

**Redescription of the Neotropical water scavenger
beetle genus *Phaenostoma* (Coleoptera: Hydrophilidae)
with description of two new species**

Grey T. GUSTAFSON^{1,2)} & Andrew E. Z. SHORT^{1,*)}

¹⁾Division of Entomology, Biodiversity Institute and Department of Ecology & Evolutionary
Biology, University of Kansas, Lawrence, Kansas, KS 66045, USA;
e-mails: GTG: gtgustafson@gmail.com, AEZS: aezshort@ku.edu

²⁾Department of Biology, University of New Mexico, Albuquerque, NM 8713, USA

*Corresponding author

Abstract. The water scavenger beetle genus *Phaenostoma* d'Orchymont, 1937 is reviewed and redescribed. Two new species are described: *P. kontax* sp. nov. (Peru) and *P. stochasma* sp. nov. (Costa Rica, Venezuela). The only previously known species, *P. posticatum* (Sharp, 1887) is newly recorded from Costa Rica and redescribed. A key to known species of the genus is presented.

Keywords. Coleoptera, new species, taxonomy, Costa Rica, Venezuela, Peru, Neotropical Region

Introduction

The monotypic Neotropical water scavenger beetle genus *Phaenostoma* d'Orchymont, 1937 is one of 19 genera in the cosmopolitan tribe Coelostomatini of the Sphaeridiinae (HANSEN 1999, SHORT & HEBAUER 2006). Its only current species, *P. posticatum* (Sharp, 1887) was originally described from Panama and subsequently recorded from Peru and Brazil (d'ORCHYMONT 1943, HANSEN 1999). While the genus is not necessarily rare in collections, is it much less commonly found than other Neotropical coelostomatine genera such as *Dactylosternum* Wollaston, 1854 and *Phaenonotum* Sharp, 1882, and often confused with the latter.

Intensive survey work in Costa Rica conducted by the Instituto Nacional de Biodiversidad (INBio) over the last two decades has resulted in a comparatively large amount of material of the genus and served as the impetus for this study. We have identified two Costa Rican species: *P. posticatum* and an undescribed species, *P. stochasma* sp. nov. We have also recently collected *P. stochasma* in southern Venezuela. Additionally, we describe a second new species from Peru, *P. kontax* sp. nov, found in the Snow Entomological Collection at

the University of Kansas. During the course of this study, we came across other unidentified *Phaenostoma* material from South America, some of which likely represent additional new species. This material will be treated in a subsequent manuscript.

Materials and methods

We examined nearly 100 specimens of *Phaenostoma* for this study. Morphological terminology largely follows HANSEN (1991) with the exception of meso- and metaventrite for meso- and metasternum, respectively.

Depository abbreviations:

BMNH	The Natural History Museum (C. Taylor);
CMNC	Canadian Museum of Nature, Ottawa, Canada (R. Anderson);
INBio	Instituto Nacional de Biodiversidad, Santo Domingo, Costa Rica (A. Solis);
KSEM	Division of Entomology, University of Kansas, Lawrence, KS, USA (A. Short);
MIZA	Museo del Instituto de Zoología Agrícola, Maracay, Venezuela (L. Joly);
NHMW	Naturhistorisches Museum, Wien, Austria (M. Jäch);
NMPC	National Museum, Praha, Czech Republic (M. Fikáček);
USNM	United States National Museum, Washington DC, USA (W. Steiner).

Structures of taxonomic importance

Ground punctation. All known species of *Phaenostoma* show similar patterns of ground punctation, which is very fine on the pronotum (sometimes almost appearing absent), while the elytra possess somewhat coarser ground punctation relative to the pronotum. The coarseness of the punctures can be helpful in separating species. In one species (*P. kontax* sp. nov.), the elytral punctures are set in larger recessed discs (Fig. 3B). This is evident using electron microscopy, but the punctures may simply appear as larger ‘normal’ punctures using light microscopy. Punctation may also vary across the surface of a given structure; for example, in *P. posticatum*, punctation is coarsest on the elytral disc and gradually becomes finer laterally and posteriorly while the reverse is true in *P. kontax* sp. nov.

Sternal process. The fused sternal process (particularly the process of the mesoventrite) provides diagnostic external characters that can be used to differentiate the known species of *Phaenostoma*. The sternal process consists of a raised median region of the metaventrite which is narrowly fused to a short, elongate, and often spear-headed carina of the mesoventrite. The anterior margin of the mesoventrite typically has a marginal ridge or hood. Different species have different anterior bordering patterns, frequently depending on the elevation of the hood. The elevation of the hood, either appearing on the same plane as the rest sternal process or above it, is an important character for distinguishing species.

