

Revision of the subgenus *Dapalinus*
(Coleoptera: Curculionidae: Hyperini)
by
Jiří Skuhrovec, Prague and Herbert Winkelmann, Berlin
with 133 photographs, 11 maps

[Skuhrovec] [Winkelmann]

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Abstract. Species of the subgenus *Dapalinus* Capiomont, 1868 of the genus *Hypera* are redescribed, illustrated, and listed in key and catalogue. Genitalia of both sexes of all ten species of *Dapalinus* are described and illustrated. *Phytonomus dapalis* Boheman, 1834 is designated as the type species of the subgenus *Dapalinus* in the genus *Hypera*. *Hypera pseudotenuirostris* sp. nov. from Portugal and Spain is described and illustrated. The biology of *Hypera pseudotenuirostris* sp. nov. is compared with the biology of known *Dapalinus* species. The unidentified host plant of the new species is from the family Fabaceae. The Lectotype and Paralectotype of *Hypera tenuirostris* (Petri, 1901) is designated. The cladistic analysis divided the subgenus *Dapalinus* into three basic clades: **group maculipennis** (clade A), **group dapalis** (clade B), and **group meles** (clade C). Other taxonomic problems within the subgenus *Dapalinus* are discussed.

Keywords

Taxonomy, revision, Coleoptera, Curculionidae, Hyperini, *Dapalinus*, new species, type species, redescrptions, key, Palaearctic region, Europe, Asia, North Africa, Iberian peninsula.

Introduction

The genus *Hypera* Germar, 1817 currently includes more than 90 Palaearctic species [Skuhrovec submitted] and 17 species from North America [Titus 1911] [Csiki 1934] [Anderson 2002]. The last taxonomical revision was published over 100 years ago by Petri [Petri 1901], who divided the genus into 11 groups but used the junior synonym *Phytonomus* Schoenherr, 1823 as the valid name. Samouille [Samouille 1819] designated *Curculio nigrirostris* Fabricius, 1775 as the type species for the genus *Hypera* (F). The *Hypera*-species are mostly oligophagous, but several monophagous forms are also known [Skuhrovec 2003].

Recently, the genus is divided into six subgenera: *Eriinomorpha* Capiomont, 1868; *Tigrinellus* Capiomont, 1868; *Dapalinus* Capiomont, 1868; *Boreohypera* Korotyaev, 1999; *Kippenbergia* Alonso-Zarazaga, 2005; and *Hypera* s. str. [Alonso-Zarazaga & Lyal 1999] [Alonso-Zarazaga & Lyal 2002] [Alonso-Zarazaga 2005b].

Petri [Petri 1901] and Csiki [Csiki 1934] also treated *Metadonus* Capiomont, 1868 as a subgenus of *Hypera*, whereas Hoffmann [Hoffmann 1954] [Alonso-Zarazaga & Lyal 1999] regarded this as a separate genus. The genus *Metadonus* Capiomont, 1868, has only 17 species that occur primarily in Asia; the exceptions are *Metadonus vuillefroyanus* (Capiomont, 1868) in Spain, Morocco, Algeria, and Tunisia and *Metadonus distinguendus* (Boheman, 1842) in Ukraine, Moldavia, Turkey and Russia. Based on the study of the morphology of female genitalia and the biology of Hyperini,

Zaslavskij [Zaslavskij 1959] transferred *Antidonus* Bedel, 1886 from *Hypera* Germar, 1817 to *Donus* auct., nec Jekel, 1865 (= *Brachypera* Capiomont, 1868 [Skuhrovec submitted]). However, the generic placement of some species ascribed to genera *Glanis* and *Donus* auct., including *Rhynchaenus philanthus* (the type species of *Donus* Jekel, 1865) by Zaslavskij [Zaslavskij 1959] was unclear based on his study. Because of the unknown status of some species, no comments were made on the transfer of *Antidonus* made by Zaslavskij [Zaslavskij 1959] until Alonso-Zarazaga & Lyal [Alonso-Zarazaga & Lyal 2002] listed *Antidonus* as a subgenus of *Donus* auct. However, Alonso-Zarazaga & Lyal [Alonso-Zarazaga & Lyal 2002] gave no precise reason for this change and merely accepted Zaslavskij's [Zaslavskij 1959] opinion. Since no reasons were given for such a transfer, some authors [Skuhrovec 2005] [Skuhrovec 2006a] [Skuhrovec 2006b] [Skuhrovec 2007] [Skuhrovec & Borovec 2007] [Winkelmann 2001] [Winkelmann 2006] [Winkelmann & Bayer 2007] did not accept the placement of *Antidonus* within *Donus* auct. and still regarded it as a subgenus of *Hypera*. However, they also gave no reason for their contrary opinion. The result of the complicated taxonomic and nomenclatoric situation within the tribe is presented by Skuhrovec [Skuhrovec submitted]. Alonso-Zarazaga [Alonso-Zarazaga 2005b] described a new subgenus *Kippenbergia*. Skuhrovec [Skuhrovec 2006a] considers that it is most likely only a species group of *Hypera arator* (Linnaeus, 1758) within the nominotypical subgenus *Hypera*. This was also presented by Petri [Petri 1901] and by Kippenberg [Kippenberg 1986]. Taxonomic positions and relatives of subgenera and groups within the genus *Hypera* are completely unknown, and only detailed taxonomic revision for each group may resolve these problems.

The concept of *Hypera* as the combination of several publications [Zaslavskij 1959] [Khurleva & Korotyaev 1999] [Alonso-Zarazaga 2005b] is accepted here. The revision of the genus, as well as a new evaluation of characters described for the genus by Petri, is necessary.

Subgenus: *Dapalinus* Capiomont, 1868

Preliminary note

The subgenus *Dapalinus* now includes up to 9 known species: *Hypera contaminata* (Herbst, 1795); *Hypera dapalis* (Boheman, 1834); *Hypera fornicata* (Penecke, 1928); *Hypera kayali* Skuhrovec, 2006; *Hypera maculipennis* (Fairmaire, 1859); *Hypera meles* (Fabricius, 1792); *Hypera subvittata* (Capiomont, 1867), *Hypera striata* (Boheman, 1834) and *Hypera tenuirostris* (Petri, 1901).

All species are known from the Palaearctic region. Most of the species occur in Europe [Petri 1901] [Csiki 1934] [Skuhrovec 2003] [Alonso-Zarazaga 2005a] [Skuhrovec 2006a] [Winkelmann 2006], except for *Hypera tenuirostris*, which inhabits only Turkey and northern Syria [Petri 1901] [Csiki 1934] [Skuhrovec 2006a] and *Hypera kayali* in Syria [Skuhrovec 2006a].

Hypera meles is also known from the Nearctic region [Titus 1911] [Skuhrovec 2006a]. More details of the distribution of these species are given below (see [[Catalogue of the subgenus *Dapalinus*](#)]). Only two taxonomic revisions of the subgenus *Dapalinus* are known, and they were written by Petri [Petri 1901], who called this subgenus "VI. Gruppe des *Phytonomus meles*", and by Skuhrovec [Skuhrovec 2006a].

Type species

Capiomont [[Capiomont 1868key](#)] described the subgenus *Dapalinus* but did not designate its type species. More data were published by Petri [[Petri 1901dif](#)] [[Petri 1901key](#)] and Skuhrovec [[Skuhrovec 2006key](#)].

Phytonomus dapalis Boheman, 1834 is designated here as the type species of *Dapalinus* Capiomont, 1868. Adult morphological characters correspond well with the characters of the subgenus *Dapalinus* described by Capiomont [Capiomont 1868].

Redescription of Subgenus *Daplinus*:

Dapalinus may be diagnosed with the following combination of characters:

- (1) Bifid scales (with one exception having trifid scales) cleft to more than one fourth of their length (versus *Eririnomorphus*, which have oval and/or round scales).
- (2) Rostrum slightly shorter or longer than pronotum (0.75-1.30 x).
- (3) Near base of rostrum with small, distinct, ventral process in lateral view (with one exception).
- (4) Pronotum distinctly strongly convex in lateral view, rostrum more strongly curved (versus *Boreohypera*, *Tigrinellus*, *Hypera*, *Kippenbergia*).

Differential diagnosis

In *Boreohypera*, rostrum is shorter than pronotum (0.4-0.6 x), pronotum is oval, and rostrum is almost straight.

In *Tigrinellus*, rostrum is distinctly longer than pronotum (1.3-1.7 x) and strongly curved, while pronotum is strongly convex, and elytra have very long projecting setae.

In *Hypera*, rostrum is shorter than pronotum (0.4-0.8 x), with exception of species groups of *Hypera nigrirostris* (Fabricius, 1775) and *Hypera constans* (Boheman, 1824), which have rostrum longer than pronotum (1.0-1.5 x), but rostrum is not strongly curved; pronotum is strongly convex with one exception, *Hypera plantaginis* (De Geer, 1775).

The characters described for *Kippenbergia* species are the same as for *Hypera* species.

Discussion

Within the subgenus *Dapalinus*, many taxonomic problems remain unresolved. Borovec & Košťál [Borovec & Košťál 1987] tried to resolve the taxonomic problem of sibling species, *Hypera fornicata* and *Hypera meles*, but, unfortunately, they did not study large numbers of specimens, and the taxonomy of this complex remains confusing, especially in central Europe [Winkelmann 2001] [Skuhrovec 2003] [Skuhrovec 2006a]. The relationships of *Hypera fornicata* and *Hypera meles* are still confused despite this study (more detailed comments are in the **Discussion** and **Bionomics** for species *Hypera fornicata* and *Hypera meles*).

Petri [Petri 1901] also included the unusual species *Hypera tychiodes* (Capiomont, 1868) in the subgenus *Dapalinus*. This species was later synonymized with *Tanyrhynchus asiaticus* Schoenherr, 1849, and a new genus, *Adonus* Zaslavskij, 1999 was proposed for it, so that its valid name is now *Adonus asiaticus* (Schoenherr, 1849). It does not belong in the genus *Hypera* [Alonso-Zarazaga & Lyal 1999] [Skuhrovec 2006a].

In the present paper, a new species of *Hypera* (*Dapalinus*) from Portugal and Spain is described. Information about the biology of this species was obtained by rearing larvae to the adult stage. This new species is compared with others in the subgenus *Dapalinus*.

We distinguish three groups in the subgenus *Dapalinus*: "**group *meles***", "**group *dapalis***" and "**group *maculipennis***."

The Species of the subgenus *Dapalinus*

Group *meles*

The "**group *meles***" is identified by the following characteristics:

- 1) First funicle segment almost twice as long as the second;
- 2) Elytral bifid scales reaching the base;
- 3) Femora only with setae;
- 4) Near the base of the rostrum is a very small, hardly noticeable, ventral process in lateral view.

These species belong to this group: *Hypera fornicata*, *Hypera meles*, *Hypera pseudotenuirostris* and *Hypera tenuirostris*.

Hypera fornicata (Penecke, 1928)

[Tab. HforM] [Tab. HforF]

Original description: *Phytonomus fornicatus* Penecke, 1928 [Penecke 1928]
Literature: [Borovec & Košťál 1987for] [Skuhrovec 2006key]
Locus Typicus: Czernowiec (=Chernivtsi) (Bukowina – Romania and/or Ukraine)

Habitus (male)	[Fig. Hfor1M]
Habitus (female)	[Fig. Hfor1F]
Aedeagus	[Fig. Hfor2]
Aedeagus (endophallus)	[Fig. Hfor3]
8 th sternite (female)	[Fig. Hfor10F]
9 th sternite (male)	[Fig. Hfor11M]
Spematheca	[Fig. Hfor12]
Distribution	[Fig. DaHfor]

Type material. This material is housed in the **Staatliche Naturhistorische Sammlungen Dresden, Museum für Tierkunde**.

The type specimen is female, with the label: "Bukowina, Czernowitz // *Phytonomus fornicatus* m. Penecke det." Unfortunately, the exact version on the label was not written down before the first revision of the subgenus *Dapalinus*.

Material examined (34 specimens): [Da Hfor]

Redescription

Colour and vestiture. [Fig. Hfor1M] [Fig. Hfor1F]. Frons with pale setae. Rostrum black, setae sparser than on frons. Base of rostrum with distinct black carina dorsally. Antennae pale reddish, distal part of each antennomere darker, more distinctly so in antennomeres near club. Club reddish to dark reddish. Surface of pronotum black, covered with pale setae and with pale reddish to cupreous

brown scales, some of them are bifid to the apical third of their length, only lateral scales in the middle of the pronotum exceptionally [Tab. HforM] [Tab. HforF]. Setae and scales on middle of pronotum and lateral lines pale. Remaining setae and scales on pronotum brown to cupreous brown, forming three light lines on pronotum.

Surface of elytra black, covered with bifid scales reaching base and setae. Elytral intervals with pairs of pale, cupreous brown or black setae. Scales form the following colour pattern [Fig. Hfor1M] [Fig. Hfor1F]: dorsum reddish, grey to cupreous brown; some specimens with alternating pale and dark stripes, not for their entire length.

Proximal parts of femora black to dark brown with pale and reddish setae; apex slightly reddish to black. Tibiae light reddish to brown, bearing stout pale setae apically. Tarsi dark reddish to brown with black spot in the middle, with pale setae. Claws dark brown. Abdomen black with pale setae and pale, reddish to cupreous brown scales on abdominal ventrites, bifid scales reaching base.

Head. Eye oval, upper margin distinctly higher than base of rostrum in lateral view; distinctly wider than base of rostrum. Distance between eyes shorter than base of rostrum. Rostrum long, narrow, slightly shorter than pronotum (ratio = 0.94), slightly but distinctly downcurved, near base with very small, distinct, ventral process in lateral view.

Antennae. Inserted one third from rostrum apex; distinct and deep scrobe in front of antenna broad and short, near base of rostrum very noticeable. Antenna narrow. First funicle segment twice as long as second. Funicle segments 3 and 4 slightly longer than 5 to 7, 5 to 7 almost as long as they are wide [Fig. Hfor1M] [Fig. Hfor1F].

Pronotum. Pronotum wider than long (ratio = 1.31), widest near middle [Fig. Hfor1M] [Fig. Hfor1F], anterior margin almost straight in dorsal view, sides distinctly rounded, posterior margin slightly wider than anterior margin, noticeably constricted basally, heavily punctated; slightly bent, not flat, noticeably visible from lateral and dorsal view. Pronotum strongly oblique, but somewhat less expanded than in *H. meles* [Fig. Sku5].

Elytra. Oval elytra longer than wide, base distinctly wider than base of pronotum, humeral angles prominent, sides slightly convex. Scutellum visible.

Mesosternum. Mesosternal projection not visible in lateral view.

Legs. Profemur almost twice as wide as rostrum; mesofemora and metafemora slender, all are widest near middle. Protibia apically with distinct tooth on inner side. Tarsi with first tarsomere twice as long as second, third distinctly bilobed, fifth twice as long as third. Claws free (not connate at base).

Abdominal ventrites. Last abdominal ventrite with shallow impression medially.

Sexual dimorphism. No differences in the ratio of distance between eyes (frons) and width of rostral base. No differences in the ratio of rostral to pronotal length. Pronotum wider than long in males distinctly less than in females. Oval elytra longer than wide, male with oval elytra (M = 1.50) [Fig. Hfor1M], female disciform (F = 1.40) [Fig. Hfor1F]. Tibiae incurved in males, nearly straight in females. First abdominal ventrite with a distinct depression in males, not depressed in females.

Aedeagus. Aedeagus [Fig. Hfor2]. Internal sac not easily visible [Fig. Hfor3]. Sternite 9 [Fig. Hfor11M] well sclerotised.

Female genitalia. Sternite 8 [Fig. Hfor10F] and spermatheca C-shaped [Fig. Hfor12] weakly sclerotised.

Measurements. Length: non-type material 3.8–4.35 mm.

Variability. It is known to have high variability in colouration, dorsum grey to cupreous brown, but we also observed specimens with alternating pale and dark elytral stripes

and/or spots on elytra. Genitalic variations were also observed. More information about variability and relationships with *Hypera meles* in the **Discussion**.

Bionomics. It has been found in steppes and forest steppes. It develops on *Trifolium pratense* (Fabaceae) [Koch 1992] [Dieckmann & Behne 1994]. Strejček [Strejček 2001] recorded only the genus *Trifolium* as its host-plant without giving further details.

It is possible that *Hypera fornicata* may only be a variation of *Hypera meles* caused by high altitude, host plant (*Trifolium* spp.) or a combination of several abiotic and/or biotic factors.

