, Yapen Island

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Lucanus viheari *spec. nov.*

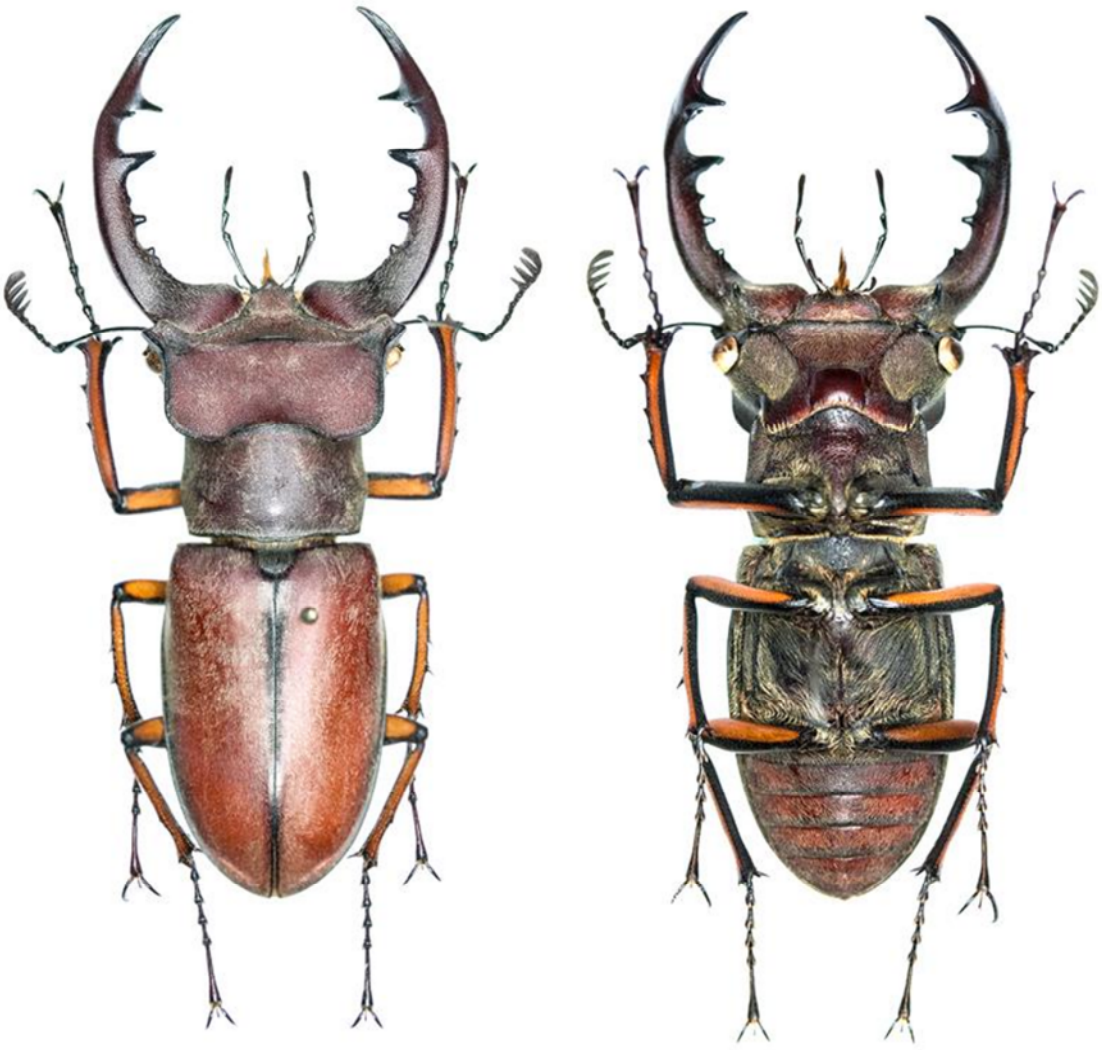

Fig. 1: ***Lucanus viheari*** spec. nov., ♂ Holotype (dorsal and ventral), Northern Cambodia, Preah Vihear Province, Choam Khsant, VI. 2011

Holotype. ♂, Northern Cambodia, Preah Vihear, Choam Khsant, VI. 2011, local collector (in coll. A. Kirchner, Neuburg / Donau, Germany).

Paratypes. 1 ♂, same collecting data (in coll. K.-D. Schenk, Wehretal, Germany).