Aedeagus. The known species of *Phaenostoma* possess trilobed aedeagi typical of other coleostomatine genera. The parameres have areas of thickened cuticle that appear to form the outline of the parameres. Upon closer inspection the true edges of the parameres (visible only for the inner edges) are composed of very thin cuticle. For that reason the illustrations show the thickened areas of the parameres with thicker lines and the thinner inner lines representing the true inner paramere edges. The overall shape of the parameres refers to these thickenings

and the inner thin edges addressed as such. Each species of known *Phaenostoma* differs in the thickness and shape of the parameres. In all known species of *Phaenostoma* the basal piece is often much smaller than the rest of the aedeagus and similar in shape. In general the aedeagus possesses the most diagnostic and unique characters for known species of *Phaenostoma*.

Taxonomy

Phaenostoma d'Orchymont, 1937

Phaenostoma d'Orchymont 1937: 133. Gender: neuter.

Type species. *Cyclonotum posticatum* Sharp, 1887 (original designation).

Diagnosis. Small to medium sized beetles. Size 2.1–3.7 mm. Body form broadly oval and strongly convex. Antennae with nine antennomeres, including a three-segmented, loose pubescent club. Clypeus broad and expanded to cover labrum, truncate to subtruncate apically. Elytron without striae except for a sutural stria appearing in posterior third of the elytron and

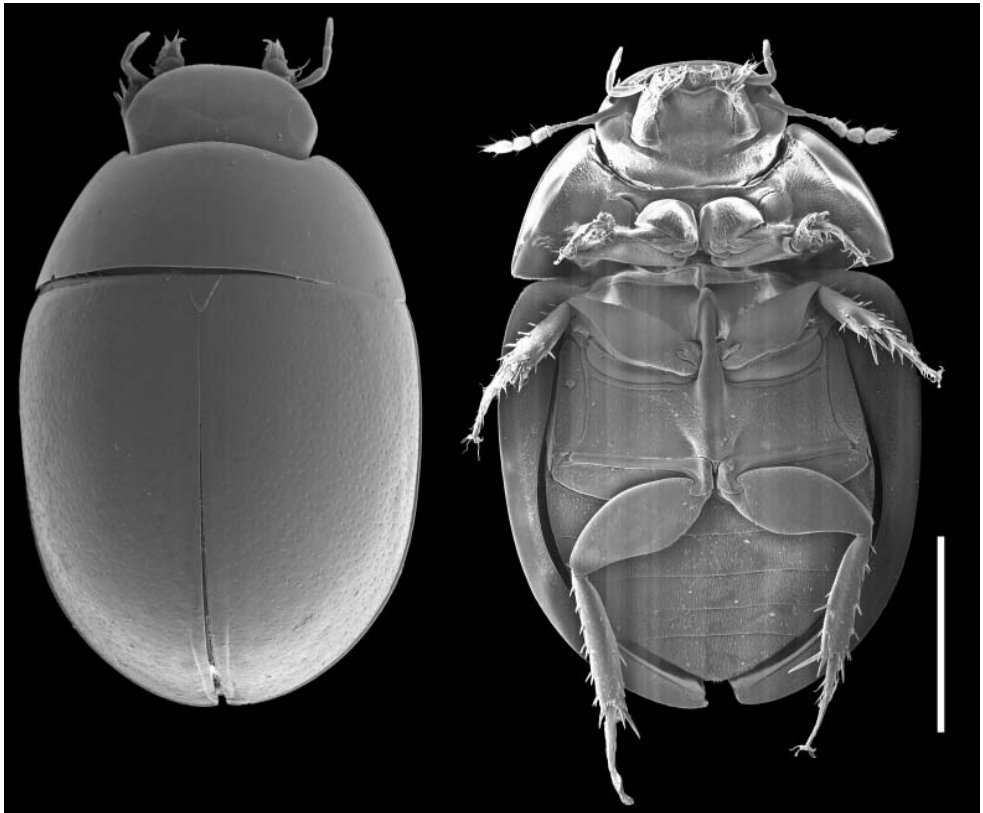


Fig. 1. Dorsal and ventral habitus of *Phaenostoma posticatum* (Sharp, 1887) (Costa Rica). Scale bar = 1.0 mm.

