

Article



https://doi.org/10.11646/zootaxa.5162.2.4 http://zoobank.org/urn:lsid:zoobank.org:pub:8B82B8A4-7976-4F9A-A6EF-C7CA69EF5C30

The genus Crostis Casey (Coleoptera: Curculionidae: Baridinae) in North America

JENS PRENA1* & ROBERT S. ANDERSON2

¹Mühlendamm 8a, 18055 Rostock, Germany

²Beaty Center for Species Discovery, Canadian Museum of Nature, PO Box 3443, Station D, Ottawa, ON. K1P 6P4, Canada.

■ randerson@mus-nature.ca; **b** https://orcid.org/0000-0003-0665-2977

*Corresponding author. 🖃 baridinae@gmx.de; 🏻 https://orcid.org/0000-0003-2287-1168

Abstract

The originally monobasic genus *Crostis* Casey, 1922 (type species *Crostis subexplanata* Casey, 1922 from Brazil) is redefined based on two named and approximately 15 unnamed species occurring between the southern United States and northern Argentina. Three oblong-ovate northern species here grouped informally as the *Crostis boreas* species group are described: *Crostis boreas* Prena & Anderson **new species** from Arkansas and Texas in the U.S.A. and Querétaro and Tamaulipas in Mexico, *Crostis boreodes* Prena & Anderson **new species** from Guanajuato and Michoacán in Mexico, and *Crostis caperata* Prena & Anderson **new species** from Chiapas in Mexico. The South American *Baridius thoracicus* Kirsch, 1875 is transferred from *Lamprobaris* Champion, 1908 to *Crostis*, as *Crostis thoracica* (Kirsch) **new combination**.

Key words: biodiversity, new species, new combination, Neotropical realm

Introduction

In order to more completely document the known curculionid fauna of North America in preparation for the production of the book "Beetles of Canada and the United States", a number of new additions to the fauna of North America should be made. This paper describes new species of the baridine genus *Crostis* Casey, 1922, previously known only from a single specimen of the type species *Crostis subexplanata* Casey, 1922 from Brazil. Although we have seen approximately 15 unnamed species of the genus connecting the disjunction between Brazil and the southern United States, we here describe the one relevant to the book (*Crostis boreas* Prena & Anderson, new species) and two others to document the presence of the genus in the United States and Mexico. We do however, redefine the genus based on study of all available species and group three oblong-ovate northern species as the informal *Crostis boreas* species group.

Material and methods

Standard methods for the study of dried insect specimens are used. Measurements of elytral width are taken across the widest point and of length from the base of interstria 3 to apex and of depth from the lowest margin of the metasternum to the top of elytra at the point of attachment of the metacoxae. Abbreviations used in the text for measurements are D (depth), L (length), and W (width). Dissected genitalia were dyed with methylene blue to study membranous structures. SimpleMappr https://www.simplemappr.net/ was used as a template for Figure 23. The following codens are used to refer to collections in the text: **ASUCOB**, Arizona State University, Charles W. O'Brien legacy collection, Tempe, Arizona, U.S.A.; **BMNH**, The Natural History Museum, London, U.K.; **CASC**, California Academy of Sciences, San Francisco, California, U.S.A.; **CMNC**, Canadian Museum of Nature, Ottawa, Canada; **JPPC**, Jens Prena private collection, Rostock, Germany; **TAMU**, Texas A&M University Collection, College Station, Texas, U.S.A.; **UAQM**, Facultad de Ciencias Naturales, Universidad Autónoma de Querétaro, Querétaro, Mexico; **UNAM**, Universidad Nacional Autónoma de México, Ciudad de México, Mexico; **USNM**, National

Museum of Natural History, Washington DC, U.S.A.; **UTIC**, University of Texas Insect Collection, Austin, Texas, U.S.A.

Taxonomy

Crostis Casey, 1922

Nomenclature. Genus name feminine, made available on page 166 in Casey (1922). Type species *C. subexplanata* Casey, 1922 by original designation (as *subplanata* in key on page 105, alternative spelling *subexplanata* used in description on page 167 and fixed as the correct original spelling on page 507).

