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## New *Mimela* species and records from Thailand, Vietnam and Nepal

(Coleoptera, Scarabaeoidea, Rutelidae)

#### Guido SABATINELLI

#### **Key Words**

Coleoptera: Scarabaeoidea; Rutelidae; *Mimela*; description, new species; Thailand, Vietnam, Nepal.

#### Abstract

Five new species belonging to the genus Mimela Kirby (1825) are described: M.bouchardi, M.linpingi, M.ferreoi and M.uhligi from Northern part of Thailand, M.brancuccii from East Nepal. Nine Mimela species are firstly recorded from Thailand: M.ignistriata Lin, M.hirtipyga Lin, M.passerini ssp. diana Lin, M.inscripta Nonfried, M.deretzi Paulian, M.laotina Ohaus, M.despumata Ohaus, M.malicolor Lin, M.splendens Gyllenhal; 3 species from Vietnam: M.nigritarsis Lin, M.bidentata Lin, M.chinensis Kirby; 1 species from Nepal: M.flavomarginata Ohaus. Synonymy of M.despumata Ohaus with M.tonkinensis Ohaus is also proposed.

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In the past several Entomologists studied the Rutelidae fauna from the Oriental Region and among them Lin Ping recently published an important study on the *Mimela* (1993) focusing on the systematics of the species from China.

While I am studying many specimens collected in the last decade, mainly from North Thailand by Franco Ferrero, and from Vietnam by Jendeck, I could recognize five new species giving new records for 13 more. Unfortunately few ecological information are available for the species, that have been collected mainly by light traps.

#### Mimela bouchardi n. sp.

**Typical series.** Holotype (male) and 17 paratypes: North Thailand, Chiang Mai, Doi Inthanon, 2.V.1988, F. Ferrero legit. Holotype preserved in the Natural History Museum of Genoa (Italy), Paratypes in G. Sabatinelli collection (Rome).

Description. Length: 13-16 mm; breadth: 7-9 mm.

Upper surface brilliant dark green, lower surface and legs orange-red.

Body shortly ovate, with the greatest width considerably behind the middle, and very smooth and shining.

Clypeus rugosely punctured, short and broad, with the margin broadly rounded at the sides and straight in front; front punctured as clypeus.

Pronotum with fine and scattered punctures; front angles acute, hind angles angulated but not sharp.

Scutellum broad and scarcely punctured.

Elytra with fines punctures arranged in rows, rather superficial basely, deeply sulcate towards the extremities.

Pygidium roughly punctured.

Prosternal processus narrow, angulated behind and produced forwards between the anterior coxae.

Mesosternum not produced.

Metasternum smooth and broadly channelled in the middle, sides densely punctured and pubescent.

Abdomen with scattered punctures and hairs.

Front tibia with acute lateral tooth; inner tarsal claw simply cleft, inner branch in the male more dilated than in female.

Parameres shown in figs. 1-2.

Affinities. External features and colour relate *Mimela bouchardi* n.sp. to *M.heterochropus* Blanchard, 1851. The species differ mainly in the shape of parameres.

**Derivatio nominis.** This new species is dedicated to my friend Denis Bouchard, French entomologist, working on Neartic Rutelidae.

#### Mimela brancuccii n. sp.

**Typical series. Holotype** (male) and 13 **paratypes**: Nepal, Gandaki zone, Kaski district, Pokhara, 820m, 15-18.VI.1976, W. Wittmer & C. Baroni Urbani legit; 3 Paratypes: Nepal, Gandaki zone, Kaski district, Pokhara, 1.VI.1990, G. Sabatinelli legit. Holotype and 6 Paratypes preserved in the Natural History Museum of Basel (Switzerland), 1 Paratype in the Natural History Museum of Genova (Italy), 10 Paratypes in G. Sabatinelli collection (Rome).

Description. Length: 15-18 mm; breadth: 8-9,9 mm.

Brilliant metallic green or golden green above and beneath, elytra of most of the specimens with fiery-red markings upon each elytron: an oblique median longitudinal stripe united at the apex with a lateral stripe.