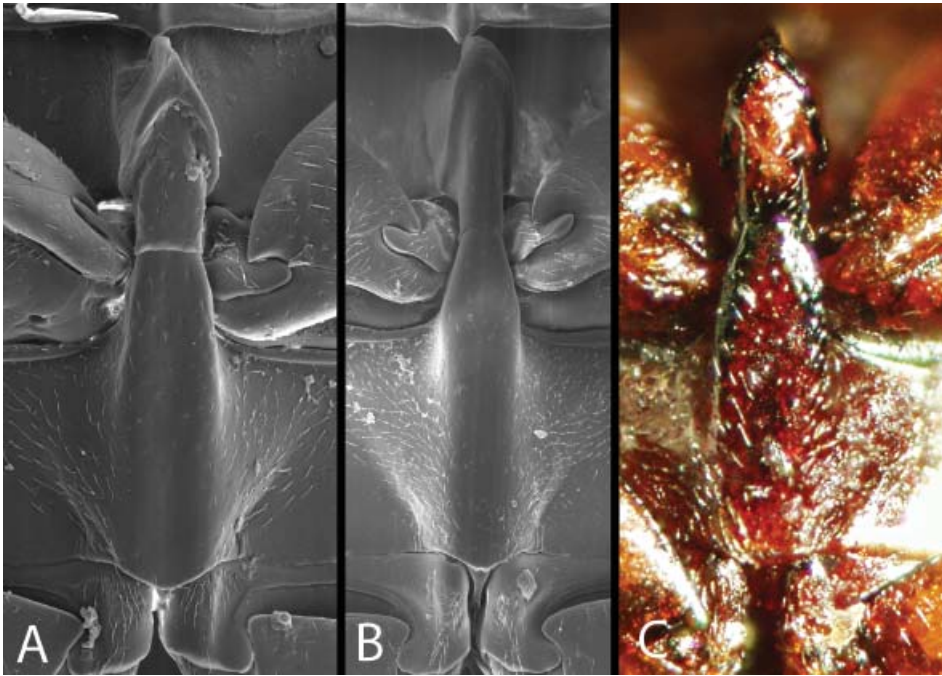


Fig. 2. Sternal process of *Phaenostoma* species. A – *P. kontax* sp. nov.; B – *P. posticum* (Sharp, 1887); C – *P. stochasma* sp. nov.

continuing to the apex. Elytra slightly explanate in posterior half. Prosternum narrow, not carinate medially. Process of the mesoventrite linear, forming a composite structure with the raised portion of the metaventrite. First metatarsomere longer than second. Tarsi with brush of setae ventrally.

In the New World, there is no other genus of the tribe that possesses an elytral sutural stria and no other elytral striae. Other coelostomatine genera either have no striae at all (e.g., *Phaenonotum* Sharp, 1882, *Galapagodacnum* d'Orchymont, 1937, *Lachnodacnum* d'Orchymont, 1937) or multiple rows of elytral striae in addition to the sutural one (e.g., *Dactylosternum* Wollaston, 1854, *Cyclotypus* Sharp, 1882, *Badioglobus* Short, 2005). In dorsal habitus, the genus is most similar to the common genus *Phaenonotum*, and is often confused with it in collections.

Redescription. *Head.* Clypeus large and expanded to conceal labrum, weakly convex, and truncate to subtruncate apically. Ground punctation present. Eyes well developed, weakly convex, and separated by 4–5 times the diameter of one eye. Eyes constricted medially by anterior and posterior emargination. Frontoclypeal suture usually appearing absent. Antennae with 9 antennomeres, ca. $3/4 \times$ as long as the width of the head; antennomeres 7–9 densely pubescent and forming a loose club. Club length ca. $4 \times$ the width of the apical segment. Maxillary palps bearing four palpomeres, with palpomeres 2 and 4 similar in size and both

slightly longer than palpomere 3. Palpomeres 3 and 4 with sides nearly symmetrical. Stipes laterally with long fine yellow setae. Labial palps bearing three palpomeres; palpomere 3 much longer than 1 & 2 combined. Palpomeres 2 and 3 bearing long setae. Mentum length ca. half the width, depressed anteromedially, pubescent. Gula constricted medially, forming an elongate triangle anteriorly and a more obtuse triangle posteriorly.

