

Two new species of *Cypha* LEACH from Spain (Coleoptera: Staphylinidae, Aleocharinae)

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Abstract: *Cypha bifida* sp.n. (Spain: Galicia), a micropterous species with a highly distinctive aedeagus, and *C. forckeii* sp.n. (Murcia) are described, illustrated, and distinguished from other congeners occurring in the Western Palaearctic region.

Key words: Coleoptera, Staphylinidae, Aleocharinae, *Cypha*, West Palaearctic region, Europe, Spain, taxonomy, new species.

Introduction

In the Palaearctic region, the genus *Cypha* LEACH 1819 is represented by some 40 species, 26 of which occur in the West Palaearctic region. Though often very similar in external characters, the species are readily separated based on the morphology of the aedeagus, which is usually relatively large and distinctive. A reliable identification of females, however, is often difficult. Illustrations of the aedeagi of the species occurring in Central and Northern Europe are provided by ASSING (2004), DAUPHIN (2003, 2004), LOHSE (1974), and PALM (1935, 1966), detailed verbal diagnoses of the Western Palaearctic species described up to 1902 are given by LUZE (1902).

During a recent field trip to northwestern Spain, a male of a *Cypha* species was collected, which is characterised by deeply bifid aedeagus, a character that is unique among its Western Palaearctic congeners. Another undescribed species was made available to me by Thomas Forcke, Hannover, who found the single male during a short field trip to Murcia and Alicante in spring 2003.

Cypha bifida sp.n. (Figs. 1-7)

Holotype ♂: E - Galicia [4], Sierra de Ancares, Tres Obisbos, peak region, 1760 m, 42°48'04N, 6°52'08W, 11.VII.2004, V. Assing / Holotypus ♂ *Cypha bifida* sp. n. det. V. Assing 2004 (author's collection).

Description: Measurements of holotype (in mm): length of antenna: 0.54; head width: 0.42; width of pronotum: 0.60; length of pronotum: 0.33; length of elytra at suture: 0.32; combined width of both elytra: 0.65; total length from anterior margin of labrum to posterior margin of tergite VIII: 1.16.

Facies as in Fig. 2. **Coloration:** head and pronotum, except for the yellowish lateral and posterior margins, dark brown; elytra light brown; abdomen dark brown, with the posterior margins of the segments and the abdominal apex lighter; legs, antennae, and mouth-parts bright testaceous.

Head with extremely fine and moderately sparse puncturation; microsculpture absent. Antenna with distinctly three-jointed terminal club, i. e. antennomere VIII much larger than VII; antennomeres VIII and IX distinctly oblong, but less than twice as long as wide; terminal antennomere approximately as long as the combined length of the two preceding antennomeres (Fig. 3).

Pronotum strongly transverse (Fig. 2), 1.82 times as wide as long and 1.43 times as wide as head; puncturation similar to that of head; microsculpture absent, except for some traces near the posterior margin.

Elytra slightly wider than pronotum and at suture approximately as long as pronotum (Fig. 2); puncturation of similar density as that of head and pronotum, but slightly more distinct; microsculpture composed of shallow diagonal meshes. Hind wings reduced. Legs not distinctive.

Abdomen with relatively dense puncturation and shallow microsculpture; posterior margin of tergite VII with palisade fringe.

♂: protarsomere I not distinctly dilated; aedeagus highly distinctive: ventral process apically deeply bifid; internal sac subapically with a row of strongly sclerotized spines and with a sclerotized V-shaped basal structure (Figs. 4-6); apical lobe of paramere of triangular shape (Fig. 7).

E t y m o l o g y : The name (Lat., adj.) refers to the deeply bifid ventral process of the median lobe of the aedeagus.

C o m p a r a t i v e n o t e s : The new species is distinguished from all its congeners especially by the highly distinctive morphology of the aedeagus, from most species also by the completely reduced hind wings. From those species whose genitalia have not been studied, it is additionally separated as follows (characters mostly based on the respective original descriptions and on LUZE (1902)):

Cypha angularis (LUZE 1902) from Morocco has darker legs and antennae, longer elytra with infusate suture and lateral margins, and more distinct posterior angles of the pronotum.

