

Oriental Clytrinae (Coleoptera: Chrysomelidae) in the collection of Institut Royal des Sciences Naturelles de Belgique

Ориентальные Clytrinae (Coleoptera: Chrysomelidae) в коллекции Бельгийского Королевского Института Естественной истории

L.N. Medvedev

Л.Н. Медведев

Institute for Problems of Ecology and Evolution, Russian Academy of Sciences, Leninsky prospect 33, Moscow 119071, Russia
Институт проблем экологии и эволюции РАН, Ленинский проспект 33, Москва 119071, Россия

KEY WORDS: Clytrinae, Oriental, types, lectotypes.

КЛЮЧЕВЫЕ СЛОВА: Clytrinae, Ориентальная область, типы, лектотипы

ABSTRACT. Oriental Clytrinae from the collection of Institut Royal des Sciences Naturelles de Belgique were studied, including 24 types of Baly, Lefevre, Duvivier and Jacoby. 13 lectotypes (mostly males) are designated. *Clytra orientalis* Lefevre, 1891 is a new synonym of *Aetheodactyla lateralis* Lacordaire, 1848. *Clytrasoma conformis* Lacordaire, 1848 is a good species, not a synonym of *C. pallens* Fabricius, 1801. *Smaragdina crassipes* Duvivier, 1891 and *S. fabrei* Lefevre 1883 are removed in the genus *Physosmaragdina* L. Medvedev, 1971; *Smaragdina semipunctata* Duvivier, 1891, *Diapromorpha octomaculata* Jacoby, 1892 and *Clytra insularis* Lefevre, 1883 are removed to genus *Aetheomorpha* Lacordaire, 1848.

РЕЗЮМЕ. Изучены Ориентальные Clytrinae из коллекции Бельгийского Королевского Института Естественной истории, включая 24 типа Бейли, Лefевра, Дювивье и Джекоби. Обозначено 13 лектотипов (в основном самцы). *Clytra orientalis* Lefevre, 1891 — новый синоним *Aetheodactyla lateralis* Lacordaire, 1848. *Clytrasoma conformis* Lacordaire, 1848 — самостоятельный вид, не синоним *C. pallens* Fabricius, 1801. *Smaragdina crassipes* Duvivier, 1891 и *S. fabrei* Lefevre, 1883 перемещены в род *Physosmaragdina* L. Medvedev, 1971; *Smaragdina semipunctata* Duvivier, 1891, *Diapromorpha octomaculata* Jacoby, 1892 и *Clytra insularis* Lefevre, 1883 перемещены в род *Aetheomorpha* Lacordaire, 1848.

Introduction

I have had a good opportunity to study Oriental and Afrotropical Clytrinae from the collection of the Institut Royal des Sciences Naturelles de Belgique (IRSNB), represented mostly with collections of F. Chapius and A. Duvivier. Here I propose materials concerning Oriental fauna, which includes 24 types of J. Baly, E. Lefevre, A. Duvivier and M. Jacoby and a few interest-

ing but poorly studied species. 13 lectotypes are designated, mostly for male specimens and taxonomical position for 6 species were stated.

Taxonomical part

Clytrasoma conformis Lacordaire, 1848 (resurrected from synonymy)

MATERIAL. *C. conformis* Lac.: Bengal, Mandar, 4 ♂♂, 14 ♀♀; — Bengal, Konbir, 5 ♂, 1 ♀; — Bengal, Barway, 1 ♀. *C. palliata* F.: Bengal, Mandar, 11 ♂♂, 3 ♀♀; — Bengal, Konbir, 1 ♂, 2 ♀♀.

This species was united with widely distributed *C. palliata* Fabricius, 1801 [Kimoto & Gressitt, 1981], but seems to be a good species (see Table). I have studied series of both species from Bengal (Konbir and Mandar) and found distinct differences between them.

Epimela (Paraepimela) indica (Duvivier, 1891)

MATERIAL. *E. indica* Duv.: Bengal, Konbir, type series, 7 ex.; — Bengal, Barway, 2 ex.; — Bengal, Mandar, 9 ex. *E. indica* ab. *interrupta* Duv.: Bengal, Konbir, type series, 2 ex.; — Bengal, Mandar, 9 ex. *E. indica* ab. *uniformis* Duv.: Bengal, Konbir, 1 type; — Bengal, Tetara, 1 type; — Bengal, Barway, 2 ex.; — Bengal, Mandar, 1 ex. All materials were collected by P. Cardon in 1890–1891 years.

A lectotype (♂) of this species, described as *Lachnaea* is designated. Aedeagus — fig. 18, pattern of elytra — Fig. 4. Variations *interrupta* Duvivier, 1891 (Fig. 5) and *uniformis* Duvivier, 1891 are also represented with type series, have same structure of aedeagus and are only color aberrations of *E. indica*.