Thorax. Pronotum convex, often meeting seamlessly in outline with elytra; broadened posteriorly meeting elytral margins; pronotal ground punctation often more weakly impressed than that on the elytra. Pronotal marginal bead well developed laterally, becoming shallower anteromedially. Scutellum punctate; forming an equilateral triangle. Elytral striae absent except for a sharp sutural stria arising in the posterior one-third and continuing to apex; ground punctation often well impressed and dissimilar to pronotal punctation; marginal bead well developed. Prosternum small and flat. Mesoventrite with a well-developed, raised linear process; angular, anteriorly preceded by an elevated sub-parallel ridge that reaches posteriorly to meet elevated process of the metaventrite. Metaventrite very sparsely pubescent; elevated medially along entire length, beginning low and broad posteriorly and becoming more narrow, elevated, and subparallel anteriorly as it meets the posterior portion of the mesoventral ridge process. The process arises anteriorly to the metacoxae and proceeds between the mesocoxae. Pro- and metacoxae narrowly separated. Mesocoxae separated the process of the mesoventrite. Mesocoxae large and extending the width of the mesoventrite. Metacoxae flattened, extending the width of the metaventrite. Profemora densely pubescent basally on both dorsal and ventral surfaces; meso- and metafemora glabrous with a few isolated setae along anterior margin. Femora and tibiae noticeably flattened dorso-ventrally. Femora with tibial grooves developed throughout the posterior margin. Tibia spinose with larger spines apically. Tarsi with moderately dense setal brush ventrally. First metatarsomere longer than second. Tarsal claws relatively small and moderately curved.

Abdomen. Abdomen with 5 ventrites, bearing dense, short pubescence throughout. Ventrite 5 rounded posteriorly, without apical emargination and larger than preceding segments. The aedeagus trilobed (Fig. 4) with the phallobase ca. 1/4 the length of the rest of the aedeagus. Aedeagus with parameres having lateral margins thickened and ventral inner margins thin.

Biology. Most specimens with collecting data were sifted from forest litter (many *P. posticatum* and some *P. kontax* sp. nov.), berleses of 'flower falls' (some *P. kontax* sp. nov.) or taken at flight intercept traps (some *P. posticatum*). The single Venezuelan specimen was taken along the riparian corridor at Tobogan de la Selva, likely in an aquatic or water-saturated situation.

Remarks. SHARP (1887) originally described what is now *P. posticatum* in the genus *Cyclonotum* Erichson, 1837 (now a synonym of *Coelostoma* Brulle, 1835). Generic concepts of coelostomatine genera were poorly differentiated at the time (and still are in many cases), and members of *Cyclonotum* are now distributed in at least five contemporary genera: *Coelostoma*, *Phaenostoma*, *Phaenonotum*, *Lachnodacnum*, and *Dactylosternum*. Indeed, *P. posticatum* was transferred between three genera (*Cyclonotum*, *Dactylosternum*, and *Coelostoma*) before d'ORCHYMONT (1937) erected *Phaenostoma* for the species based on the following combination of characters: presence of a sutural stria, but lack of other elytral striae, moderately dense ventral setal tufts on the tarsi, and a fused, linear, elongate sternal process.

***Phaenostoma kontax* sp. nov.**

(Figs. 2A, 3, 4B)