Differential diagnosis. The most similar species are *Hypera meles*, *Hypera pseudotenuirostris* and *Hypera tenuirostris*, with first funicle segment almost twice as long as second; elytral bifid scales reaching base; femora only with setae; and near base of rostrum a very small, hardly noticeable, ventral process in lateral view (versus *Hypera contaminata*, *Hypera dapalis*, *Hypera kayali*, *Hypera striata* and *Hypera subvittata*, with first funicle segment 1.5 x longer than second; bifid scales elytral not reaching base; femora with setae and also scales and near the base of the rostrum, a small, but distinct, ventral process in lateral view).

The differences between *Hypera fornicata* and *Hypera meles* are as follows:

***Hypera fornicata*:**

- 1) Base of elytra slightly wider than pronotum [Fig. Hfor1M] [Fig. Hfor1F];
- 2) Aedeagus [Fig. Hfor2];
- 3) 8th sternite (female) [Fig. Hfor10F];
- 4) 9th sternite (male) [Fig. Hfor11M];
- 5) Spermatheca [Fig. Hfor12].

***Hypera meles*:**

- 1*) Base of elytra distinctly wider than pronotum [Fig. Hmel1M] [Fig. Hmel1F];
- 2*) Aedeagus [Fig. Hmel2];
- 3*) 8th sternite (female) [Fig. Hmel10F];
- 4*) 9th sternite (male) [Fig. Hmel11M];
- 5*) Spermatheca [Fig. Hmel12].

The differences between *Hypera fornicata* and *Hypera pseudotenuirostris* are as follows:

***Hypera fornicata*:**

- 1) Proximal parts of femora black to dark brown; apex slightly reddish to black; tibiae light reddish to brown [Fig. Hfor1M] [Fig. Hfor1F];
- 2) Aedeagus [Fig. Hfor2];
- 3) 8th sternite (female) [Fig. Hfor10F];
- 4) 9th sternite (male) [Fig. Hfor11M];
- 5) Spermatheca [Fig. Hfor12].

***Hypera pseudotenuirostris*:**

- 1*) Femora and tibiae black [Fig. Hpse1M] [Fig. Hpse1F];
- 2*) Aedeagus [Fig. Hpse2];
- 3*) 8th sternite (female) [Fig. Hpse10F];
- 4*) 9th sternite (male) [Fig. Hpsel11M];

5*) Spermatheca [Fig. Hpse12].

The differences between *Hypera fornicata* and *Hypera tenuirostris* are as follows:

***Hypera fornicata*:**

- 1) Elytra with short, recumbent setae [Fig. Hfor1M] [Fig. Hfor1F];
- 2) Proximal parts of femora black to dark brown; apex slightly reddish to black; tibiae light reddish to brown [Fig. Hfor1M] [Fig. Hfor1F];
- 3) Aedeagus [Fig. Hfor2];
- 4) 8th sternite (female) [Fig. Hfor10F];
- 5) 9th sternite (male) [Fig. Hfor11M];
- 6) Spermatheca [Fig. Hfor12].

***Hypera tenuirostris*:**

- 1*) Elytra covered with long, strongly projecting setae [Fig. Hten1M] [Fig. Hten1F];
- 2*) Femora and tibiae black [Fig. Hten1M] [Fig. Hten1F];
- 3*) Aedeagus [Fig. Hten2];
- 4*) 8th sternite (female) [Fig. Hten10F];
- 5*) 9th sternite (male) [Fig. Hten11M];
- 6*) Spermatheca [Fig. Hten12].

***Hypera meles* (Fabricius, 1792)**

[Tab. HmelM] [Tab. HmelF]

Original description: *Curculio meles* Fabricius, 1792 [Fig. Fabricius1792]

Synonyme:
= *Curculio* ? *trivialis* Herbst, 1784 [Fig. Herbst1784]; synonymized by [Csiki 1934mel] (some unclarity)
= *Curculio* ? var. *Roeseli* Gmelin, 1777 [Fig. Gmelin1790]; synonymized by [Csiki 1934mel] (some unclarity)
= *Curculio griseus* O. F. Müller, 1776 [Muller 1776]; synonymized by [Csiki 1934mel]
= *Curculio plantaginis* Marsham, 1802 [Fig. Marsham 1802pla]; synonymized by [Csiki 1934mel]
= *Curculio stramineus* Marsham, 1802 [Marsham 1802str]; synonymized by [Csiki 1934mel]
= *Curculio trifolii* Herbst, 1795 [Fig. Herbst1795tri]; synonymized by [Capiomont 1868mel]
= *Phytonomus* ab. *edoughensis* Pic, 1897 [Pic 1897]; synonymized by [Csiki 1934mel]
= *Phytonomus* ab. *pallidus* Capiomont, 1868 [Capiomont 1868mel]; synonymized by [Capiomont 1868mel]
= *Phytonomus borealis* Paykull, 1792 [Paykull 1792]; synonymized by [Petri 1901mel202]

Literature: [Capiomont 1868mel] [Capiomont 1868key] [Petri 1901mel] [Petri 1901key] [Borovec & Košťál 1987mel] [Skuhrovec 2006key]

Locus Typicus: Germany

Habitus (male) [Fig. Hmel1M]
Habitus (female) [Fig. Hmel1F]
Aedeagus [Fig. Hmel2]
Aedeagus (endophallus) [Fig. Hmel3]

8 th sternite (female)	[Fig. Hmel10F]
9 th sternite (male)	[Fig. Hmel11M]
Spematheca	[Fig. Hmel12]
Distribution	[Fig. DaHmel]

Material examined (256 specimens): [Da Hmel]

Redescription

Colour and vestiture. [Fig. Hmel1M] [Fig. Hmel1F]. Frons with pale setae. Rostrum black, setae sparser than on frons. Base of rostrum with distinct black carina dorsally. Antennae pale reddish, distal part of each antennomere darker, more distinctly so in antennomeres near club. Club dark reddish to dark brown

Surface of pronotum black, covered with pale setae and pale, reddish to cupreous brown scales, some of them are bifid to apical third of their length, only lateral scales in the middle of the pronotum exceptionally [Tab. HmelM] [Tab. HmelF]. Setae and scales on middle of pronotum and lateral lines pale. Remaining setae and scales on pronotum brown to cupreous brown, forming three light lines on pronotum.

Surface of elytra black, covered with bifid scales reaching base and setae. Elytral intervals with pairs of pale or cupreous brown setae. Scales form the following colour pattern [Fig. Hmel1M] [Fig. Hmel1F]: dorsum grey to cupreous brown; some specimens with alternating pale and dark intervals.

Proximal parts of femora black to dark brown with pale and reddish setae, apex slightly reddish. Tibiae light reddish to brown, bearing stout pale setae apically. Tarsi reddish to brown with black spot in the middle, with pale setae. Claws dark brown.

Abdomen black with pale setae and pale, reddish to cupreous brown scales on abdominal ventrites, bifid scales reaching base.

Head. Eye oval, upper margin distinctly higher than base of rostrum in lateral view; distinctly wider than base of rostrum. Distance between eyes shorter than base of rostrum. Rostrum long, narrow, slightly shorter than pronotum (ratio = 0.99), slightly but distinctly downcurved, near base a very small, not distinct, ventral process in lateral view.

Antennae. Inserted one third from rostrum apex; distinct and deep scrobe in front of antenna broad and short, near base of rostrum very noticeable. Antenna narrow. First funicle segment twice as long as second. Funicle segments 3 and 4 slightly longer than 5 to 7, 5 to 7 almost as long as wide [Fig. Hmel1M] [Fig. Hmel1F].

Pronotum. Pronotum wider than long (ratio = 1.41), widest near middle [Fig. Hmel1M] [Fig. Hmel1F], anterior margin almost straight in dorsal view, sides distinctly rounded, posterior margin slightly wider than anterior margin, noticeably constricted basally, heavily punctated; slightly bent, not flat, noticeably visible from lateral and dorsal view.

Elytra. Oval elytra longer than wide, base distinctly wider than base of pronotum, humeral angles prominent, sides slightly convex. Scutellum visible.

Mesosternum. Mesosternal projection not visible in lateral view.

Legs. Profemur almost twice as wide as rostrum; mesofemora and metafemora slender, all widest near middle. Protibia apically with distinct tooth on inner side. Tarsi with first tarsomere twice as long as second, third distinctly bilobed, fifth twice as long as third. Claws free (not connate at base).

Abdominal ventrites. Last abdominal ventrite with shallow impression medially.

Sexual dimorphism. No differences in the ratio of distance between eyes (frons) and width of rostral base. No differences in the ratio of rostral to pronotal length. Pronotum wider than long, in males distinctly less so than in females. Oval elytra longer than wide, males with oval elytra (M = 1.50) [Fig. Hmel1M], females disciform (F = 1.45) [Fig. Hmel1F]. Tibiae incurved in males, nearly straight in females. First abdominal ventrite with a distinct depression in males, not depressed in females.

Aedeagus. Aedeagus [Fig. Hmel2]. Internal sac not easily visible [Fig. Hmel3]. Sternite 9 [Fig. Hmel11M] well sclerotised.

Female genitalia. Sternite 8 [Fig. Hmel10F] and spermatheca C-shaped [Fig. Hmel12] weakly sclerotised.

Measurements. Length: non-type material 3.7–4.5 mm.

Variability. Known to have high variability in colouration, dorsum grey to cupreous brown, but we also observed specimens with alternating pale and dark elytral stripes and/or spots on elytra. Genitalic variations was also observed. More information about variability and relationships with *Hypera fornicata* can be found in the **Discussion**.

Bionomics. It is known from xerothermic biotopes, meadows and littoral vegetation. Its larvae develop on plants from six genera: *Chrysaspis*, *Dorycnium*, *Lotus*, *Medicago*, *Trifolium* and *Vicia* (Fabaceae) [Skuhrovec 2003]. The genus *Vicia* was published only by Roubal [Roubal 1941] without further details [Skuhrovec 2003]. The larvae are ectophagous, like those of most other Hyperinae [Skuhrovec 2003], except for *Hypera nigrirostris* (Fabricius, 1775) and other small species of the tribe Hyperini Marseul, 1863. A description of the larvae was published by Zaslavskij [Zaslavskij 1959].

The clover head weevils (aka *Hypera meles*) is known also as an important pest of *Trifolium pratense* and *Trifolium repens* especially in North America (Canada, U.S.A.). Larvae do not eat leaves, but do eat flowers. Mature larvae are not inside the flower as they are for larvae of *Hypera nigrirostris*, but they stand between flowers and cause serious damage in the field.

Differential diagnosis. The most similar species are *Hypera fornicata*, *Hypera pseudotenuirostris* and *Hypera tenuirostris*, with first funicle segment almost twice as long as second; elytral bifid scales reaching base; femora only with setae; and near the base of the rostrum, a very small, hardly noticeable, ventral process in lateral view (versus *Hypera contaminata*, *Hypera dapalis*, *Hypera kayali*, *Hypera striata* and *Hypera subvittata*, with first funicle segment 1.5 x longer than second; bifid scales elytral not reaching base; femora with setae and also scales and near the base of the rostrum, a small, but distinct, ventral process in lateral view).

The differences between *Hypera meles* and *Hypera fornicata* are as follows:

***Hypera meles*:**

- 1) Base of elytra distinctly wider than pronotum [Fig. Hmel1M] [Fig. Hmel1F];
- 2) Aedeagus [Fig. Hmel2];
- 3) 8th sternite (female) [Fig. Hmel10F];
- 4) 9th sternite (male) [Fig. Hmel11M];
- 5) Spermatheca [Fig. Hmel12].

***Hypera fornicata*:**

- 1*) Base of elytra slightly wider than pronotum [Fig. Hfor1M] [Fig. Hfor1F];
- 2*) Aedeagus [Fig. Hfor2];
- 3*) 8th sternite (female) [Fig. Hfor10F];
- 4*) 9th sternite (male) [Fig. Hfor11M];
- 5*) Spermatheca [Fig. Hfor12].

The differences between *Hypera meles* and *Hypera pseudotenuirostris* are as follows:

***Hypera meles*:**

- 1) Proximal parts of femora black to dark brown; apex slightly reddish to black; tibiae light reddish to brown [Fig. Hmel1M] [Fig. Hmel1F];
- 2) Aedeagus [Fig. Hmel2];
- 3) 8th sternite (female) [Fig. Hmel10F];
- 4) 9th sternite (male) [Fig. Hmel11M];
- 5) Spermatheca [Fig. Hmel12].

***Hypera pseudotenuirostris*:**

- 1*) Femora and tibiae black [Fig. Hpse1M] [Fig. Hpse1F];
- 2*) Aedeagus [Fig. Hpse2];
- 3*) 8th sternite (female) [Fig. Hpse10F];
- 4*) 9th sternite (male) [Fig. Hpse11M];
- 5*) Spermatheca [Fig. Hpse12].

The differences between *Hypera meles* and *Hypera tenuirostris* are as follows:

***Hypera meles*:**

- 1) Elytra with short, recumbent setae [Fig. Hmel1M] [Fig. Hmel1F];
- 2) Proximal parts of femora black to dark brown; apex slightly reddish to black; tibiae light reddish to brown [Fig. Hmel1M] [Fig. Hmel1F];
- 3) Aedeagus [Fig. Hmel2];
- 4) 8th sternite (female) [Fig. Hmel10F];
- 5) 9th sternite (male) [Fig. Hmel11M];
- 6) Spermatheca [Fig. Hmel12].

***Hypera tenuirostris*:**

- 1*) Elytra covered with long, strongly projecting setae [Fig. Hten1M] [Fig. Hten1F];
- 2*) Femora and tibiae black [Fig. Hten1M] [Fig. Hten1F];
- 3*) Aedeagus [Fig. Hten2];
- 4*) 8th sternite (female) [Fig. Hten10F];
- 5*) 9th sternite (male) [Fig. Hten11M];
- 6*) Spermatheca [Fig. Hten12].

***Hypera pseudotenuirostris* sp.nov.**

[Tab. HpseM] [Tab. HpseF]

Locus Typicus: 1 km E of JUNQUEIRA; GPS (37°15'15" N, / 07°27'37"W); 23 m a.s.l. (Portugal, prov. Algarve, Vila Real de S^{to} António env.)

Habitus (male)	[Fig. Hpse1M]
Habitus (female)	[Fig. Hpse1F]
Aedeagus	[Fig. Hpse2]
Aedeagus (endophallus)	[Fig. Hpse3]
8 th sternite (female)	[Fig. Hpse10F]
9 th sternite (male)	[Fig. Hpse11M]
Spematheca	[Fig. Hpse12]
Distribution	[Fig. DaHpse] [Fig. DaHpseXten]

Type material

HT: 1M, collection Museo Nacional de Ciencias Naturales in Madrid: "PORTUGAL 2-4. iv. 2004 / prov. Algarve mer.or. / 1 km E of JUNQUEIRA / Vila Real de S^{to} António env. " // "Portugal 2004 Expedition / GPS (37°15'15" N, / 07°27'37"W); 23 m a.s.l. / J. Skuhrovec lgt." // "Holotype / *Hypera / pseudotenuirostris* **sp. nov.** / design. J. Skuhrovec & H. Winkelmann 2008" (red label).