This species is a synonym of *E. downesi* Baly, 1865 [Medvedev, 2003].

Genus *Aetheodactyla* Lacordaire, 1848

Genus *Pseudoclytra* Jacoby, 1908 is a synonym of *Aetheodactyla* Lacordaire, 1848. Having general appearance of *Clytra*, this genus differs immediately with pubescent epipleurae. Species are without distinct sexual dimorphism or hind tibiae of male deeply incised and densely pubescent. A revision of this genus is published [Medvedev, 2003].

Table. Distinguished characters between *C. palliata* and *C. conformis*
 Таблица. Морфологические различия *C. palliata* и *C. conformis*

<i>C. palliata</i>	<i>C. conformis</i>
Clypeus finely punctuate.	Clypeus roughly punctuate and rugose.
Prothorax with angulate black basal band (Fig. 2), sometimes reduced to prescutellar spot on entirely fulvous.	Prothorax with 3(2,1) black spots (Fig. 1).
Hind angles of prothorax broadly rounded and indistinct.	Hind angles of prothorax obtuse or narrowly rounded, more or less distinct.
Elytra of male strongly widened, 1.5–1.9 times as long as wide.	Elytra of male not or feebly widened, 2.2–2.4 times as long as wide.
Elytra very finely, often indistinctly punctuate.	Elytra distinctly punctuate, punctures larger, more dense and deep.
Apical elytral spot transverse and touch lateral margin (Fig. 2).	Apical elytral spot round and does not touch lateral margin (Fig. 1).
Claw tarsal segment protruding from lobes of 3 rd segment for 1/3 its length.	Claw tarsal segments protruding from lobes of 3 rd segment for 1/2 its length.
Cover plate of aedeagus subquadrate, not narrowed to base (Fig. 17).	Cover plate of aedeagus feebly elongate, narrowed to base (Fig. 16).
Gut press of female as on Fig. 42.	Gut press of female as on Fig. 43.
Apical part of spermatheca with lateral protuberance (Fig. 31).	Apical part of spermatheca without lateral protuberance (Fig. 32).
India, Sri Lanka, Birma, China, Indochina.	Himalayas: Kashmir, Punjab, Bengal. Indication for Malabar is doubtful.

Aetheodactyla plagiata (Duvivier, 1891)

MATERIAL. Type series of *Clytra plagiata* Duvivier (19 ex.). A lectotype (♂) is designated. Other localities: Mandar (12 ex.), Barway (1 ex.).

This species, described as *Clytra*, was placed to *Pseudoclytra*. Aedeagus — Fig. 19.

Aetheodactyla minor (Duvivier, 1891)

MATERIAL. Type series of *Clytra plagiata* var. *minor* Duvivier (5 ex.). A lectotype (♂) is designated. Additional material: Bengal, Mandar, VII.1891–92, leg. P. Cardon, 3 ex.

This species, described as *Clytra plagiata* var. *minor*, was placed to *Pseudoclytra* and represents a distinct species, which differs from *Ae. plagiata* with smaller size (4.9–6.4 mm against 7.2–9.5 mm) and quite other form of aedeagus (Fig. 20).

Aetheodactyla andrewesi (Jacoby, 1895)

MATERIAL. 1 type specimen (♂) from Kanara, marked as “paratype”; in reality it is syntype.

Species was described as *Tituboea* and later removed in *Pseudoclytra* as type of this genus. Aedeagus — Fig. 21.

Miochira gracilis Lacordaire, 1848

MATERIAL. Types of 2 ♀♀ with a label: “Mandar (Bengal), P. Cardon, VII.1891.”

After studying types of *Clytra cardoni* Jacoby, 1897 I can confirm, that this species was correctly synonymized with *M. gracilis* [Medvedev, 1998].

Miochira variegata Lefevre, 1890

MATERIAL. Type series with a label: “Cambodia, ex. Dr. Harmand”, 4 specimens.

Type series includes 2 males and 2 females from Cambodia. A lectotype (♂) is designated.

Aetheodactyla lateralis Lacordaire, 1848

MATERIAL. Type (♀) with a label “Bangkok, coll. Duvivier”.

I have studied a single ♀ specimen, represented a type of *Clytra orientalis* Lefevre, 1891 with a label “Bangkok” and found that it is a new synonym of *Ae. lateralis*. Very possibly a locality label is wrong, because I found also in this material a specimen of *Aspidolopha decora* F. with same label, but both these species, being very usual in South India, never were found in Thailand.

In the original description Lefevre mentioned about 2 specimens from Bangkok (1 in Duvivier collection, 1 in his own) and one more from Bangalore (South India).

Aspidolopha distincta Duvivier, 1891

MATERIAL. Type series (14 ex.) from Konbir.

A lectotype (♂) from Konbir is designated. A figure of aedeagus, was already published [Medvedev, 1988].