The body is ovate, with the elytra finely sculptured and very shining.

Clypeus punctured, rather convex, rounded.

Pronotum finely and indistinctly punctured on the middle and more deeply at the sides; front angles acute and the hind angles rounded.

Elytra finely but distinctly punctured, most of the punctures arranged in longitudinal rows particularly deep at the apices.

Pygidium finely and scantly punctured.

Prosternal processus narrow, angulated behind and produced forwards between the anterior coxae.

Metasternum very smooth in the middle, finely rugose and pubescent at the sides. Mesosternum not produced.

Front tibiae bidentate; the two branches of the inner tarsal claw divergent. The parameres are shown in figs. 3-4.

Affinities. The colour of the upper surface relates Mimela brancuccii n.sp. to M.fulgidivittata Blanchard, 1851, M.ohausi Arrow, 1908, M.leei Swederus, 1787, M.horsfieldi Hope, 1836, M.ignistriata Lin, 1990 and M.iris Lin, 1990. The species differ in the morphology of parameres and mesosternum (Arrow, 1917, Lin, 1993).

**Derivatio nominis.** This new species is dedicated to Dr Michel Brancucci, curator of the Coleoptera collection at the Natural History Museum of Basel, that allowed me to study the important material collected by the Museum staff during several entomological expeditions in Nepal, Darjeeling and Bhutan.

#### Mimela ferreroi n. sp.

**Typical series. Holotype** male and 30 **paratypes**: North Thailand, Chiang Mai, Maetaeng. 18.IV.1991, F. Ferrero legit. Holotype preserved in the Natural History Museum of Genoa (Italy), Paratypes in G. Sabatinelli collection (Rome).

**Description.** Length: 19-22 mm; breadth: 10-11 mm.

Upper surface and pygidium light yellow green, with very faint pinkish lustre, minutely coriaceous and subopaque; the lower surface, legs and antennae shining reddish testaceous.

Body elongate-oval and not very convex.

Clypeus and forehead rather finely and rugosely punctured, with the clypeus rather broad and nearly straight in front.

Pronotum finely and regularly punctured, the punctures being close and strong at the sides and becoming very minute and inconspicuous in the middle; the front angles are moderately sharp, and the hind angles distinct but obtuse.

Scutellum indistinctly punctured, not very short.

Elytra very finely and evenly punctured with scarce traceable impressed lines. Pygidium strongly punctured.

Prosternal processus well developed, thick and boot-shaped, rounded behind and only slightly produced forwards.

Mesosternal processusus long, beyond mesocoxa.

Metasternum smooth and shining in the middle, closely and finely punctured, sides clothed with short grey pubescence.

Abdomen bears fine scattered punctures and setae.

Front tibia feebly bidentate; hind tarsi rather thick.

Males with inner division of the inner tarsal claw very broad and antennal club long as the footstalck.

Females with apical tooth of the front tibia longer and blunter, and the club of the antenna rather shorter, than in the male.

Parameres shown in figs. 5-6.

Affinities. The colour and the subopaque upper surface of *Mimela ferreroi* n.sp. are all highly distinctive. This new species is closely related to *M. schneideri* Ohaus, 1905 described from Sikkim of which I examined the type preserved in the Natural History Museum of Berlin. The two species differ for the morphology of parameres (figs. 5-8). *M. ferreroi* n.sp. seems to be also bigger (19-22 mm) than *M. schneideri* (18-20 mm).

Out of Sikkim, *M. schneideri* has been recorded from Assam and Burma (Arrow, 1917) and China (Lin, 1993). I could check for the presence of *M. schneideri* in Assam while the records from Burma and China probably belongs to *M. ferreroi*.

In fact the drawings of parameres of *M. scheideri* showed by Lin (1993) can be evidently referred to the new species here described.

**Derivatio nominis.** This beautiful new species is dedicated to my friend Franco Ferrero that contributed very much to the entomological knowledge of the Thailand fauna.

#### Mimela linpingi n. sp.

**Typical series. Holotype** (male) and 20 **paratypes**: North Thailand, Chiang Mai, Samoeng, 18.VI.1990, F. Ferrero legit. Holotype preserved in the Natural History Museum of Genoa (Italy), Paratypes in G. Sabatinelli collection (Rome).