Etymology. The name is adapted from the Preah Vihear Province of Cambodia.

Description and diagnosis. ♂ (Holotype), total length 44,3 mm, mandibles length 14,8 mm, head width 13,0 mm, prothorax width 10,0 mm, elytra length 17,7 mm, elytra width 12,3 mm. Head, mandibles and prothorax are dark reddish brown; the elytra are more light brown and have dark brown borders at suture and margins. The downside is dark brown. Femora and tibiae are ferruginous with dark brown joints, inner and outer edges. Tarsi, antennae and palpi are dark brown. The body is covered dorsally with short and sparse pubescence and ventrally with longer hairs. The body is slender.

The head is transverse, very finely granulated and has a significant raised frontal ridge in the middle. The triangular epistom is accompanied by an acute spine on each side. The front angles of the head are acute and significantly broader than the well-developed hind lobes of the head. The long mandibles are strongly but regularly bend inside. Each mandible has a strong tooth about in the middle of the inner side, a small tooth in front near the final fork and 2 - 3 teeth and a very small tubercle towards the basis of the mandibles. The final fork is wide; its inner tooth is directed somewhat down and slightly backwards. Further there is a strong forward directed tooth at the downside of each mandible basis. The antennal club is 4-jointed. The prothorax is finely granulated. It is less wide than the elytra. The Elytra are very fine punctured; the shoulders are minutely spinous. The anterior tibiae have externally 2 spines (left) and 3 spines (right); the middle tibiae have 2 spines; the hind tibiae are without spines.

The ♀ is unknown.

Lucanus viheari spec. nov. is belonging to the big *Lucanus fortunei*-group. The closest species seems to be *Lucanus tsukamotoi* NAGAI, 2002 from Thailand (Nan) and Laos (Mt. Phu Pane).

Lucanus viheari spec. nov. can be separated from *Lucanus tsukamotoi* NAGAI, 2002 by the following external morphological characters:

- mandibles more strongly bend inside and somewhat shorter
- inner tooth of the final fork of the mandible directed slightly backward
- the strong tooth is situated about in the middle of the mandible (*L. tsukamotoi* closer to the final fork)
- between the strong middle tooth and the final fork only 1 small tooth (*L. tsukamotoi* 3 - 4 small teeth)
- tubercle near the mandible basis stronger
- colour of the body more light (particularly elytra, femora and tibiae)
- pubescence less strong and shorter

Until now only *Lucanus cambodiensis* DIDIER, 1925 is recorded in the literature to come from Cambodia. But the location “Cambodia” for *L. cambodiensis* is very doubtful because the collecting location of the female type species deposited in the Paris Museum (MNHN) is Lao-Kay = Lao-Cai in northern Vietnam, and *L. cambodiensis* has been described by DIDIER together with several other *Lucanus*-species all coming from the same locality “northern Vietnam”. Further there is strong evidence that *L. cambodiensis* is in fact the female of *L. speciosus* (*L. speciosus* on the other hand is most likely a synonym of *L. nobilis).*

Therefore *L. viheari* spec. nov. is the first species of the genus *Lucanus* recorded for Cambodia.