Aspidolopha sublaevicollis Duvivier, 1891

MATERIAL. A single ♀ type with a label: “Konbir, P. Cardon”.

A female type was studied. Spermatheca — Fig. 33. pygidium (Fig. 38) without median ridge, with deep triangular incisure on apex. A taxonomic position of this species is unclear an apex. A taxonomic position of this species is unclear because male is unknown.

Aspidolopha decora (Fabricius, 1801)

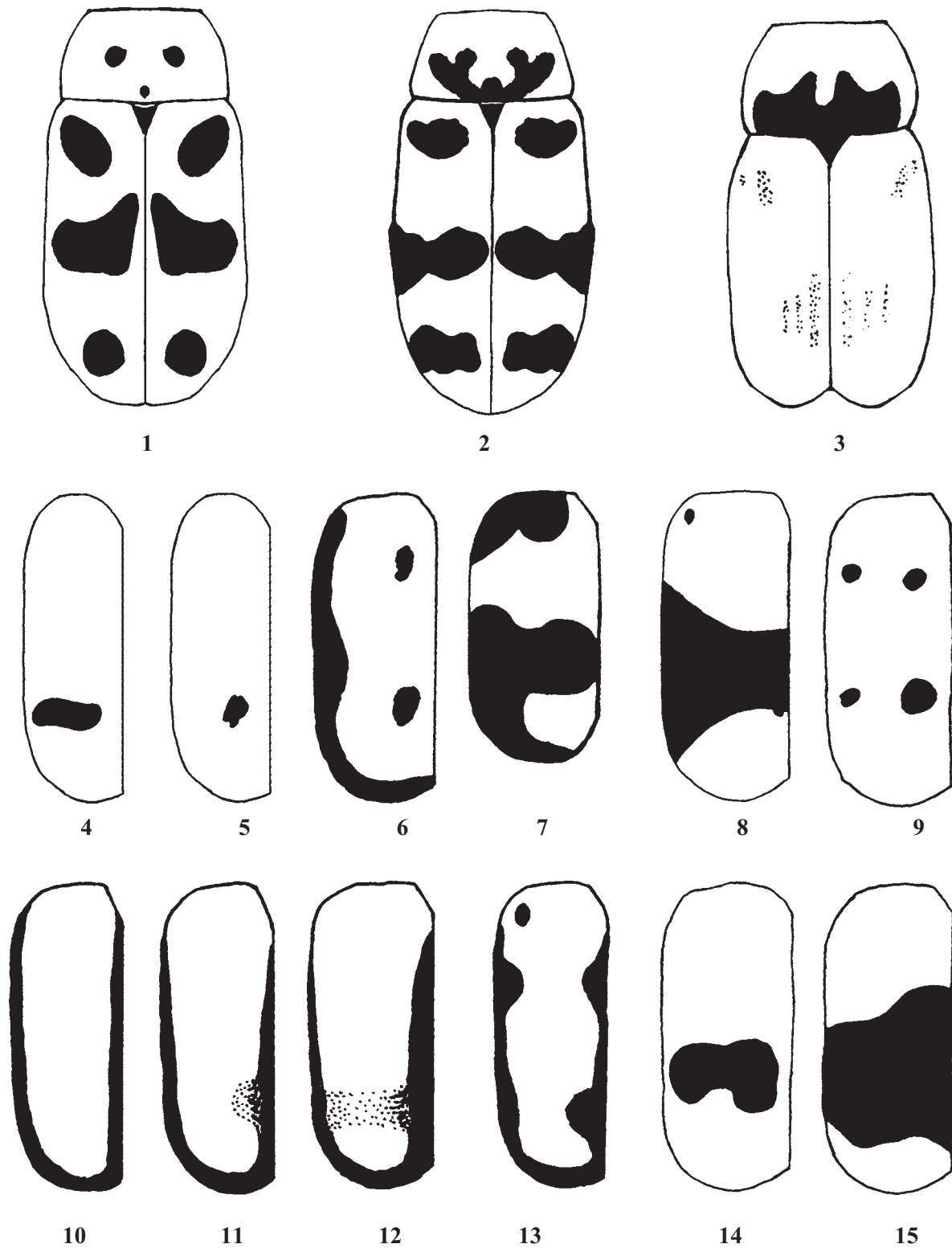
MATERIAL. A series from Konbir, 1 ♂, 10 ♀♀.

A population from Konbir differs from South Indian specimens in structure of female pygidium, which is truncate or feebly concave at apex (Figs 39–41) and without median ridge. Possibly it might be a local form or subspecies, but I have no enough material to decide this question.

Aetheomorpha philippinensis (Lefevre, 1886)

MATERIAL. Type series includes 2 ♀♀ with labels: “*Clytra philippinensis* Lef., type” and “Bohol, Semper”.