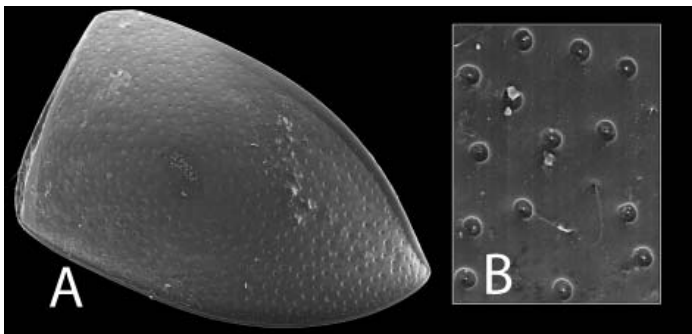
Type locality. Peru, Loreto Department, Campamento San Jacinto, 2°18.75'S, 75°51.77'W.**Type material.** HOLOTYPE: ♂, 'PERU: Dept. Loreto / Campamento San Jacinto / 2°18.75'S, 75°51.77'W / 6 July 1993, 175–215 m / Richard Leschen #39 / ex. Rainforest berlese', 'HOLOTYPE / *Phaenostoma / kontax* sp. nov. / des. Gustafson & Short' (KSEM). PARATYPES (21 exs.). PERU: LORETO DEPARTMENT: same data as holotype (10 exs., KSEM, NMPC, NHMW); same locality but 11.vii.1993, leg. Richard Leschen #86, ex. flower fall berlese (4 exs., KSEM); same locality but 10.vii.1993, leg. Richard Leschen #80, ex. flower fall berlese (4 exs., KSEM); same locality but 2.vii.1993, leg. Richard Leschen #1, ex. Berlese, Qd. 22 (2 exs., KSEM); 1.5 km Teniente Lopez, 2°35.66'S 76°06.92'W, 210–240 m, 21.vii.1993, leg. Richard Leschen #169, ex. rainforest berlese (1 ex., KSEM).**Diagnosis.** Body size 2.1–2.3 mm. Body form weakly convex. Elytral margins explanate. Sternal process constricted at junction of meso- and metaventrites, form as in Fig 2A. Aedeagus as in Fig. 4B with very thin and strongly inwardly curved parameres.*Phaenostoma kontax* sp. nov. is easily distinguished from other known *Phaenostoma* by its small size (it is the smallest known species of *Phaenostoma*), weak body convexity, and elytra with explanate margins apically. *Phaenostoma stochasma* sp. nov. is similar in body form and relatively smaller size but can be easily distinguished by the shape of its aedeagus (Fig. 4B) and sternal process. *Phaenostoma kontax* sp. nov. has the anterior hood of the sternal process appearing above the rest of the plane of the rest sternal process, while that of *P. stochasma* sp. nov. is located on the same plane as the rest of the sternal process.**Description.** *Color.* Dorsal surface appearing reddish brown to brown. Elytral and pronotal discs frequently darker, with the lateral margins often appearing paler in color. Head with darker coloration frequently around the eyes with the clypeus lighter brown to reddish brown anteriorly. Ventral surface reddish brown to brown with legs lighter brown to near yellow. Tarsi, palps, and antennae yellow.*Head.* Ground punctation fine with average distance between punctures ca. 3–4× the distance of one puncture.*Thorax.* Pronotum punctation fine with the average distance between punctures ca. 4–5× the diameter of one puncture. Elytral punctation coarse (but weakly impressed), with the average distance between punctures ca. 2–3× the diameter of one puncture (Fig. 3A); most punctures set within a larger recessed disc (Fig. 3B). Elytral margins apically explanate. Process of the mesoventrite broad and constricted at suture with metaventrite (Fig. 2A), with anterior hood

Fig. 3. Elytron of *Phaenostoma kontax* sp. nov. A – entire elytron; B – enlargement of elytral surface.

thickly bordered and frequently appearing above the rest of the plane of the sternal process in lateral view.

Abdomen. Aedeagus (Fig. 4B) with parameres thin and strongly curved inward, with the bases fairly thick. Phallobase weakly constricted. Apex of median lobe not reaching the apex of the parameres.

Etymology. *Kontax* is a Greek expression for a spear, referring to the spear-shaped anterior portion of the sternal process. Treated as noun in apposition.

Distribution. Known only from a few localities in Amazonian Peru.

Remarks. All specimens of this species were taken from rainforest berlese samples, including 'flower falls', suggesting this species may be a terrestrial/leaf-litter and/or decaying vegetation inhabitant.

Phaenostoma posticatum (Sharp, 1887)

(Figs. 1, 2B, 4A)

Cyclonotum posticatum Sharp, 1887: 769

Dactylosternum posticatum (Sharp); ZAITZEV (1908: 402)

Coelostoma posticatum (Sharp); KNISCH (1924: 113)

Phaenostoma posticatum (Sharp); d'ORCHYMONT (1937: 133)

Type locality. Panama: Chiriqui Province, Bugaba.

Type material examined. SYNTYPE 1: 'Cyclonotum/ posticatum / Ind. Typ D.S. / Bugaba Champion [on same card as specimen]', 'Sharp Coll. / 1905.-313.', 'Bugaba, / Panama. / Champion.', 'B.C.A. Coll. I. 2. / Cyclonotum / posticatum, / Sharp.' (sex undetermined) (BMNH). SYNTYPE 2: 'Cyclonotum / posticatum / Type. D.S. [on same card as specimen]', 'Bugaba, / Panama. / Champion.', 'Sharp Coll. / 1905.-313.', 'B.C.A. Coll. I. 2. / Cyclonotum / posticatum, / Sharp.', 'Type [red disc, upside down]', '♀' (BMNH). No lectotype was designated.