Lucanus bidentis *spec. nov.*

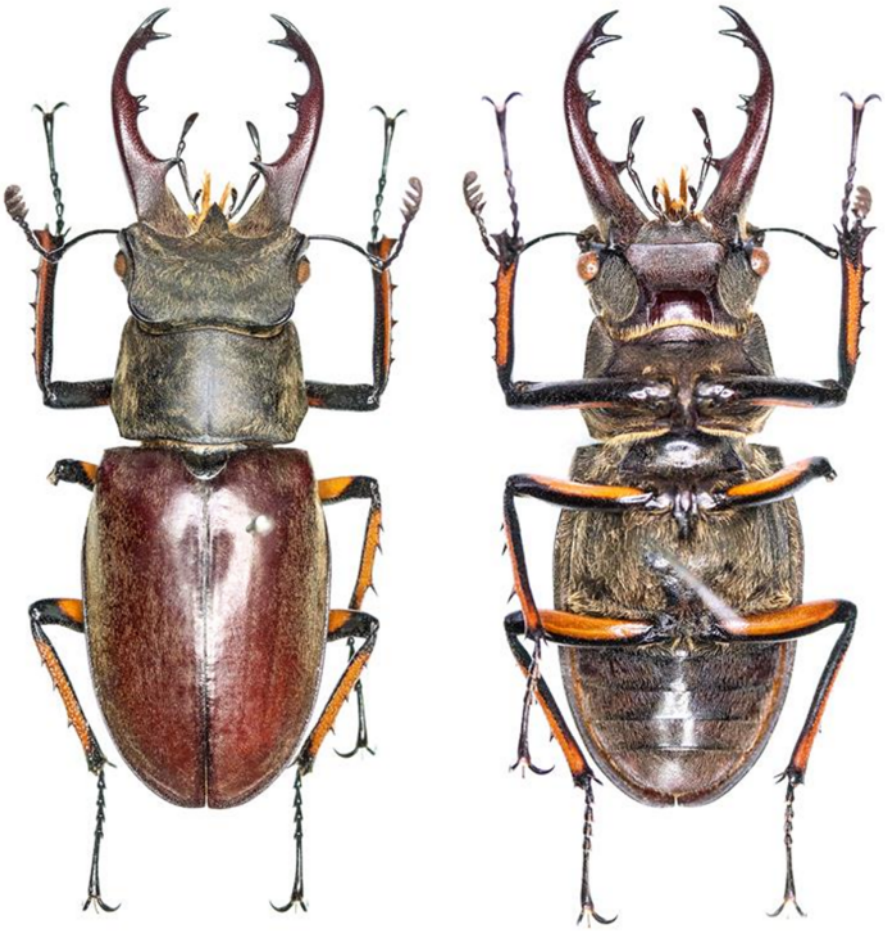

Fig. 2: ***Lucanus bidentis*** spec. nov., ♂ Holotype (dorsal and ventral), Vietnam, Lam Dong Province, Bhu San, 1320 m

Holotype. ♂, Vietnam, Lam Dong Province, Bhu San, 1320 m, 10.VII.2002, local collector (in coll. A. Kirchner, Neuburg / Donau, Germany).

Paratypes. 1 ♂, same collecting data (in coll. K.-D. Schenk, Wehretal, Germany).

Etymology. The name refer to the double tooth of the mandibles.

Description and diagnosis. ♂ (Holotype), total length 42,4 mm, mandibles length 11,1 mm, head width 10,5 mm, prothorax width 10,2 mm, elytra length 18,2 mm, elytra width 13,3 mm.
Head, mandibles and prothorax are dark brown. The elytra are reddish brown and have broad, brown borders at suture and margins. The downside is dark brown. Femora and tibiae are ferruginous with dark brown joints and are black-rimmed at their inner edges. The praefemora are only ferruginous at the downside. Tarsi, antennae and palpi are dark brown. Basis of the mandibles, head, prothorax and elytra are covered with short pubescence. The matasternum is covered by longer hairs. The body is slender. The head is transverse, finely granulated without a raised frontal carina. The triangular epistom is somewhat elongated without a significant spine at each side. The front angles of the head are acute and broader than the hind lobes of the head. The mandibles are nearly strait at the basis but bent inside at the apex. Each mandible has a strong tooth at about 1/3 of the inner side.

There are two small teeth sitting closely together about in the middle of the mandibles and another small one near the final fork. The right mandible has a very tiny tooth between the two teeth in the middle and the bigger tooth near the basis. The two branches of the narrow final fork are about equal in length and bend inside. Further there is a small tubercle at the downside of each mandible basis. The antennal club is formed by antennomeres 7 - 10. Antennomere 7 has an acute tip. The prothorax is finely granulated. It is about as wide as the head but less wide as the elytra. The Elytra are very fine punctured. The shoulders are acute but without spines. The anterior tibiae have externally 4 spines, the middle and hind tibiae have 3 spines.

The ♀ is unknown.

The holotype of *Lucanus bidentis* spec. nov. is obviously a small sized male. It is morphologically similar to a small *Lucanus boileaui* PLANET, 1897 from China (Sichuan, Shaanxi). It also seems to be close to *Lucanus ludivinae* BOUCHER, 1998 from China (Yunnan).