A lectotype is designated for specimen with entirely blue elytra. Other specimen has poorly delimited dark fulvous band in anterior third. Types are correspond to the modern understanding of the species [Medvedev, 2000].



Figs 1-15. Pattern of upperside (1-3) and elytra (4-15): 1 — *Clytrasoma conformis*, 2 — *C. palliata*, 3 — *Aetheomorpha insularis*, 4-5 — *Epimela downesi* (= *indica*), 6 — *Aetheomorpha nigropicta*, 7 — *Ae. malayana*, 8 — *Ae. semipunctata*, 9 — *Ae. octomaculata*, 10-13 — *Ae. suturata*, 14 — *Physosmaragdina crassipes*, 15 — *Ph. fabrei*.

Рис. 1-15. Рисунок верха тела (1-3) и надкрылий (4-15): 1 — *Clytrasoma conformis*, 2 — *C. palliata*, 3 — *Aetheomorpha insularis*, 4-5 — *Epimela downesi* (= *indica*), 6 — *Aetheomorpha nigropicta*, 7 — *Ae. malayana*, 8 — *Ae. semipunctata*, 9 — *Ae. octomaculata*, 10-13 — *Ae. suturata*, 14 — *Physosmaragdina crassipes*, 15 — *Ph. fabrei*.

Aetheomorpha semperi (Lefevre, 1886)

MATERIAL. Type series includes 2 ♀♀ with labels “*Clytra semperi* Lef., type” and “Cebu, coll. Semper”.

A lectotype is designated for specimen from Cebu. Spermatheca — Fig. 34.

Species is not quite clear because male is unknown. In the key [Medvedev, 2000] it was preliminary included in group with black upperside of abdomen, but both types have fulvous upperside of abdomen and black pygidium. It means that a species in question has to be placed near *Ae. semicineta* Weise and differs only in color of legs. Very possibly these two species are identical.

Aetheomorpha nigropicta (Lefevre, 1891)

MATERIAL. 2 ♀♀ types from Konbir.

Type series includes 2 ♀♀. Elytral pattern is shown on Fig. 6, spermatheca — Fig. 35.

It seems that type series of this species includes also specimens from South India (Tranquebar). It means that this series might include two different species, one from South India and another from Bengal.

Aetheomorpha malayana (Baly, 1865)

MATERIAL. A type labeled as “Malaysia, Wallua”.

A single type specimen in IRSNB collection is female. Elytral pattern is shown on Fig. 7. Abdomen is partly damaged, including spermatheca, ductus is very strongly spiraled (Fig. 36).

Aetheomorpha insularis (Lefevre, 1883)

(comb.n.)

MATERIAL. Type (♀) from Andaman Islands. Possibly additional syntypes exist.

This species, described as *Clytra* Laicharting, 1781 is however typical *Aetheomorpha* Lacordaire, 1848, having exposed pygidium, feeble but distinct elytral lobes and comparatively narrow tarsi. A studied type specimen is female. Pattern of upperside — Fig. 3. Gutpress — Fig. 45. Spermatheca (Fig. 37) with very unusual ductus. Male unknown.

Aetheomorpha semipunctata (Duvivier, 1891)

(comb.n.)

MATERIAL. Type series from Konbir: 1 ♂, 2 ♀♀; — Bengal, Mandar, 2 ♀♀.

This species, described as *Gynandrophthalma* Lacordaire, 1848 (now *Smaragdina*) has entirely exposed pygidium and well developed epipleural lobe on elytron; because of these characters it have to be replaced to genus *Aetheomorpha*. A lectotype (♂) is designated. Aedeagus (Fig. 22) has bifurcate apex. Elytral pattern — Fig. 8.

Ae. bifurcata L. Medvedev, 2001 from South India has also bifurcate aedeagus and very near to *Ae. semipunctata*. These two species might be divided as follow:

- 1(2) Elytra with transverse black band behind middle and sometimes with very small and indistinct humeral spot. Legs entirely fulvous. Aedeagus — Fig. 22. North India *Ae. semipunctata* (Duvivier)
 2(1) Elytra with humeral spot, lateral elongate spot, often connected with humeral, and 2 spots along suture black. Legs fulvous with apices of tibiae and tarsi black. Aedeagus — Fig. 23. South India
 *Ae. bifurcata* L. Medvedev

Aetheomorpha sexmaculata (Jacoby, 1889)

MATERIAL. Type: Birma, Carin Cheba, 900–1100 m, V–XII.1888, leg. L.Fea.

This species was described as *Gynandrophthalma*, later it was replaced to *Diapromorpha* Lacordaire, 1848 [Jacoby, 1908] and at last to *Aetheomorpha* [Medvedev, 1988]. A single type specimen in IRSNB collection (♂) is designated as a lectotype. Aedeagus — Fig. 26.