Additional material examined (60 exs.). **COSTA RICA: PUNTARENAS PROVINCE:** Osa Peninsula, Foundation Neotropical, 10 km W. Rincon, 180 m 08°42'30"N 83°31'30"W, 22.vi.1997, leg. R. Anderson, ridge forest litter, RSA 1997-026C (1 ex., CMNC); same data except 21.vi.1997, RSA 1997-024B (2 exs., CMNC); same data except 200 m, 24.vi.2001, lowland forest litter, 2001-120B (3 exs., CMNC); Osa Peninsula, 4 km W. Rancho Quemado, 08°42'30"N 83°35'33"W, 500 m, 24.vi.2001, leg. R. Anderson, ridge forest litter, 2001-121A (1 ex., CMNC); Osa Peninsula, Rancho Quemado, 200 m, iv.1992, leg. K. Flores (2 exs., INBio); same data except 10-31.iii.1992, leg. A. Marin (1 ex., INBio); same data except 1-21.xii.1992, leg. A. Marin (1 ex., INBio); same data except vii.1992, leg. M. Segura (2 exs., INBio); same data except xii.1992, leg. F. Quesada (1 ex., INBio); Golfito, Agujas Station, 250-350 m, 10.x.1990, leg. A. Azofeifa, Berlese trap (2 exs., INBio); Golfito, Agujas Station, Sendero Bonanza, Bosque Primero, 300 m, 11.viii.2000, leg. A. Azofeifa, Mantillo (1 ex., INBio). **LIMON PROVINCE:** Sector Cerro Cocori, Farm of E. Rojas, 150 m, iii.1993, leg. E. Rojas (1 ex., INBio); same data except iv.1993 (4 exs., INBio); same data except x.1991 (4 exs., INBio); same data except ix.1991 (4 exs., INBio); same data except vi.1991 (3 exs., INBio); same data except iii.1992 (1 ex., INBio); same data except viii.1991 (2 exs., INBio); same data except iv.1992 (2 exs., INBio); same data except viii.1992 (1 ex., INBio); Sector Cocori, 30 km N of Cariari, 100 m, xii.1993, leg. E. Rojas (1 ex., INBio). **GUANACASTE PROVINCE:** Pitilla Station, 9 km S. Santa Cecilia, 700 m, 22.viii.1993, leg. C. Moraga (2 exs., INBio); same data except 6-18.viii.1993, leg. P. Rios (5 exs., INBio, NMPC); same data except 3-18.x.1991, leg. P. Rios (3 exs., INBio); same data except iii.1995 (4 exs., INBio); same data except 19.v.-3.vi.1993 (1 ex., INBio); same data except viii.1991, leg. C. Moraga (1 ex., INBio); same data except i.1994 (2 ex., INBio); same data except x.1994 (2 exs., INBio). **HEREDIA PROVINCE:** 16 km S.S.E. La Virgen, 1070 m, 10°16'N 84°05'W, 10-21.iv.2001, INBio-OET-ALAS transect (1 ex., INBio).

Diagnosis. Body size 3.1-3.7 mm. Body form strongly convex, hemispherical. Process of the mesoventrite as in Fig. 2B, aedeagus as in Fig. 4A. Aedeagus with parameres parallel sided for ca. basal $\frac{3}{4}$ of the length and angled inward in apical $\frac{1}{4}$.

Phaenostoma posticatum is the largest of the described species in the genus, always greater than 3.0 mm in length. It can also readily be distinguished from its congeners by the overall shape of its sternal process: the hood of the process has well developed margins and the hood appears above the rest of the plane of the sternal process. Its aedeagus is also distinct, with strongly sinuate outer margins at the apex of the parameres.

Description. *Color.* Dorsal surface dark brown (sometimes appearing black) to reddish brown. Lateral margins of elytra and pronotum often paler in color. Elytra apically with a region of paler coloration. Pronotal margins with a lateral band of pale coloration often ranging to yellow in color. Head usually darker than pronotum and elytra. Ventral surface dark brown with legs tending to be lighter in coloration and appearing reddish brown to yellowish. Antennae, palps, tarsi, and tarsal setae yellow.

Head. Ground punctation fine with average distance between punctures approximately 4× the diameter of one puncture.