Lucanus bidentis spec. nov. can be separated from *Lucanus boileaui* PLANET, 1897 of about equal size by the following external characters:

- body more slender (particularly elytra)
- mandibles less strongly bend inside at apex, more slender and less shining
- mandibles characterized by the two teeth situated very closely together about at the middle of the inner side
- basal teeth shorter, closer to the basis, not upward directed
- epistom more elongated
- hind lobes of the head smaller and less wide

Neolucanus latissimus *spec. nov.*

Fig. 3: ***Neolucanus latissimus*** spec. nov., ♂ Holotype (dorsal and ventral), China, eastern Zheijang, Kaihua county, Gutianshan

Holotype. ♂, China, eastern Zhejiang Province, Kaihua county, Gutianshan, VIII. 1973, Dr. Peng leg. (in coll. K.-D. Schenk, Wehretal, Germany).

Paratypes. 2 ♂♂, same collecting data (in coll. K.-D. Schenk, Wehretal, Germany).

Derivatio nominis. The name refers to the very broad body of the new species.

Description and diagnosis. ♂ (Holotype), total length 41,7 mm, mandibles length 6,6 mm, head width 12,0 mm, prothorax width 18,5 mm, elytra length 22,5 mm, elytra width 18,0 mm. Total length of the paratypes 40,2 and 42,5 mm. The body is completely black and very shining. Head, mandibles and prothorax are a little bit less shining. The mandibles are strait and strongly curved inside at the bifurcate tip. The left mandible has at the inner side 4 strong teeth and the right one has 5 teeth. The anterior angels of the canthi are rounded; the posterior angels are more acute.

The form of the body is similar to *N. nitidus* but differ in the following morphological characters:

- body much broader
- surface of the body very shining (particularly the elytra)
- prothorax nearly parallel sided and anteriorly very wide
  (the prothorax of *N. nitidus* is anteriorly significantly less wide)
- mandibles inside with 4 - 5 teeth (*N. nitidus* 5 - 6 teeth), uprising tooth very strong
- mandibles dorsally more rounded (*N. nitidus* somewhat flattened)
- anterior angles of the canthi round (N. nitidus more angular)

The ♀ is unknown.

Cyclommatus weinreichi yapensis *sspec. nov.*

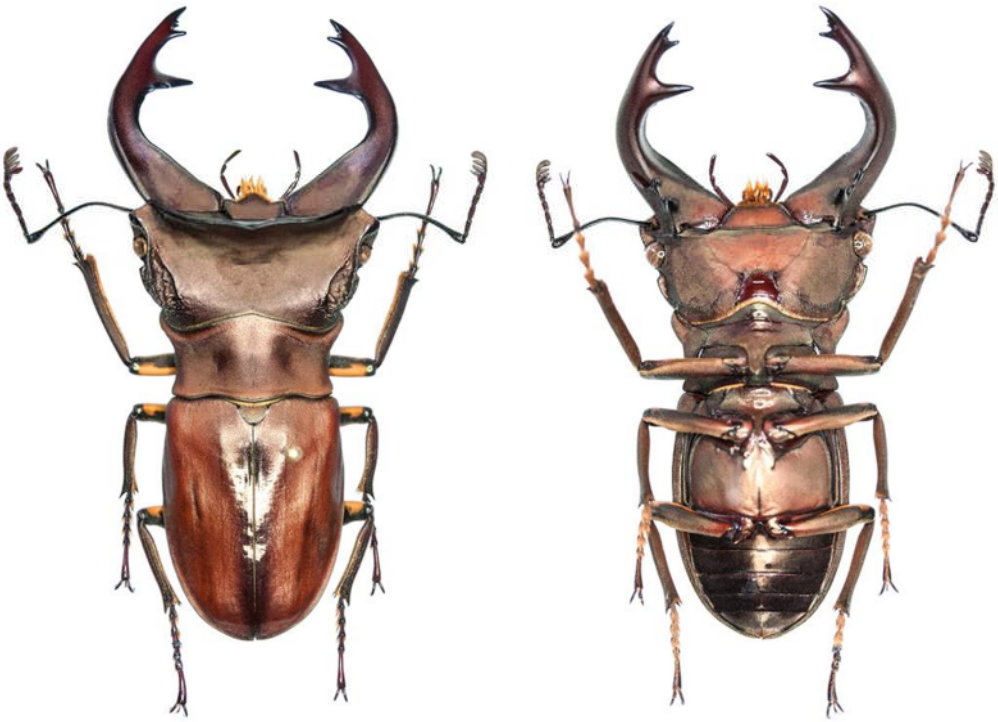

Fig. 4: ***Cyclommatus weinreichi yapensis*** sspec. nov., ♂ Holotype (dorsal and ventral), Indonesia, Yapen Island, near Serui village, 17.-19.XI.1999, Dr. Schenk leg.

