

## New species of *Lesteva* LATREILLE, 1796 from China (Insecta: Coleoptera: Staphylinidae)

39th contribution to the knowledge of Staphylinidae

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### Abstract

The genus *Lesteva* LATREILLE, 1796 (Staphylinidae: Omaliinae) is recorded for the first time from China. The following fifteen new species are described and named: *Lesteva aureomontis*, *L. cooteri*, *L. dabashanensis*, *L. davidiana*, *L. elegantula*, *L. flavopunctata*, *L. huabeiensis*, *L. mollis*, *L. nivalis*, *L. pulcherrima*, *L. rufimarginata*, *L. rufopunctata*, *L. septemmaculata*, *L. submaculata*, *L. yunnanicola*. A further four species, represented only by females, are described but not named.

**Key words:** Insecta, Coleoptera, Staphylinidae, Omaliinae, *Lesteva*, *Maxillesteva*, new subgenus, new species, key, China, systematics, taxonomy, zoogeography.

### Zusammenfassung

Die Gattung *Lesteva* LATREILLE, 1796 (Staphylinidae: Omaliinae) wird zum ersten Mal aus China gemeldet. Die folgenden 15 Arten werden als neu beschrieben: *Lesteva aureomontis*, *L. cooteri*, *L. dabashanensis*, *L. davidiana*, *L. elegantula*, *L. flavopunctata*, *L. huabeiensis*, *L. mollis*, *L. nivalis*, *L. pulcherrima*, *L. rufimarginata*, *L. rufopunctata*, *L. septemmaculata*, *L. submaculata*, *L. yunnanicola*. Vier weitere Arten, die nur durch Weibchen vertreten sind, werden zwar diagnostisch behandelt, aber nicht benannt.

### Introduction

No species of *Lesteva* LATREILLE, 1796 (Staphylinidae: Omaliinae) has hitherto been recorded from China. In 1993 I found the first five species on the upper reaches of streams in Beijing, Shanxi and Zhejiang Provinces. Alerted to my interest in these insects, J. Cooter searched for and discovered no fewer than six species on Longwangshan in Zhejiang in May 1996. More recently colleagues H. Schillhammer, M. Schülke and Y. Watanabe have sent me further species taken in Shaanxi, Hunan and at high altitude in western Sichuan and Yunnan. Together these finds amount to eighteen species, probably all endemic to China.

In contrast to European species, which are unicolorous brown or fuscous, many of the *Lesteva* species known from central Asia and Japan have more or less well defined reddish maculae on the elytra. Such forms were also found in China, as well as others having a round bright orange or red spot in the centre of each elytron. One of these maculate species moreover is a brilliant metallic blue and purple, giving it a striking resemblance to some of the similarly coloured species of *Dianous* SAMOUELLE, 1819 that share the same habitat in torrents and springs.

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Two species from Shaanxi Province, with large deep foveae near the lateral margins of the pronotum, belong by definition to the European subgenus *Lestevina* BORDONI, 1973, but differ notably from the latter in several respects; they undoubtedly represent a distinct, allopatric species group which might be endemic to China.

The key to Chinese *Lesteva* given below is doubtless premature, since further prospections in China will surely reveal many more undescribed species. Data are not yet sufficient to indicate how localized the species are. Only two species (*L. elegantula* and *L. flavopunctata*, in both Zhejiang and Hunan) have been found in more than one of the four main areas prospected: East China (Beijing south to Zhejiang), central China (South Shaanxi), South-central China (West Hunan) and West China (West Sichuan and Yunnan); at least one species (*L. rufopunctata*) has an extensive north-south distribution in eastern China.

Measurements other than those given in mm were made using an eye-piece micrometer at 80 x (units equivalent to 12.5  $\mu$ )

### Acronyms

CRL - coll. Rougemont, London

NHMW - Naturhistorisches Museum, Wien

CSB - coll. Schülke, Berlin

TUA - Tokyo University of Agriculture, Tokyo

MMM – Manchester Museum, Manchester

### Key to the *Lesteva* species known from China

- |       |   |                      |
|-------|---|----------------------|
| 1 (2) | Pronotum slightly transverse, without, or rarely with a deep depression, but devoid of a large fovea on either side near lateral margins; maxillae of normal length. ....   | 3                    |
| 2 (1) | Pronotum strongly transverse, of characteristic shape (Figs. 11, 12) with a large deep fovea on either side near lateral margin behind its broadest point; maxillary galeae extending well beyond apices of long mandibles. ....  | 37                   |
| 3 (4) | Sutural area of elytra broadly and deeply depressed along its entire length; elytra weakly sclerotised, strongly dehiscent. Small (3.2 - 3.5 mm) fuscous to black species with or without obscure elytral maculae; femora pale testaceous, apices of femora and most of tibiae more or less strongly infuscate. (Species from Zhejiang). .... | 5                    |
| 4 (3) | Elytra normally sclerotised, not dehiscent and not deeply depressed in entire sutural area. ....  | 7                    |
| 5 (6) | Elytra distinctly elongate, each elytron with a small round dark red spot at anterior 2/5. Outline of fore-body: Fig. 1; aedeagus: Fig. 13. ....  | <i>cooteri</i> sp.n. |
| 6 (5) | Elytra about as broad (near postero-lateral angles) as their length, immaculate, or with an obscure elongate reddish mark. Outline of forebody: Fig. 2; aedeagus: Fig. 14. ....   | <i>mollis</i> sp.n.  |
| 7 (8) | Elytra immaculate, unicolorous black or dark brown. (Species from Shaanxi, Sichuan or Yunnan). ....   | 9                    |
| 8 (7) | Elytra maculate or bicolorous, at least with a poorly defined or obscure paler mark in anterior half. ....  | 17                   |

- 9 (10) Larger (5 mm); finely and densely punctate; sides of pronotum with a deep depression. Outline of fore-body: Fig. 3; aedeagus: Fig. 15a, b (Sichuan). ..... ***nivalis* sp.n.**
- 10 (9) Smaller (3.0 - 4.5 mm); sides of pronotum devoid of a depression. .... **11**
- 11 (14) Larger (3.7 - 4.5 mm); elytra distinctly longer than broad (110 : 100). .... **12**
- 12 (13) Smaller (3.7 mm), more depressed; pronotum about as long as wide, (ratio 3 : 3.1) with distinct longitudinal impressions on disc; aedeagus: Fig. 16a, b (South Shaanxi). .... ***dabashanensis* sp.n.**
- 13 (12) Larger (4.2 - 4.5 mm), convex; pronotum transverse (ratio 3 : 3.4), with an arcuate basal impression but no impressions on disc; aedeagus: Fig. 25a, b (Yunnan). .... ***yunnanicola* sp.n.**
- 14 (11) Smaller (3.0 - 3.3 mm); elytra not or scarcely longer than broad. - The elytra of the two following species bear very obscure, scarcely distinguishable reddish patches, so appear twice in the key; male unknown. (Species from West Sichuan). .... **15**
- 15 (16) Pronotum slightly longer, less transverse (50 : 56); puncturation of head and pronotum finer, rugose and sub-rugose, confused. .... **sp. A**
- 16 (15) Pronotum shorter, distinctly transverse (46 : 56); puncturation of head and pronotum coarser and sparser, interstices half the diameter of punctures or more. .... **sp. B**
- 17 (18) Species from southern central or eastern China (Beijing, Hebei, Shanxi, Jiangsu, Zhejiang, Hunan); large, medium or small sized. .... **19**
- 18 (17) Species from West Sichuan; medium sized (3.8 - 4.1 mm). .... **31**
- 19 (20) Elytra each with a well or poorly defined oblique pale macula in anterior half; legs entirely testaceous. .... **21**
- 20 (19) Elytra each with a round spot situated near middle; body fuscous, deep black, or metallic blue; at least tibia more or less infuscate. .... **27**
- 21 (22) Head and pronotum brown, pitchy or black, base of pronotum narrowly paler; elytra testaceous or brown, paler than pronotum, with an oblique pale macula. .... **23**
- 22 (21) Pronotum and elytra (excluding maculae) concolorous, black. .... **25**
- 23 (24) Head and pronotum brown or pitchy; elytra testaceous, maculae pale testaceous. Outline of fore-body: Fig. 4; aedeagus: Fig. 17. .... ***huabeiensis* sp.n.**
- 24 (23) Head and pronotum black; elytra dark brown, maculae reddish; male unknown. .... **sp. C**
- 25 (26) Elytral maculae smaller, obscure, dark red; puncturation of pronotum and elytra coarse, deep, interstices narrower than diameter of punctures. Outline of fore-body: Fig. 5; aedeagus: Fig. 23a, b, c. .... ***submaculata* sp.n.**
- 26 (25) Elytral maculae large, bright orange, clearly defined and occupying most of anterior half of elytra; puncturation of pronotum deep but sparse, interstices larger than diameter of punctures; puncturation of elytra fine, sparse and shallow, surface of whole fore-body shiny. Outline of fore-body: Fig. 6; aedeagus: Fig. 21a, b. .... ***elegantula* sp.n.**
- 27 (28) Femora testaceous, tibiae more or less infuscate; each elytron with a round orange spot; smaller species (under 3.5 mm). Outline of fore-body: Fig. 7; aedeagus: Fig. 18. .... ***flavopunctata* sp.n.**