Thorax. Pronotal punctation extremely fine with average distance between punctures ca. 4–5× the diameter of a puncture. Elytral punctation weakly impressed and coarser than the pronotal and head punctation. Apical margins of elytra not explanate. Average distance between punctures of the elytra ca. 3× the diameter of one puncture. Impression of the elytral punctation shallow and depressions appearing uneven in size. Process of the mesoventrite as in Fig 2B; with apical hood distinctly bordered and frequently appearing above the plane of the rest of the sternal process in lateral view. Process of the mesoventrite with margins nearly parallel and not constricted at suture with metaventrite.

Abdomen. Aedeagus (Fig. 4A) with parameres parallel-sided for ca. basal ¾ their total length with apical ¼ angled inward. Apex of median lobe not reaching the apex of the parameres.

Distribution. Recorded from Costa Rica, Panama, Brazil, and Peru. Only Costa Rican and Panaman specimens were examined for this work and the occurrence of this species cannot be therefore confirmed for South America.

Remarks. Costa Rican specimens were taken by sifting forest litter, Malaise traps and flight intercept traps. We are not aware of any specimens being taken in an aquatic situation, despite extensive aquatic sampling by the second author and others in Costa Rica, suggesting the species has a terrestrial way of life.

Phaenostoma stochasma sp. nov.

(Figs. 2C, 4C–D)

Type locality. Costa Rica: Cartago Province, Turrialba, Barbilla National Park.

Type material. HOLOTYPE: ♂, 'COSTA RICA. Prov. Cartago, / Turrialba, P.N. Barbilla, Camino al Rio / Dantas. 300m. 22 OCT 2000. W. / Arana, Mantillo. L_N_596893_217500/#60877', '[barcode]/INB0003116831 / INBIOCRI COSTA RICA' (INBio). PARATYPES (5 exs.). **COSTA RICA:** **CARTAGO PROVINCE:** Turrialba, Barbilla National Park, Finca Topoyiyo, 600m, 17.xi.2000, leg. W. Arana, Mantillo (1 ♀, KSEM). **GUANACASTE PROVINCE:** Pitilla Station, 9 km S. Santa Cecilia, 700m, 6–18.viii.1993, leg. P. Rios (1 ♀, INBio). **LIMON PROVINCE:** Sector Cerro Cocoi, Farm of E. Rojas, 150m, (31.i)–(21.ii).1992, leg. E. Rojas (1 ♀, INBio). **ALAJUELA PROVINCE:** Upata, Sector Sapote, 625 m, 20.x.2001, leg. A. Lopez, trampa de Mantillo (1 ex., INBio). **VENEZUELA:** **AMAZONAS STATE:** Tobogan de la Selva, 7.i.2006, leg. A. Short, AS-06-017 (1 ♂, MIZA).