PTs: collection Museo Nacional de Ciencias Naturales in Madrid: **1F** "Lag. Janda / (Cadiz) " // "Paratype / *Hypera / pseudotenuirostris* **sp. nov.** / design. J. Skuhrovec & H. Winkelmann 2008" (red label), **2M** "Villa- / viciosa // Phyt. meles / v. circuata / Desbr." // "Paratype / *Hypera / pseudotenuirostris* **sp. nov.** / design. J. Skuhrovec & H. Winkelmann 2008" (red label).

private collection Miguel Alonso-Zarazaga, Madrid: **2M** "San Roque / (Cadiz) / Hispania / J. de Ferrer leg. / Camping / 18 Feb. 1984" // "Paratype / *Hypera / pseudotenuirostris* **sp. nov.** / design. J. Skuhrovec & H. Winkelmann 2008" (red label), **1M**, **1F** "UBRIQUE / (Cádiz) Hispania / J. de Ferrer leg." // "Paratype / *Hypera / pseudotenuirostris* **sp. nov.** / design. J. Skuhrovec & H. Winkelmann 2008" (red label), **1F** "JIMENA / (Cádiz) Hispania / J. de Ferrer leg." // "Paratype / *Hypera / pseudotenuirostris* **sp. nov.** / design. J. Skuhrovec & H. Winkelmann 2008" (red label), **1M** "Plays los Lances / Tarifa (CA) 27-III-1991 / 30STE6292 / M.A. Alonso-Z. leg." // "Paratype / *Hypera / pseudotenuirostris* **sp. nov.** / design. J. Skuhrovec & H. Winkelmann 2008" (red label), **1M** "Tarifa (Cádiz) / en la playa / 7-IV-1984 / J.L. Torres leg." // "Paratype / *Hypera / pseudotenuirostris* **sp. nov.** / design. J. Skuhrovec & H. Winkelmann 2008" (red label).

private collection Jiří Skuhrovec, Praha: **1M**, **9F** "PORTUGAL 2-4. iv. 2004 / prov. Algarve mer.or. / 1 km E of JUNQUEIRA / Vila Real de S^{to} António env. " // "Portugal 2004 Expedition / GPS (37°15'15" N, / 07°27'37"W); 23 m a.s.l. / J. Skuhrovec lgt." // "Paratype / *Hypera / pseudotenuirostris* **sp. nov.** / design. J. Skuhrovec & H. Winkelmann 2008" (red label), **1M**, **1F** "PORTUGAL 8-12. iv. 2004 / prov. Algarve mer. centr. / ARMACÃO DE PERA / (meadow near camp) // "Portugal 2004 Expedition / GPS (37°06'30" N, / 08°21'03"W); 9 m a.s.l. / J. Skuhrovec lgt." // "Paratype / *Hypera / pseudotenuirostris* **sp. nov.** / design. J. Skuhrovec & H. Winkelmann 2008" (red label), **1M** "PORTUGAL 14-16. iv. 2004 / prov. Algarve bor.occ. / 12 km S of MONCHIQUE / (Serra da Monchique) " // "Portugal 2004 Expedition / GPS (37°14'05" N, / 08°32'39"W); 43 m a.s.l. / J. Skuhrovec lgt." // "Paratype / *Hypera / pseudotenuirostris* **sp. nov.** / design. J. Skuhrovec & H. Winkelmann 2008" (red label), **1F** "E: Prov. Cadiz, 6.5 km S / Algeciras, Punta del / Carnero, M36°04'35" / W05°25'46", 34 m / *Garrigue: Olea, Mastix, / Distel*, 12.4.2007, leg. / Astrin and Stüben -19-" // "Paratype / *Hypera / pseudotenuirostris* **sp. nov.** / design. J. Skuhrovec & H. Winkelmann 2008" (red label),

1M "E: Andalusia, 15 km / NE La Carolina, / Sierra Morena: P.N. / Despenaperros, / Puerto de los" // "Jardines, N38°23'03" / W03°30'00", 900 m / Schiefer: *Quercus / ilex*, 10.10.2005, leg. / Stüben -22-" // "Paratype / *Hypera / pseudotenuirostris* sp. nov. / design. J. Skuhrovec & H. Winkelmann 2008" (red label), 1M, 1F "Espana / Tarifa (Ca) / April 1993 / P. Poot" // "Paratype / *Hypera / pseudotenuirostris* sp. nov. / design. J. Skuhrovec & H. Winkelmann 2008" (red label), 1M "Lag. Janda / (Cadiz) " // "Paratype / *Hypera / pseudotenuirostris* sp. nov. / design. J. Skuhrovec & H. Winkelmann 2008" (red label)

private collection Herbert Winkelmann, Berlin: 3M, 2F "Espana / Tarifa (Ca) / April 1993 / P. Poot" // "Paratype / *Hypera / pseudotenuirostris* sp. nov. / design. J. Skuhrovec & H. Winkelmann 2008" (red label), 1F "Espana / Sta de Fates / 19-III-1997 / P. Poot" // "Paratype / *Hypera / pseudotenuirostris* sp. nov. / design. J. Skuhrovec & H. Winkelmann 2008" (red label), 1M, 1F "PORTUGAL 8-12. iv. 2004 / prov. Algarve mer. centr. / ARMACÃO DE PERA / (meadow near camp) // "Portugal 2004 Expedition / GPS (37°06'30" N, / 08°21'03"W); 9 m a.s.l. / J. Skuhrovec lgt." // "Paratype / *Hypera / pseudotenuirostris* sp. nov. / design. J. Skuhrovec & H. Winkelmann 2008" (red label). collection National Museum in Prague: 1M, 1F "PORTUGAL 8-12. iv. 2004 / prov. Algarve mer. centr. / ARMACÃO DE PERA / (meadow near camp) // "Portugal 2004 Expedition / GPS (37°06'30" N, / 08°21'03"W); 9 m a.s.l. / J. Skuhrovec lgt." // "Paratype / *Hypera / pseudotenuirostris* sp. nov. / design. J. Skuhrovec & H. Winkelmann 2008" (red label).

Description

Colour and vestiture. [Fig. Hpse1M] [Fig. Hpse1F]. Frons with pale setae. Rostrum black, setae sparser than on frons. Base of rostrum with hardly noticeable distinct black carina dorsally. Antennae pale reddish, distal part of each antennomere darker, more distinctly so than in antennomeres near club. Club reddish to dark reddish.

Surface of pronotum black, covered with pale setae and pale, reddish to brown scales, scales on the sides bifid to basal third of their length, scales on the middle exceptionally [Tab. HpseM] [Tab. HpseF]. Setae and scales on middle of pronotum and lateral lines pale. Remaining setae and scales on pronotum brown, forming three light lines on pronotum.

Surface of elytra black, covered with bifid scales reaching base and setae. Elytral intervals with pairs of pale, exceptionally on apex black; long, slightly projecting setae. Scales form the following colour pattern [Fig. Hpse1M] [Fig. Hpse1F]: dorsum white, grey to cupreous brown; most specimens with alternating pale and dark intervals for their entire length; without dark spots.

Femora black with pale and reddish setae. Tibiae black to dark brown, bearing stout pale setae apically. Tarsi dark reddish to brown with black spot in the middle, with pale setae. Claws dark brown.

Abdomen black with pale setae and a few pale to cupreous brown scales on abdominal ventrites, bifid scales reaching base.

Head. Eye oval, upper margin distinctly higher than base of rostrum in lateral view; distinctly wider than base of rostrum. Distance between eyes shorter than base of rostrum. Rostrum long, narrow, slightly shorter than pronotum (ratio = 0.97), slightly but distinctly downcurved, near the base, a very small, hardly noticeable, ventral process in lateral view.

Antennae. Inserted one third from rostrum apex; scrobe in front of antenna broad and short, near base of rostrum hardly noticeable. Antenna narrow. First funicle segment twice as long as second. Funicle segments 3 and 4 slightly longer than 5 to 7, 5 to 7 almost as long as wide [Fig. Hpse1M] [Fig. Hpse1F].

Pronotum. Pronotum wider than long (ratio = 1.24), widest in the middle [Fig. Hpse1M] [Fig. Hpse1F], anterior margin almost straight in dorsal view, sides distinctly rounded, posterior margin slightly wider than anterior margin, noticeably constricted basally, heavily punctated; slightly bent, not flat, noticeably visible from lateral and dorsal view.

Elytra. Oval elytra longer than wide, base slightly wider than base of pronotum, humeral angles prominent, sides slightly convex. Scutellum visible.

Mesosternum. Mesosternal projection not visible in lateral view.

Legs. Profemur almost twice as wide as rostrum; mesofemora and metafemora slender, all widest near middle. Protibia apically with distinct tooth on inner side. Tarsi with first tarsomere twice as long as second, third distinctly bilobed, fifth twice as long as third. Claws free (not connate at base).

Abdominal ventrites. Last abdominal ventrite with shallow impression medially.

Sexual dimorphism. No differences in the ratio of distance between eyes (frons) and width of rostral base. No differences in the ratio of rostral to pronotal length. Pronotum wider than long, in males distinctly less so than in females. Oval elytra longer than wide, males with oval elytra (M = 1.60) [Fig. Hpse1M], females disciform (F = 1.42) [Fig. Hpse1F]. Tibiae incurved in males, nearly straight in females. First abdominal ventrite with a distinct depression in males, not depressed in females.

Aedeagus. Aedeagus [Fig. Hpse2]. Internal sac not easily visible [Fig. Hpse3]. Sternite 9 [Fig. Hpse11M] well sclerotised.

Female genitalia. Sternite 8 [Fig. Hpse10F] and spermatheca C-shaped [Fig. Hpse12] weakly sclerotised.

Measurements. Length: holotype 4.8 mm; paratypes 4.4–5.4 mm.

Variability. No variability was observed in colouration. No genitalic variations were observed.

Bionomics. Specimens of *Hypera pseudotenuirostris* sp. nov. were collected as larvae and adults from wet meadows with Fabaceae plants (*Medicago* sp., *Vicia* sp., *Trifolium* sp.) in Portugal. All larvae successfully pupated and hatched. The larvae are ectophagous, like those of most other Hyperinae [Skuhrovec 2005] [Skuhrovec 2006] [Skuhrovec 2007], except for *Hypera nigrirostris* (Fabricius, 1775) and other small species of the tribe Hyperini Marseul, 1863.

Colouration of the larvae is similar to that reported for other larvae of the tribe Hyperini, i.e., green with three white longitudinal stripes dorsally (unpublished data).

Unfortunately, J.S. mistakenly identified this new species as *Hypera meles* at the locality in Portugal, and that is reason why it is not identified the host plant.

Differential diagnosis. The most similar species are *Hypera fornicata*, *Hypera meles* and *Hypera pseudotenuirostris*, with first funicle segment almost twice as long as the second; elytral bifid scales reaching the base; femora only with setae; and near the base of the rostrum, a very small, hardly noticeable, ventral process in lateral view (versus *Hypera contaminata*, *Hypera dapalis*, *Hypera kayali*, *Hypera striata* and *Hypera subvittata*, with first funicle segment 1.5 x longer than the second; bifid scales elytral not reaching base; femora with setae and also scales and near the base of the rostrum, a

small, but distinct, ventral process in lateral view).

The differences between *Hypera pseudotenuirostris* and *Hypera tenuirostris* are as follows:

***Hypera pseudotenuirostris*:**

- 1) Elytra with long, slightly projecting setae [Fig. Hpse1M] [Fig. Hpse1F];
- 2) Pronotum slightly bent, not flat, noticeably visible from lateral and dorsal view [Fig. Hpse1M] [Fig. Hpse1F];
- 3) Aedeagus [Fig. Hpse2];
- 4) 8th sternite (female) [Fig. Hpse10F];
- 5) 9th sternite (male) [Fig. Hpse11M];
- 6) Spermatheca [Fig. Hpse12].

***Hypera tenuirostris*:**

- 1*) Elytra with long, distinctly projecting setae [Fig. Hten1M] [Fig. Hten1F];
- 2*) Pronotum distinctly bent noticeably visible from lateral and dorsal view [Fig. Hten1M] [Fig. Hten1F];
- 3*) Aedeagus [Fig. Hten2];
- 4*) 8th sternite (female) [Fig. Hten10F];
- 5*) 9th sternite (male) [Fig. Hten11M];
- 6*) Spermatheca [Fig. Hten12].

The differences between *Hypera pseudotenuirostris* and *Hypera fornicata* are as follows:

***Hypera pseudotenuirostris*:**

- 1) Femora and tibiae black [Fig. Hpse1M] [Fig. Hpse1F];
- 2) Aedeagus [Fig. Hpse2];
- 3) 8th sternite (female) [Fig. Hpse10F];
- 4) 9th sternite (male) [Fig. Hpse11M];
- 5) Spermatheca [Fig. Hpse12].

***Hypera fornicata*:**

- 1*) Proximal parts of femora black to dark brown; apex slightly reddish to black; tibiae light reddish to brown [Fig. Hfor1M] [Fig. Hfor1F];
- 2*) Aedeagus [Fig. Hfor2];
- 3*) 8th sternite (female) [Fig. Hfor10F];
- 4*) 9th sternite (male) [Fig. Hfor11M];
- 5*) Spermatheca [Fig. Hfor12].

The differences between *Hypera pseudotenuirostris* and *Hypera meles* are as follows:

***Hypera pseudotenuirostris*:**

- 1) Femora and tibiae black [Fig. Hpse1M] [Fig. Hpse1F];
- 2) Aedeagus [Fig. Hpse2];
- 3) 8th sternite (female) [Fig. Hpse10F];
- 4) 9th sternite (male) [Fig. Hpse11M];
- 5) Spermatheca [Fig. Hpse12].

***Hypera meles*:**

- 1*) Proximal parts of femora black to dark brown; apex slightly reddish to black; tibiae light reddish to brown [Fig. Hmel1M] [Fig. Hmel1F];
- 2*) Aedeagus [Fig. Hmel2];
- 3*) 8th sternite (female) [Fig. Hmel10F];
- 4*) 9th sternite (male) [Fig. Hmel11M];
- 5*) Spermatheca [Fig. Hmel12].

***Hypera tenuirostris* (Petri, 1901)**
 [Tab. HtenM] [Tab. HtenF]

Original description: *Phytonomus tenuirostris* Petri, 1901 [Petri 1901ten]
Literature: [Petri 1901key] [Skuhrovec 2006key]
Locus Typicus: Obersyrien (Syria)

Habitus (male)	[Fig. Hten1M]
Habitus (female)	[Fig. Hten1F]
Aedeagus	[Fig. Hten2]
Aedeagus (endophallus)	[Fig. Hten3]
8 th sternite (female)	[Fig. Hten10F]
9 th sternite (male)	[Fig. Hten11M]
Spermatheca	[Fig. Hten12]
Distribution	[Fig. DaHten] [Fig. DaHpseXten]

Type material

Petri [Petri 1901ten] presented that the description was done at the base of four specimens. find only three from this material (2 M, 1 F). Male from Zoological Institute of Russian Academy of Science in St. Petersburg was designated as the lectotype because the condition was better than the second male. Male and female from Hungarian Natural History Museum in Budapest were designated as the paralectotypes. Unfortunately, one paralectotype (F) was damaged during the manipulation with genitals.

LT: 1 M, collection Zoological Institute of Russian Academy of Science in St. Petersburg, "Ober-Syrien" / "Phytonomus tenuirostris Petri" / "Lectotypus, *Phytonomus tenuirostris* Petri 1901, design. Skuhrovec 2008" (red);

PLT: 1 M, collection Hungarian Natural History Museum in Budapest, "Syrien, Haifa, Reitter" / "coll. Reitter" / "Paratypus, *Phytonomus tenuirostris* Petri 1901" (white with red margins) / "coll. Reitter" / "Paralectotypus, *Phytonomus tenuirostris* Petri 1901, design. Skuhrovec 2008" (red); 1 F, collection Hungarian Natural History Museum in Budapest, "Syria, Akbes" / "Ober-Syrien, Akbes" / "Phytonomus tenuirostris n. sp. Petri" / "coll. Reitter" / "Holotypus, *Phytonomus tenuirostris* Petri 1901" (white with red margins) / "Paralectotypus, *Phytonomus tenuirostris* Petri 1901, design. Skuhrovec 2008" (red).

Material examined (9 specimens): [Da Hten]

Redescription

Colour and vestiture. [Fig. Hten1M] [Fig. Hten1F]. Frons with pale setae. Rostrum black, setae sparser than on frons. Base of rostrum with hardly noticeable distinct black

carina dorsally. Antennae pale reddish, distal part of each antennomere darker, more distinctly so in antennomeres near club. Club reddish to dark reddish.

Surface of pronotum black, covered with pale setae and pale, reddish to brown scales, some of them are bifid to basal third of their length, only lateral scales in the middle of the pronotum exceptionally [Tab. HtenM] [Tab. HtenF]. Setae and scales on middle of pronotum and lateral lines pale. Remaining setae and scales on pronotum brown, forming three light lines on pronotum.

Surface of elytra black, covered with bifid scales reaching base and setae. Elytral intervals with pairs of pale, cupreous brown or black, long, strongly projecting setae. Scales form the following colour pattern [Fig. Hten1M] [Fig. Hten1F]: dorsum grey to cupreous brown; some specimens with alternating pale and dark spots and stripes, not for their entire length.

Femora black with pale and reddish setae. Tibiae black to dark brown, bearing stout pale setae apically. Tarsi dark reddish to brown with black spot in the middle, with pale setae. Claws dark brown.

Abdomen black with pale setae and pale, reddish to cupreous brown scales on abdominal ventrites, bifid scales reaching base.

Head. Eye oval, upper margin distinctly higher than base of rostrum in lateral view; distinctly wider than base of rostrum. Distance between eyes shorter than base of rostrum. Rostrum long, narrow, slightly shorter than pronotum (ratio = 1.02), slightly but distinctly downcurved, near the base, a very small, not distinct, ventral process in lateral view.

