

**Separation of *Parazuphium (P.) chevrolati* and  
*P. (P.) maroccanum*, and description of a new subspecies  
(Col., Carabidae, Zuphiini)**

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**Taxonomy, *P. (P.) chevrolati laticolle* subsp. n., *P. (P.) maroccanum* stat. n., *P. (P.) chevrolati* subspecies-complex, key**

**Abstract.** *Parazuphium (P.) chevrolati* (Castelnau) from northern Mediterranean and *P. (P.) maroccanum* stat. n. from Morocco are differentiated and characterized by the male genitalia. *P. (P.) chevrolati laticolle* subsp. n. from southeastern Bulgaria is described and illustrated. Diagnostic characteristics of recognised subspecies of *P. (P.) chevrolati* are given. A key to the species of *Parazuphium* s. str. with large eyes is presented.

In order to evaluate the taxonomic status of *P. chevrolati* (CASTELNAU) from southeastern Bulgaria the structure of the male genitalia of the various known subspecies were critically studied. *P. (P.) chevrolati maroccanum* (ANTOINE) was found to differ in this character from all other subspecies and is apparently specifically distinct.

I wish to thank to Ing. M. Kuboň (Ostrava, Czechoslovakia) for allowing me to study a *Parazuphium chevrolati* male from Bulgaria.

*Parazuphium (P.) chevrolati* (CASTELNAU, 1833)

Male genitalia: Apical part of aedeagus gutter-like, with more or less distinct notch at its left side; both lamellae in apical orifice relatively short, mostly unequal in length; inner part of aedeagus with two spinulous structures (ventral longer than dorsal), one thorn-like dorsal sclerite and one robust, long, bent lamella (Fig. 3); cf. also HŮRKA & PULPÁN, 1981.

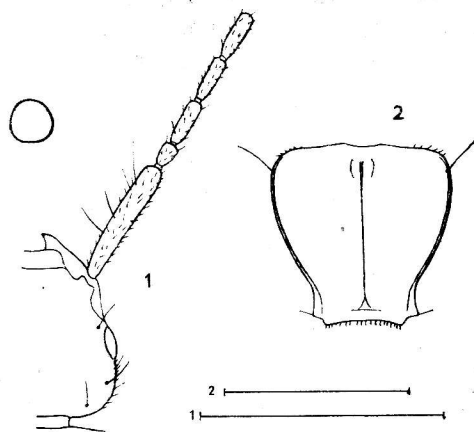
*Parazuphium (P.) chevrolati laticolle* subsp. n.

**Diagnosis**

Male. Colour yellowish brown, head a little darker than pronotum, both darker and shinier than elytra.

Eyes slightly convex, distance between hind margin of eyes and hind margin of head 1.6 times greater than longitudinal diameter of eye (Fig. 1); temporae subparallel. Pronotum hardly longer than wide, broad, with small shallow impression in anterior part of medial line, expressively bordered at lateral margins (Fig. 2). Elytra short, broadened caudad, 1.35 times longer

than wide and 2.3 times longer than pronotum. Third elytral interval distinctly elevated, the others in posterior half of elytra distinct; apical impressions outstanding; lateral borders narrow. Wings full developed, folded. Aedeagus (Fig. 3): apical part long, with distinct notch at its left side; right lamella in apical orifice shorter than left. Length 5.6 mm.



Figs 1—2. *Parazuphium (P.) chevrolati laticolle* subsp. n.: 1 — head and basal part of antennae 2 — pronotum. Scales 1 mm.

Female unknown.

Differential diagnosis: see Table 1; in colour, borders of pronotum and wing-length similar to *P. c. schelkownikowi*, but differing in shape of both pronotum and elytra which are markedly broader and shorter.

Derivatio nominis: Latin *laticollis* = with broad pronotum.

Holotype: ♂, labelled "Bulgaria Sozopol 6. 5. 1985 Kuboň lgt", in the collection of Ing. M. Kuboň, Ostrava, Czechoslovakia.