Aetheomorpha octomaculata (Jacoby, 1892)

(comb.n.)

MATERIAL. Type: Birma, Palon (Pegu), VIII–IX.1887, leg. L.Fea.

A species was described as *Gynandrophthalma* and replaced under question to *Diapromorpha* [Jacoby, 1908], but structure of prothorax with hind angles broadly rounded and propleurae not pubescent are typical for *Aetheomorpha*. A lectotype (♂) is designated. Elytral pattern — Fig. 25. Aedeagus — Fig. 25.

Aetheomorpha suturata (Jacoby, 1898)

MATERIAL. Type series from Mandar (8 ex.) and Barway (1 ex.).

A lectotype (♂) from Mandar is designated. Aedeagus — Fig. 24. Variability of elytral pattern in type series is shown on Figs 10–13.

Smaragdina longicornis (Jacoby, 1897)

MATERIAL. Type series from Mandar (7 ex.). Species is widely distributed in India, I have in my collection specimens from Nagpore, Delhi, Madras, Tamil Nadu.

Species was described as *Damia* Lacordaire 1849. A lectotype (♂) from Mandar is designated. Aedeagus — Fig. 27.

Smaragdina laticollis Duvivier, 1892

MATERIAL. A single ♀ with a label “Kurseong, P. Braet” is marked as a holotype.

This species was also recorded for Nepal [Medvedev & Sprecher, 1999], Nepalese single ♂ specimen, is more narrow and smaller than holotype, aedeagus — Fig. 28.

Physosmaragdina crassipes (Duvivier, 1891)

(comb.n.)

MATERIAL. Type series from Konbir: 4 ♂♂, 1 ♀ (lectotype — ♂ — is designated). I have also in my collection 3 ♂♂ from Khasia Hills (Assam), Dehra Dun (Kumaon) and “Himalayas”.

DESCRIPTION. Posterior angles of prothorax distinct, obtuse. Tibiae thick, mid tibiae about 3.6 times as long as wide at apex. Tarsi short with segments 1 and 2 triangular, feebly transverse. Aedeagus (Fig. 29) deeply grooved on underside, this impression delimited with lateral ridges.

REMARKS. This species was described as *Gynandrophthalma* (now *Smaragdina*). A structure of prothorax and tibiae are typical for *Physosmaragdina*.

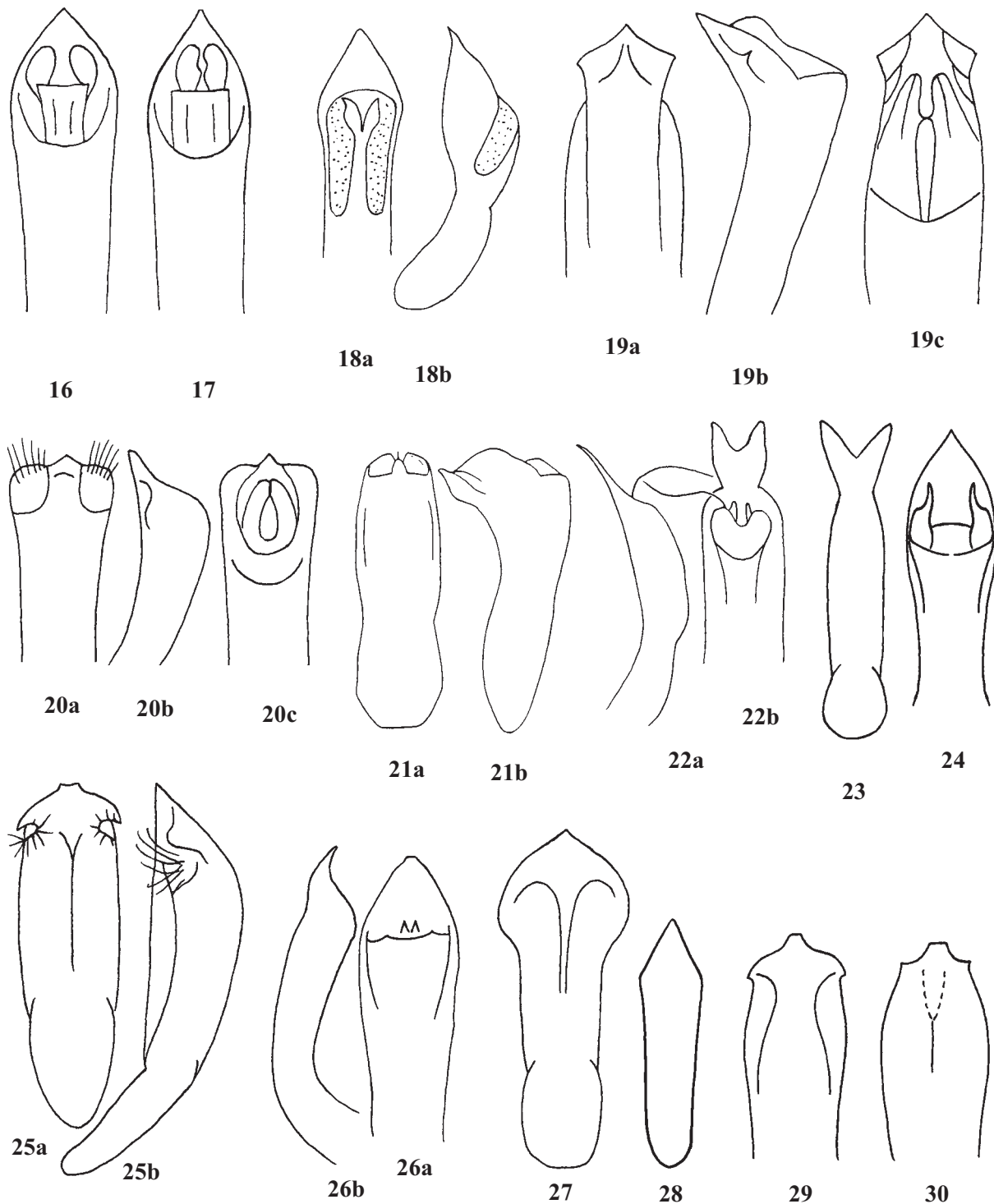
Physosmaragdina fabrei (Lefevre, 1883)