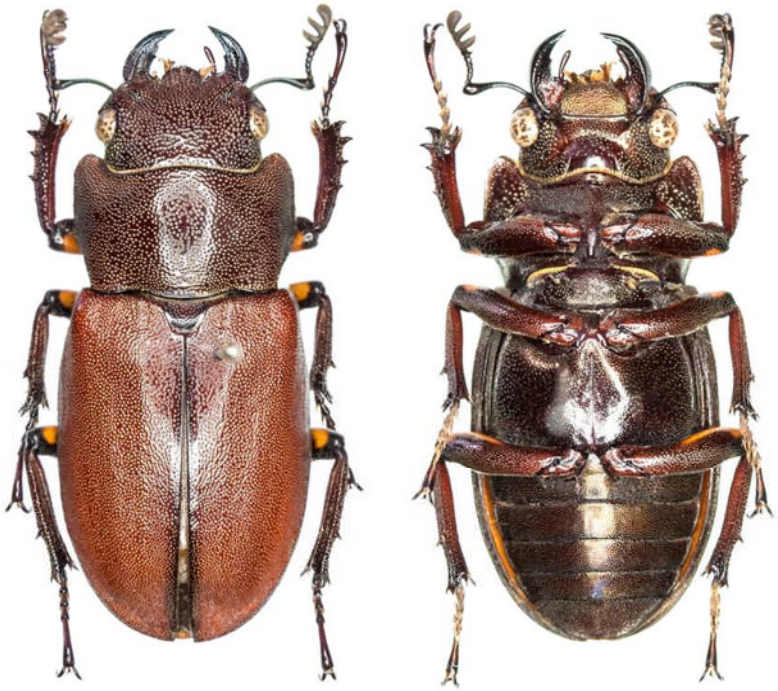

Fig. 5: ***Cyclommatus weinreichi yapensis*** sspec. nov., ♀ Paratype (Allotype), (dorsal and ventral), Indonesia, Yapen Island, north of Wadapi village, 10.II.1998, Alam leg.

Holotype. ♂, Indonesia, Yapen Island, near Serui village, 17.-19.XI.1999, Dr. Schenk leg. (in coll. K.-D. Schenk, Wehretal, Germany).

Paratypes. 7 ♂♂, 1 ♀, Indonesia, Yapen Island, north of Wadapi village, 10.II.1998, Alam leg., 4 ♂, Indonesia, West Irian, Paniai district, Siriwo River, 1000ft., XII.1996, Pusppenssat leg., 1 ♂, Indonesia, West Irian, Baliem Tal, Wamena env., VII. 2000, Pagai leg. (in coll. K.-D. Schenk, Wehretal, Germany); 5 ♂♂, Indonesia, Yapen Island, III. and VII. 1999, 2 ♂♂, Indonesia, West Irian, Wamena, X. 2003, 2 ♀ Indonesia, Yapen Island, III. 1999 (in coll. A. Kirchner, Neuburg / Donau, Germany).

Derivatio nominis. The name is adapted from the collecting site of the Holotype, Yapen Island.

Description and diagnosis. ♂ (Holotype), total length 42,1 mm, mandibles length 13,9 mm, head width 15,5 mm, prothorax width 11,5 mm, elytra length 16,7 mm, elytra width 11,4 mm. Total length of the ♂ paratypes: 35,0 – 47,0 mm. ♀ (Allotype), total length 21,3 mm, prothorax width 7,4 mm, elytra length 12,2 mm, elytra width 8,9 mm.

C. weinreichi yapensis sspec. nov. differ in the following external characters from the nominotypical form:

- somewhat smaller in size, 35,0 – 47,0 mm (*C. weinreichi weinreich*i 38,5 – 57,1 mm)
- big internal tooth of the mandibles longer, directed straiter inside, the tip less rounded anteriorly, not much thickened at the basis
- the tooth situated caudal of the big internal tooth is smaller or totally absent
- elytra more shining, particularly near the suture

A small specimen of *Cyclommatus weinreichi yapensis* is pictured as "*Cyclommatus* spec." in the book "The Lucanid Beetles of the World" vol. 2, plate 95, no. 462 (FUJITA, 2010). The collecting data are: Yapen Is., Irian Jaya, Indonesia, XI. 1998.