Description. Length: 13-14 mm; breadth: 7.5-8 mm.

Entirely bright metallic deep blue excepted tibia and tarsi, which are green.

Small elongate-oval shaped species.

Head with eyes large and prominent, clypeus nearly straight in front, closely and finely rugose, vertex finely punctured.

Pronotum very thinly and minutely punctured, not deeply channelled along the middle, with its sides angulated, scarcely curved; front angles slightly acute and the hind angles well marked but obtuse.

Scutellum finely punctured, broad.

Elytra very lightly punctured, the punctures arranged in double rows.

Pygidium with few moderately strong punctures.

Prosternal processus narrow, rounded behind and only slightly produced forwards.

Mesosternum not produced at all.

Front tibia strongly bidentate.

Females with apical tooth of the front tibia longer and blunter, and the club of the antenna rather shorter, than in the male.

Parameres shown in (figs. 9-10).

Affinities. The colour and the parameres shape of *Mimela linpingi* n.sp. are all highly distinctive. This new species is closely related to *M. ohausi* Arrow, 1908, described from Assam (figs. 11-12). Out of Assam, *M. ohausi* has been recorded from Tonkin (Arrow, 1917; Paulian, 1959) and Yunnan (Arrow, 1917; Lin, 1993). Maybe some specimens from Tonkin were confused with the new species here described.

**Derivation nominis.** This new species is dedicated to my colleague Dr Lin Ping, Chinese scarabaeologist, who recently revised *Mimela* of China.

#### Mimela schulzei n. sp.

Typical series. Holotype (male) and 1 paratype female: North Thailand, Chiang Mai, Chiangdao, 12.V.1989, preserved in the Natural History Museum of Genoa (Italy). 4 paratypes: North Thailand, Lampang, Maemo, 7.VII.1991, F. Ferrero legit, 2 females; Chiang Mai, 5.V.1990, F. Ferrero legit, 1 male; Chiang Mai, Sansai, 6.VI.1990, F. Ferrero legit, 1 male; paratypes preserved in G. Sabatinelli collection (Rome).

Description. Length: 12-14 mm; breadth: 6-7 mm.

Dorsal surface light yellow-brown iridescent, pronotum with two longitudinal dark patches on middle. Body elongate-oval.

Head, pronotum and scutellum densely punctured.

Clypeus short and broad, with the margin broadly rounded at the sides and straight in front.

Pronotum with front angles acute, hind angles distinct but not sharp.

Elytra with six deep and equidistant striae, intervals weakly elevated.

Pygidium strongly punctured.

Prosternal processus short and straight downwards.

Mesosternum not produced at all.

Metasternum smooth and broadly channelled in the middle.

Abdomen smooth with scattered hairs.

Lateral toot of the front tibia in the male smooth blunt in the female acute. Female with apical tooth of the front tibia longer and blunter.

Parameres are shown in figs 13-14.

Affinities. Mimela schulzei n.sp. is closely related to M. signaticollis Ohaus, 1902 of which I examined the type preserved in the Natural History Museum of Berlin. Two species differ for the number of the dark patches on the pronotum and for the parameres shape. M. signaticollis has 3 dark patches on the pronotum while in M. sculzei the central one is absent or less evident; aedeagus of M. signaticollis is bigger and parameres stocky (figs 15-16).

**Derivatio nominis.** This new species is dedicated to Mr Joachin Schulze, technician and Scarabaeologist at the Natural History Museum in Berlin, for his effort to preserve so important historical material.

#### NEW RECORDS

#### Mimela bidentata Lin, 1966

Material examined. North Vietnam, Sapa, 25.V-10.VI.1991, E. Jendek legit, 9 exx.

Notes. This is the first record of that species out of Yunnan and Guangxi Zhuang from where it was described.

#### Mimela chinensis Kirby, 1825

Material examined. North Vietnam, Tam Dao, 75 Km N.W. from Hanoi, 15.V-16.VI.1991, E. Jendek legit, 13 exx.