Type locality and habitat: Sozopol, town on southwestern shore of the Black Sea; the beetle was collected beneath stone at a small ruderal enclave, on the site of an earlier farm house, surrounded with extensive wheat fields. *Drypta dentata*, *Polistichus fasciolatus*, *Zuphium olens*, *Chlaenius aeneocephalus*, *Brachinus ganglbaueri*, *B. psophia*, *B. ejaculans* and *B. plagiatus* were also collected in this habitat.

*Parazuphium (P.) maroccanum* (ANTOINE, 1962) stat. n.

*Zuphium (Parazuphium) Chevrolati maroccanum* ANTOINE, 1962, Mém. Soc. Sci. Natur. Phys. Maroc, Zoologie, N. S., 9 : 642 (Morocco: Daya Chiker).

Diagnosis

Colour yellowish brown, head markedly darker. Pronotum shinier than elytra which are coarsely punctate and appear darker.

TABLE 1  
Diagnostic characteristics of the subspecies of *Parazuphium* (F.) *chevrolati* (CASTELNAU)

Character	<i>chevrolati</i>	<i>laticolle</i>	<i>minor</i>	<i>praepannonicum</i>	<i>reblii</i>	<i>schelkownikovi</i>	<i>unicolor</i>
Temporae	variable	subparallel	divergent	divergent	divergent	subparallel	weakly divergent
Eyes	variable	moderately large	small	small	small	large	small
Length of temporae: length of eyes	1.25-2.10 aver. 1.60	1.60	2.20, 2.50	2.10	1.80-2.15	1.15-1.60 aver. 1.40	2.00-2.40
Length of elytra: length of pronotum	2.50	2.30	2.35	2.30	2.45	2.40	2.25
Length of elytra: width of elytra	1.50	1.35	1.40	1.35	1.40	1.50	1.35
Third interval of elytra	distinctly elevated	distinctly elevated	weakly elevated	weakly elevated	weakly elevated	distinctly elevated	weakly elevated
Wings	brachypter-macropter	macropter	brachypter 1/1	brachypter 1/2	brachypter 3/4-5/6	macropter	brachypter 3/4-5/6
Length of aedeagal lamellae	nearly equal	different	markedly different	different	markedly different	different	markedly different
Body length in mm	5.00-6.20 aver. 5.45	5.60	4.25, 4.70	6.00	5.30, 5.40, 5.60	5.30-6.50 aver. 5.90	5.30-5.40
n	20	1	2	1	3	23	4

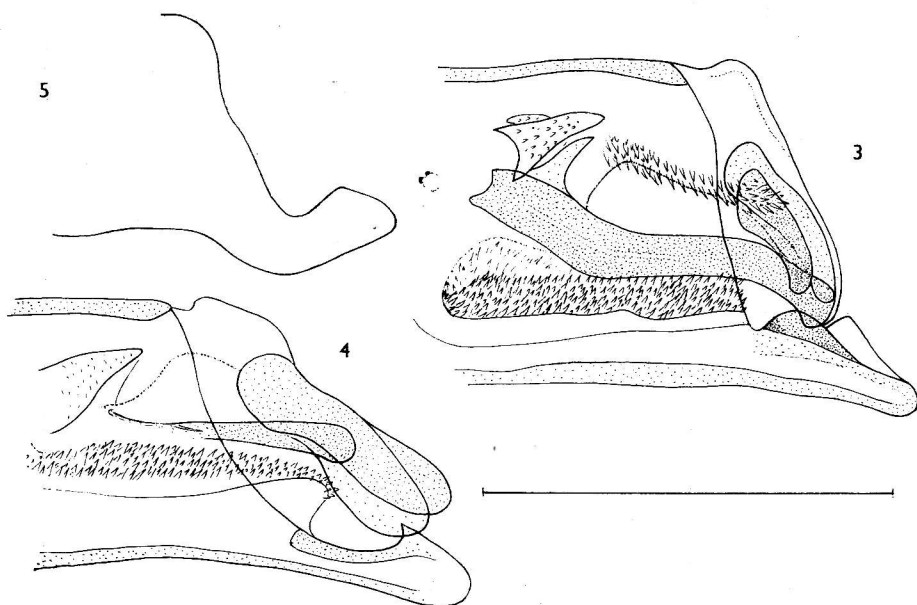
Eyes relatively convex, large, temporae weakly divergent (distance between hind margin of eyes and hind margin of head, in male from Tangier in my collection, 1.15 times greater than longitudinal diameter of eye; in the original description ANTOINE (1962) states "les tempes presque deux fois aussi longues que les yeux"). Third antennal segment twice length of second segment and a little longer than fourth segment. Pronotum as in *P. chevrolati*. Elytra subparallel, nearly 1.5 times longer than wide and 2.5 times longer than pronotum. Third elytral interval distinctly elevated. In male from Tangier the wings are fully developed, folded; but in the original description ANTOINE states "aptère". Aedeagus (Fig. 4) differs specifically from *P. chevrolati* as follows: apical part with one dorsal point, not gutter-like; both lamellae in apical orifice of equal length, robust and broad; lamella of the inner part short, straight and slender; in the inner part only the ventral spinulose structure present; dorsal thorn-like sclerite robust. Length 4.5–5.2 mm.