Diagnosis. The genus includes 1.8–3.2 mm long species with decussate mandibles, divergent claws, and an anteriorly tubulate prothorax. Characteristic are (i) the angular transition between pronotal disc and flank, (ii) the pair of long, ventrodistal setae on the rostrum, (iii) the deep, variously shaped impression in front of the procoxae, (iv) the prominent lateral ridge on the prosternum with a bare or squamulose fovea (modified to a ventrally directed spine in one species), and (v) the in repose deeply recessed abdomen with distally protruding elytral apices.

Species of similar size and color, with obtusely margined pronotum and exposed elytral apices, occur also in *Buchananius* Kissinger, *Diorymerus* Schönherr in the widest sense, *Microcholus* LeConte, and *Zaglyptoides* Champion. At least some *Diorymerus* and *Zaglyptoides* have similar prosternal depressions with laterally raised margins but all of the above-named genera lack the laterally directed fovea typical for most *Crostis*.

Redescription. Length 1.8–3.2 mm. Body oblong-ovate, pyriform [termed lyrate in Casey (1922)], or subtriangular; integument glabrous or with widely spaced elongate white scales. Head with widely spaced small punctures, in lateral view with transition to rostrum forming broadly obtuse angle, eyes dorsally separated by width of rostrum; rostrum cylindrical to slightly compressed, as thick as femora and slightly longer than pronotum, arched (more strongly basally, less so apically), dorsally smooth, middle section with ventrolateral edge, ventrodistally with pair of long setae. Antenna with 7 funicular articles, inserted at more or less distal third (both sexes), scape not reaching head in repose, funicle with first article subequal in length to next 2–3 combined, elongate in species with ovate club to compressed in species with cylindrical club, not sexually dimorphic. Pronotum with front abruptly tubulate; flanks generally meeting disc at angle, not transitioning smoothly; disc and flanks variously striate, punctate or uniformly glabrous, glossy; postocular lobe subtle. Mesoscutellum small, quadrate, flat, emarginate behind, upper surface feebly convex. Elytra with 10 complete striae; distal margins protruding beyond abdominal apex, apicoventral ridge sharply produced in steep angle. Hind wings developed. Prosternum with variously sized median excavation (fovea), with anterior margin modified to lamellar rim and projected variously across anterior part of fovea; fovea usually limited at each side by strong longitudinal ridge forming ventral margin of characteristic single, large, laterally-directed fovea (rarely visible only internally on the inner face of the ridge; in one species modified to a ventrally directed spine); procoxae separated by 1/3 their own width. Mesanepisternum and mesepimeron with 5-9 very large punctures on each, metasternum similarly punctate, metanepisternum very narrow, slightly wider posteriorly, with single row of small contiguous punctures, punctures larger posteriorly; sclerolepidia digitate, much reduced in numbers, those present widely spaced. Legs with femora feebly clavate, tibiae not sexually dimorphic, premucro absent, tarsi rather small, narrow, with third article only slightly dilated, tarsal claws small, curved, basally separate. Abdomen with ventrites coarsely punctate to smooth, glossy, suture between ventrites I and II more or less effaced medially, ventrites I and II subequal in length, III and IV subequal in length, together slightly longer than II, V at middle about as long as III and IV together; tergite VII without plectra. Penis asetose, apodemes basally hyaline and fused, endophallus distally with elongate endophallite; duct attached to endophallite either asymmetrically (at one rod or its associated sclerite) or symmetrically (medially); tegmen with basal apodeme long, parameroidal lobes developed.

Natural history. Most specimens were extracted from leaf litter ["hojarasca" or "HR" on some labels] or collected in flight intercept traps. The species occur from the lowlands up to elevations of more than 3000 m. Host associations are presently unknown.

Diversity. We have seen approximately 15 unnamed species from Argentina, Bolivia, Brazil, Costa Rica, Ecuador, El Salvador, Guatemala, Mexico, Nicaragua, Panama, Peru, U.S.A., and Venezuela. The type species, *C. subexplanata*, is known only from a single specimen collected in Santarém, Pará by H.H. Smith [images available at

https://collections.si.edu/search/results.htm?q=Crostis], probably around 1874/75 (Kunzler *et al.* 2011). The specimen is doubtfully distinct from *Lamprobaris thoracica* (Kirsch, 1875) and might be a junior synonym of the latter. Because of insufficient material and Kirsch's damaged type, we refrained from dissections and defer the issue to a later revision of the genus with more inclusive material. *Baridius thoracicus* Kirsch is transferred here from *Lamprobaris* (placement by Hustache 1938) to *Crostis* as *Crostis thoracica* (Kirsch) (new combination).