C. weinreichi yapensis sspec. nov. is found in the western (Indonesian) part of New Guinea (West Irian = Papua Barat) and on Yapen Island = Pulau Yapen whereas *C. weinreichi weinreichi* is reported in the entomological literature to be distributed in the western part of New Guina (Papua New Guinea) (MIZUNUMA and NAGAI, 1994, p. 236: Papua New Guinea, Wattui = Watut ?, IV. 1989; KRAJCIK, 2003: Papua New Guinea; FUJITA 2010, vol. 2, p. 158: Papua New Guinea, Morobe prov., Aseki; BARTOLOZZI et al., 2011, p. 47: Papua New Guinea; specimen from the authors collection: Papua New Guinea, Morobe province, Hiewini village, 24.IV.1998 / Watut Mts, I.1981 / Takadu village, 10.1997).

The collecting data of the holotype of *Cyclommatus weinreichi* LACROIX, 1972 are: Nouvelle Guinée (Papua), Kaniteba, leg. Monguillon, 1970. There is only a hand drawing in the original paper (LACROIX, 1972). The holotype of *C. weinreichi* (deposited now in the private collection of A. Kirchner, Neuburg / Donau, Germany) is shown in Fig.6. Another very big ♂ of *C. weinreichi* (57,1 mm) from the holotype-location is shown in Fig. 7. The size range of *C. weinreichi weinreichi* is: ♂ 46,6 – 47,0, (FUJITA, 2010), ♂ 38,5 – 57,1 mm, ♀ 20,0 – 21,5 mm (specimen of the private collections of A. Kirchner and of the author).

Fig. 6: ***Cyclommatus weinreichi*** LACROIX, 1972, ♂ Holotype,
Nouvelle Guinée (Papua)

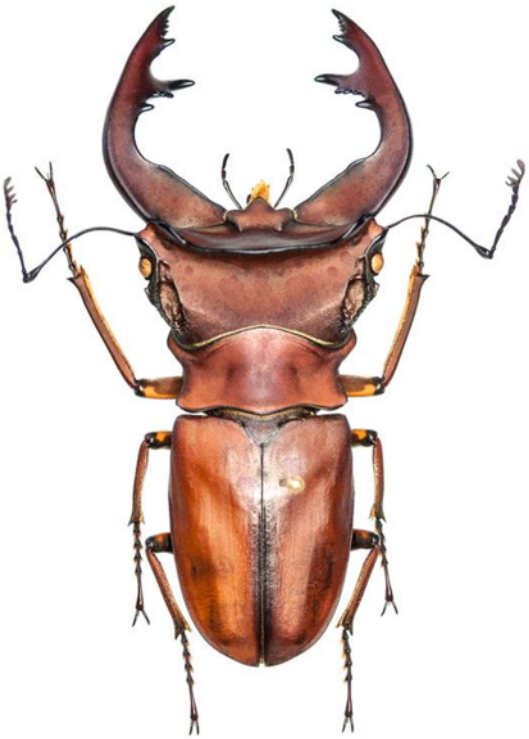

Fig. 7: ***Cyclommatus weinreichi*** LACROIX, 1972, ♂,
Nouvelle Guinée (Papua)

Lucanus fujianensis *Schenk, 2008*

Fig. 8: ***Lucanus fujianensis*** SCHENK, 2008, small ♂ (36,2 mm), China, central Guangdong, Yunjishan forest park, 16.V.2012, Jatua leg. (in coll. K.-D. Schenk, Wehretal, Germany)

The type location of *Lucanus fujianensis* SCHENK, 2008 is China, Fujian, environment of Guangze, Wuyi Shan, 1400 m (VI.1994, Li.leg.) (SCHENK, 2008). HUANG is reporting this species from the southernmost part of Fujian also "*The senior author has examined several specimen (of L. fujianensis) in the collection of the Shanghai Entomological Museum, Chinese Academy of Science collected by the named collectors from Changting, Fujian, twenty years ago"* (HUANG, 2011, unpublished). *L. fujianensis* is also represented in northern Guangdong, Ruyuan, Nanling Nature Reserve (collected in 2006 – 2008 by C.-H. Zhan) (HUANG et CHEN, 2010). FUJITA is reporting from the same location *Lucanus suzumurai* FUJITA, 2010 (FUJITA, 2010) which is a junior synonym of *L. fujianensis* (HUANG, 2011, unpublished, SCHENK, 2012). Further there are two *L. fujianensis* (♂) stored in the collection of the author from north-eastern Guangxi (Maoershan Nature Reserve, Maoershan, 2140 m, 4.VII.1996, Dr. Peng leg.). Now the author did receive 3 more small males of *L. fujianensis* from a new and more southern location (central Guangdong, Yunjishan forest park, 16.V.2012, Jatua leg.) (Fig. 8). The specimens are morphologically identical with small males of *L. fujianensis* from the Nanling Nature Reserve except for the mandibles which are somewhat more curved inside at the apex.