(comb.n.)

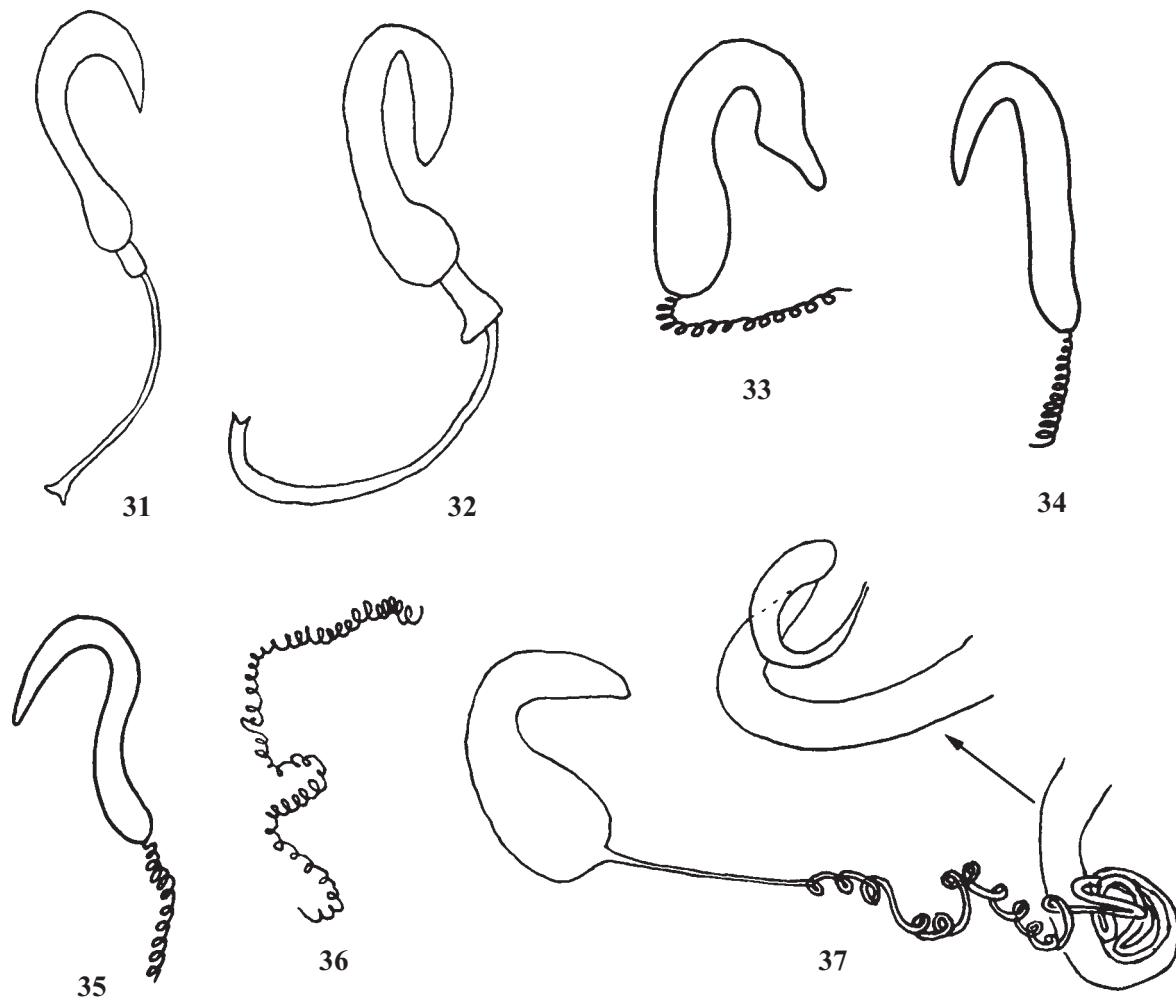
MATERIAL. Type specimen (♀) from Ramnad. I have also a syntype (♂) in my collection. A lectotype is not proposed, because main series of syntypes is in Paris Museum and a few of them in many European Museums.