- 28 (27) Femora and tibiae entirely black, or with a blue metallic reflex; larger species (4.5 – 5.0 mm). ..... **29**
- 29 (30) Body deep black; each elytron with a round orang-red spot; puncturation of fore-body coarser and sparser. Outline of fore-body: Fig. 8; aedeagus: Fig. 20a, b. .... **rufopunctata sp.n.**
- 30 (29) Entire body, including legs, with a strong blue metallic reflex; each elytron with a round orange spot overlaid with a more extensive and well defined area of coppery-magenta reflex; puncturation of fore-body finer, denser, sub-rugose. Outline of fore-body: Fig. 10; aedeagus: Fig. 19a, b. .... **pulcherrima sp.n.**
- 31 (32) Antennae and legs entirely rufo-testaceous; elytral maculae transverse, dark red, poorly defined. Outline of fore-body: Fig. 9; aedeagus: Fig. 24a, b, c. ....  **davidiana sp.n.**
- 32 (31) Antennae and legs infusate or at least partly darkened. .... **33**
- 33 (34) Elytral maculae smaller, orange, somewhat obscure but quite evident. .... **35**
- 34 (33) Elytra with scarcely distinguishable obscure reddish patches (see sp. A and sp. B, above). .... **15**
- 35 (36) Basal two antennomeres and femora rufo-testaceous, rest of antennae and tibia darkened but not frankly fuscous; elytral maculae larger, clearly longer than diameter of eye; humeral angles narrowly rufescent. Aedeagus: Fig. 22a, b. ... **aureomontis sp.n.**
- 36 (35) Antennae entirely infusate; basal ½ of femora and tarsi testaceous; elytral maculae smaller, scarcely as long as diameter of eye; humeral angles concolorous, black. Male unknown. .... **sp. D**
- 37 (38) Larger (5 mm); black, elytra with a pattern of seven rufo-testaceous maculae. Outline of fore-body: Fig. 12. .... **septemmaculata sp.n.**
- 38 (37) Smaller (3.9 mm); black, lateral margins of elytra rufescent. Outline of fore-body: Fig. 11. .... **rufimarginata sp.n.**

### *Lesteva cooteri* sp.n.

TYPE MATERIAL: **Holotype** (♂) and 2 **paratypes**: "China: Zhejiang Prov., Anji County, ca. 500 m., Long Wang Shan N.R., 12.V.1996, J. Cooter" (CRL; 1 paratype in MMM).

**DESCRIPTION**: Length: 3.0 - 3.2 mm. Black, mouth-parts and antennae fuscous brown, first two antennomeres somewhat paler; femora pale testaceous; apices of femora and almost entire tibiae infusate; tarsi testaceous. Pubescence pale, short, erect, inconspicuous except at lateral margins and apices of elytra.

Proportions of holotype: length of head: 44; breadth of head: 52; antennomeres: I: 15; II: 10; III - IX: 11.5; X: 11; XII: 15; length of pronotum: 51; breadth of pronotum: 58; length of elytron: 112; breadth of elytra: 102; metatarsus: 25.

A small depressed species with weakly sclerotised, dehiscent elytra. Puncturation of head moderately coarse, rugose; frontal foveae forming broad and deep furrows extending length of vertex. Antennae long, when reflexed the last four antennomeres overlapping base of pronotum; all antennomeres at least three times as long as broad. Pronotal puncturation similar to that of head, rugose or sub-rugose in antero-median region, less close

elsewhere; disc with two or three irregular shallow impressions and a deeper transverse basal impression; all margins finely bordered. Scutellum small, relatively coarsely punctate. Elytra trapezoidal, broadly and deeply depressed in entire sutural area, dehiscent, punctures marginally coarser and shallower than those of pronotum, interstices forming rounded rugae on most of disc. Abdominal puncturation fine and dense, first visible (5th true) tergite with fine, somewhat transverse micro-reticulation, reticulation weaker and puncturation sparser on succeeding tergites. Tomentose patches scarcely discernible on first exposed tergite. Habitus: Fig. 1.

Aedeagus: Fig. 13.

This species differs from all other *Lesteva* known from China (except *L. mollis*) by its flimsy, dehiscent elytra.

**BIONOMICS:** Jonathan Cooter has provided the following information on the habitat of this and the other five species he found at Longwang Shan: the locality is a stretch of stream at between 400 and 1000 m altitude. In the upper part, where most *Lesteva* were found, "the stream is under closed canopy woodland giving more or less complete but dappled shade. The stream here is about 0.5 m wide, and flows though a deep cleft, cascading over ledges and around stones, the moss on its banks kept wet by spray and splashes. The moss was not thick, formed a mat, and was wet but not saturated. When the moss was disturbed by combing the stems upright with fingers the beetles emerged after a brief wait. *Lesteva* were always found in shaded areas of the stream".

### *Lesteva mollis* sp.n.

**TYPE MATERIAL:** **Holotype** (♂) and 3 **paratypes**: "China: Zhejiang Prov., Anji County, ca. 500 m., Long Wang Shan N.R., 12.V.1996, J. Cooter" (CRL; 1 paratype in NHMW, 1 paratype in MMM).

**DESCRIPTION:** Length: 2.8 - 3.0 mm. Black, elytra sometimes paler, dark brown; elytra immaculate (2 paratypes) or each elytron with a very obscure elongate dark reddish mark at anterior third; mouth-parts, legs and antennae coloured as in *L. cooteri*. Habitus: Fig. 2.

Proportions of holotype: length of head: 40; breadth of head: 47; antennomeres: I: 13; II: 10; III: 11; IV - VIII: 12; IX: 13; X: 13; 11: 17; length of pronotum: 50; breadth of pronotum: 56; length of elytron: 101; breadth of elytra: 104; metatarsus: 24.

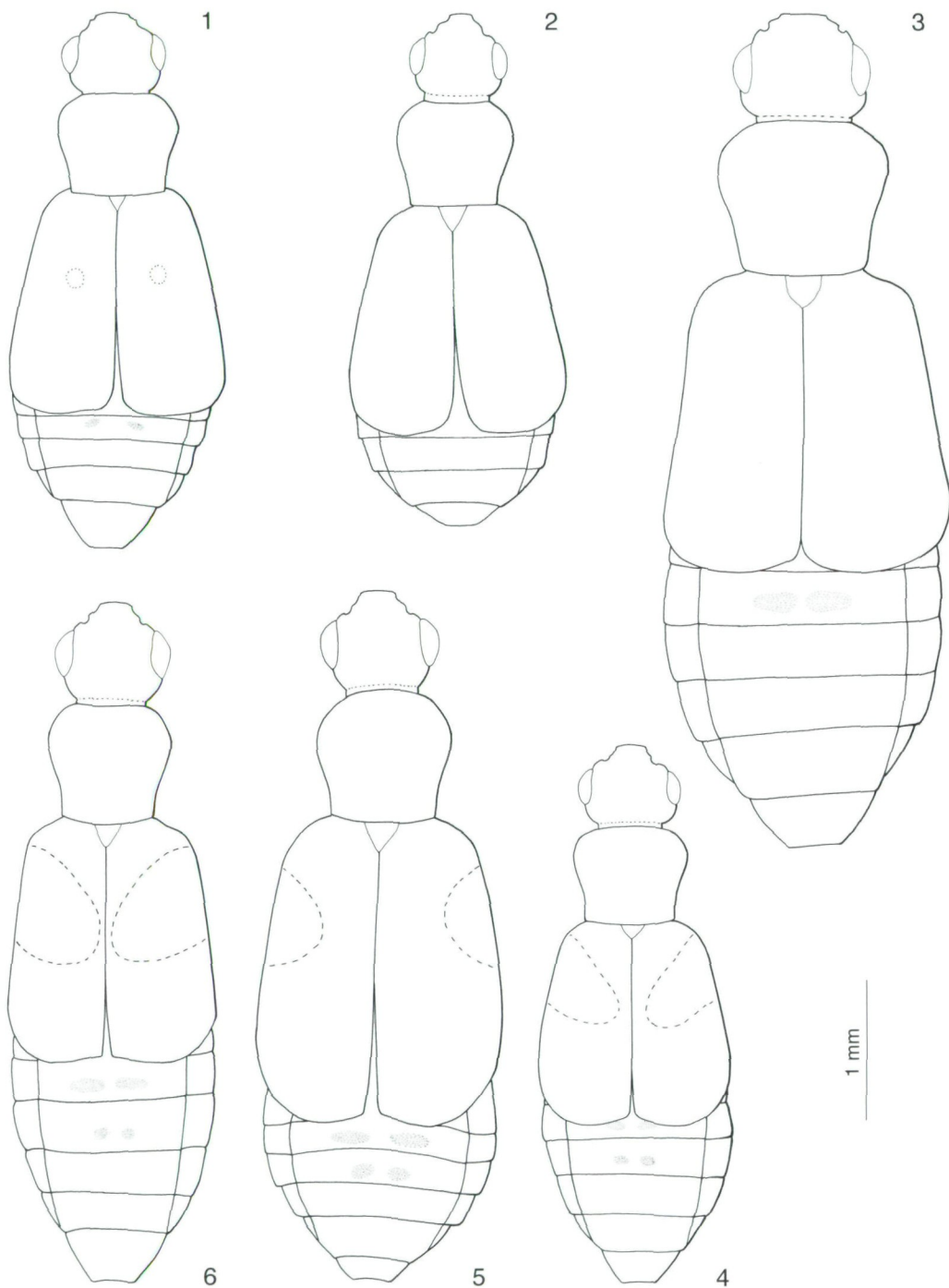
Aedeagus: Fig. 14.

In facies, colour, puncturation and in its long antennae and dehiscent elytra *L. mollis* is very similar to *L. cooteri* differing only in its slightly smaller size, shorter elytra and the aedeagus.

### *Lesteva nivalis* sp.n.

**TYPE MATERIAL:** **Holotype** (♂): "China: W-Sichuan (15), Daxue Shan, Hailuoguo Glacier Park, Camp 2, 2550 - 2700 m, 29.35.16N, 102.01.53E, 30./31.05.1997, M. Schülke" (CSB, eventually to be deposited in Museum für Naturkunde, Berlin).