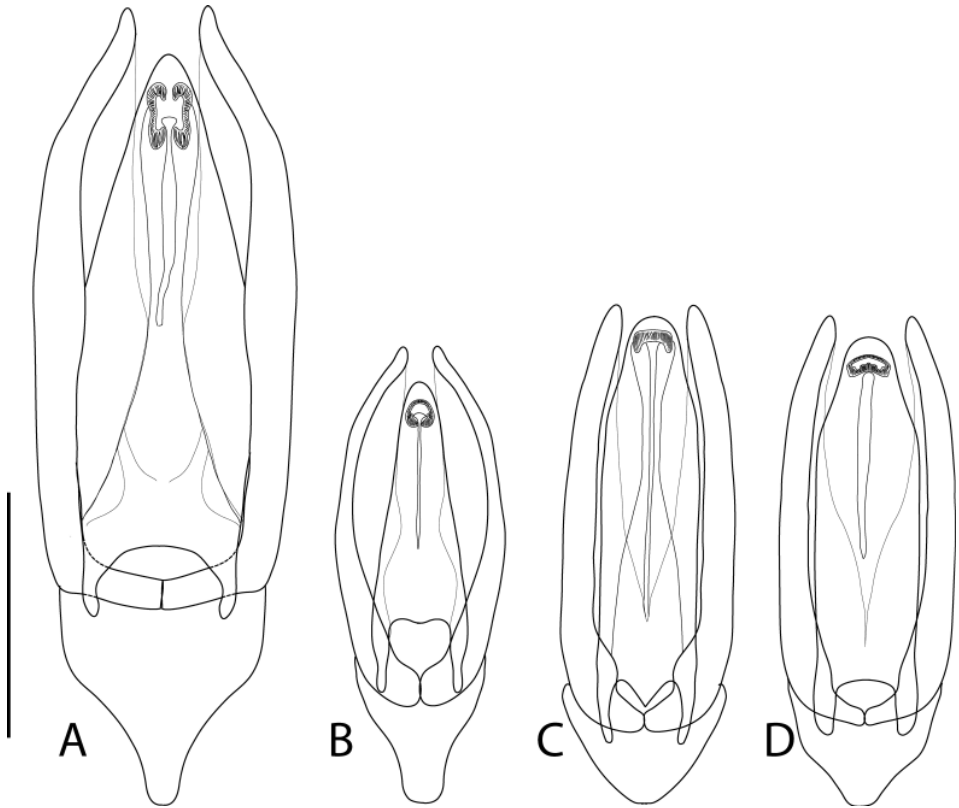


Fig. 4. Aedeagi of *Phaenostoma* species. A – *P. posticatum* (Sharp, 1887) (Costa Rica); B – *P. kontax* sp. nov. (holotype); C – *P. stochasma* sp. nov. (holotype; Costa Rica); D – *P. stochasma* sp. nov. (paratype; Venezuela). Scale bar = 0.2 mm.

Diagnosis. Body size 2.8–3.0 mm. Body form weakly convex with elytra apically weakly explanate. Process of the mesoventrite with constriction at suture with metaventrite; suture and form as in Fig. 2C. Aedeagus as in Fig. 4C–D.

Phaenostoma stochasma sp. nov. is distinguished from *P. posticatum* by its smaller size and comparatively weakly convex body and weakly explanate elytra apically. It is similar to *Phaenostoma kontax* sp. nov. but can be easily distinguished by its larger size, aedeagus with parameres not strongly curved inward apically, as well as the shape of its sternal process. The anterior hood of the process of the mesoventrite of *P. stochasma* sp. nov. is often on the same plane as the rest of the process, unlike *P. kontax* sp. nov. in which the anterior hood is located above the plane of the sternal process.

Description. *Color.* Dorsal surface appearing reddish brown to brown. Elytral and pronotal discs often appearing darker in color than lateral and apical margins. Head often appearing darker than the rest of the body. Ventral surface dark brown to reddish brown. Legs often lighter brown to reddish brown. Tarsi and palps and antennae yellow.

Head. Punctuation fine with the average distance between punctures ca. 3–4× the diameter of one puncture.

Thorax. Pronotal punctuation fine with greatest distance between punctures ca. 4–5× the diameter of one puncture. Elytral punctuation coarse (and weakly impressed) with the average distance punctures ca. 1–2× the diameter of one puncture. Elytral margins apically weakly explanate. Process of the mesoventrite broad and constricted at suture with metaventrite (Fig. 2C), with apical hood thickly bordered and frequently appearing on the same level as mesosternal process plane in lateral view.

Abdomen. Aedeagus with parameres straight along outer margin, slightly curved inward at apex. Median lobe almost reaching apex of parameres (Fig. 4C, D).

Etymology. *Stochasma* is a Greek word meaning an arrow or aimed spear, referring to the spear-shaped process of the metaventrite that is held forward as if aimed. Treated as noun in apposition.

Distribution. Known from Costa Rica and Venezuela.

Remarks. All six known specimens of this species are from different collecting events (indeed, four provinces are represented by the five Costa Rican specimens). While the specimens from Costa Rica and Venezuela are very geographically and ecologically distant, we were not able to find any substantive morphological differences between them, including the aedeagus. We suspect the species is more broadly distributed.

Key to the species of *Phaenostoma* d'Orchymont, 1937

- 1 Size greater than 2.8 mm. Elytral ground punctuation not impressed in recessed 'disc' punctures (Fig. 1). Parameres wider, nearly parallel-sided in basal $\frac{3}{4}$, slightly curved inward apically (Figs. 2A, C, D). 2
- Size less than 2.4 mm. Elytral ground punctuation impressed in recessed 'disc' punctures (Fig. 3). Parameres very narrow, arcuately bent inward from base to apex (Fig. 2B). *P. kontax* sp. nov.
- 2 Size generally larger (> 3.0 mm). Aedeagus with apex of parameres strongly sinuate (Fig. 4A). *P. posticatum* (Sharp, 1887)
- Size generally smaller (< 3.0 mm). Aedeagus with apex of parameres slightly inwardly curved (Figs. 4C–D). *P. stochasma* sp. nov.

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