Antennae. Inserted one third from rostrum apex; scrobe in front of antenna broad and short, near base of rostrum hardly noticeable. Antenna narrow. First funicle segment twice as long as second. Funicle segments 3 and 4 slightly longer than 5 to 7, 5 to 7 almost as long as wide [Fig. Hten1M] [Fig. Hten1F].

Pronotum. Pronotum wider than long (ratio = 1.30), widest in the middle [Fig. Hten1M] [Fig. Hten1F], anterior margin almost straight in dorsal view, sides distinctly rounded, posterior margin slightly wider than anterior margin, noticeably constricted basally, heavily punctated; distinctly bent, noticeably visible from lateral and dorsal view.

Elytra. Oval elytra longer than wide, base slightly wider than base of pronotum, humeral angles prominent, sides slightly convex. Scutellum visible.

Mesosternum. Mesosternal projection not visible in lateral view.

Legs. Profemur almost twice as wide as rostrum; mesofemora and metafemora slender, all widest near middle. Protibia apically with distinct tooth on inner side. Tarsi with first tarsomere twice as long as second, third distinctly bilobed, fifth twice as long as third. Claws free (not connate at base).

Abdominal ventrites. Last abdominal ventrite with shallow impression medially.

Sexual dimorphism. No differences in the ratio of distance between eyes (frons) and width of rostral base. No differences in the ratio of rostral to pronotal length. Pronotum wider than long, in males distinctly less so than in females. Oval elytra longer than wide, males with oval elytra (M = 1.54) [Fig. Hten1M], females disciform (F = 1.48) [Fig. Hten1F]. Tibiae incurved in males, nearly straight in females. First abdominal ventrite with a distinct depression in males, not depressed in females.

Aedeagus. Aedeagus [Fig. Hten2]. Internal sac not easily visible [Fig. Hten3]. Sternite 9 [Fig. Hten11M] well sclerotised.

Female genitalia. Sternite 8 [Fig. Hten10F] and spermatheca C-shaped [Fig. Hten12]

weakly sclerotised.

Measurements. Length: lectotype 5.0 mm; non-type material 4.4–5.5 mm.

Variability. No variability was observed in colouration. No genitalic variations were observed.

Bionomics. Bionomy (habitus of locality, biology, host plant, etc.) is completely unknown.

Differential diagnosis. The most similar species are *Hypera fornicata*, *Hypera meles* and *Hypera pseudotenuirostris*, with first funicle segment almost twice as long as second; elytral bifid scales reaching base; femora only with setae; and near the base of the rostrum, a very small, hardly noticeable, ventral process in lateral view (versus *Hypera contaminata*, *Hypera dapalis*, *Hypera kayali*, *Hypera striata* and *Hypera subvittata*, with first funicle segment 1.5 x longer than second; bifid scales elytral not reaching base; femora with setae and also scales and near the base of the rostrum, a small, but distinct, ventral process in lateral view).

The differences between *Hypera tenuirostris* and *Hypera pseudotenuirostris* are as follows:

***Hypera tenuirostris*:**

- 1) Elytra with long, distinctly projecting setae [Fig. Hten1M] [Fig. Hten1F];
- 2) Pronotum distinctly bent noticeably visible from lateral and dorsal view [Fig. Hten1M] [Fig. Hten1F];
- 3) Aedeagus [Fig. Hten2];
- 4) 8th sternite (female) [Fig. Hten10F];
- 5) 9th sternite (male) [Fig. Hten11M];
- 6) Spermatheca [Fig. Hten12].

***Hypera pseudotenuirostris*:**

- 1*) Elytra with long, slightly projecting setae [Fig. Hpse1M] [Fig. Hpse1F];
- 2*) Pronotum slightly bent, not flat, noticeably visible from lateral and dorsal view [Fig. Hpse1M] [Fig. Hpse1F];
- 3*) Aedeagus [Fig. Hpse2];
- 4*) 8th sternite (female) [Fig. Hpse10F];
- 5*) 9th sternite (male) [Fig. Hpse11M];
- 6*) Spermatheca [Fig. Hpse12].

The differences between *Hypera tenuirostris* and *Hypera fornicata* are as follows:

***Hypera tenuirostris*:**

- 1) Elytra covered with long, strongly projecting setae [Fig. Hten1M] [Fig. Hten1F];
- 2) Femora and tibiae black [Fig. Hten1M] [Fig. Hten1F];
- 3) Aedeagus [Fig. Hten2];
- 4) 8th sternite (female) [Fig. Hten10F];
- 5) 9th sternite (male) [Fig. Hten11M];
- 6) Spermatheca [Fig. Hten12].

***Hypera fornicata*:**

- 1*) Elytra with short, recumbent setae [Fig. Hfor1M] [Fig. Hfor1F];

- 2*) Proximal parts of femora black to dark brown; apex slightly reddish to black; tibiae light reddish to brown [Fig. Hfor1M] [Fig. Hfor1F];
- 3*) Aedeagus [Fig. Hfor2];
- 4*) 8th sternite (female) [Fig. Hfor10F];
- 5*) 9th sternite (male) [Fig. Hfor11M];
- 6*) Spermatheca [Fig. Hfor12].

The differences between *Hypera tenuirostris* and *Hypera meles* are as follows:

***Hypera tenuirostris*:**

- 1) Elytra covered with long, strongly projecting setae [Fig. Hten1M] [Fig. Hten1F];
- 2) Femora and tibiae black [Fig. Hten1M] [Fig. Hten1F];
- 3) Aedeagus [Fig. Hten2];
- 4) 8th sternite (female) [Fig. Hten10F];
- 5) 9th sternite (male) [Fig. Hten11M];
- 6) Spermatheca [Fig. Hten12].

***Hypera meles*:**

- 1*) Elytra with short, recumbent setae [Fig. Hmel1M] [Fig. Hmel1F];
- 2*) Proximal parts of femora black to dark brown; apex slightly reddish to black; tibiae light reddish to brown [Fig. Hmel1M] [Fig. Hmel1F];
- 3*) Aedeagus [Fig. Hmel2];
- 4*) 8th sternite (female) [Fig. Hmel10F];
- 5*) 9th sternite (male) [Fig. Hmel11M];
- 6*) Spermatheca [Fig. Hmel12].

Group *dapalis*

The "group *dapalis*" is identified by the following characteristics:

- 1) First funicle segment 1.5 x longer than second;
- 2) Elytral bifid scales not reaching base;
- 3) Femora with setae and also scales;
- 4) Near base of rostrum, a small, but distinct, ventral process in lateral view.

To this group belong the species: *Hypera contaminata*, *Hypera dapalis*, *Hypera kayali*, *Hypera striata* and *Hypera subvittata*.

***Hypera contaminata* (Herbst, 1795)**

[Tab. HconM] [Tab. HconF]

Original description: *Curculio contaminatus* Herbst, 1795 [Fig. Herbst1795con]

Literature: [Capiomont 1868con] [Capiomont 1868key] [Petri 1901con] [Petri 1901key] [Skuhrovec 2006key]

Locus Typicus: Germany

- Habitus (male) [Fig. Hcon1M]
- Habitus (female) [Fig. Hcon1F]
- Aedeagus [Fig. Hcon2]
- Aedeagus (endophallus) [Fig. Hcon3]
- 8th sternite (female) [Fig. Hcon10F]

9 th sternite (male)	[Fig. Hcon11M]
Spematheca	[Fig. Hcon12]
Distribution	[Fig. DaHcon]

Material examined (198 specimens): [Da Hcon]

Redescription

Colour and vestiture. [Fig. Hcon1M] [Fig. Hcon1F]. Frons with pale setae. Rostrum black, setae sparser than on frons. Base of rostrum without black carina dorsally. Antennae reddish to dark reddish, distal part of each antennomere darker, more distinctly so in antennomeres near club. Club dark reddish to dark brown. Surface of pronotum black, covered with pale to reddish setae and pale reddish to reddish brown scales, which are bifid to apical third of their length [Tab. HconM] [Tab. HconF]. Scales on middle of pronotum and lateral lines slightly paler than remaining scales, which are dark reddish to brown, forming three light lines on pronotum. Elytra covered with scales and setae. Elytral intervals with pairs of pale setae and all intervals near apex with black setae. Scales form the following colour pattern [Fig. Hcon1M] [Fig. Hcon1F]: dark spots on alternating intervals of elytra or at least on the sides and on the apex.

Femora black with pale and light reddish setae and scales, apex slightly brown. Proximal parts of tibiae black, remaining parts brown to dark reddish, bearing stout pale setae apically. Tarsi black to dark reddish, with pale setae. Claws dark brown.

Abdomen black with pale and reddish setae and scales on abdominal ventrites, scales bifid to apical third of their length.

Head. Eye oval, upper margin higher than base of rostrum in lateral view; slightly wider than base of rostrum. Distance between eyes shorter than base of rostrum. Rostrum long, narrow, slightly shorter than pronotum (ratio = 1.11), slightly but distinctly downcurved, near base with small, distinct, ventral process in lateral view.

Antennae. inserted one third from rostrum apex; distinct and deep scrobe in front of antenna broad and short, near base of rostrum not distinctly noticeable. Antenna narrow. First funicle segment about 1.5 x longer than second. Funicle segments 3 and 4 slightly longer than 5 to 7, 5 to 7 almost as long as wide [Fig. Hcon1M] [Fig. Hcon1F].

Pronotum. Pronotum wider than long (ratio = 1.40), widest in the middle [Fig. Hcon1M] [Fig. Hcon1F], anterior margin almost straight in dorsal view, sides distinctly rounded, posterior margin slightly wider than anterior margin, noticeably constricted basally; slightly punctated.

Elytra. Oval elytra longer than wide, base distinctly wider than base of pronotum, humeral angles prominent, sides slightly convex. Scutellum well visible.

Mesosternum. Mesosternal projection not visible in lateral view.

Legs. Profemur twice to thrice as wide as rostrum; mesofemora and metafemora slender, all widest near middle. Protibia apically with distinct tooth on inner side. Tarsi with first tarsomere twice as long as second, third distinctly bilobed, fifth twice as long as third. Claws free (not connate at base).

Abdominal ventrites. Last abdominal ventrite with shallow impression medially.

Sexual dimorphism. No differences in the ratio of distance between eyes (frons) and width of rostral base. No differences in the ratio of rostral to pronotal length. Pronotum

wider than long, in males distinctly less so than in females. Oval elytra longer than wide, males with oval elytra ($M = 1.55$) [Fig. Hcon1M], females disciform ($F = 1.42$) [Fig. Hcon1F]. Tibiae incurved in males, nearly straight in females. First abdominal ventrite with a distinct depression in males, not depressed in females.

Aedeagus. Aedeagus [Fig. Hcon2]. Internal sac not easily visible [Fig. Hcon3]. Sternite 9 [Fig. Hcon11M] well sclerotised.

Female genitalia. Sternite 8 [Fig. Hcon10F] and spermatheca C-shaped [Fig. Hcon12] weakly sclerotised.

Measurements. Length: non-type material 5.5–6.8 mm.

Variability. No variability was observed in colouration. No genitalic variations were observed.

Bionomics. Species usually occurs in ruderal habitats. It is a relatively abundant nocturnal species [Skuhrovec 2003]. The development of this weevil is known to occur only on *Lathyrus tuberosus* (Fabaceae). The first record from Kippenberg [Kippenberg 1983]. The larvae are ectophagous, like those of most other Hyperinae [Skuhrovec 2003], except for *Hypera nigrirostris* (Fabricius, 1775) and other small species of the tribe Hyperini Marseul, 1863. A detailed description of the larvae was published by Skuhrovec [Skuhrovec 2005].

Differential diagnosis. The most similar species are *Hypera dapalis*, *Hypera kayali*, *Hypera striata* and *Hypera subvittata*, with first funicle segment 1.5 x longer than second; bifid scales elytral not reaching base; femora with setae and also scales and near the base of the rostrum, a small, but distinct, ventral process in lateral view (versus *Hypera fornicata*, *Hypera meles*, *Hypera pseudotenuirostris* and *Hypera tenuirostris*, with first funicle segment almost twice as long as second; elytral bifid scales reaching base; femora only with setae; and near the base of the rostrum, a very small, hardly noticeable, ventral process in lateral view).

The differences between *Hypera contaminata* and *Hypera striata* are as follows:

***Hypera contaminata*:**

- 1) Dark spots on alternating intervals of elytra or at least on the sides and on the apex [Fig. Hcon1M] [Fig. Hcon1F];
- 2) Femora and tibiae black [Fig. Hcon1M] [Fig. Hcon1F];
- 3) Aedeagus [Fig. Hcon2];
- 4) 8th sternite (female) [Fig. Hcon10F];
- 5) 9th sternite (male) [Fig. Hcon11M];
- 6) Spermatheca [Fig. Hcon12].

***Hypera striata*:**

- 1*) Elytra with alternating pale and dark interval; without dark spots [Fig. Hstr1M] [Fig. Hstr1F];
- 2*) Femora and tibiae black to reddish [Fig. Hstr1M] [Fig. Hstr1F];
- 3*) Aedeagus [Fig. Hstr2];
- 4*) 8th sternite (female) [Fig. Hstr10F];
- 5*) 9th sternite (male) [Fig. Hstr11M];
- 6*) Spermatheca [Fig. Hstr12].

The differences between *Hypera contaminata* and *Hypera dapalis* are as follows:

***Hypera contaminata*:**

- 1) Elytra without lateral stripe forming “arrow head” [Fig. Hcon1M] [Fig. Hcon1F];
- 2) Aedeagus [Fig. Hcon2];
- 3) 8th sternite (female) [Fig. Hcon10F];
- 4) 9th sternite (male) [Fig. Hcon11M];
- 5) Spermatheca [Fig. Hcon12].

***Hypera dapalis*:**

- 1*) Elytra with light (white, yellow, orange or pale green) lateral stripe, and light stripe of the elytral suture forming typical “arrow head” [Fig. Hdap1M] [Fig. Hdap1F];
- 2*) Aedeagus [Fig. Hdap2];
- 3*) 8th sternite (female) [Fig. Hdap10F];
- 4*) 9th sternite (male) [Fig. Hdap11M];
- 5*) Spermatheca [Fig. Hdap12].

The differences between *Hypera contaminata* and *Hypera kayali* are as follows:

***Hypera contaminata*:**

- 1) Dark spots on alternating intervals of elytra or at least on the sides and on the apex [Fig. Hcon1M] [Fig. Hcon1F];
- 2) Femora and tibiae black [Fig. Hcon1M] [Fig. Hcon1F];
- 3) Aedeagus [Fig. Hcon2];
- 4) 8th sternite (female) [Fig. Hcon10F];
- 5) 9th sternite (male) [Fig. Hcon11M];
- 6) Spermatheca [Fig. Hcon12].

***Hypera kayali*:**

- 1*) Elytra with alternating pale and dark interval; without dark spots [Fig. Hkay1M] [Fig. Hkay1F];
- 2*) Femora and tibiae black to reddish [Fig. Hkay1M] [Fig. Hkay1F];
- 3*) Aedeagus [Fig. Hkay2];
- 4*) 8th sternite (female) [Fig. Hkay10F];
- 5*) 9th sternite (male) [Fig. Hkay11M];
- 6*) Spermatheca [Fig. Hkay12].

The differences between *Hypera contaminata* and *Hypera subvittata* are as follows:

***Hypera contaminata*:**

- 1) Elytra with recumbent setae, distinctly visible from lateral view [Fig. Hcon1M] [Fig. Hcon1F];
- 2) Dark spots on alternating intervals of elytra or at least on the sides and on the apex [Fig. Hcon1M] [Fig. Hcon1F];
- 3) Aedeagus [Fig. Hcon2];
- 4) 8th sternite (female) [Fig. Hcon10F];
- 5) 9th sternite (male) [Fig. Hcon11M];
- 6) Spermatheca [Fig. Hcon12].

***Hypera subvittata*:**

- 1*) Elytra with long, projecting, bent setae before apex [Fig. Hsub1M] [Fig. Hsub1F];
- 2*) Elytra with not distinct alternating pale and dark interval; with pale spots [Fig. Hsub1M] [Fig. Hsub1F];
- 3*) Aedeagus [Fig. Hsub2];
- 4*) 8th sternite (female) [Fig. Hsub10F];
- 5*) 9th sternite (male) [Fig. Hsub11M];
- 6*) Spermatheca [Fig. Hsub12].