Notes. This species was recorded from South of China (Lin, 1993) and Cochinchina (Paulian, 1959); I can confirm his presence in the Northern part of Vietnam too.

#### Mimela deretzi Paulian, 1959

Material examined. North Thailand, Phrae, Wangchin, 15.VI.1991, F. Ferrero legit, 10 exx.

Notes. This small species was described from the Northern part of Vietnam (Hagiang-Vinh Tuy); I can confirm his presence in the Northern part of Thailand too.

#### Mimela despumata Ohaus, 1915

Mimela tonkinensis Ohaus, 1943; synonymia nova

Material examined. North Thailand, Chiang Mai, Sansai, VII.1990, F. Ferrero legit, 5 exx; North Thailand, Chiang Mai, Maetaeng, 15.IV.1991, F. Ferrero legit, 6 exx.; North Thailand, Chiang Mai, Thap Dua, 7.VII.1974, F. Ferrero legit, 1 ex. Notes. I examined the types of *M.despumata* and *M.tonkinensis* both described by Ohaus and I think that they can be referred to same species; the parameres of *M.tonkinensis* showed by Ohaus in the description are in fact abnormally divaricate. This species was described from Yunnan, I can confirm the presence of this species in the Northern part of Thailand too.

#### Mimela flavomarginata Ohaus, 1915

Material examined. Nepal, Mechi zone, Suketar (Taplejung), 2300m, 23.V.1993, G. Sabatinelli legit, 1 ex.

**Notes.** This species was described from Sikkim and Darjeeling, I can confirm his presence in the Eastern part of Nepal too.

#### Mimela hirtipyga Lin, 1966

Material examined. North Thailand, Chiang Mai, Doi Pui, 20.V.1988, 1 ex.; North Thailand, Chiang Mai, Sansai, 6.VI.1990, 3 exx.; North Thailand, Chiang Mai, Chiandao, VI.1990, F. Ferrero legit, 2 exx.; North Thailand, Chiang Mai, Doi Inthanon, 2.V.1988, F. Ferrero legit, 2 exx.

Notes. This is the first record of that species out of Yunnan from where it was described.

#### Mimela ignistriata Lin, 1990

Material examined. North Thailand, Chiang Mai, Doi Inthanon, VI.1991, F. Ferrero legit, 5 exx.; Annam, 1 ex.

Notes. This species, recently described from Yunnan, is also present in North Thailand. I could examine one old collected specimen from "Annam". The apex of right paramera of the specimens examined is slightly different (fig. 18) from the series from North Thailand (fig. 17); other external morphological characters does not show significative differences. Unfortunately the specimen is somewhat immature and at the moment I can not evaluate the systematic meanings of the differences observed.

#### Mimela inscripta (Nonfried, 1892)

Material examined. North Thailand, Chiang Mai, Sansai, 30.VI.1991, F. Ferrero legit, 2 exx.; North Thailand, Chiang Rai, Wiangpapao, 8.V.1988, F. Ferrero legit, 5 exx.

Notes. This species is widely spread in South-East Asia, recorded from Siam, Perak, Burma, Bengal and Tonkin (Machatscke, 1972) and from Yunnan (Lin, 1993). I can confirm his presence also in the Northern part of Thailand.

#### Mimela laotina Ohaus, 1930

Material examined. North Thailand, Lampang, Maemo, 17.VI.1991, 1 ex.; North Thailand, Chiang Mai, Doi Suthep, 25.V.1990, F. Ferrero legit, 2 exx. Notes. This species was described from Laos and then recorded from Tonkin (Paulian, 1959). I can confirm his presence in the Northern part of Thailand too.

#### Mimela malicolor Lin, 1990

Material examined. North Thailand, Chiang Mai, Maetaeng, 28.V.1990, F. Ferrero legit, 5 exx.

**Notes.** This is the first record of that species out of Yunnan from where it was described.

Mimela nigritarsis Lin, 1990

Material examined. North Vietnam, Tam Dao, 75 Km NW from Hanoi, 15.V-16.VI.1991, E.Jendek legit, 1 ex.