**DESCRIPTION:** A large, gracile species, in facies reminiscent of some members of the genus *Geodromicus* REDTENBACHER, 1856.



Figs. 1 - 6: Outline of body, showing position of elytral maculae and tomentose patches of abdominal tergites of: (1) *Lesteva cooteri*; (2) *L. mollis*; (3) *L. nivalis*; (4) *L. huabeiensis*; (5) *L. submaculata*; (6) *L. elegantula*.

Length: 5 mm. Body dark pitchy brown; mouth-parts testaceous; antennae fuscous, second antennomeres rufescent; legs dark brown, distal parts of tibiae and tarsi paler, dark testaceous. Pubescence of head and pronotum short, erect; pubescence of elytra long, pale yellow, semi-recumbent, that of abdomen pale yellow, short and recumbent.

Proportions of holotype: length of head: 51; breadth of head: 66; antennomeres: I: 21; II: 15; III: 17; IV: 17; V: 18; VI: 19; VII - IX: 20; X: 19; XI: 25; length of pronotum: 76; breadth of pronotum: 81; length of elytron: 140; breadth of elytra: 136; metatarsus: 54.

Puncturation of head coarse, punctures about as large as eye facets, rugose on sides, sub-rugose on median area; frontal foveae in longitudinal sinuate furrows; frons with a shallow transverse impression; antennae long and slender, all antennomeres at least three times as long as broad, overlapping base of pronotum by four segments. Pronotum finely, deeply, sub-rugosely punctate, diameter of punctures clearly less than that of eye facets; disc with a slight antero-median transverse impression and a broad, shallow arcuate impression before base; sides deeply impressed just behind widest point of pronotum (as in *Lestevina*), but fundus of pit not bearing a fovea; all margins finely bordered. Scutellum transverse, very densely punctate. Elytral puncturation slightly coarser, and shallower than that of pronotum, sub-rugose. Fine puncturation of abdominal tergites obscured by strong coarse isodiametric micro-reticulation; large tomentose patches clearly demarcated on first exposed (4th true) tergite. Habitus: Fig. 3.

Aedeagus: Fig. 15a, b.

This new species is comparable in size and colour to the European species *L. bavarica* LOHSE, 1955 but differs at first glance in its finer puncturation, especially of the elytra, longer antennae, and in having discal and lateral impressions on the pronotum. *Lesteva nivalis* is easily distinguished from the other Chinese species known at present by the characters used in the key.

### *Lesteva dabashanensis* n.sp.

TYPE MATERIAL: **Holotype** (♂) and 3 **paratypes** (1 ♂ & 2 ♀♀): "[China: Shaanxi] Langao Xian, Shenxianhe (alt. 1910 m) 27.ix.1997 Toshio Kishimoto leg." (TUA; 1 paratype in CRL).

**DESCRIPTION:** Length: 3.6 - 3.8 mm. Black; mouth-parts, femora and tarsi testaceous; apices of femora and entire tibiae infusate; antennae fuscous, bases of first antennomere, and sometimes last few antennomeres paler, dark brown. Pubescence of head and pronotum short, erect; pubescence of elytra long, pale yellowish, recumbent and very evident; pubescence of abdomen pale, recumbent, evident.

Proportions of holotype: length of head: 38; breadth of head: 47; antennomeres: I: 16; II: 10; III: 11.5; IV: 11; V: 11.5; VI - X: 12; XI: 18; length of pronotum: 50; breadth of pronotum: 52.5; length of elytron: 106; breadth of elytra: 86; metatarsus: 23.

Puncturation of head coarse, diameter of punctures slightly greater than that of eye facets, close but not rugose, interstices about half diameter of punctures; frontal fovea in broad, deep longitudinal furrows; antennae fairly long, overlapping base of pronotum by last 3 ½ segments, penultimate segment about 2 ¼ times as long as broad. Pronotum cordate; puncturation equal to that of head; disc with a pair of irregular longitudinal

impressions on disc and a shallow, rectilinear transverse basal impression; all margins bordered. Scutellum concolorous with elytra, concave, strongly elongate, finely, sub-rugosely punctate. Elytra long, more than twice as long as pronotum, only moderately widened in straight lines posteriorly; puncturation of disc distinctly coarser and shallower than that of pronotum; puncturation of anterior margins fine and sub-rugose, resembling that of scutellum. Abdominal tergites shiny, with very obvious, somewhat transverse micro-reticulation, and tomentose patches evident on first two exposed tergites (tergites IV and V).

Aedeagus: Fig. 16a, b.

The slender, gracile species is comparable to *L. mollis* and *L. cooteri*, but has slightly coarser puncturation and convex, well sclerotised elytra bearing longer and much more evident pubescence.

### *Lesteva* sp. A

**MATERIAL:** 2 ♀♀: "[China: Sichuan] Ma'erkam Xian, Zheguoshankou (alt. 3430 m) 5.iX.1998 Toshio Kishimoto leg." (TUA, CRL). **Note:** Maerkam Xian, 31°42'N 102°20'E is indicated on most maps by its Tibetan name Barkam. This is not Markam County (Tibetan: Gartog), 29°06'N 98°05'E in Tibet.

**DESCRIPTION:** Length: 3.3 mm. Black, each elytron with an almost indiscernible obscure reddish patch situated about ¼ of elytral length from anterior margin; antennae fuscous, basal two segments paler, rufescent; femora and tarsi testaceous, apices of femora and entire tibiae fuscous. Pubescence pale, very fine and erect on head and pronotum, long and recumbent on elytra, not very visible on surface of abdominal tergites but conspicuous as a short dense fringe on apical margins of tergites.

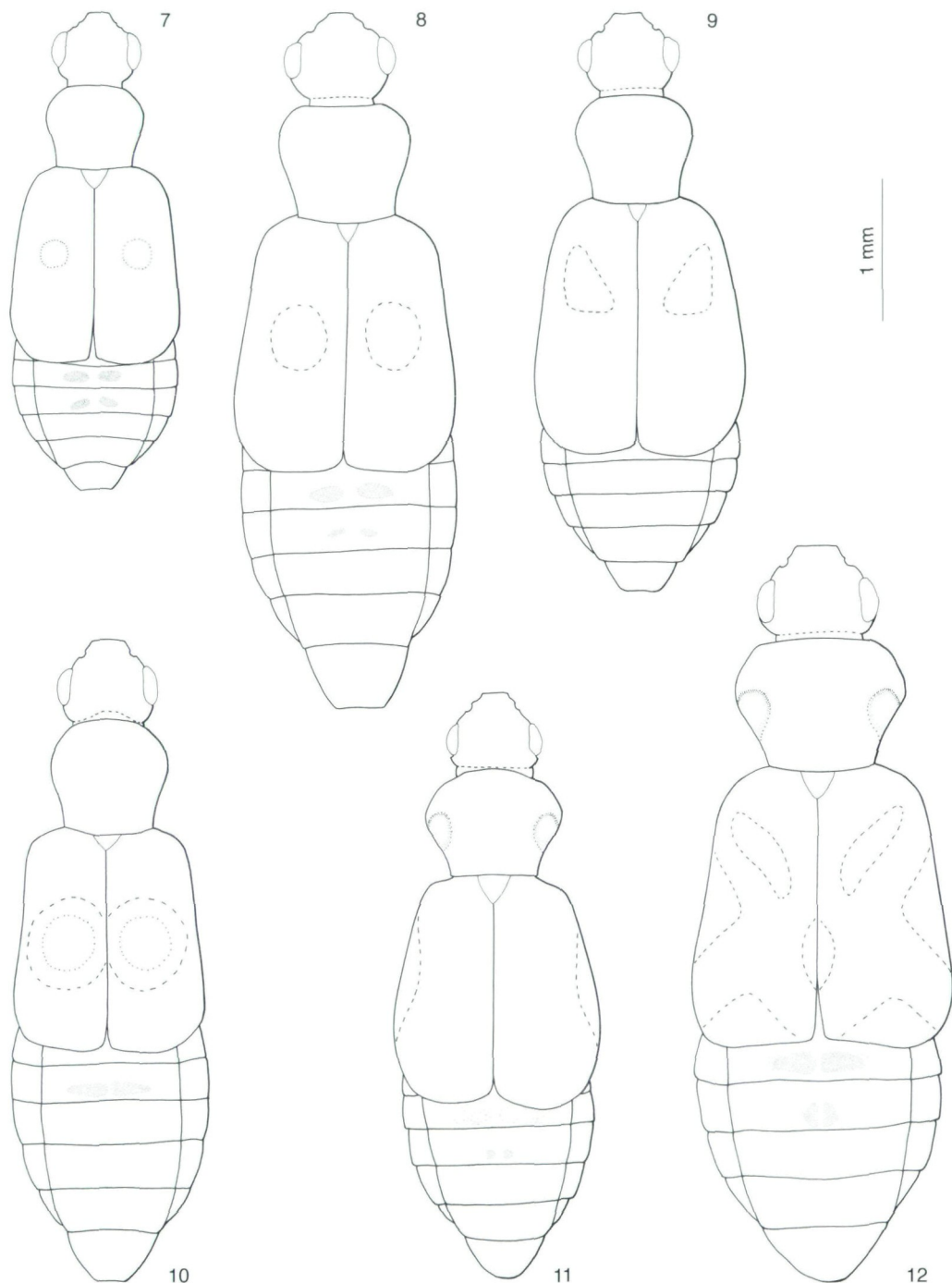
**Proportions:** length of head: 38; breadth of head: 51; antennomeres: I: 15; II: 9; III: 11; IV: 11; V: 11.5; VI: 11; VII: 11.5; VIII - X: 11; XI: 17; length of pronotum: 55; breadth of pronotum: 57; length of elytron: 106; breadth of elytra: 102.