Distribution: Atlantic Morocco, on the plain.

### Key to the species of *Parazuphium* s. str. with large eyes

Eyes large, distance between hind margin of head and hind margin of eyes at most 2.5 times greater than longitudinal diameter of eye (see HŮRKA, 1982 : 285).

- 1 (2) Eyes convex, as long as temporae or longer. Pronotum wider than long. Length 5.0–5.5 mm. Morocco, Tunisia ..... *vaucheri* (VAULOGER)
- 2 (1) Eyes more or less flat, shorter than temporae. Pronotum longer than wide.
- 3 (4) Apical part of aedeagus hooked (Fig. 5). Head concolorous with pronotum and elytra. Length 3.8–5.4 mm. Western Mediterranean ..... *baeticum* (K. et J. DANIEL)
- 4 (3) Apical part of aedeagus with almost straight ventral margin. Head mostly darker than pronotum and elytra. Length 4.5–6.5 mm.



Figs 3–5. Apical part of aedeagus: 3 – *P. (P.) chevrolati laticolle* subsp. n., 4 – *P. (P.) maroccanum*, 5 – *P. (P.) baeticum*. Scale 0.5 mm.

- ♂ (6) Apical part of aedeagus gutter-like, with more or less distinct notch at its left side; both lamellae in apical orifice relatively short, mostly unequal in length; inner part with 3 spinulous structures, 1 thorn-like dorsal sclerite and 1 robust, long, bent lamella (Fig. 3). Southern part of Europe, Transcaucasia ..... *chevrolati* (CASTELNAU)
- ♂ (5) Apical part of aedeagus not gutter-like, with one dorsal point; both lamellae in apical orifice of equal length, robust and broad; inner part only with ventral spinulous structure, dorsal thorn-like sclerite robust, lamella short, straight and slender (Fig. 4). Atlantic Morocco ..... *maroccanum* (ANTOINE)

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#### Различия между видами *Parazuphium (P.) chevrolati* и *P. (P.) maroccanum* и описание нового подвида (Coleoptera, Carabidae)

Таксономия, *P. (P.) chevrolati laticolle* subsp. n., *P. (P.) maroccanum* stat. n., комплекс подвидов *P. (P.) chevrolati*, определитель

Резюме. Указаны различия между *Parazuphium (P.) chevrolati* (Castelnau) из южной Европы и *P. (P.) maroccanum* stat. n. из Марокко и даны их характеристики по гениталиям самцов. Далее дано описание и изображение нового подвида *P. (P.) chevrolati laticolle* ssp. n. из юговосточной Болгарии, диагностические характеристики известных подвигов *P. (P.) chevrolati* и таблица для определения видов рода *Parazuphium* s. str. с крупными глазами.

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