So *L. fujianensis* is a rare species but obviously is more widely distributed in the south-eastern Chinese provinces Fujian, Guangdong and Guangxi.

Lucanus wemckeni *Schenk, 2006*

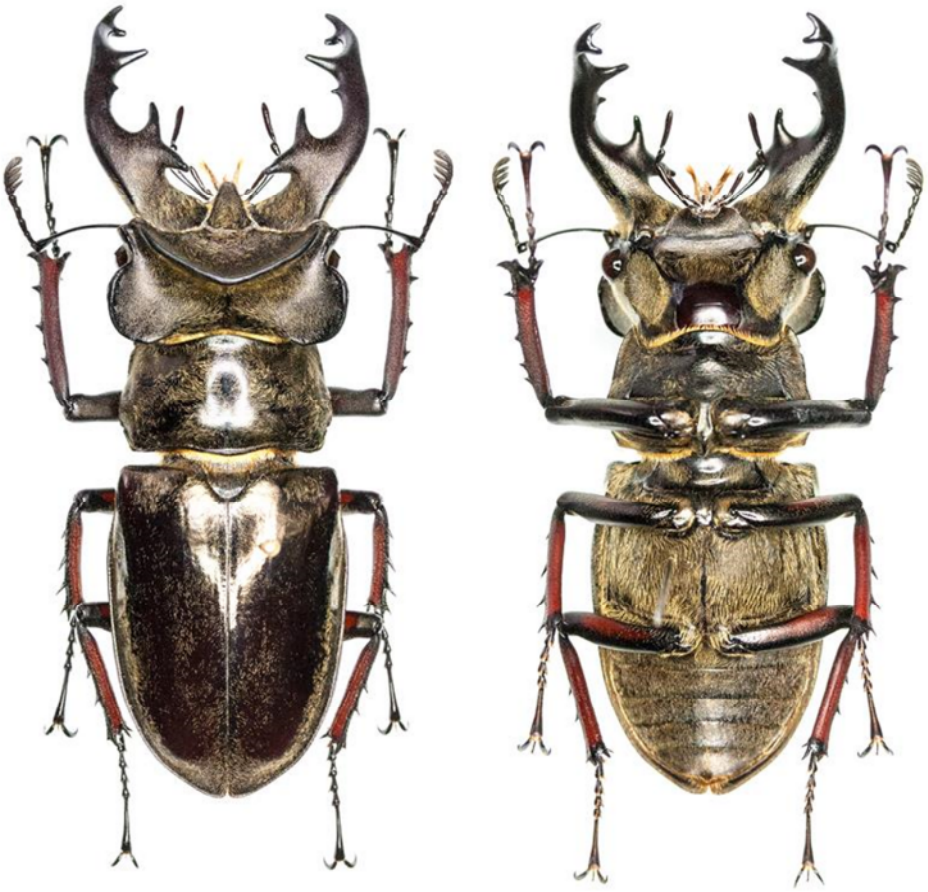

Fig. 9: ***Lucanus wemckeni*** SCHENK, 2006, ♂ (dorsal and ventral),
Northern India, Arunachal Pradesh, Along district, 20.-22.VIII.2007
(in coll. A. Kirchner, Neuburg / Donau, Germany)

Lucanus wemckeni SCHENK, 2006 is a rare and obviously very localised species from northern India, Arunashal Pradesh (SCHENK, 2006, SCHENK, 2008). Only a few male specimens are known. The total length of the ♂ Holotype is 53,2 mm. Because there is no good colour picture of *Lucanus wemckeni* in the entomological literature the biggest male, which was collected until today (total length 57,5 mm), is pictured in Fig. 9.

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