DESCRIPTION. Structure of prothorax, tibiae and tarsi as in preceding species. Aedeagus (Fig. 30) with narrow longitudinal impressed line on underside, without lateral ridges.

REMARKS. As in preceding case, this species, described as *Gynandrophthalma*, is typical *Physosmaragdina*, very near to *Ph. crassipes*. These two species might be divided as follows:

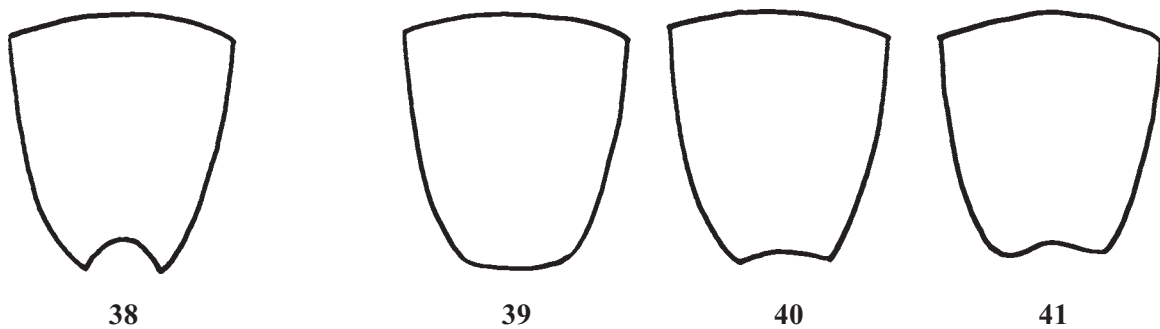


Figs 16–30. Aedeagus: 16 — *Clytrasoma conformis*, 17 — *C. palliata*, 18 — *Epimela downesi* (=indica), 19 — *Aetheodactyla plagiata*, 20 — *Ae. minor*, 21 — *Ae. andrewesi*, 22 — *Aetheomorpha semipunctata*, 23 — *Ae. bifurcata*, 24 — *Ae. suturata*, 25 — *Ae. octomaculata*, 26 — *Ae. sexmaculata*, 27 — *Smaragdina longicornis*, 28 — *S. laticollis*, Nepal, 29 — *Physosmaragdina crassipes*, 30 — *Ph. fabrei*; 16, 17, 18a, 19c, 20c, 22b, 24, 26a — ventrally; 18b, 19b, 20b, 21b, 22a, 25b, 26b — laterally; 19a, 20a, 21a, 23, 25a, 27–30 — dorsally.
 Рис. 16–30. Эдеагус: 16 — *Clytrasoma conformis*, 17 — *C. palliata*, 18 — *Epimela downesi* (=indica), 19 — *Aetheodactyla plagiata*, 20 — *Ae. minor*, 21 — *Ae. andrewesi*, 22 — *Aetheomorpha semipunctata*, 23 — *Ae. bifurcata*, 24 — *Ae. suturata*, 25 — *Ae. octomaculata*, 26 — *Ae. sexmaculata*, 27 — *Smaragdina longicornis*, 28 — *S. laticollis*, Nepal, 29 — *Physosmaragdina crassipes*, 30 — *Ph. fabrei*; 16, 17, 18a, 19c, 20c, 22b, 24, 26a — снизу; 18b, 19b, 20b, 21b, 22a, 25b, 26b — сбоку; 19a, 20a, 21a, 23, 25a, 27–30 — сверху.