Puncturation of head and pronotum fine, very dense, rugose (less so on pronotum of one specimen), surface consequently dull. Antennae long, overlapping base of pronotum by last 3 segments; penultimate segment obconical, 1 ½ times as long as broad. Pronotum with two shallow discal impressions and a shallow, arcuate sub-basal impression. Elytra strongly trapezoidal, puncturation dense, but much coarser, shallower and sparser than that of pronotum. Abdominal tergites finely, sparsely punctate, with strong transverse reticulation; tomentose patches black but very evident on both first two exposed tergites in contrast to shiny surface of tergite, those of second exposed tergite circular, relatively large.

Male: unknown.

Until males are discovered this species may be impossible to distinguish from other similar species that probably await discovery, except by comparison of specimens. Of the known Chinese species it most closely resembles *Lesteva* sp. B, which also has faint, scarcely perceptible elytral patches; it is most readily distinguished from the latter by its slightly longer and rugosely punctate pronotum.





Figs. 7 - 12: Outline of body, showing position of elytral maculae and tomentose patches of abdominal tergites of: (7) *Lesteva flavopunctata*; (8) *L. rufopunctata*; (9) *L. davidiana*; (10) *L. pulcherrima*; (11) *L. rufimarginata*; (12) *L. septemmaculata*.

*Lesteva* sp. B

**MATERIAL:** 2 ♀♀: "[China: Sichuan] Mt. Emei-shan, Jinding (3050 m) 8.X.1997, T. Kishimoto leg." (TUA, CRL).

**DESCRIPTION:** Length: 3.1 mm. Black, elytra slightly paler, fuscous; each elytron bearing a very obscure, almost imperceptible reddish patch centred about  $\frac{1}{4}$  of elytral length from anterior margin; palpi entirely testaceous; antennae fuscous, basal two segments rufescent; femora and tarsi testaceous, apices of femora and entire tibiae fuscous (one specimen is teneral, entirely castaneous brown, with elytral patches and apical margins of elytra broadly paler). Pubescence of fore-body as in *Lesteva* sp. A, but that of surface of tergites conspicuous, recumbent, and without conspicuous dense fringes of pubescence on apical margins.

Proportions: length of head: 36; breadth of head: 46; antennomeres: I: 14; II: 9; III: 9; IV: 10; V: 10; VI - X: 9; XI: 17; length of pronotum: 48; breadth of pronotum: 57; length of elytron: 97; breadth of elytra: 94.

Punctuation of head moderately fine, punctures on average a little larger than eye facets, rugose on sides and occipital area, sparser on vertex. Antennae long, overlapping base of pronotum by last 3 segments; penultimate segment less than twice as long as broad. Punctuation of pronotum sparser, not rugose, punctures equal to those of vertex, interstices 0.5 to 1 time diameter of punctures; disc with two irregular shallow impressions and a short, shallow transverse sub-basal impression; all margins bordered. Elytra strongly trapezoidal, punctuation about as coarse and dense as that of pronotum, but shallow and confused. Abdominal tergites strongly micro-reticulate, forming slightly transverse meshes; tomentose patches evident on both first two exposed tergites, anterior pair broadly separate, posterior pair transverse, twice as broad as long.

Male: unknown.

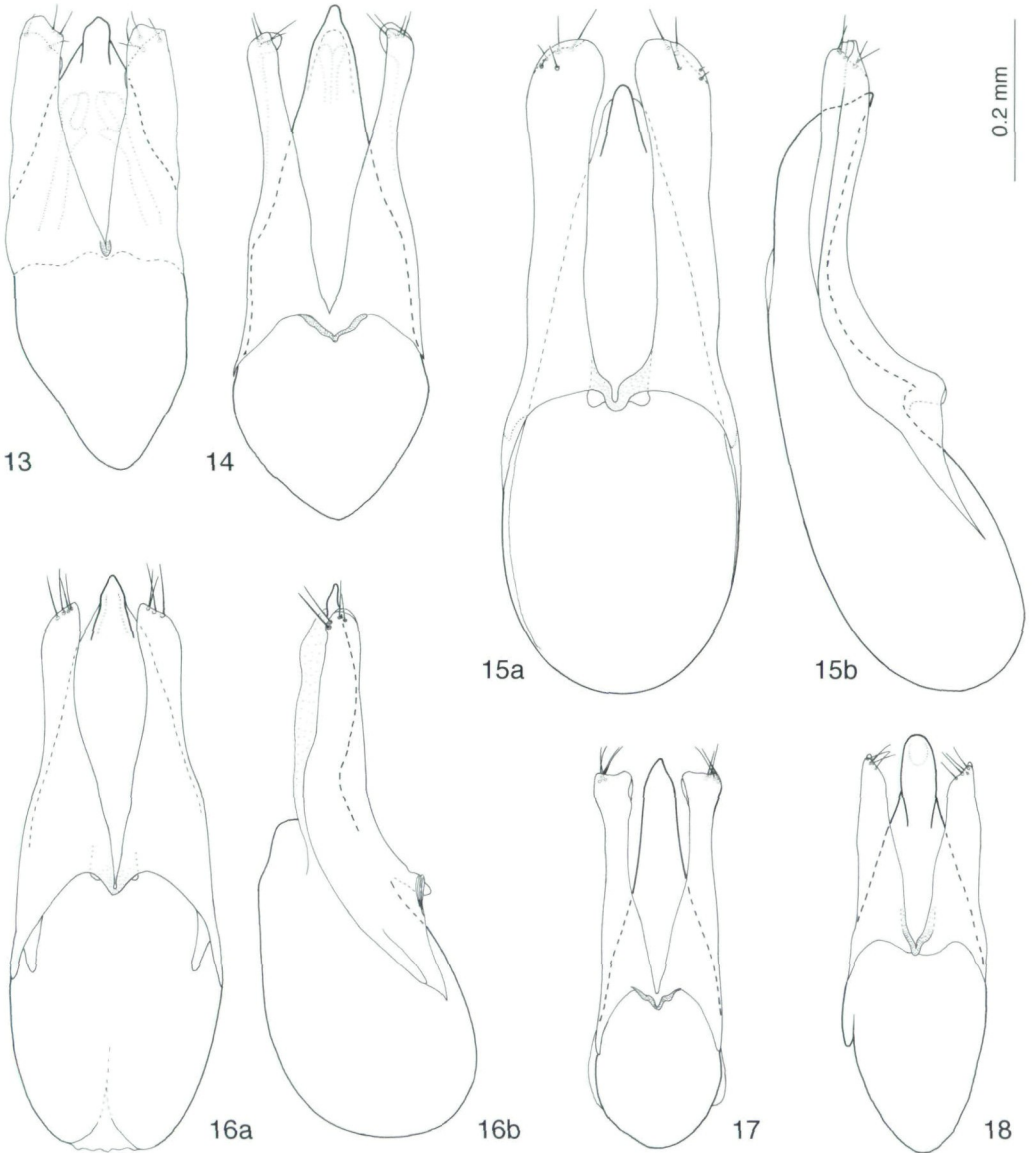
This species most closely resembles *Lesteva* sp. A from which it can be separated by the characters given in the diagnosis of the latter species, above.

**NOTE:** As more and more entomological wonders are described from Emei shan the name of this mountain may be of interest to colleagues. The character *E* in *E mei*, written with the "mountain" radical, is used only in this particular proper name; *mei* means "eyebrow". The name is a deliberate pun on *e mei* (the character *e* written with the "insect" radical), meaning "moth eyebrow", a nice name for the elegant pectinate antennae of saturniid moths. The proper name may have been inspired by the horizontally tapering outline of the summit of Emei shan looming above the cloud as seen from the Sichuan plain. "Moth eyebrows" also describes a woman's made up eyebrows, and by extension is a poetic term for "beautiful woman".

*Lesteva huabeiensis* sp.n.

**TYPE MATERIAL:** **Holotype** (♂) and 11 **paratypes**: "China Beijing Panshan 8.V.1993 G. de Rougemont" (CRL; 2 paratypes in NHMW).

**DESCRIPTION:** Length: 3.3 - 3.5 mm. Head and pronotum brown, more or less, or partly or wholly infuscate, posterior margin of pronotum narrowly paler; elytra always paler than fore-body, dirty testaceous, with ill defined straw coloured sub-humeral



Figs. 13 - 18: Aedeagi of *Lesteva* species (a: ventral view; b: lateral view): (13) *L. cooteri*; (14) *L. mollis*; (15) *L. nivalis*; (16) *L. dabashanensis*; (17) *L. huabeiensis*; (18) *L. flavopunctata*.

maculae; abdomen brown; mouth-parts, antennae and legs testaceous. Pubescence pale, short, erect and inconspicuous on head and pronotum, longer, conspicuous and semi-recumbent on elytra and abdomen.

Proportions of holotype: length of head: 39; breadth of head: 50; antennomeres: I: 15; II: 9; III: 10; IV - VIII: 10; IX: 9; X: 10; XI: 16; length of pronotum: 48; breadth of pronotum: 54; length of elytron: 94; breadth of elytra: 91; metatarsus: 22.