Cypha carinthiaca (SCHEERPELTZ 1958) from Austria has infusate legs and antennae and distinctly dilated male protarsi.

Cypha clavigera (FAUVEL 1900) has infusate legs and antennae, and antennomere IX is distinctly transverse.

In *Cypha grandicornis* (FAIRMAIRE 1869), the antennae are not distinctly clubbed, and antennomere X is as long as the combined length of antennomeres VII-IX.

In *Cypha laxipuncta* (FAUVEL 1886), the antennae are not distinctly clubbed.

In *Cypha megalomera* (FAUVEL 1898), the first antennomere is distinctly dilated and cordiform, the antenna is not clubbed, and the legs are infusate.

Cypha picta (MOTSCHULSKY 1858) is much larger and has darker legs and antennae.

In *Cypha reducta* (WOLLASTON 1860), the apex of the abdomen is not lighter than the base, the antennae are apically infusate and not distinctly clubbed.

Cypha rubripennis (PANDELLÉ, 1869) has darker legs, red elytra, and less distinctly clubbed, apically infusate antennae.

Cypha squamipennis (FAUVEL 1902) has infusate and less distinctly clubbed antennae.

Cypha tenuicornis (KRAATZ 1857) has more slender infusate antennae, with the terminal antennomere longer than the combined length of the two preceding antennomeres.

Cypha unicolor (ROSENHAUER 1856) has darker legs and infusate, not distinctly clubbed antennae.

Distribution and bionomics: The reduced hind wings and the altitude of the type locality suggest that *C. bifida* may have a restricted distribution. The holotype was collected on Tres Obisbos, one of the principal peaks of the Sierra de Ancares in northwestern Spain. It was sifted from moss, roots of grass and other plants at an altitude of approximately 1760 m (Fig. 1).

***Cypha forckeii* sp.n.** (Figs. 8-13)

H o l o t y p e ♂: E - Murcia, Sierra de Espuña, 1500 m, 7.IV.2003, leg. Forcke / Holotypus ♂ *Cypha forckeii* sp. n. det. V. Assing 2004 (author's collection).

D e s c r i p t i o n: Measurements of holotype (in mm): length of antenna: 0.54; head width: 0.42; width of pronotum: 0.605; length of pronotum: 0.35; length of elytra at suture: 0.38; combined width of both elytra: 0.69; total length from anterior margin of labrum to posterior margin of tergite VIII: 1.66; length of metatibia: 0.33; length of metatarsus: 0.20.

Facies as in Fig. 8. **Coloration:** body black, with the margins of the pronotum and the abdominal apex indistinctly lighter; legs brown; antennae with antennomere I yellowish brown, II - III bright yellow, and IV - X dark brown.

Forebody and antenna as in Figs. 9 - 10. **External appearance** as in *C. laeviuscula* (MANNERHEIM), distinguished only by the male sexual characters:

♂: protarsomere I less strongly dilated than in *C. laeviuscula*, but of similar length, slightly shorter than the combined length of the three following tarsomeres; aedeagus smaller than in *C. laeviuscula*, median lobe with shorter ventral process; apex of ventral process bent dorsad (not ventrad as in *C. laeviuscula*) (Figs. 11-13).

E t y m o l o g y: The species is dedicated to my friend Thomas Forcke, Hannover, who collected the holotype.

C o m p a r a t i v e n o t e s: For distinction from the highly similar *C. laeviuscula* see description above. The only other Western Palaearctic species with a similarly acute ventral process of the aedeagus (not considering those species whose genitalia have never been studied) is *C. tenebricosa* ASSING from Turkey, which has completely black legs and antennae.

D i s t r i b u t i o n a n d b i o n o m i c s: The species is known only from the type locality in southeastern Spain, where the holotype was collected at an altitude of 1500 m.