***Hypera dapalis* (Boheman, 1834)**

[Tab. HdapM] [Tab. HdapF]

Original description: *Phytonomus dapalis* Boheman, 1834 [Boheman 1834dap]
Literature: [Capiomont 1868dap] [Capiomont 1868key] [Petri 1901dap] [Petri 1901key] [Skuhrovec 2006key]
Locus Typicus: Algeria

Habitus (male)	[Fig. Hdap1M]
Habitus (female)	[Fig. Hdap1F]
Aedeagus	[Fig. Hdap2]
Aedeagus (endophallus)	[Fig. Hdap3]
8 th sternite (female)	[Fig. Hdap10F]
9 th sternite (male)	[Fig. Hdap11M]
Spermatheca	[Fig. Hdap12]
Distribution	[Fig. DaHdap]

Type material. Holotype is housed in the Stockholm Museum. Unfortunately, the exact version on the label was not written down before the first revision of the subgenus *Dapalinus*.

Material examined (38 specimens): [Da Hdap]

Redescription

Colour and vestiture. [Fig. Hdap1M] [Fig. Hdap1F]. Frons with pale setae. Rostrum black, setae sparser than on frons. Base of rostrum with distinct black carina dorsally. Antennae reddish, distal part of each antennomere darker, to black, more distinctly so in antennomeres near club. Club dark reddish to black.

Surface of pronotum black, covered with pale setae and pale to brown scales, some of them are bifid to apical third of their length [Tab. HdapM] [Tab. HdapF]. Scales on middle of pronotum and lateral lines pale, middle line distinctly paler than lateral one. Remaining scales on pronotum brown, forming one middle white line and two lateral pale lines on pronotum.

Surface of elytra black, covered with scales and setae. Elytral intervals with pairs of pale setae and all intervals near apex with black setae. Scales form the following colour pattern [Fig. Hdap1M] [Fig. Hdap1F]: basal part paler than apical part, apical part with distinct pale (white, yellow or pale green) stripes, one in the middle and two lateral stripes.

Femora black with pale and brown setae and scales. Tibiae black, with pale setae, bearing stout pale setae apically. Tarsi black, with pale setae. Claws dark brown to black.

Abdomen black with pale to brown setae and scales on abdominal ventrites, scales bifid to apical third their length.

Head. Eye oval, upper margin higher than base of rostrum in lateral view; slightly wider than base of rostrum. Distance between eyes shorter than base of rostrum. Rostrum long, narrow, slightly shorter than pronotum (ratio = 1.00), slightly but distinctly downcurved, near base with small, distinct, ventral process in lateral view.

Antennae. inserted one third from rostrum apex; distinct and deep scrobe in front of antenna broad and short, near base of rostrum noticeable. Antenna narrow. First funicle segment about 1.5 x longer than second. Funicle segments 3 and 4 slightly longer than 5 to 7, 5 to 7 almost as long as wide [Fig. Hdap1M] [Fig. Hdap1F].

Pronotum. Pronotum wider than long (ratio = 1.31), widest in the middle [Fig. Hdap1M] [Fig. Hdap1F], anterior margin almost straight in dorsal view, sides rounded, posterior margin slightly wider than anterior margin, noticeably constricted basally; heavily punctated.

Elytra. Oval elytra longer than wide, base distinctly wider than base of pronotum, humeral angles prominent, sides slightly convex. Scutellum visible.

Mesosternum. Mesosternal projection not visible in lateral view.

Legs. Profemur twice as wide as rostrum; mesofemora and metafemora slender, all widest near middle. Protibia apically with distinct tooth on inner side. Tarsi with first tarsomere twice as long as second, third distinctly bilobed, fifth twice as long as third. Claws free (not connate at base).

Abdominal ventrites. Last abdominal ventrite with shallow impression medially.

Sexual dimorphism. No differences in the ratio of distance between eyes (frons) and width of rostral base. No differences in the ratio of rostral to pronotal length. Pronotum wider than long, in males distinctly less so than in females. Oval elytra longer than wide, males with oval elytra (M = 1.55) [Fig. Hdap1M], females disciform (F = 1.52) [Fig. Hdap1F]. Tibiae incurved in males, nearly straight in females. First abdominal ventrite with a distinct depression in males, not depressed in females.

Aedeagus. Aedeagus [Fig. Hdap2]. Internal sac not easily visible [Fig. Hdap3]. Sternite 9 [Fig. Hdap11M] well sclerotised.

Female genitalia. Sternite 8 [Fig. Hdap10F] and spermatheca C-shaped [Fig. Hdap12] weakly sclerotised.

Measurements. Length: holotype 7.1 mm; non-type material 6.7–7.2 mm.

Variability. No variability was observed in colouration. No genitalic variations were observed.

Bionomics. Bionomy (habitus of locality, biology, host plant, etc.) is completely unknown.

Differential diagnosis. The most similar species are *Hypera contaminata*, *Hypera kayali*, *Hypera striata* and *Hypera subvittata*, with first funicle segment 1.5 x longer than second; bifid scales elytral not reaching base; femora with setae and also scales and near the base of the rostrum, a small, but distinct, ventral process in lateral view (versus *Hypera fornicata*, *Hypera meles*, *Hypera pseudotenuirostris* and *Hypera tenuirostris*, with first funicle segment almost twice as long as second; elytral bifid scales reaching

base; femora only with setae; and near the base of the rostrum, a very small, hardly noticeable, ventral process in lateral view).

The differences between *Hypera dapalis* and *Hypera subvittata* are as follows:

***Hypera dapalis*:**

- 1) Elytra with recumbent setae, distinctly visible from lateral view [Fig. Hdap1M] [Fig. Hdap1F];
- 2) Elytra with light (white, yellow, orange or pale green) lateral stripe, and light stripe of the elytral suture forming typical “arrow head” [Fig. Hdap1M] [Fig. Hdap1F];
- 3) Aedeagus [Fig. Hdap2];
- 4) 8th sternite (female) [Fig. Hdap10F];
- 5) 9th sternite (male) [Fig. Hdap11M];
- 6) Spermatheca [Fig. Hdap12].

***Hypera subvittata*:**

- 1*) Elytra with long, projecting, bent setae before apex [Fig. Hsub1M] [Fig. Hsub1F];
- 2*) Elytra without lateral stripe forming “arrow head” [Fig. Hsub1M] [Fig. Hsub1F];
- 3*) Aedeagus [Fig. Hsub2];
- 4*) 8th sternite (female) [Fig. Hsub10F];
- 5*) 9th sternite (male) [Fig. Hsub11M];
- 6*) Spermatheca [Fig. Hsub12].

The differences between *Hypera dapalis* and *Hypera striata* are as follows:

***Hypera dapalis*:**

- 1) Elytra with light (white, yellow, orange or pale green) lateral stripe, and light stripe of the elytral suture forming typical “arrow head” [Fig. Hdap1M] [Fig. Hdap1F];
- 2) Femora and tibiae black [Fig. Hdap1M] [Fig. Hdap1F];
- 3) Aedeagus [Fig. Hdap2];
- 4) 8th sternite (female) [Fig. Hdap10F];
- 5) 9th sternite (male) [Fig. Hdap11M];
- 6) Spermatheca [Fig. Hdap12].

***Hypera striata*:**

- 1*) Elytra without lateral stripe forming “arrow head” [Fig. Hstr1M] [Fig. Hstr1F];
- 2*) Femora and tibiae black to reddish [Fig. Hstr1M] [Fig. Hstr1F];
- 3*) Aedeagus [Fig. Hstr2];
- 4*) 8th sternite (female) [Fig. Hstr10F];
- 5*) 9th sternite (male) [Fig. Hstr11M];
- 6*) Spermatheca [Fig. Hstr12].

The differences between *Hypera dapalis* and *Hypera contaminata* are as follows:

***Hypera dapalis*:**

- 1) Elytra with light (white, yellow, orange or pale green) lateral stripe, and light stripe of the elytral suture forming typical “arrow head” [Fig. Hdap1M] [Fig. Hdap1F];
- 2) Aedeagus [Fig. Hdap2];
- 3) 8th sternite (female) [Fig. Hdap10F];

- 4) 9th sternite (male) [Fig. Hdap11M];
- 5) Spermatheca [Fig. Hdap12].

***Hypera contaminata*:**

- 1*) Elytra without lateral stripe forming “arrow head” [Fig. Hcon1M] [Fig. Hcon1F];
- 2*) Aedeagus [Fig. Hcon2];
- 3*) 8th sternite (female) [Fig. Hcon10F];
- 4*) 9th sternite (male) [Fig. Hcon11M];
- 5*) Spermatheca [Fig. Hcon12].

The differences between *Hypera dapalis* and *Hypera kayali* are as follows:

***Hypera dapalis*:**

- 1) Elytra with light (white, yellow, orange or pale green) lateral stripe, and light stripe of the elytral suture forming typical “arrow head” [Fig. Hdap1M] [Fig. Hdap1F];
- 2) Femora and tibiae black [Fig. Hdap1M] [Fig. Hdap1F];
- 3) Aedeagus [Fig. Hdap2];
- 4) 8th sternite (female) [Fig. Hdap10F];
- 5) 9th sternite (male) [Fig. Hdap11M];
- 6) Spermatheca [Fig. Hdap12].

***Hypera kayali*:**

- 1*) Elytra without lateral stripe forming “arrow head” [Fig. Hkay1M] [Fig. Hkay1F];
- 2*) Femora and tibiae black to reddish [Fig. Hkay1M] [Fig. Hkay1F];
- 3*) Aedeagus [Fig. Hkay2];
- 4*) 8th sternite (female) [Fig. Hkay10F];
- 5*) 9th sternite (male) [Fig. Hkay11M];
- 6*) Spermatheca [Fig. Hkay12].

***Hypera kayali* Skuhrovec, 2006**

[Tab. HkayM] [Tab. HkayF]

Original description: *Hypera kayali* Skuhrovec, 2006 [Skuhrovec 2006kay]

Literature: [Skuhrovec 2006key]

Locus Typicus: Mashtal`helu (Syria)

Habitus (male)	[Fig. Hkay1M]
Habitus (female)	[Fig. Hkay1F]
Aedeagus	[Fig. Hkay2]
Aedeagus (endophallus)	[Fig. Hkay3]
8 th sternite (female)	[Fig. Hkay10F]
9 th sternite (male)	[Fig. Hkay11M]
Spermatheca	[Fig. Hkay12]
Distribution	[Fig. DaHkay]

Type material

HT: 1M, collection National Museum in Prague: “SYRIA occ., 2. iv. 2001 / prov. Tartus / MASHTAL`HELU env. / J. Skuhrovec lgt. ” (white label) // “EX LARVAE / Breed no. (p) /

2001/8" (h) (yellow label) // "*Vicia / palaestina / Boiss.*" (h) (green label) // "Holotype / *Hypera / kayali* sp. nov. / design. J. Skuhrovec 2006" (p) (red label).

PT: 1F, collection National Museum in Prague: with same data as holotype; next Paratypes 4 **MM**, 4 **FF** collection Jiří Skuhrovec, Prague; 1 **M**, 1 **F** collection Herbert Winkelmann, Berlin; 1 **M**, 1 **F** collection Roman Borovec, Sloupno; 1 **M**, 1 **F** collection O. Voříšek, Kladno; 1 **M**, 1 **F** Canadian National Collection of Insects, Ottawa; 1 **F** collection of Moravské Zemské Muzeum, Brno).

Redescription

Colour and vestiture. [Fig. Hkay1M] [Fig. Hkay1F]. Frons with pale setae. Rostrum dark reddish to black, without distinct punctation, setae sparser than on frons. Base of rostrum with distinct black carina dorsally. Antennae reddish, distal part of each antennomere darker, more distinctly so in antennomeres near club. Club dark reddish. Surface of pronotum black, covered with pale setae and pale reddish to reddish brown scales, which are bifid to apical third of their length [Tab. HkayM] [Tab. HkayF]. Scales on middle of pronotum and lateral lines pale. Remaining scales on pronotum reddish to brown, forming three light lines on pronotum.

Elytra covered with scales and setae. Elytral intervals with pairs of pale setae and intervals 1, 2 and 4 with black setae near apex. Scales form the following colour pattern [Fig. Hkay1M] [Fig. Hkay1F]: interval 1 black on basal two thirds, reddish on apical third except for black colouration at apex; interval 2 reddish, apical quarter black, connecting at apex with interval 1; interval 3 black on basal third, reddish on apical two thirds; interval 4 reddish on basal half, black on apical half; interval 5 reddish on basal half, very pale for remainder except for black colouration near apex, connecting at elytral apex with intervals 4 and 6; interval 6 black apically, connecting apically with intervals 4 and 5; intervals 7, 8 and 9 reddish.

Proximal parts of femora black with pale setae, apex slightly reddish. Tibiae light reddish to brown, bearing stout pale setae apically. Tarsi black with pale setae. Claws dark brown.

Abdomen reddish with pale setae and scales on abdominal ventrites, scales bifid to apical third their length.

Head. Eye oval, upper margin higher than base of rostrum in lateral view; nearly as wide as base of rostrum. Distance between eyes shorter than base of rostrum. Rostrum long, narrow, slightly shorter than pronotum (ratio = 0.72), slightly but distinctly downcurved, near base with small, distinct, ventral process in lateral view.

Antennae. Inserted one third from rostrum apex; scrobe in front of antenna broad and very short, near base of rostrum hardly noticeable. Antenna narrow. First funicle segment about 1.5 x longer than second. Funicle segments 3 and 4 slightly longer than 5 to 7, 5 to 7 almost as long as wide [Fig. Hkay1M] [Fig. Hkay1F].

Pronotum. Pronotum wider than long (ratio = 1.27), widest in the middle [Fig. Hkay1M] [Fig. Hkay1F], anterior margin almost straight in dorsal view, sides distinctly rounded, posterior margin slightly wider than anterior margin, noticeably constricted basally; heavily punctated.

Elytra. Oval elytra longer than wide, base distinctly wider than base of pronotum, humeral angles prominent, sides slightly convex. Scutellum well visible.

Mesosternum. Mesosternal projection not visible in lateral view.

Legs. Profemur almost twice as wide as rostrum; mesofemora and metafemora more

slender, all widest near middle. Protibia apically with distinct tooth on inner side. Tarsi with first tarsomere twice as long as second, third distinctly bilobed, fifth twice as long as third. Claws free (not connate at base).

Abdominal ventrites. Last abdominal ventrite with shallow impression medially.

Sexual dimorphism. No differences in the ratio of distance between eyes (frons) and width of rostral base. No differences in the ratio of rostral to pronotal length. Pronotum wider than long, in males distinctly less so than in females. Oval elytra longer than wide, males with oval elytra (M = 1.55) [Fig. Hkay1M], females disciform (F = 1.45) [Fig. Hkay1F]. Tibiae incurved in males, nearly straight in females. First abdominal ventrite with a distinct depression in males, not depressed in females.

Aedeagus. Aedeagus [Fig. Hkay2] moderately sclerotised, especially near apex of median lobe and parameres. However, absence of inner medial part of medial lobe can be caused by incomplete sclerotisation of the entire aedeagus. Internal sac not easily visible [Fig. Hkay3]. Sternite 9 [Fig. Hkay11M] well sclerotised.

Female genitalia. Sternite 8 [Fig. Hkay10F] and spermatheca C-shaped [Fig. Hkay12] weakly sclerotised.

Measurements. Length: holotype 6.6 mm; paratypes 6.3–6.8 mm.

Variability. No variability was observed in colouration. The ratio of rostral to pronotal length in all specimens varies between 0.65 and 0.85, the ratio of pronotal width to length is between 1.10 and 1.46, and the ratio of elytral length to width is between 1.62 and 1.85. No genitalic variations were observed.

Bionomics. Species occurs in ruderal habitats. Specimens of *Hypera kayali* were collected as larvae on *Vicia palaestina* Boiss. (Fabaceae) [Skuhrovec 2006a]. All larvae successfully pupated and hatched. The larvae are ectophagous, like those of most other Hyperinae, except for *Hypera nigrirostris* (Fabricius, 1775) and other small species of the tribe Hyperini Marseul, 1863. A detailed description of the larvae was published by Skuhrovec [Skuhrovec 2005].

Differential diagnosis. The most similar species are *Hypera contaminata*, *Hypera dapalis*, *Hypera striata* and *Hypera subvittata*, with first funicle segment 1.5 x longer than second; bifid scales elytral not reaching base; femora with setae and also scales and near the base of the rostrum, a small, but distinct, ventral process in lateral view (versus *Hypera fornicata*, *Hypera meles*, *Hypera pseudotenuirostris* and *Hypera tenuirostris*, with first funicle segment almost twice as long as second; elytral bifid scales reaching base; femora only with setae; and near the base of the rostrum, a very small, hardly noticeable, ventral process in lateral view).