Notes. This is the first record of that species out of Yunnan from where it was described.

#### Mimela passerini ssp. diana Lin, 1993

Material examined. North Thailand, Chiang Mai, Fang, 16.VI.1991, F. Ferrero legit, 8 exx.

**Notes.** This is the first record of that subspecies out of Yunnan where it was recently described.

#### Mimela splendens (Gyllenhal, 1817)

Material examined. North Thailand, Chiang Rai, Wiangpapao, 7.IV.1991, F. Ferrero legit, 10 exx.

Notes. This species was recorded from Japan, South and East part of China and Taiwan (Lin, 1993), Burma (Arrow, 1917) and Vietnam (Paulian, 1959); I can confirm his presence in the Northern part of Thailand too.

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#### FIGURES LEGENDA

- Figs. 1-2 Parameres of Mimela bouchardi n.sp.
- Figs. 3-4 Parameres of Mimela brancuccii n.sp.
- Figs. 5-6 Parameres of Mimela ferreroi n.sp.
- Figs. 7-8 Parameres of Mimela scheideri Ohaus.
- Figs. 9-10 Parameres of Mimela linpingi n.sp.
- Figs. 11-12 Parameres of Mimela ohausi Arrow.
- Figs. 13-14 Parameres of Mimela schulzei n.sp.
- Figs. 15-16 Parameres of Mimela signaticallis Ohaus.
- Figs. 17- Parameres of Mimela ignistriata Lin from North Thailand.
- Figs. 18 Parameres of M.ignistriata Lin from Annam.



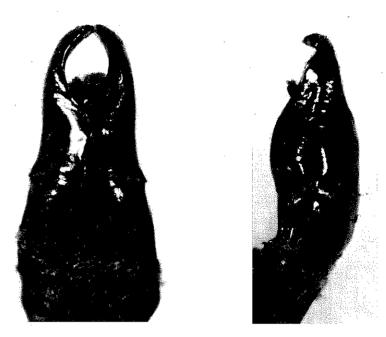


Figs. 1-2 - Parameres of Mimela bouchardi n.sp.

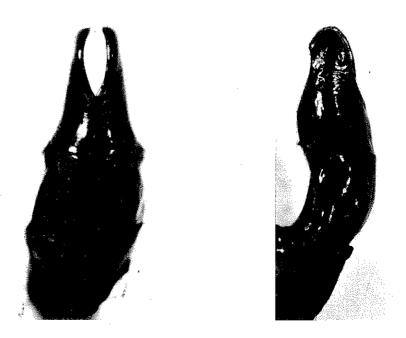




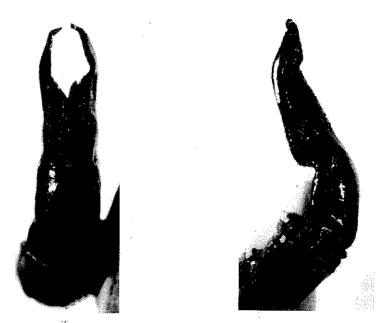
Figs. 3-4 - Parameres of Mimela brancuccii n.sp.



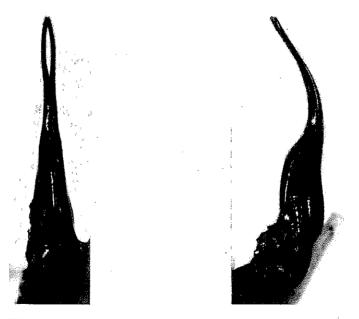
Figs. 5-6 - Parameres of Mimela ferreroi n.sp.



Figs. 7-8 - Parameres of Mimela scheideri Ohaus.



Figs. 9-10 - Parameres of Mimela linpingi n.sp.



Figs. 11-12 - Parameres of Mimela ohausi Arrow.





Figs. 13-14 - Parameres of Mimela schulzei n.sp.





Figs. 15-16 - Parameres of Mimela signaticallis Ohaus.



Fig. 17- Parameres of *Mimela ignistriata* Lin from North Thailand.



Fig. 18 - Parameres of *Mimela ignistriata* Lin from Annam.