Zusammenfassung

Cypha bifida sp. n. (Spanien: Galicia), eine brachyptere Art mit bemerkenswerter Genitalmorphologie, und *C. forckeii* sp. n. (Murcia) werden beschrieben und von anderen westpaläarktischen Arten der Gattung unterschieden. Habitus und Sexualmerkmale werden abgebildet.

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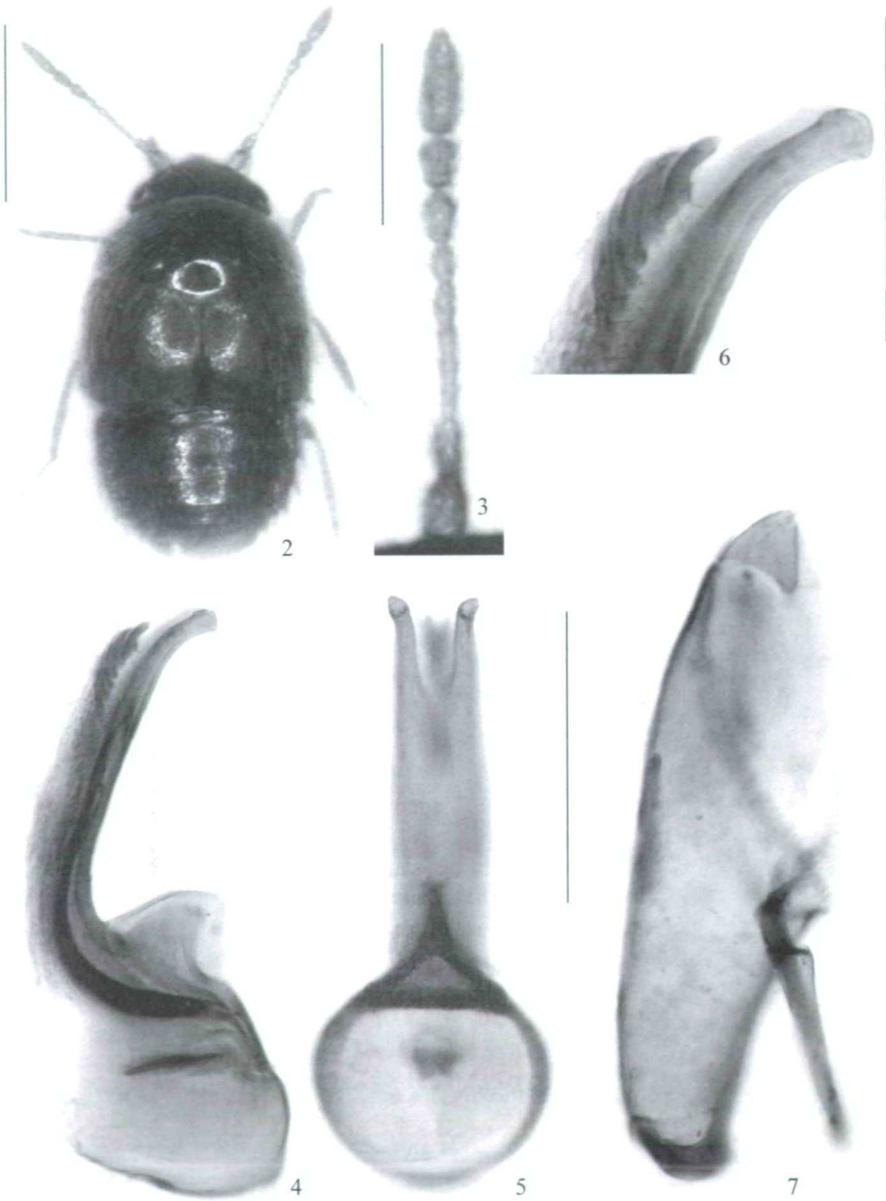
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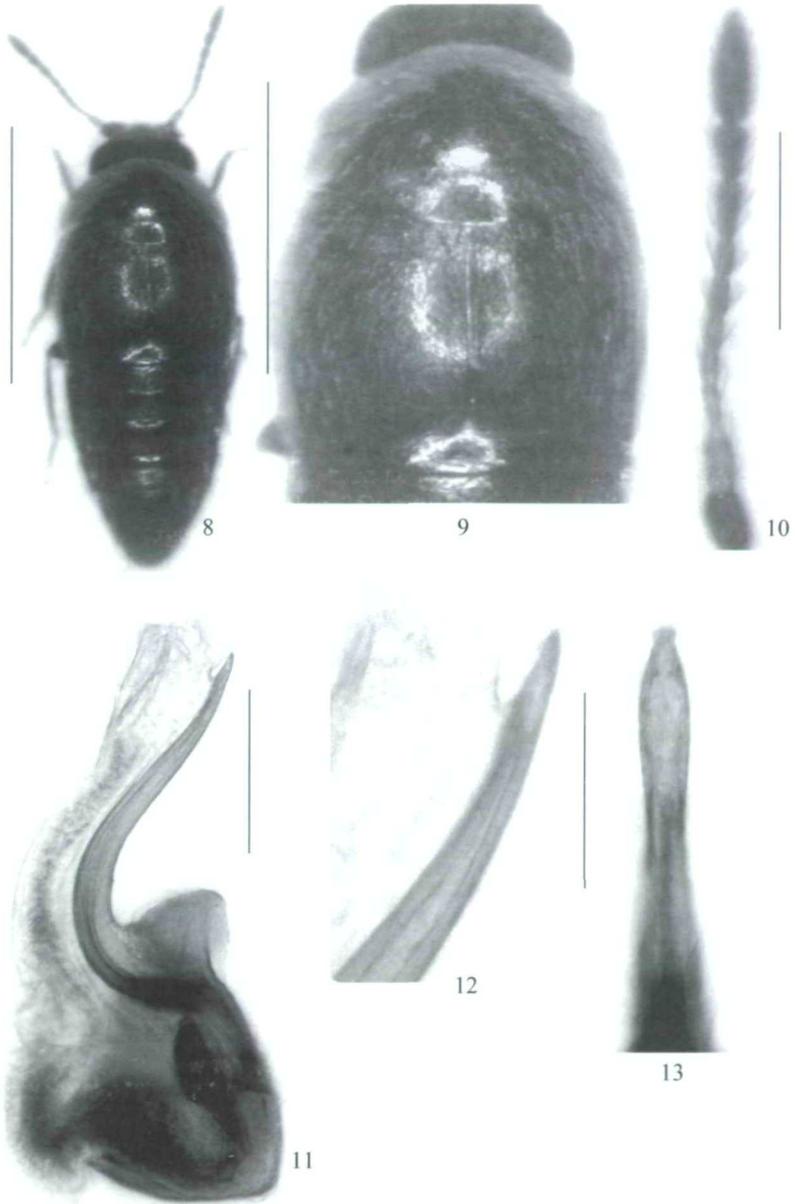
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Figs. 1: Type locality of *Cypha bifida* sp. n.: Sierra de Ancares: peak of Tres Obisbos (Spain: Galicia).



Figs. 2-7: *Cypha bifida* sp. n. (holotype): 2 – facies; 3 – antenna; 4 – median lobe of aedeagus in lateral view; 5 – median lobe of aedeagus in ventral view; 6 – apical part of median lobe of aedeagus in lateral view; 7 – paramere. Scale bars: 2: 0.5 mm; 3-5, 7: 0.2 mm; 6: 0.1 mm.



Figs. 8-13: *Cypha forckeii* sp. n. (holotype): **8** – facies; **9** – pronotum and elytra; **10** – antenna; **11** – median lobe of aedeagus in lateral view; **12** – apex of median lobe of aedeagus in lateral view; **13** – apical part of median lobe of aedeagus in ventral view. Scale bars: 8: 1.0 mm, 9: 0.5 mm; 10: 0.2 mm; 11: 0.1 mm; 12 - 13: 0.05 mm.