The differences between *Hypera kayali* and *Hypera contaminata* are as follows:

***Hypera kayali*:**

- 1) Elytra with alternating pale and dark interval; without dark spots [Fig. Hkay1M] [Fig. Hkay1F];
- 2) Femora and tibiae black to reddish [Fig. Hkay1M] [Fig. Hkay1F];
- 3) Aedeagus [Fig. Hkay2];
- 4) 8th sternite (female) [Fig. Hkay10F];
- 5) 9th sternite (male) [Fig. Hkay11M];

6) Spermatheca [Fig. Hkay12].

Hypera contaminata:

- 1*) Dark spots on alternating intervals of elytra or at least on the sides and on the apex [Fig. Hcon1M] [Fig. Hcon1F];
- 2*) Femora and tibiae black [Fig. Hcon1M] [Fig. Hcon1F];
- 3*) Aedeagus [Fig. Hcon2];
- 4*) 8th sternite (female) [Fig. Hcon10F];
- 5*) 9th sternite (male) [Fig. Hcon11M];
- 6*) Spermatheca [Fig. Hcon12].

The differences between *Hypera kayali* and *Hypera dapalis* are as follows:

Hypera kayali:

- 1) Elytra without lateral stripe forming “arrow head” [Fig. Hkay1M] [Fig. Hkay1F];
- 2) Femora and tibiae black to reddish [Fig. Hkay1M] [Fig. Hkay1F];
- 3) Aedeagus [Fig. Hkay2];
- 4) 8th sternite (female) [Fig. Hkay10F];
- 5) 9th sternite (male) [Fig. Hkay11M];
- 6) Spermatheca [Fig. Hkay12].

Hypera dapalis:

- 1*) Elytra with light (white, yellow, orange or pale green) lateral stripe, and light stripe of the elytral suture forming typical “arrow head” [Fig. Hdap1M] [Fig. Hdap1F];
- 2*) Femora and tibiae black [Fig. Hdap1M] [Fig. Hdap1F];
- 3*) Aedeagus [Fig. Hdap2];
- 4*) 8th sternite (female) [Fig. Hdap10F];
- 5*) 9th sternite (male) [Fig. Hdap11M];
- 6*) Spermatheca [Fig. Hdap12].

The differences between *Hypera kayali* and *Hypera striata* are as follows:

Hypera kayali:

- 1) Elytra with dark parts on basal two thirds of interval 1, apical quarter of interval 2, basal third of interval 3, apical half of interval 4, small apical part of interval 5 and all interval 6; remaining parts reddish [Fig. Hkay1M] [Fig. Hkay1F];
- 2) Aedeagus [Fig. Hkay2];
- 3) 8th sternite (female) [Fig. Hkay10F];
- 4) 9th sternite (male) [Fig. Hkay11M];
- 5) Spermatheca [Fig. Hkay12].

Hypera striata:

- 1*) Elytral intervals 2, 4 and 6 dark for their entire length, remaining intervals reddish or pale [Fig. Hstr1M] [Fig. Hstr1F];
- 2*) Aedeagus [Fig. Hstr2];
- 3*) 8th sternite (female) [Fig. Hstr10F];
- 4*) 9th sternite (male) [Fig. Hstr11M];
- 5*) Spermatheca [Fig. Hstr12].

The differences between *Hypera kayali* and *Hypera subvittata* are as follows:

***Hypera kayali*:**

- 1) Elytra with recumbent setae, distinctly visible from lateral view [Fig. Hkay1M] [Fig. Hkay1F];
- 2) Aedeagus [Fig. Hkay2];
- 3) 8th sternite (female) [Fig. Hkay10F];
- 4) 9th sternite (male) [Fig. Hkay11M];
- 5) Spermatheca [Fig. Hkay12].

***Hypera subvittata*:**

- 1*) Elytra with long, projecting, bent setae before apex [Fig. Hsub1M] [Fig. Hsub1F];
- 2*) Aedeagus [Fig. Hsub2];
- 3*) 8th sternite (female) [Fig. Hsub10F];
- 4*) 9th sternite (male) [Fig. Hsub11M];
- 5*) Spermatheca [Fig. Hsub12].

***Hypera striata* (Boheman, 1834)**

[Tab. HstrM] [Tab. HstrF]

Original description: *Phytonomus striatus* Boheman, 1834 [Boheman 1834str]

Synonyme: = *Phytonomus Karamani* Stierlin, 1886 [Stierlin 1886]; synonymise by [Petri 1901str202]

= *Phytonomus solymitanus* Faust, 1887 [Faust 1887]; synonymise by [Csiki 1934str]

= *Phytonomus ab. sicilianus* Petri, 1901 [Petri 1901str]; synonymise by [Csiki 1934str]

Literature: [Capiomont 1868str] [Capiomont 1868key] [Petri 1901str] [Petri 1901key] [Skuhrovec 2006key]

Locus Typicus: Bannatu (?)

Habitus (male)	[Fig. Hstr1M]
Habitus (female)	[Fig. Hstr1F]
Aedeagus	[Fig. Hstr2]
Aedeagus (endophallus)	[Fig. Hstr3]
8 th sternite (female)	[Fig. Hstr10F]
9 th sternite (male)	[Fig. Hstr11M]
Spermatheca	[Fig. Hstr12]
Distribution	[Fig. DaHstr]

Type material. Holotype is housed in Stockholm Museum. Unfortunately, exact version on labels were not taken down before first revision of the subgenus *Dapalinus*.

Material examined (87 specimens): [Da Hstr]

Redescription

Colour and vestiture. [Fig. Hstr1M] [Fig. Hstr1F]. Frons with pale setae. Rostrum black, setae sparser than on frons. Base of rostrum with distinct black carina dorsally. Antennae reddish, distal part of each antennomere darker, more distinctly so in

antennomeres near club. Club dark reddish.

Surface of pronotum black, covered with pale setae and pale reddish to reddish brown scales, some of them are bifid to apical third of their length [Tab. HstrM] [Tab. HstrF].

Scales on middle of pronotum and lateral lines pale. Remaining scales on pronotum reddish to brown, forming three light lines on pronotum.

Elytra covered with scales and setae. Elytral intervals with pairs of pale setae and intervals 1, 2, 4 and 6 with black setae near apex. Scales form the following colour pattern [Fig. Hstr1M] [Fig. Hstr1F]: intervals 2, 4 and 6 dark for their entire length, remaining intervals reddish or pale.

Proximal parts of femora black with pale and reddish setae and scales, apex slightly reddish. Tibiae light reddish to brown, bearing stout pale setae apically, inner part of tibiae black. Tarsi dark reddish with black spot in the middle, with pale setae. Claws dark brown.

Abdomen reddish with pale setae and scales on abdominal ventrites, scales bifid to apical third their length.

Head. Eye oval, upper margin higher than base of rostrum in lateral view; slightly wider than base of rostrum. Distance between eyes shorter than base of rostrum. Rostrum long, narrow, slightly shorter than pronotum (ratio = 0.90), slightly but distinctly downcurved, near base with small, distinct, ventral process in lateral view.

Antennae. Inserted one third from rostrum apex; scrobe in front of antenna broad and short, near base of rostrum hardly noticeable. Antenna narrow. First funicle segment about 1.5 x longer than second. Funicle segments 3 and 4 slightly longer than 5 to 7, 5 to 7 almost as long as wide [Fig. Hstr1M] [Fig. Hstr1F].

Pronotum. Pronotum wider than long (ratio = 1.32), widest in the middle [Fig. Hstr1M] [Fig. Hstr1F], anterior margin almost straight in dorsal view, sides distinctly rounded, posterior margin slightly wider than anterior margin, noticeably constricted basally; heavily punctated.

Elytra. Oval elytra longer than wide, base distinctly wider than base of pronotum, humeral angles prominent, sides slightly convex. Scutellum visible.

Mesosternum. Mesosternal projection not visible in lateral view.

Legs. Profemur almost twice as wide as rostrum; mesofemora and metafemora slender, all widest near middle. Protibia apically with distinct tooth on inner side. Tarsi with first tarsomere twice as long as second, third distinctly bilobed, fifth twice as long as third. Claws free (not connate at base).

Abdominal ventrites. Last abdominal ventrite with shallow impression medially.

Sexual dimorphism. No differences in the ratio of distance between eyes (frons) and width of rostral base. No differences in the ratio of rostral to pronotal length. Pronotum wider than long, in males distinctly less so than in females. Oval elytra longer than wide, males with oval elytra (M = 1.58) [Fig. Hstr1M], females disciform (F = 1.45) [Fig. Hstr1F]. Tibiae incurved in males, nearly straight in females. First abdominal ventrite with a distinct depression in males, not depressed in females.

Aedeagus. Aedeagus [Fig. Hstr2]. Internal sac not easily visible [Fig. Hstr3]. Sternite 9 [Fig. Hstr11M] well sclerotised.

Female genitalia. Sternite 8 [Fig. Hstr10F] and spermatheca C-shaped [Fig. Hstr12] weakly sclerotised.

Measurements. Length: holotype 5.7 mm; non-type material 5.1–6.5 mm.

Variability. No variability was observed in colouration. No genitalic variations were

observed.

Bionomics. Species occurs along margins of steppe and forest steppe habitats. It is a relatively abundant nocturnal species [Skuhrovec 2003]. Tempère & Péricart [Tempère & Péricart 1989] were the first to publish detailed information on its host plant, *Vicia sativa* (Fabaceae), as Kippenberg [Kippenberg 1983], Smreczyński [Smreczyński 1968] and Tempère [Tempère 1961] [Tempère 1972] listed only the genus *Vicia* without further details. Koch [Koch 1992] stated that *Hypera striata* is oligophagous on vetch, *Vicia* spp., but, unfortunately, I do not know on which data this claim is based. The larvae are ectophagous, like those of most other Hyperinae [Skuhrovec 2003], except for *Hypera nigrirostris* (Fabricius, 1775) and other small species of the tribe Hyperini Marseul, 1863. A detailed description of the larvae was published by Skuhrovec [Skuhrovec 2005]. Hoffmann [Hoffmann 1954], Smreczyński [Smreczyński 1968] and Angelov [Angelov 1978] also reported that *Hypera striata* develops on *Plantago coronopus* (Plantaginaceae), and Mazur [Mazur 2002] regarded the species as oligophagous on *Plantago*. These data are undoubtedly based on the pupation habits (as *Hypera plantaginis*). The error probably stemmed from rearing adults from cocoons collected in the field. Mature larvae leave the host plant (*Vicia sativa*) and search for a suitable pupation place. The lower side of basal *Plantago* leaves, on which the cocoons are regularly found, probably provide protection from parasites and desiccation. The same error probably concerns other species (*Hypera diversipunctata*, *Hypera jucunda*, *Hypera postica*, *Hypera suspiciosa* and *Hypera plantaginis*).

Differential diagnosis. The most similar species are *Hypera contaminata*, *Hypera dapalis*, *Hypera kayali* and *Hypera subvittata*, with first funicle segment 1.5 x longer than second; bifid scales elytral not reaching base; femora with setae and also scales and near the base of the rostrum, a small, but well distinct, ventral process in lateral view (versus *Hypera fornicata*, *Hypera meles*, *Hypera pseudotenuirostris* and *Hypera tenuirostris*, with first funicle segment almost twice as long as second; elytral bifid scales reaching base; femora only with setae; and near the base of the rostrum, a very small, hardly noticeable, ventral process in lateral view).

The differences between *Hypera striata* and *Hypera contaminata* are as follows:

***Hypera striata*:**

- 1) Elytra with alternating pale and dark interval; without dark spots [Fig. Hstr1M] [Fig. Hstr1F];
- 2) Femora and tibiae black to reddish [Fig. Hstr1M] [Fig. Hstr1F];
- 3) Aedeagus [Fig. Hstr2];
- 4) 8th sternite (female) [Fig. Hstr10F];
- 5) 9th sternite (male) [Fig. Hstr11M];
- 6) Spermatheca [Fig. Hstr12].

***Hypera contaminata*:**

- 1*) Dark spots on alternating intervals of elytra or at least on the sides and on the apex [Fig. Hcon1M] [Fig. Hcon1F];
- 2*) Femora and tibiae black [Fig. Hcon1M] [Fig. Hcon1F];
- 3*) Aedeagus [Fig. Hcon2];
- 4*) 8th sternite (female) [Fig. Hcon10F];

- 5*) 9th sternite (male) [Fig. Hcon11M];
- 6*) Spermatheca [Fig. Hcon12].

The differences between *Hypera striata* and *Hypera dapalis* are as follows:

Hypera striata:

- 1) Elytra without lateral stripe forming “arrow head” [Fig. Hstr1M] [Fig. Hstr1F];
- 2) Femora and tibiae black to reddish [Fig. Hstr1M] [Fig. Hstr1F];
- 3) Aedeagus [Fig. Hstr2];
- 4) 8th sternite (female) [Fig. Hstr10F];
- 5) 9th sternite (male) [Fig. Hstr11M];
- 6) Spermatheca [Fig. Hstr12].

Hypera dapalis:

- 1*) Elytra with light (white, yellow, orange or pale green) lateral stripe, and light stripe of the elytral suture forming typical “arrow head” [Fig. Hdap1M] [Fig. Hdap1F];
- 2*) Femora and tibiae black [Fig. Hdap1M] [Fig. Hdap1F];
- 3*) Aedeagus [Fig. Hdap2];
- 4*) 8th sternite (female) [Fig. Hdap10F];
- 5*) 9th sternite (male) [Fig. Hdap11M];
- 6*) Spermatheca [Fig. Hdap12].

The differences between *Hypera striata* and *Hypera kayali* are as follows:

Hypera striata:

- 1) Elytral intervals 2, 4 and 6 dark for their entire length, remaining intervals reddish or pale [Fig. Hstr1M] [Fig. Hstr1F];
- 2) Aedeagus [Fig. Hstr2];
- 3) 8th sternite (female) [Fig. Hstr10F];
- 4) 9th sternite (male) [Fig. Hstr11M];
- 5) Spermatheca [Fig. Hstr12].

Hypera kayali:

- 1*) Elytra with dark parts on basal two thirds of interval 1, apical quarter of interval 2, basal third of interval 3, apical half of interval 4, small apical part of interval 5 and all interval 6; remaining parts reddish [Fig. Hkay1M] [Fig. Hkay1F];
- 2*) Aedeagus [Fig. Hkay2];
- 3*) 8th sternite (female) [Fig. Hkay10F];
- 4*) 9th sternite (male) [Fig. Hkay11M];
- 5*) Spermatheca [Fig. Hkay12].

The differences between *Hypera striata* and *Hypera subvittata* are as follows:

Hypera striata:

- 1) Elytra with recumbent setae, distinctly visible from lateral view [Fig. Hstr1M] [Fig. Hstr1F];
- 2) Aedeagus [Fig. Hstr2];
- 3) 8th sternite (female) [Fig. Hstr10F];
- 4) 9th sternite (male) [Fig. Hstr11M];

5) Spermatheca [Fig. Hstr12].

***Hypera subvittata*:**

1*) Elytra with long, projecting, bent setae before apex [Fig. Hsub1M] [Fig. Hsub1F];

2*) Aedeagus [Fig. Hsub2];

3*) 8th sternite (female) [Fig. Hsub10F];

4*) 9th sternite (male) [Fig. Hsub11M];

5*) Spermatheca [Fig. Hsub12].

***Hypera subvittata* (Capiomont, 1867)**

[Tab. HsubM] [Tab. HsubF]

Original description: *Phytonomus subvittatus* Capiomont, 1867 [Fig. Capiomont 1867] – only figure
Literature: [Capiomont 1868sub] [Capiomont 1868key] [Petri 1901sub] [Petri 1901key]
[Skuhrovec 2006key]

Locus Typicus: Syria

Habitus (male)	[Fig. Hsub1M]
Habitus (female)	[Fig. Hsub1F]
Aedeagus	[Fig. Hsub2]
Aedeagus (endophallus)	[Fig. Hsub3]
8 th sternite (female)	[Fig. Hsub10F]
9 th sternite (male)	[Fig. Hsub11M]
Spermatheca	[Fig. Hsub12]
Distribution	[Fig. DaHsub]

Type material.

1M, 1 F collection Museum National D Histoire Naturelle in Paris: “251 // ???? (not recognized) // SYRIE // Muséum Paris / cill. S. E. F / Capiomont // subvittatus / Cap.” (red label).