Head coarsely and rugosely punctate, diameter of punctures only slightly greater than that of eye facets on middle of vertex, much larger laterally, interstices much narrower than diameter of punctures, in parts forming sharp ridges; frontal foveae in narrow, rather shallow furrows. Antennae moderately long, overlapping base of pronotum by last 2 - 2½ segments, penultimate segment less than twice as long as broad (6 : 10). Pronotal puncturation comparable to that of head; disc without or with a very shallow, inconspicuous impression, and a shallow, rectilinear transverse sub-basal impression; all margins finely bordered. Scutellum small, concolorous with elytra, deeply punctate. Elytra not or little longer than broad, puncturation marginally coarser, shallower and sparser than that of pronotum. Abdominal tergites fairly densely, somewhat asperately punctate, pubescence long, dense, recumbent. Habitus: Fig. 4.

Aedeagus: Fig. 17.

*Lesteva huabeiensis* resembles the Japanese species *L. fenestrata* SHARP, 1874 in colour, but is readily distinguished by its smaller size, less cordiform pronotum, and coarser and, on elytra, sparser puncturation. Its pale head and pronotum distinguishes it from all other Chinese species known to date.

**BIONOMICS:** The type series was found under leaves on sand and shingle at the source of a stream.

**DERIVATION OF SPECIFIC NAME:** from the Chinese *Huabei*, meaning "North China".

### *Lesteva* sp. C

**MATERIAL:** 1 ♀: "China Shanxi Wutaishan 5.VI.1993 G. de Rougemont" (CRL).

**DESCRIPTION:** Length: 3.6 mm. Head and pronotum black, posterior margin of pronotum narrowly rufescent; elytra brown with oblique elongate pale reddish maculae extending from humeral angles to middle of suture; abdomen fuscous; antennae rufo-testaceous; mouth-parts and legs testaceous. Pubescence short, erect and sparse on head and pronotum, longer, pale yellowish and recumbent on elytra and abdomen.

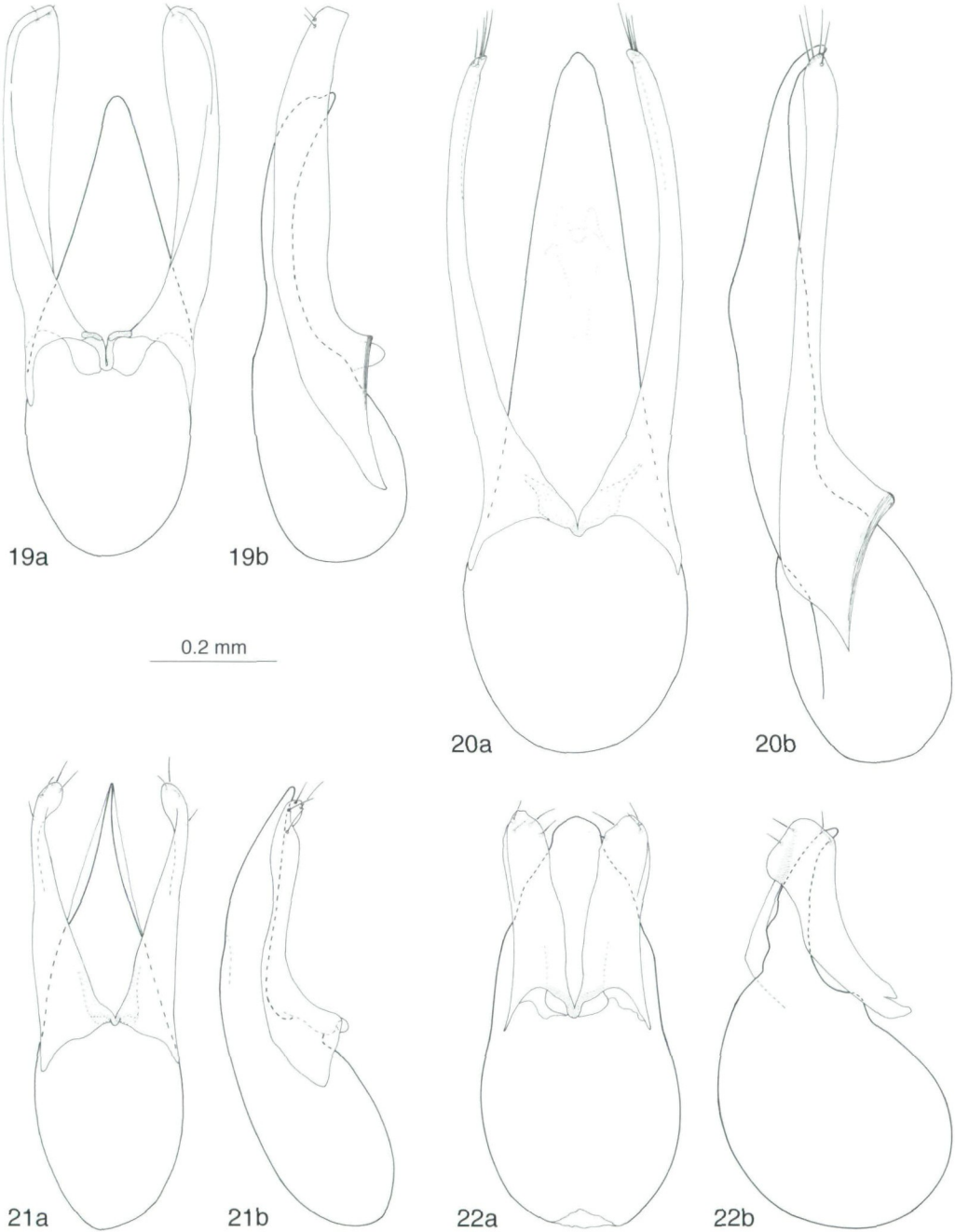
**Proportions:** length of head: 40; breadth of head: 52; antennomeres: I: 16; II - VII: 10; VIII: 9; IX - X: 10; XI: 18; length of pronotum: 52; breadth of pronotum: 57; length of elytron: 55; breadth of elytra: 51; metatarsus: 24.

Puncturation of head and pronotum a little coarser, more irregular, and, especially on pronotum sparser than that of *L. huabeiensis*; frontal foveae in deep linear furrows. Pronotum with three shallow discal impressions and an irregular, small pit like depression in front of base; all margins bordered. Elytra longer and more trapezoidal than those of *L. huabeiensis*, similarly punctate but surface more shiny. Abdominal tergite IV hidden by elytra; first exposed tergite (tergite V) with a pair of small circular tomentose patches; puncturation of tergites fine and dense, with somewhat transverse micro-reticulation.

Male: unknown.

This species is similar to *L. huabeiensis* from which it differs by its black head and pronotum and by its sparser, not rugose puncturation and longer and more trapezoidal elytra.

**BIONOMICS:** The beetle was taken under leaves on the lightly shaded shingle bank of a stream at 1800 m.



Figs. 19 - 22: Aedeagi of *Lesteva* species (a: ventral view; b: lateral view): (19) *L. pulcherrima*; (20) *L. rufopunctata*; (21) *L. elegantula*; (22) *L. aureomontis*.

*Lesteva submaculata* sp.n.

TYPE MATERIAL: **Holotype** (♂): "China: Zhejiang Prov., Anji County, ca. 500 m., Long Wang Shan N.R., 12.V.1996, J. Cooter" (CRL).

DESCRIPTION: Length: 4.3 mm. Black, each elytron with a large obscure dark red sub-triangular mark extending from whole anterior half of lateral margin to a point near middle of suture; mouth-parts, antennae and legs uniformly rufo-testaceous. Pubescence pale, relatively long, evident and semi-erect on whole body.

Proportions of holotype: length of head: 48; breadth of head: 57; antennomeres: I: 16; II: 11; III: 12; IV: 11.5; V: 11.5; VI: 11; VII: 11; VIII: 10; IX: 10; X: 10; XI: 20; length and breadth of pronotum: 64; length of elytron: 140; breadth of elytra: 117; metatarsus: 26.

Puncturation of head very coarse (diameter of punctures ca. 1) and close, sub-rugose; frontal foveae in short, shallow longitudinal furrows; antennae moderately long, when reflexed only last and half of penultimate segments overlap base of pronotum; penultimate segment broad, only about one third longer than broad. Puncturation of pronotum as coarse and almost as dense as that of head, surface of disc somewhat irregular but devoid of clear impressions; base with a faint trace of an interrupted arcuate impression; all margins bordered. Scutellum concolorous with elytra, with only a few punctures, impunctate apically. Elytra ample, convex, punctation a little coarser than that of pronotum. Puncturation of abdominal tergites relatively sparse; tomentose patches of first two exposed tergites extensive but black, therefore ill defined. Habitus: Fig. 5.

Aedeagus: Fig. 23a, b. The parameres of this species show, at high magnification, a dense elongate patch of extremely fine pale pubescence (Fig. 23c).

This new species is next to *L. elegantula* in the key, on account of the shape of the elytral macula, but differs markedly in facies and in the very coarse and dense puncturation. Its colour pattern gives it a resemblance to *Lesteva* sp. C, but *L. submaculata* is a larger beetle with much coarser puncturation and long, very evident elytral pubescence. In its colour pattern, shiny tegument and coarse puncturation *L. submaculata* is also comparable to the Japanese species *L. plagiata* SHARP, but the new species is larger, with yet coarser puncturation, and lacks depressions on the pronotum.

*Lesteva elegantula* sp.n.

TYPE MATERIAL: **Holotype** (♂) and 4 **paratypes**: "China Zhejiang Moganshan 26.IV.1993 G. de Rougemont"; 1 **paratype**: "China: Zhejiang Prov., Anji County, ca. 500 m., Long Wang Shan N.R., 12.V.1996, J. Cooter"; 2 **paratypes**: ibid., but "ca. 1000 m., 13.V.1996, J. Cooter"; 1 **paratype** (♂): "CHINA, SW-Hunan 1993 NE Huitong, 5.11. Jinlong Shan, 600 - 650 m, leg. Schillhammer (11)" (CRL; 1 paratype in NHMW, 1 paratype in MMM).