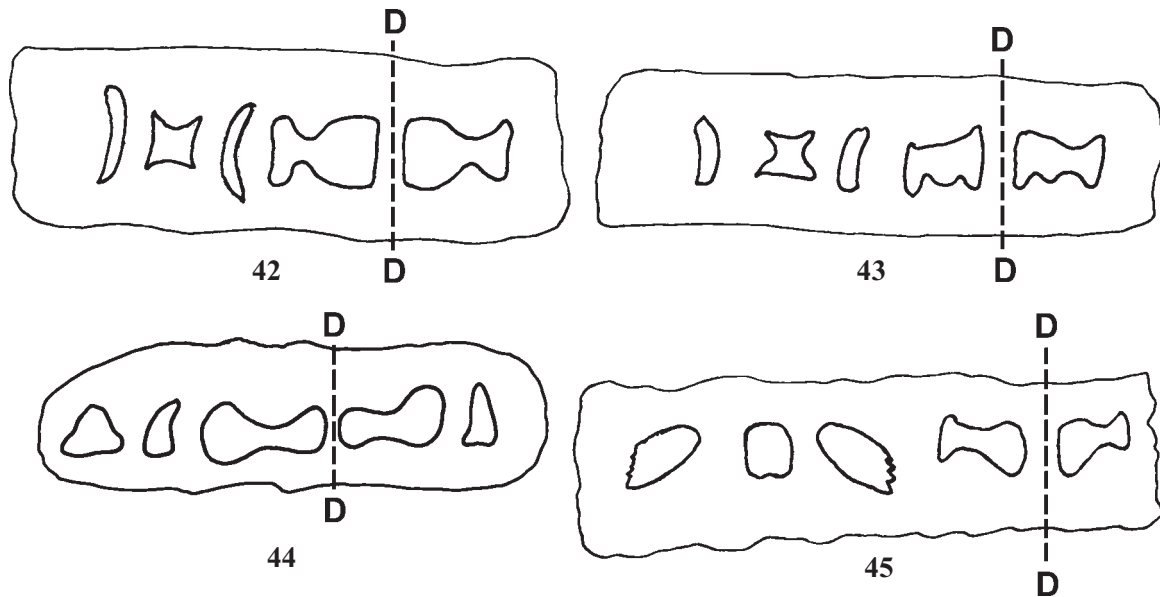
Figs 31–37. Spermatheca: 31 — *Clytrasoma palliata*, 32 — *C. conformis*, 33 — *Aspidolopha sublaevicollis*, 34 — *Aetheomorpha semperi*, 35 — *Ae. nigropicta*, 36 — *Ae. malayana* (ductus), 37 — *Ae. insularis*.

Рис. 31–37. Сперматека: 31 — *Clytrasoma palliata*, 32 — *C. conformis*, 33 — *Aspidolopha sublaevicollis*, 34 — *Aetheomorpha semperi*, 35 — *Ae. nigropicta*, 36 — *Ae. malayana* (дуктус), 37 — *Ae. insularis*.



Figs. 38–41. Pygidium: 38 — *Aspidolopha sublaevicollis*, 39–41 — *A. decora*.

Рис. 38–41. Пигидий: 38 — *Aspidolopha sublaevicollis*, 39–41 — *A. decora*.



Figs. 42–45. Gut press: 42 — *Clytrasoma palliata*; 43 — *C. conformis*; 44 — *Aspidolopha sublaevicollis*; 45 — *Aetheomorpha insularis*
 Figs. 42–45. Формовочный аппарат: 42 — *Clytrasoma palliata*; 43 — *C. conformis*; 44 — *Aspidolopha sublaevicollis*; 45 — *Aetheomorpha insularis*.

- 1(2) Legs entirely fulvous. Elytral band more narrow, usually don't reach suture and lateral margin (Fig. 14). Aedeagus with lateral ridges on underside (Fig. 29). North India .
 *Ph. crassipes* Duv.
- 2(1) At least hind femora black. Elytral band much more broad, reach lateral margin and not interrupted on suture (Fig. 15). Aedeagus without lateral ridges on underside (Fig. 30). South India *Ph. fabrei* Lef.

ACKNOWLEDGEMENTS. I am grateful to Dr. Didier Drugmand for possibility to study this very interesting collection.

References

Kimoto S. & Gressitt J. L. 1981. Chrysomelidae (Coleoptera) of Thailand, Cambodia, Laos and Vietnam, 2 // Pacific Insects. Vol.23. No.3–4. P.286–391.

Jacoby M. 1908. Fauna of British India, Chrysomelidae. London. 534 pp.

Medvedev L.N. 1988. [Leaf beetles of the subfamily Clytrinae of Vietnam fauna] // Fauna and ecology of Vietnam insects. Moscow: Nauka. P.21–46 [in Russian].

Medvedev L.N. 1998. A revision of the genus *Miochira* Lacordaire // Serangga. Vol.3. No.1. P.23–38.

Medvedev L.N. & Sprecher-Ulebersax E. 1999. Katalog der Chrysomelidae von Nepal // Entomol. Basiliensia. Bd.21. S.261–354

Medvedev L.N. 2000 (2001). Clytrinae of the Philippines // Russ. Entom. J. Vol.9. No.4. P.333–340.

Medvedev L.N. 2003. Towards knowledge of the Indian Clytrinae (Coleoptera, Chrysomelidae) // Entomologica Basiliensia. Bd.25. S.275–291.