Material examined (15 specimens): [Da Hsub]

Redescription

Colour and vestiture. [Fig. Hsub1M] [Fig. Hsub1F]. Frons with pale setae. Rostrum black, setae sparser than on frons. Base of rostrum with distinct black carina dorsally. Antennae pale reddish, distal part of each antennomere darker, more distinctly so in antennomeres near club. Club reddish to dark reddish.

Surface of pronotum black, covered with pale setae and pale to brown scales, some of them are bifid to basal third of their length [Tab. HsubM] [Tab. HsubF]. Scales on middle of pronotum and lateral lines pale. Remaining scales on pronotum brown, forming three light lines on pronotum.

Surface of elytra brown to violet, covered with scales, which are bifid to basal third of their length, and setae. Elytral intervals with pairs of pale setae and all intervals near apex with black setae; with long, projecting, bent setae before apex. Scales form the following colour pattern [Fig. Hsub1M] [Fig. Hsub1F]; not distinct alternating pale and dark intervals; with pale spots.

Proximal parts of femora dark brown with pale and brown setae and scales, apex pale reddish. Tibiae pale reddish to brown, bearing stout pale setae apically. Tarsi pale reddish with black spot in the middle, with pale setae. Claws brown.

Abdomen brown to violet with pale setae and scales on abdominal ventrites, scales bifid to basal third their length.

Head. Eye oval, upper margin higher than base of rostrum in lateral view; slightly wider than base of rostrum. Distance between eyes shorter than base of rostrum. Rostrum long, narrow, slightly shorter than pronotum (ratio = 1.04), slightly but distinctly downcurved, near base with very small, distinct, ventral process in lateral view.

Antennae. Inserted one third from rostrum apex; distinct scrobe in front of antenna broad and short, near base of rostrum noticeable. Antenna narrow. First funicle segment about 1.5 x longer than second. Funicle segments 3 and 4 slightly longer than 5 to 7, 5 to 7 almost as long as wide [Fig. Hsub1M] [Fig. Hsub1F].

Pronotum. Pronotum wider than long (ratio = 1.28), widest in the middle [Fig. Hsub1M] [Fig. Hsub1F], anterior margin almost straight in dorsal view, sides slightly rounded, posterior margin slightly wider than anterior margin, noticeably constricted basally; heavily punctated.

Elytra. Oval elytra longer than wide, base distinctly wider than base of pronotum, humeral angles prominent, sides slightly convex. Scutellum visible.

Mesosternum. Mesosternal projection not visible in lateral view.

Legs. Profemur almost twice as wide as rostrum; mesofemora and metafemora slender, all widest near middle. Protibia apically with distinct tooth on inner side. Tarsi with first tarsomere twice as long as second, third distinctly bilobed, fifth twice as long as third. Claws free (not connate at base).

Abdominal ventrites. Last abdominal ventrite with shallow impression medially.

Sexual dimorphism. No differences in the ratio of distance between eyes (frons) and width of rostral base. No differences in the ratio of rostral to pronotal length. Pronotum wider than long, in males distinctly less so than in females. Oval elytra longer than wide, males with oval elytra (M = 1.45) [Fig. Hsub1M], females disciform (F = 1.34) [Fig. Hsub1F]. Tibiae incurved in males, nearly straight in females. First abdominal ventrite with a distinct depression in males, not depressed in females.

Aedeagus. Aedeagus [Fig. Hsub2]. Internal sac not easily visible [Fig. Hsub3]. Sternite 9 [Fig. Hsub11M] well sclerotised.

Female genitalia. Sternite 8 [Fig. Hsub10F] and spermatheca C-shaped [Fig. Hsub12] weakly sclerotised.

Measurements. Length: holotype 6.4 mm; non-type material 5.7–7.1 mm.

Variability. No variability was observed in colouration. No genitalic variations were observed.

Bionomics. Bionomy (habitus of locality, biology, host plant, etc.) is completely unknown.

Differential diagnosis. The most similar species are *Hypera contaminata*, *Hypera dapalis*, *Hypera kayali* and *Hypera striata*, with first funicle segment 1.5 x longer than second; bifid scales elytral not reaching base; femora with setae and also scales and near the base of the rostrum, a small, but distinct, ventral process in lateral view (versus *Hypera fornicata*, *Hypera meles*, *Hypera pseudotenuirostris* and *Hypera tenuirostris*, with first funicle segment almost twice as long as second; elytral bifid scales reaching

base; femora only with setae; and near the base of the rostrum, a very small, hardly noticeable, ventral process in lateral view).

The differences between *Hypera subvittata* and *Hypera dapalis* are as follows:

***Hypera subvittata*:**

- 1) Elytra with long, projecting, bent setae before apex [Fig. Hsub1M] [Fig. Hsub1F];
- 2) Elytra without lateral stripe forming “arrow head” [Fig. Hsub1M] [Fig. Hsub1F];
- 3) Aedeagus [Fig. Hsub2];
- 4) 8th sternite (female) [Fig. Hsub10F];
- 5) 9th sternite (male) [Fig. Hsub11M];
- 6) Spermatheca [Fig. Hsub12].

***Hypera dapalis*:**

- 1*) Elytra with recumbent setae, distinctly visible from lateral view [Fig. Hdap1M] [Fig. Hdap1F];
- 2*) Elytra with light (white, yellow, orange or pale green) lateral stripe, and light stripe of the elytral suture forming typical “arrow head” [Fig. Hdap1M] [Fig. Hdap1F];
- 3*) Aedeagus [Fig. Hdap2];
- 4*) 8th sternite (female) [Fig. Hdap10F];
- 5*) 9th sternite (male) [Fig. Hdap11M];
- 6*) Spermatheca [Fig. Hdap12].

The differences between *Hypera subvittata* and *Hypera striata* are as follows:

***Hypera subvittata*:**

- 1) Elytra with long, projecting, bent setae before apex [Fig. Hsub1M] [Fig. Hsub1F];
- 2) Aedeagus [Fig. Hsub2];
- 3) 8th sternite (female) [Fig. Hsub10F];
- 4) 9th sternite (male) [Fig. Hsub11M];
- 5) Spermatheca [Fig. Hsub12].

***Hypera striata*:**

- 1*) Elytra with recumbent setae, distinctly visible from lateral view [Fig. Hstr1M] [Fig. Hstr1F];
- 2*) Aedeagus [Fig. Hstr2];
- 3*) 8th sternite (female) [Fig. Hstr10F];
- 4*) 9th sternite (male) [Fig. Hstr11M];
- 5*) Spermatheca [Fig. Hstr12].

The differences between *Hypera subvittata* and *Hypera contaminata* are as follows:

***Hypera subvittata*:**

- 1) Elytra with long, projecting, bent setae before apex [Fig. Hsub1M] [Fig. Hsub1F];
- 2) Elytra with not distinct alternating pale and dark interval; with pale spots [Fig. Hsub1M] [Fig. Hsub1F];
- 3) Aedeagus [Fig. Hsub2];
- 4) 8th sternite (female) [Fig. Hsub10F];
- 5) 9th sternite (male) [Fig. Hsub11M];

6) Spermatheca [Fig. Hsub12].

***Hypera contaminata*:**

- 1*) Elytra with recumbent setae, distinctly visible from lateral view [Fig. Hcon1M] [Fig. Hcon1F];
- 2*) Dark spots on alternating intervals of elytra or at least on the sides and on the apex [Fig. Hcon1M] [Fig. Hcon1F];
- 3*) Aedeagus [Fig. Hcon2];
- 4*) 8th sternite (female) [Fig. Hcon10F];
- 5*) 9th sternite (male) [Fig. Hcon11M];
- 6*) Spermatheca [Fig. Hcon12].

The differences between *Hypera subvittata* and *Hypera kayali* are as follows:

***Hypera subvittata*:**

- 1) Elytra with long, projecting, bent setae before apex [Fig. Hsub1M] [Fig. Hsub1F];
- 2) Aedeagus [Fig. Hsub2];
- 3) 8th sternite (female) [Fig. Hsub10F];
- 4) 9th sternite (male) [Fig. Hsub11M];
- 5) Spermatheca [Fig. Hsub12].

***Hypera kayali*:**

- 1*) Elytra with recumbent setae, distinctly visible from lateral view [Fig. Hkay1M] [Fig. Hkay1F];
- 2*) Aedeagus [Fig. Hkay2];
- 3*) 8th sternite (female) [Fig. Hkay10F];
- 4*) 9th sternite (male) [Fig. Hkay11M];
- 5*) Spermatheca [Fig. Hkay12].

Group *maculipennis*

The "group *maculipennis* " included only one species with unique characters (versus 9 remaining species from the subgenus *Dapalinus*):

- 1) First funicle segment 1.5 x longer than second;
- 2) Pronotal and elytral trifid scales not reaching base;
- 3) Femora with setae and also scales;
- 4) Near base of rostrum without ventral process in lateral view.

***Hypera maculipennis* (Fairmaire, 1859)**

[Tab. HmacM] [Tab. HmacF]

Original description: *Phytonomus maculipennis* Fairmaire, 1859 [Fairmaire 1859]

Literature: [Capiomont 1868mac] [Capiomont 1868tig] [Petri 1901mac] [Petri 1901key] [Skuhrovec 2006key]

Locus Typicus: Orléans (France)

Habitus (male) [Fig. Hmac1M]

Habitus (female) [Fig. Hmac1F]

Aedeagus [Fig. Hmac2]

Aedeagus (endophallus)	[Fig. Hmac3]
8 th sternite (female)	[Fig. Hmac10F]
9 th sternite (male)	[Fig. Hmac11M]
Spematheca	[Fig. Hmac12]
Distribution	[Fig. DaHmac]

Type material

HT: collection Museum National D'Histoire Naturelle in Paris: "maculipenis / Farm / Orkény ?? (probably Orléans, see Original Description) // MUSEUM PARIS / Collection Léon Fairmaire / 1906 // **TYPE**" (red label).

Material examined (31 specimens): [Da Hmac]

Redescription

Colour and vestiture. [Fig. Hmac1M] [Fig. Hmac1F]. Frons with pale setae. Rostrum black, setae sparser than on frons. Base of rostrum with noticeable black carina dorsally. Antennae light reddish to dark reddish, distal part of each antennomere darker, more distinctly so in antennomeres near club. Club dark reddish to dark brown.

Surface of pronotum black, covered with pale to brown scales, which are trifold to apical third of their length [Tab. HmacM] [Tab. HmacF]. Scales on middle line of pronotum and lateral parts paler than remaining scales, which are brown, forming three lines on pronotum.

Elytra covered with scales and setae. Elytral intervals with pairs of pale setae and all intervals near apex and in dark elytral zones with black setae. Scales form the following colour pattern [Fig. Hmac1M] [Fig. Hmac1F]: dark spots on basal part of elytra and two distinct large dark spots along elytral sides.

Femora black with pale and light reddish setae and trifold scales, apex slightly brown. Proximal parts of tibiae dark brown, remaining parts dark reddish to reddish, bearing stout pale setae apically. Tarsi reddish to brown with black spot in the middle, with pale setae. Claws dark brown.

Abdomen black with pale and reddish setae and scales on abdominal ventrites, scales trifold to apical third their length.

Head. Eye oval, upper margin higher than base of rostrum in lateral view; distinctly wider than base of rostrum. Distance between eyes shorter than base of rostrum. Rostrum long, narrow, slightly longer than pronotum (ratio = 1.18), slightly but distinctly downcurved, near base no ventral process in lateral view.

Antennae. Inserted one third from rostrum apex; distinct and deep scrobe in front of antenna broad and short, near base of rostrum distinctly noticeable. Antenna narrow. First funicle segment about 1.5 x longer than second. Funicle segments 3 and 4 slightly longer than 5 to 7, 5 to 7 almost as long as wide [Fig. Hmac1M] [Fig. Hmac1F].

Pronotum. Heart-shaped, distinctly wider than long (ratio = 1.53), widest near middle [Fig. Hmac1M] [Fig. Hmac1F], anterior margin almost straight in dorsal view, sides distinctly rounded, widest in the middle, noticeably constricted basally, slightly punctated.

Elytra. Oval elytra longer than wide, base distinctly wider than base of pronotum, humeral angles prominent, sides slightly convex. Scutellum well visible.

Mesosternum. Mesosternal projection slightly visible in lateral view.

Legs. Profemur twice to thrice as wide as rostrum; mesofemora and metafemora slender, all widest near middle. Protibia apically with distinct tooth on inner side. Tarsi with first tarsomere twice as long as second, third distinctly bilobed, fifth twice as long as third. Claws free (not connate at base).

Abdominal ventrites. Last abdominal ventrite with shallow impression medially.

Sexual dimorphism. No differences in the ratio of distance between eyes (frons) and width of rostral base. No differences in the ratio of rostral to pronotal length. Pronotum wider than long, in males distinctly less so than in females. Oval elytra longer than wide, males with oval elytra (M = 1.55) [Fig. Hmac1M], females disciform (F = 1.45) [Fig. Hmac1F]. Tibiae incurved in males, nearly straight in females. First abdominal ventrite with a distinct depression in males, not depressed in females.

Aedeagus. Aedeagus [Fig. Hmac2]. Internal sac not easily visible [Fig. Hmac3]. Sternite 9 [Fig. Hmac11M] well sclerotised.

Female genitalia. Sternite 8 [Fig. Hmac10F] and spermatheca C-shaped [Fig. Hmac12] weakly sclerotised.

Measurements. Length: type 5.3 mm; non-type material 4.5–5.3 mm.

Variability. No variability was observed in colouration. No genitalic variations were observed.

Bionomics. Biology of this species is almost unknown. Hoffmann [Hoffmann 1954] presented *Thapsia villosa* (Apiaceae) as the host plant. Unfortunately, no recent data exist about the host plant and/or the habitat of locality.

Differential diagnosis. The species is unique in the subgenus *Dapalinus* with pronotal and elytral trifid scales not reaching base, and near base of rostrum without ventral process in lateral view (versus 9 remaining species from the subgenus *Dapalinus*, with pronotal and elytral bifid scales not reaching base; and near the base of the rostrum, a small, sometimes noticeable, ventral process in lateral view).

Key to the species of the subgenus *Dapalinus*

1. Pronotum nearly heart-shaped; pronotal and elytral trifid scales not reaching base; dorsum without projecting setae; and dark discoidal spots on basal half of elytral base [Fig. Hmac1M] [Fig. Hmac1F]. Aedeagus [Fig. Hmac2]. Internal sac [Fig. Hmac3]. Sternite 9 in male [Fig. Hmac11M]. Sternite 8 in female [Fig. Hmac10F]. Spermatheca C-shaped [Fig. Hmac12].

Hypera maculipennis (Fairmaire, 1859)

– Pronotum more oblique oval; elytral bifid scales; and elytra without discoidal pattern [Fig. Hcon1M] [Fig. Hdap1M] [Fig. Hkay1M] [Fig. Hsub1M] [Fig. Hstr1M] [Fig. Hfor1M] [Fig. Hmel1M] [Fig. Hpse1M] [Fig. Hten1M].

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2. First funicle segment 1.5 x longer than second; covering of bifid scales of elytra not reaching base [Fig. Hcon1M] [Fig. Hdap1M] [Fig. Hkay1M] [Fig. Hsub1M] [Fig. Hstr1M].

Group *dapalis* 3

- First funicle segment almost twice as long as second; covering of bifid scales of elytra reaching base [Fig. Hfor1M] [Fig. Hmel1M] [Fig. Hpse1M] [Fig. Hten1M].

Group meles 7

--- **Group dapalis** ---

3. Elytra with long, projecting, bent setae before apex; alternating pale and dark intervals [Fig. Hsub1M] [Fig. Hsub1F]. Aedeagus [Fig. Hsub2]. Internal sac [Fig. Hsub3]. Sternite 9 in male [Fig. Hsub11M]. Sternite 8 in female [Fig. Hsub10F]. Spermatheca C-shaped [Fig. Hsub12].

Hypera subvittata (Capiomont, 1867)

– Elytra with recumbent setae, distinctly visible from lateral view [Fig. Hcon1M] [Fig. Hdap1M] [Fig. Hkay1M] [Fig. Hstr1M].

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4. Elytra with light (white, yellow, orange or pale green) lateral stripe, and light stripe of the elytral suture forming typical “arrow head” [Fig. Hdap1M] [Fig. Hdap1F]. Aedeagus [Fig. Hdap2]. Internal sac [Fig. Hdap3]. Sternite 9 in male [Fig. Hdap11M]. Sternite 8 in female [Fig. Hdap10F]. Spermatheca C-shaped [Fig. Hdap12].

Hypera dapalis (Boheman, 1834)

– Elytra without lateral stripe forming “arrow head” [Fig. Hcon1M] [Fig. Hkay1M] [Fig. Hstr1M].