DESCRIPTION: Length: 3.9 - 4.1 mm. Black, very shiny, each elytron with a large clearly defined macula occupying most of anterior half of elytron (Fig. 6); mouth-parts and antennae testaceous; antennomeres III - VIII sometimes a little darker; legs testaceous, apices of femora and sometimes bases of tibiae narrowly infusate. Pubescence pale, moderately long, sparse and erect on head and pronotum, long and semi-erect and very evident on elytra, fairly long and recumbent on abdomen.

Proportions of holotype: length of head: 40; breadth of head: 45; antennomeres: I: 17; II: 11; III: 13.5; IV: 11; V - IX: 11.5; X: 11; XI: 19; length of pronotum: 58; breadth of pronotum: 56; length of elytron: 107; breadth of elytra: 102; metatarsus: 28.

A convex, gracile, very shiny species. Frontal foveae in long shallow furrows; puncturation of head moderately fine and relatively sparse, interstices on average 1 - 1½ times the diameter of punctures. Antennae overlapping base of pronotum by more than two terminal segments; penultimate segment relatively short and broad (7 : 10). Pronotum elongate, cordiform, disc devoid of impressions, base transversely impressed; punctures equal in size to those of head but tending to elongation, and puncturation sparser than that of head, interstices on average twice diameter of punctures; all margins bordered. Scutellum concolorous, black, finely and irregularly punctate. Elytra sparsely punctate, puncturation comparable to that of pronotum, but punctures larger and shallower. Abdominal tergites very finely and sparsely punctate, shiny; tomentose patches on first two exposed tergites (tergites IV and V) very evident. Habitus: Fig. 6.

Aedeagus: Fig. 21a, b.

*Lesteva elegantula* differs from the Japanese species *L. plagiata* by its larger, very clearly defined elytral maculae, sparser puncturation, especially of the elytra, and therefore more shiny tegument, the absence of impressions on the pronotum, and the slight infuscation of apices of femora and antennomeres III - IX. The shiny, very sparsely punctate integument and clearly bicolorous elytra also distinguish it from all other known Chinese species.

**BIONOMICS:** The type series was taken in woodland on wet shingle and mossy stones at the source of a stream. Those from Longwang Shan were found in wet moss at the side of a stream.

### *Lesteva flavopunctata* sp.n.

**TYPE MATERIAL:** **Holotype** (♂) and 2 **paratypes**: "China: Zhejiang Prov., Anji County, ca. 1000 m., Long Wang Shan N.R., 13.V.1996, J. Cooter"; 1 **paratype**: *ibid.*, but ca. 400 m., 14.V.1996, J. Cooter; 1 **paratype**: *ibid.*, but ca. 500 m., 12.V.1996, J. Cooter; 1 **paratype**: "China Zhejiang Moganshan 26.IV.1993 G. de Rougemont"; 1 **paratype** (♂): "CHINA: SW-Hunan 1993, NE Huitong, 5.11. Jinlong Shan, 600 - 650 m, leg. Schillhammer (11)" (CRL; 1 paratype in MMM, 1 paratype in NHMW).

Length: 3.0 - 3.4 mm. Black, elytra pitchy black, suture and deflexed lateral margins narrowly dark testaceous; each elytron with a round or somewhat transverse spot situated slightly before middle; mouthparts, antennae and legs testaceous, apices of femora and entire tibiae more or less infuscate. Pubescence pale, very short and erect on head and pronotum, long and recumbent on elytra.

Proportions of holotype: length of head: 38; breadth of head: 48; antennomeres: I: 13; II: 9; III: 10; IV: 8; V - X: 9; XI: 15; length of pronotum: 46; breadth of pronotum: 51; length of elytron: 102; breadth of elytra: 88; metatarsus: 21.

Puncturation of head fine and dense, near inner margins of eyes rugose with the diameter of punctures about equal to that of eye facets, coarser and sparser on middle of vertex; frontal foveae in deep, broad longitudinal furrows. Antennae moderately long, overlapping base of pronotum by 1½ terminal segments, penultimate segment a little less than twice as long as broad. Pronotal puncturation dense, equal to that of middle of vertex, interstices on average half diameter of punctures; disc with very faint irregular

impressions and a shallow transverse sub-basal impression; all margins bordered. Scutellum concolorous, black, finely, deeply and densely punctate. Elytra long, ample, puncturation coarser and shallower than that of pronotum. Abdominal tergites shiny, very finely and sparsely punctate, with transverse reticulation; tomentose patches clearly defined. Habitus: Fig. 7.

Aedeagus: Fig. 18; median lobe laterally compressed, apically dilated in both in ventral and lateral views.

The single male from Hunan has a slightly more densely punctate head, and the apex of the aedeagus is somewhat more broadly dilated than that of the types; these differences appear to be too slight to signify more than different geographical populations of the same species.

This species is next to *L. rufopunctata* in the key by virtue of its type of elytral spot and geographical origin. It more closely resembles *L. davidiana*, described below, in colour and in the shape of the elytral spot, but is a smaller beetle, and more finely and densely punctate.

**BIONOMICS:** The type series was found in wet moss by the side of a stream; one specimen in a flight interception trap. The specimen from Moganshan was taken on a wet stone at the source of a stream.

### *Lesteva rufopunctata* sp.n.

**TYPE MATERIAL:** **Holotype** (♂) and 10 **paratypes**: "China Zhejiang Moganshan 26.IV.1993 G. de Rougemont"; 1 **paratype**: "China Zhejiang Hangzhou Huangningling 28.IV.1993 G. de Rougemont"; 1 **paratype**: "China: Jiangsu Prov., Nanjing, Zijinshan, 8.V.1996, J. Cooter"; 6 **paratypes**: "China Beijing Panshan 8.V.1993 G. de Rougemont"; 1 **paratype**: "China Beijing Yingtaogou 17.IV.1993 G. de Rougemont" (CRL; 2 paratypes in NHMW).

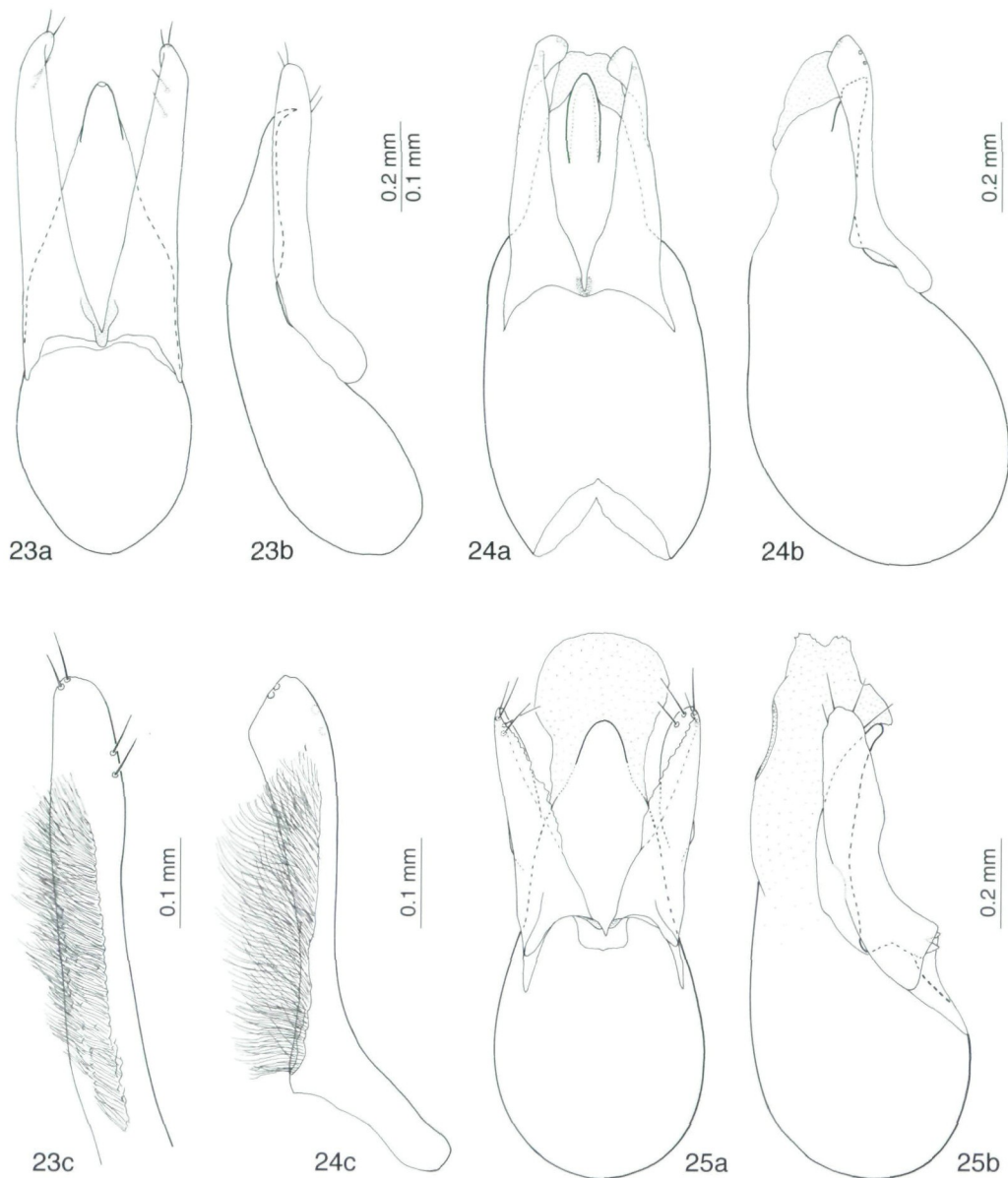
**DESCRIPTION:** Length: 4.4 - 5.0 mm. Black, each elytron with a large round orange-red spot in middle; mouth-parts fuscous brown; antennae fuscous, distal segments sometimes paler; legs fuscous black, tarsi testaceous. Pubescence pale, relatively short, recumbent on elytra.

Proportions of holotype: length of head: 44; breadth of head: 60; antennomeres: I: 19; II: 11; III: 14; IV - VI: 12; VII - X: 11; XI: 18; length of pronotum: 66; breadth of pronotum: 68; length of elytron: 126; breadth of elytra: 114; metatarsus: 32.

Head coarsely, irregularly punctate, diameter of punctures about 1.5 - 2.0 times that of eye facets; surface of head irregular, with broad longitudinal furrows. Antennae long, overlapping base of pronotum by 2 - 2 ½ terminal segments; penultimate segment twice as long as broad. Pronotal punctures as coarse as those of head; disc with two shallow, irregular impressions and a short transverse sub-basal impression; all margins bordered. Scutellum concolorous, black, irregularly punctate. Elytra long, puncturation sub-equal to that of pronotum near anterior margin, much coarser and shallower elsewhere. Abdominal tergites finely punctate, with traces of reticulation only on first two exposed tergites; tomentose patches black but clearly defined on both tergites. Habitus: Fig. 8.

Aedeagus (Fig. 20a, b) very large (1.2 mm); median lobe with a sharp mid-longitudinal ventral carina.





Figs. 23 - 25: Aedeagi of *Lesteva* species (a) ventral view; (b) lateral view; (c) paramere): (23) *L. submaculata*; (24) *L. davidiana*; (25) *L. yunnanicola*.

This new species is readily distinguished from all other *Lesteva* species known from China by the combination of large size, entirely black legs and large, round elytral maculae.

**BIONOMICS:** The series from Moganshan was taken from wet moss at the source of a stream; the specimen from Huangniling, Hangzhou, from the mud bank of a small low-land stream, the series from Panshan from leaves on the sandy bank of a stream near its

source, together with *L. huabeiensis*, the single specimen from Yingtaogou from the rock edge of a spring, and the specimen from Nanjing from sifted litter by the side of a small stream.

***Lesteva pulcherrima* sp.n.**

TYPE MATERIAL: **Holotype** (♂) and 20 **paratypes**: "China: Zhejiang Prov., Anji County, ca. 1000 m., Long Wang Shan N.R., 13.V.1996, J. Cooter" (CRL; 2 paratypes in NHMW, 2 paratypes in MMM).

DESCRIPTION: A beautiful, aberrant species, both in its colour and in the shape of the body.

Length: 4.4 - 5.0 mm. Body, femora, tibiae and first antennomeres brilliant metallic blue, often with a strong purple reflex in parts, sometimes with pronotum a metallic blue-green; each elytron with a round orange spot near middle, closer to suture than to lateral margin, this spot overlaid with a more extensive, well delimited elongate patch of transparent coppery magenta reflex; mouth-parts and antennae fuscous, latter sometimes paler distally; tarsi rufo-testaceous, tarsomeres I and II infusate dorsally.

Proportions of holotype: length of head: 42; breadth of head: 54; antennomeres: I: 20; II: 12; III: 12; IV - X: 11; XI: 19; length and breadth of pronotum: 60; length of elytron: 108; breadth of elytra: 96; metatarsus: 37.

Body parallel sided, sub-cylindrical. Head coarsely, rugosely punctate, surface uneven, with two longitudinal furrows and a transverse depression on vertex. Antennae overlap base of pronotum by last two segments; penultimate segment a little less than twice as long as broad. Pronotum relatively long, sides scarcely sinuate, retracted to base; lateral margins of pronotum with a deep pit, as in *Lestevina*, but the fundus of pit devoid of a fovea; puncturation as coarse as that of head but marginally less close, sub-rugose. Elytra parallel sided, disc uneven, umbonate in scutellary area, with a broad juxta-sutural depression curving at right angles before apical margin; puncturation rugose, finer and more confused posteriorly. Abdominal tergites transversely micro-reticulate, finely and sparsely punctate; first exposed tergite with large, clearly defined tomentose patches; second exposed tergite (tergite V) devoid of tomentose patches. The sub-cylindrical body is most obviously appreciated in the shape of the very convex abdomen: paratergites are raised at an angle from tergite as in other species, but convex and horizontal. Habitus: Fig. 10.

Aedeagus (Fig. 19a, b) with very broad parameres, median blade with a ventral mid-longitudinal carina.

The brilliant metallic coloration of this large species is unique within the genus. Its parallel, very convex sub-cylindrical body, with convex paratergites also distinguishes it from all other known species.

BIONOMICS: The insects were taken from wet moss under shade by the side of a stream.

***Lesteva davidiana* sp.n.**

TYPE MATERIAL: **Holotype** (♂) and 2 **paratypes**: "[China: Sichuan] Baoxing Xian, Yaoqi, Guobaye, Mt. Baiyu-shan (alt. 2400 m) 1.X.1997, Toshio Kishimoto leg."; 1 **paratype** (♀): "China: W-Sichuan, 20.VI.1999, Ya'an Prefecture, Tianquan Co., E Erlang Shan Pass 2900 m, 9 km SE Luding, 29°52'N 10°18'E Bachufer, Moos & Schotter, leg. M. Schülke" (TUA; 1 paratype in CRL, 1 paratype in CSB).

**DESCRIPTION:** Length: 4.1 mm. Black, apico-lateral angles of elytra narrowly brownish; each elytron bears an obscure dark red oblique macula situated one third of elytral length from anterior margin and occupying middle third between suture and lateral margin; palpi testaceous; antennae and legs entirely rufo-testaceous. Pubescence dark and relatively long on head and pronotum, pale, long and semi-erect on elytra and abdomen.

Proportions of holotype: length of head: 46; breadth of head: 55; antennomeres: I: 15; II: 10; III: 11; IV - VII: 11; VIII: 10; IX: 11; X: 10.5; XI: 17; length of pronotum: 59; breadth of pronotum: 62; length of elytron: 130; breadth of elytra: 112; metatarsus: 28.

Frontal foveae situated in long deep furrows; puncturation of head between furrows and eyes irregular, coarse, rugose, on vertex between furrows finer and irregular. Antennae moderately long, penultimate segment less than twice as long as broad. Pronotal puncturation coarser than that of head, close but nowhere rugose, interstices on average less than half diameter of punctures; disc devoid of impressions; all margins bordered. Elytra long, ample, convex, puncturation relatively deep, a little coarser and markedly sparser than that of pronotum. First two exposed abdominal tergites micro-reticulate; tomentose patches evident, posterior pair large, a little transverse. Habitus: Fig. 9.

Aedeagus: Fig. 24a, b; parameres, like those of *L. submaculata*, furnished with a dense elongate patch of extremely fine pale pubescence on inner faces (Fig. 24c).

*Lesteva davidiana* is the only maculate *Lesteva* with entirely testaceous legs known so far from western China. It resembles the eastern Chinese species *L. submaculata* in colour, but differs in its smaller elytral maculae which do not extend to the lateral margins, and by the much finer puncturation of the whole fore-body.

**DERIVATION OF SPECIFIC NAME:** named in honour of Père Armand David, most illustrious of European naturalist-explorers in China, who made Baoxing (then the Miao principality of Muping) his base during his second journey of exploration in 1869; it was here that he gathered many of the plants and animals of the region, including the giant panda, first seen by western scientists.

### *Lesteva aureomontis* sp.n.

**TYPE MATERIAL:** **Holotype** (♂) and 1 **paratype** (♀): "[China: Sichuan] Mt. Emei-shan Jinding (3050 m) 8.X.1997, T. Kishimoto leg." (TUA; paratype in CRL).

**DESCRIPTION:** Length: ca. 3.8 mm. Black, humeral angles narrowly rufescent; each elytron with an oblique orange macula about as long as antennomeres II and III combined situated just before middle; antennae fuscous, first two antennomeres and bases of following few rufescent; palpi testaceous; legs rufo-testaceous, extreme apices of femora and entire tibiae more or less infuscate. Pubescence short and inconspicuous on head and pronotum, pale, long, fine and recumbent on elytra, pale and recumbent on abdomen, forming short dense fringes on apical margins of tergites.

Proportions of holotype: length of head: 40; breadth of head: 54; antennomeres: I: 18; II: 10; III: 12.5; IV: 13; V: 14; VI: 14; VII: 14; VIII: 13; IX: 13; X: 13; XI: 20; length of pronotum: 56; breadth of pronotum: 62; length of elytron: 110; breadth of elytra: 106; metatarsus: 30.

Head with two ovate furrows, finely, rugosely punctate, surface dull, diameter of punctures about equal to that of eye facets. Antennae long, overlapping base of pronotum by last 4 segments; penultimate segment broad, twice as long as broad. Pronotum with a pair of scarcely visible discal impressions, not impressed at base; puncturation sub-rugose, marginally coarser, and less dense than that of head. Elytra long, puncturation shallower and sparser than that of pronotum. Abdominal tergites densely punctate and reticulate, with tomentose patches on first two exposed tergites, posterior pair small and inconspicuous.

Aedeagus: Fig. 22a, b.

In colour this species most closely resembles *Lesteva* sp. D, described below, but it is distinguished from the latter by its larger elytral maculae, rufescent humeral angles and much more narrow infuscation of apices of femora.

DERIVATION OF SPECIFIC NAME: From a loose translation of *Jinding*, the "Golden Summit" of Emei shan.