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5. Dark spots on alternating intervals of elytra or at least on the sides and on the apex [Fig. Hcon1M] [Fig. Hcon1F]. Aedeagus [Fig. Hcon2]. Internal sac [Fig. Hcon3]. Sternite 9 in male [Fig. Hcon11M]. Sternite 8 in female [Fig. Hcon10F]. Spermatheca C-shaped [Fig. Hcon12].

Hypera contaminata (Herbst, 1795)

– Elytra with alternating pale and dark interval; without dark spots [Fig. Hkay1M] [Fig. Hstr1M].

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6. Elytral intervals 2, 4 and 6 dark for their entire length, remaining intervals reddish or pale [Fig. Hstr1M] [Fig. Hstr1F]. Aedeagus [Fig. Hstr2]. Internal sac [Fig. Hstr3]. Sternite 9 in male [Fig. Hstr11M]. Sternite 8 in female [Fig. Hstr10F]. Spermatheca C-shaped [Fig. Hstr12].

Hypera striata (Boheman, 1834)

– Elytra with dark parts on basal two thirds of interval 1, apical quarter of interval 2, basal third of interval 3, apical half of interval 4, small apical part of interval 5 and all interval 6; remaining parts reddish [Fig. Hkay1M] [Fig. Hkay1F]. Aedeagus [Fig. Hkay2]. Internal sac [Fig. Hkay3]. Sternite 9 in male [Fig. Hkay11M]. Sternite 8 in female [Fig. Hkay10F]. Spermatheca C-shaped [Fig. Hkay12].

Hypera kayali Skuhrovec, 2006

--- **Group meles** ---

7. Femora and tibia black [Fig. Hten1M] [Fig. Hpse1M]. 8
 – Femora and tibia reddish, brown and proximal parts black [Fig. Hmel1M] [Fig. Hfor1M]. 9
8. Elytra covered with long, strongly projecting setae; pronotum distinctly bent noticeably visible from lateral and dorsal view. [Fig. Hten1M] [Fig. Hten1F]. Aedeagus [Fig. Hten2]. Internal sac [Fig. Hten3]. Sternite 9 in male [Fig. Hten11M]. Sternite 8 in female [Fig. Hten10F]. Spermatheca C-shaped [Fig. Hten12].
Hypera tenuirostris (Petri, 1901)
 – Elytra with short, recumbent setae; pronotum slightly bent, not flat, noticeably visible from lateral and dorsal view [Fig. Hpse1M] [Fig. Hpse1F]. Aedeagus [Fig. Hpse2]. Internal sac [Fig. Hpse3]. Sternite 9 in male [Fig. Hpse11M]. Sternite 8 in female [Fig. Hpse10F]. Spermatheca C-shaped [Fig. Hpse12].
Hypera pseudotenuirostris sp. nov.
9. Pronotum strongly oblique, base of elytra distinctly wider than pronotum [Fig. Sku5]; dorsum grey to cupreous brown [Fig. Hmel1M] [Fig. Hmel1F]. Aedeagus [Fig. Hmel2]. Internal sac [Fig. Hmel3]. Sternite 9 in male [Fig. Hmel11M]. Sternite 8 in female [Fig. Hmel10F]. Spermatheca C-shaped [Fig. Hmel12].
Hypera meles (Fabricius, 1792)
 – Smaller and more gracile, base of elytra slightly wider than pronotum, pronotum strongly oblique, but somewhat less expanded than in *H. meles* [Fig. Sku5] [Fig. Hfor1M] [Fig. Hfor1F]. Aedeagus [Fig. Hfor2]. Internal sac [Fig. Hfor3]. Sternite 9 in male [Fig. Hfor11M]. Sternite 8 in female [Fig. Hfor10F]. Spermatheca C-shaped [Fig. Hfor12].
Hypera fornicata (Penecke, 1928)

Catalogue of the subgenus *Dapalinus*

Hypera contaminata (Herbst, 1795)

Europe: western (France), central (Germany, Poland, Czech Republic, Austria, Slovakia, Hungary), southern (Italy), southeastern (Slovenia, Croatia, Bosnia and Herzegovina, Serbia and Montenegro, Macedonia, Romania, Bulgaria, Greece, European Turkey) eastern (Latvia, Ukraine, Russia, Republic of Moldavia) and Near East [Smreczyński 1968] [Skuhrovec 2003] [Alonso-Zarazaga 2005a] [Skuhrovec 2006a] [Winkelmann 2006].

Hypera dapalis (Boheman, 1834)

Southern Spain, Morocco and Algeria [Petri 1901] [Alonso-Zarazaga 2005a] [Skuhrovec 2006a]; Portugal.

Hypera fornicata (Penecke, 1928)

Europe: northern (Sweden, Finland), central (Poland, Czech Republic (?), Austria, Slovakia, Hungary), southern (northern Italy) and southeastern (Romania, Bulgaria, Ukraine, Armenia and Russia) [Borovec & Košťál 1987] [Winkelmann 2001] [Skuhrovec 2003] [Alonso-Zarazaga 2005a] [Skuhrovec 2006a].

Hypera kayali Skuhrovec, 2006

Western Syria [Skuhrovec 2006a].

***Hypera maculipennis* (Fairmaire, 1859)**

Southern Europe (Spain, southern France, Corsica, Sardinia, Sicily, Italy) and Algeria [Petri 1901] [Alonso-Zarazaga 2005a] [Skuhrovec 2006a]; Tunisia.

***Hypera meles* (Fabricius, 1792)**

Europe (except Iceland, Ireland and some islands in the Mediterranean Sea), North Africa and Siberia; introduced to North America [Petri 1901] [Borovec & Košťál 1987] [Skuhrovec 2003] [Alonso-Zarazaga 2005a] [Skuhrovec 2006a]; Spain and Portugal (? probably misidentification).

***Hypera pseudotenuirostris* sp. nov.**

Spain, Portugal

***Hypera striata* (Boheman, 1834)**

Europe: central (Czech Republic, Austria, Slovakia, Hungary), western (France), southern (Sardinia, Sicily, Italy) and southeastern (Croatia, Slovenia, Bosnia and Herzegovina, Serbia and Montenegro, Macedonia, Romania, Bulgaria, Greece, Ukraine), Turkey and Israel [Petri 1901] [Csiki 1934] [Smreczyński 1968] [Skuhrovec 2003] [Alonso-Zarazaga 2005a] [Skuhrovec 2006a] [Winkelmann 2006]; Spain and Syria (? probably misidentification).

***Hypera subvittata* (Capiomont, 1867)**

Bulgaria (? probably misidentification, material is unknown), Greece (? probably misidentification, material is unknown), Turkey, Syria, Israel and Jordan [Petri 1901] [Csiki 1934] [Angelov 1978] [Skuhrovec 2006a]; Lebanon.

***Hypera tenuirostris* (Petri, 1901)**

Northern Syria, Turkey [Petri 1901] [Csiki 1934] [Skuhrovec 2006a]; cf. Israel (? probably misidentification).

Cladistic analysis of the subgenus *Dapalinus*

Phylogenetic analysis

Reconstruction of the phylogeny of the studied taxa was performed based on a matrix comprising ten adult characters of external morphology, compiled in WINCLADA version 1.00.08 [Nixon 2002], and then run in NONA [Golloboff 1993] with 1,000 replicates and 20 starting Wagner trees to search for the shortest trees. Character state distributions were examined with WINCLADA [Nixon 2002].

Ingroup taxa

We used all ten known species representing the subgenus *Dapalinus* (see **Catalogue of the subgenus *Dapalinus***) as the ingroup taxa for the cladistic analysis.

Outgroup taxa

We used 3 species representing other groups of the Hyperini [**Table 1**] as outgroup taxa in the cladistic analysis. The reasons for selecting these taxa were as follows:

Donus intermedius (Boheman, 1842) is representative of the genus *Donus* Jekel, 1865 which is relative to the genus *Hypera*. The genus *Donus* is a large genus with more than 90 species that live in the mountains and lowlands of Europe, Asia and North Africa [Skuhrovec submitted].

The two species, *Hypera postica* (Gyllenhal, 1813) and *Hypera suspiciosa* (Herbst,

1795), are representatives of the nominotypical subgenus *Hypera* (see **Introduction**).

Characters

(Characters treated as nonadditive, unless otherwise indicated.)

1. Bifid scales cleft to more than one fourth of their length: (0) not present; (1) present.
2. Rostrum slightly shorter or longer than pronotum (0.6-1.5 x): (0) no, shorter; (1) present.
3. Shape of pronotum: (0) rounded; (1) distinctly, strongly convex; (2) heart shaped.
4. Near base of rostrum with ventral process in lateral view: (0) no process; (1) small, hardly noticeable process; (2) small, easily visible process.
5. First funicle segment almost twice as long as second: (0) no, the same or slightly longer; (1) yes, twice as long.
6. Elytral bifid scales cleft to base: (0) not present; (1) present.
7. Femora only with setae: (0) no, present, also scales; (1) yes.
8. Elytra with long, projecting, bent setae before apex: (0) not present; (1) present.
9. Elytra with alternating pale and dark intervals: (0) not present; (1) present.
10. Colouration of femora and tibiae: (0) reddish, brown and proximal parts black; (1) black.

Results

The cladistic analysis resulted in 3 parsimonious trees (tree length (TL) = 16, consistency index (CI) = 0.75, retention index (RI) = 0.83). Strict consensus of these trees is shown in the Figure [Fig. DapCLA].

In the strict consensus tree [Fig. DapCLA], *Dapalinus* species are divided into three basic clades: **Group *maculipennis* (clade A)**, **Group *dapalis* (clade B)**, and **Group *meles* (clade C)**.

Monophyly of *Dapalinus* species

The analysis feebly supports the monophyly of ten species with 1 unique synapomorphy: 2 (1). Rostrum slightly shorter or longer than pronotum (0.75-1.30 x).

(A) Group *maculipennis*

The clade (A) (*Hypera maculipennis*) is feebly supported in the subgenus *Dapalinus* (more in **Discussion**).

Monophyly of *Dapalinus sensu stricto*

The analysis strongly supports the monophyly of subgenus *Dapalinus* without *Hypera maculipennis* (*Dapalinus sensu stricto* = remaining nine species) with two unique synapomorphies: 1 (1). Bifid scales cleft to more than one fourth of their length; 4 (1 or 2). Near base of rostrum with small, easily or barely visible ventral process in lateral view.

(B) Group *dapalis*

The analysis very feebly supports the monophyly of **group *dapalis*** (5 species) presented with 4 unambiguous and unique synapomorphies: 4 (2). Near base of rostrum small, visible ventral process in lateral view; 5 (0). First funicle segment slightly longer or same length as second one; 6 (0). Elytral bifid scales not reaching base; 7 (1). Femora

with setae and scales. Feeble support for clade (B) is given by character 9 (presence of elytral stripes), which shows only the phenotype of species (not really relatives).

(C) Group *meles*

The analysis strongly supports the monophyly of **group *meles*** (4 species) presented with 4 unique synapomorphies: 4 (1). Near base of rostrum small, hardly noticeable ventral process in lateral view; 5 (1). First funicle segment twice as long as second one; 6 (1). Elytral bifid scales reaching base; 7 (1). Femora only with setae, without scales.

Discussion

The subgenus *Dapalinus* recently included ten species and can be divided into three groups; (A) **group *maculipennis***, with one species (*Hypera maculipennis* (Fairmaire, 1859)), (B) **group *dapalis*** with five species (*Hypera contaminata* (Herbst, 1795); *Hypera dapalis* (Boheman, 1834); *Hypera kayali* Skuhrovec, 2006; *Hypera striata* (Boheman, 1834) and *Hypera subvittata* (Capiomont, 1867)), and (C) **group *meles***, with four species (*Hypera fornicata* (Penecke, 1928), *Hypera meles* (Fabricius, 1792), *Hypera pseudotenuirostris* sp. nov. and *Hypera tenuirostris* (Petri, 1901)). The subgenus is characterised by 4 main features (see **Introduction**).

Unfortunately, the monophyly of the subgenus *Dapalinus* is only feebly supported because of the presence of the problematic species *Hypera maculipennis* (see **Monophyly of *Dapalinus* species**).

Capiomont [Capiomont 1868] classified *Hypera maculipennis* into the subgenus *Tigrinellus*, which included, e.g., *Hypera pastinacae* (Rossi, 1790). Petri [Petri 1901] transferred it into the group of *Hypera meles* "VI. Gruppe des *Phytonomus meles*". From this time, *Hypera maculipennis* has been presented as a representative of the subgenus *Dapalinus*. In our view, this taxa probably has some relative near to *Dapalinus* sensu stricto, but it is not possible to maintain its presence in this subgenus.

Hypera maculipennis is probably more closely related to species such as *Hypera plantaginis* (De Geer, 1775) (subgenus *Hypera*), which has a heart-shaped pronotum, or to representatives of the subgenus *Tigrinellus*, which also have long elongated rostra and similar pronotum shapes. These representatives of the genus *Hypera* were not used in the cladistic analysis because of their unclear taxonomic position within the genus *Hypera*. Their presence within cladistic analysis will be enfeebled all relationships within the subgenus *Dapalinus*. The first step will be to resolve the relationships between subgenera and groups within the genus *Hypera*.

The remaining nine species in the subgenus *Dapalinus* strongly support the monophyly of this group, and they are divided into two groups; **group *dapalis*** and **group *meles*** (see **Results - Monophyly of *Dapalinus* sensu stricto** and **Key to the species of the subgenus *Dapalinus***). The differences between the **group *dapalis*** and the **group *meles*** are as follows:

Group *dapalis*

- 1) First funicle segment 1.5 x longer than second;
- 2) Elytral bifid scales not reaching base;

- 3) Femora with setae and also scales;
- 4) Near the base of the rostrum, a small, but distinct, ventral process in lateral view.

Group *meles*

- 1*) First funicle segment almost twice as long as second;
- 2*) Elytral bifid scales reaching base;
- 3*) Femora only with setae;
- 4*) Near the base of the rostrum, a very small, hardly noticeable, ventral process in lateral view.

Within the subgenus *Dapalinus*, many taxonomic problems remain unsolved (see **Introduction**). Several authors [Borovec & Košťál 1987] [Winkelmann 2001] [Skuhrovec 2003] [Skuhrovec 2006a] tried to resolve the taxonomic problems of the sibling species, *Hypera fornicata* and *Hypera meles*, but, unfortunately, they were not able to study large numbers of specimens, and the taxonomy of this complex remains confusing, especially in central Europe. The relationships of *Hypera fornicata* and *Hypera meles* are still confusing. It is likely that *Hypera fornicata* may be only a variation of *Hypera meles* caused by high altitude, host plant (*Trifolium* spp.) or a combination of several abiotic and/or biotic factors. In our view, the relationship between these two sibling species may be resolved using molecular methods.

Species *Hypera pseudotenuirostris* sp. nov. and *Hypera tenuirostris* are probably closely related to each other. The ancestor of both species probably occurred in North Africa, but some event subsequently divided it into two species [Fig. DaHpseXten]. Molecular analysis with specific markers may show us the distance between these species, and we could approximate the date of the division of these species.

The unknown species *Hypera signata* (Boheman, 1834) may also be a representative of the subgenus *Dapalinus*. Published data for this species are available only in faunistics (Italy and Cyprus) [Colloneli 2003] [Alziar 2008]. Unfortunately, more data do not exist, and *Hypera signata* specimens are very rare. We hope that, in future studies, the taxonomic position of this little known *Hypera* species will be resolved.

The biology of the subgenus *Dapalinus* is known only for some species (see **Bionomics**). The biology of *Hypera meles* is well known because it is a pest in clover (*Trifolium* spp.). All known host plants of *Dapalinus* species are from the family Fabaceae, including species from several genera: *Chrysaspis*, *Dorycnium*, *Lathyrus*, *Lotus*, *Medicago*, *Trifolium* and *Vicia*.

The phylogenetic relationships of the subgenus *Dapalinus* within the genus *Hypera* are still unknown. The first phylogenetic analysis of Hyperini species is now in preparation [Skuhrovec i.e.], and the phylogenetic relationships within each genus, e.g., *Hypera*, will also be studied in future work.

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Addresses of authors:

Dr. Jiří Skuhrovec

Department of Herbology
Crop Research Institute
Drnovská 507
CZ – 161 06 Praha 6 – Ruzyně
Czech Republic
e-mail: jirislav@email.cz

Herbert Winkelmann

Attendorner Weg 39A
D – 13507 Berlin
Germany
e-mail: hyperiniwinkelmann@web.de