### *Lesteva* sp. D

MATERIAL: 1 ♀: "[China: Sichuan] Mt. Emei-shan Jinding (3050 m) 8.X.1997, T. Kishimoto leg." (TUA).

DESCRIPTION: Length: 3.7 mm. Black, each elytron with a small elongate orange macula no longer than length of first antennomere, situated 2/5 of elytral length from anterior margin; palpi testaceous; antennae entirely fuscous brown; basal 3/4 of femora and tarsi testaceous, rest of legs infuscate. Pubescence similar to that of *L. aureomontis*.

Proportions of holotype: length of head: 40; breadth of head: 53; antennomeres: I: 19; II: 11; III: 12; IV: 11; V: 13; VI - X: 12; XI: 18; length of pronotum: 54; breadth of pronotum: 61; length and breadth of elytra: 108; metatarsus: 30.

Surface of head irregular, with short deep furrows, puncturation fine, rugose or sub-rugose, diameter of punctures about equal to that of eye facets on sides, coarser on vertex. Antennae long, overlapping base of pronotum by last four segments. Pronotum with a very shallow pair of discal impressions and a shallow transverse sub-basal impression; puncturation comparable to that of vertex, sub-rugose; all margins bordered. Elytra not longer than broad, rather depressed, punctures scarcely larger and less close than those of pronotum, but shallower. Abdominal tergites micro-reticulate and rather sparsely punctate, with tomentose patches on first two exposed tergites, posterior pair a little transverse, ovate.

Male: unknown.

This species can be separated from *L. aureomontis* by the characters given in the diagnosis of the respective species, above.

### *Lesteva yunnanicola* sp.n.

TYPE MATERIAL: **Holotype** (♂) and 1 **paratype** (♀): "CHINA: Yunnan, 2.11.1999, ca. 100 km NNE Kunming, Liangwang Shan, ca. 2300 m Jäch & Schönmann (CWBS 350)" (NHMW; paratype in CRL).

DESCRIPTION: Length: 4.0 - 4.5 mm. Black, palpi and tarsi testaceous, rest of legs and antennae reddish-brown, latter progressively slightly infuscate. Pubescence of head and pronotum short, confused; pubescence of elytra and abdomen long, pale, recumbent.

Proportions of holotype: length of head: 49; breadth of head: 53; antennomeres: I: 20; II: 12.5; III: 15; IV: 14; V: 15; VI: 15; VII: 14.5; VIII: 14; IX: 14; X: 13.5; XI: 19; length of pronotum: 60; maximum breadth of pronotum: 69; breadth at base: 54; length of elytron: 132; breadth of elytra: 116; metatarsus: 39.

Punctuation of head coarse and rugose, diameter of punctures greater than that of eye facets; frontal foveae in deep irregular longitudinal furrows. Antennae long, overlapping base of pronotum by last four segments, penultimate segment about  $2\frac{1}{4}$  times as long as broad. Pronotum strongly cordate, convex, distinctly transverse; punctuation about as coarse as that of head but sparser, interstices on average half as wide as diameter of punctures; disc with or without two scarcely discernible short impressions, base with a broad, clearly defined narrow arcuate impression; borders of all margins visible in dorsal view. Scutellum concolorous, closely, sub-rugosely punctate anteriorly, with a few larger punctures like those of elytra posteriorly. Elytra convex, moderately widened distally, punctures about equal in diameter to those of pronotum but shallower and sparser. Abdomen moderately shiny, with confused micro-reticulation and large transverse tomentose patches evident on first two exposed tergites.

Aedeagus: Fig. 25a, b; parameres broad, semi-cylindrical, their medial edges irregular, semi-membranous.

*Lesteva yunnanicola* can be distinguished from the immaculate species *L. dabashanensis* by its greater size and especially its more convex build, by the proportions of the pronotum as given in the key, and by its sparser elytral punctuation, the integument appearing more shiny. From *L. nivalis* it differs at first sight by its lesser size, deep black body, and in the pronotal punctuation being equal to or coarser than that of head. In build and punctuation it more closely resembles the maculate species *L. davidiana*.

Although I have forbore from naming those species of *Lesteva* described above that are represented only by females, the following two species of are so distinctive that they are readily recognizable from the descriptions alone, and are accordingly named as new species.

### *Lesteva septemmaculata* sp.n.

TYPE MATERIAL: **Holotype** (♀): "China: Shaanxi, Qin Ling Shan, 110.06 E, 34.27 N, 1200 - 1400 m, 118 Km E Xian, sifted, 18./20.08.1995, leg. M. Schülke" (CSB, eventually to be deposited in the Museum für Naturkunde, Berlin).

DESCRIPTION: Length: 5 mm. Pitchy black, antero-lateral areas of pronotum brown, mouthparts, antennomeres I - II, basal half of III and legs rufo-testaceous, antennomeres IV - XI and scutellum brown; each elytron with four rufo-testaceous maculae forming a bilaterally symmetrical pattern of seven maculae on both elytra. Pubescence short, dark, semi-erect on head and pronotum, long, pale and recumbent on elytra, particularly evident on elytral maculae.

Proportions of holotype: length of head: 56; breadth of head: 67; antennomeres: I: 15; II: 12; III: 14; IV: 11; V: 12; VI: 12; VII: 10; VIII: 10; IX: 10; X: 10; XI: 18; length of pronotum: 76; breadth of pronotum: 92; length of elytron: 146; breadth of elytra: 140; metatarsus: 43.

Punctuation of head fine (but punctures clearly larger than eye facets) and dense, interstices narrower than diameter of punctures; frontal foveae deep, slightly elongate. Maxillary galea very long, extending beyond apex of mandible, its apex slightly recurved. Antennae short, when reflexed only last segment reaching base of pronotum; penultimate segment only one third longer than broad. Pronotum with two shallow impressions behind middle and an arcuate impression interrupted in middle near base; lateral foveae very large and deep; punctuation of pronotum equal to that of head. Elytral disc depressed; elytral punctuation a little coarser, sparser and shallower than that of pronotum, interstices on average equal to diameter of punctures, but closer in sutural area. First two visible abdominal tergites with large, characteristically shaped tomentose patches; punctuation of second visible abdominal tergite fine, slightly asperate, interstices shiny, with traces of reticulation laterally, much greater than diameter of punctures, this punctuation becoming sparser on successive tergites which are devoid of microsculpture. Habitus: Fig. 12.

Male: unknown.

This species is unique within the genus for its "coccinelloid" pattern of seven elytral spots.

**SYSTEMATICS:** This and the following species belong by definition to the subgenus *Lestevina* BORDONI, 1973, by virtue of the fovea near the lateral margin of the pronotum. They differ however from West Palearctic *Lestevina* and from other *Lesteva* in several respects. Compared with the European species *L. (Lestevina) sicula* ssp. *heeri* FAUVEL, 1872 and *L. (Lestevina) corsica* PERRIS, 1869, the Chinese species are less convex and more finely punctured and differ notably in the build of pronotum, maxillae and antennae: the pronotum (Figs. 11, 12) is much more transverse, the posterior half of lateral margins are concavely, arcuately retracted, the lateral foveae much larger, and the disc bears impressions; the maxillary galeae are very long, extending well beyond the apices of the long mandibles and with apices curved inward, in dorsal view resembling an extra pair of mandibles like appendages. The antennae in these two species are shorter than in other *Lesteva*, the penultimate antennomere being no more than one third longer than broad. The general appearance of these species is untypical of *Lesteva*, but the build of the labial and maxillary palpi does not allow to place them in any other genus. Together with the obvious allopatry of *Lestevina* and these two species these differences would justify the establishing of a new subgenus.

### *Lesteva rufimarginata* sp.n.

**TYPE MATERIAL:** **Holotype** (♀): "China: Shaanxi, Qin Ling Shan, 108.47 E, 33.51 N, Mountain W pass at Autoroute at km. 70, 47 km S Xian, 2300 - 2500 m, sifted, 26.-30.08.1995, leg. M. Schülke" (CSB, eventually to be deposited in the Museum für Naturkunde, Berlin).

**DESCRIPTION:** Length: 3.9 mm. Pitchy black, antero-lateral margins of pronotum somewhat paler, brownish; scutellum and declivous part of lateral margins of elytra broadly rufo-testaceous; legs, mouth-parts, antennomeres I - II and base of III rufo-testaceous, antennomeres IV - XI infusate. Pubescence of entire fore-body fairly long, pale, recumbent.

Proportions of holotype: length of head: 52; breadth of head: 53; antennomeres: I: 13; II: 9; III: 10; IV: 9; V: 9.5; VI - X: 9; XI: 15; length of pronotum: 56; breadth of pronotum: 74; length of elytron: 116; breadth of elytra: 11; metatarsus: 33.

Puncturation of head fine and dense, as in *L. septemmaculata*; frontal foveae shallower, somewhat elongate; maxillary galea long, built as in *L. septemmaculata*. Antennae short, as in *L. septemmaculata*. Puncturation of pronotum somewhat finer and conspicuously sparser than that of head, sparser than that of *L. septemmaculata*; pronotal impressions as in *L. septemmaculata*. Scutellum finely and densely punctate. Elytra markedly more convex than in *L. septemmaculata*, with a transverse impression at anterior  $\frac{1}{4}$ , suture slightly prominent. Abdominal puncturation very fine, sparser than in *L. septemmaculata*, without apparent microsculpture. Tomentose patches of first visible tergites more extensive than those of *L. septemmaculata*, those of second visible tergite inconspicuous. Habitus: Fig. 11.

Male: unknown.

In addition to its colour pattern and smaller size *L. rufimarginata* differs notably from *L. septemmaculata* in its more convex and proportionately narrower body.

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