Most species of *Crostis* have pyriform or subtriangular elytra, *i.e.*, they are widest in the posthumeral region and rapidly converge from there towards the apex. Oblong-ovate specimens, even though known for decades from the U.S.A. and Mexico, have never been assigned to any known genus because of their unusual habitus among members of the North American barids and the confounded taxonomy of the subfamily. Among those oblong-ovate specimens, which we here call the *Crostis boreas* species group, we recognize three morphologically similar species and describe them herein. Aside from the more ovate body shape in dorsal view, specimens of the group are also less deep in lateral view, the pronotum is proportionally longer compared to elytral length, elytra have their greatest width more posterior to the posthumeral region, elytral interstriae are wider and flatter than in most pyriform and subtriangular species and have two types of widely spaced white scales/setae (often abraded), the prosternal fovea is more extensively covered by the anterior lamellar projection, and males have medially depressed basal abdominal ventrites. The sexually dimorphic median depression on abdominal ventrites I and II is absent in most (but not all) pyriform and subtriangular species we have seen and none of them (save for an aberrant species from Ecuador) have any punctures on the pronotal flanks, which are glossy. We have seen specimens of multiple pyriform species from Mexico south as far as Argentina; but species of the *Crostis boreas* species group appear limited to the U.S.A. and Mexico. A complete description of the *Crostis boreas* species group follows herein.

Crostis boreas species group

Description. Total length 2.2–3.0 mm; dorsal body form oblong-ovate (Figs. 1–10), L/W elytra 1.06–1.43, with substantial intraspecific variability; lateral body form less deep, L/D of body 2.2–2.6. Integument black, shining, with few white, widely spaced, sparse scales (may be abraded) and finer golden hair-like scales. Rostrum laterally with numerous fine punctures, punctures above scrobe somewhat coalescent forming shallow suprascrobal groove and second shallow sulcus. Antenna with funicle ca. $3 \times as$ long as short-ovate club. Pronotum slightly wider than long, length $\geq 1/2$ elytra length, lateral margins linearly converging or subparallel, abruptly narrowed in front, transition to tubular collar subrectangular, tubular region with only single row of shallow widely-spaced punctures, pronotal base bisinuate, disc strongly longitudinally striate, some striae sinuous or discontinuous, enclosing short sections of adjacent striae or elongate punctures, striae separated by narrow, raised, glabrous, glossy lines, midline glabrous, glossy, continuous with adjacent lines in anterior 1/3 giving it branching appearance (e.g., Fig. 11); flanks with elongate punctures or completely impunctate, glossy. Prosternum with large, deep subcordate fovea with anterior margin modified to lamellar rim and projected across anterior two thirds of fovea (Fig. 17). Elytra with greatest width at about basal third to middle, apices almost conjointly rounded; striae nearly as wide as interstriae, deep and impunctate; interstriae with single row of microscopic setae in small punctures mingled with sparse, large, scalelike setae in elongate grooves (may be abraded); interstrial ridges and subapical callosity absent. Abdominal ventrites I and II medially impressed in males, flat to very slightly convex in females, punctures of ventrites I and II large, lateralmost areas of ventrite I with 2-4 punctures along length, ventrites I and II with isodiametric microsculpture, ventrite V with slightly more setae in male than female, penis asetose, with body widest in middle or basal half, about 1.7–1.9× as long as wide, slightly convergent towards apex, apodemes about 1.6–2.6× longer than length of penis body, endophallite and attachment of duct without group-specific features.

Three species comprise this species group as follows:

Crostis boreas Prena & Anderson, new species (U.S.A., Mexico [Querétaro, Tamaulipas]) Crostis boreodes Prena & Anderson, new species (Mexico [Guanajuato, Michoacán]) Crostis caperata Prena & Anderson, new species (Mexico [Chiapas])

Crostis boreas Prena & Anderson new species

Diagnosis. Total length 2.2–3.0 mm; body form oblong-ovate, L/W elytra 1.19–1.43 (Figs. 1–6). Characteristic for this most northern species of *Crostis* are (i) transverse pronotum with disc longitudinally striate and posterior (only) portion of flanks striate or with elongate punctures (Figs. 11–12), (ii) length of first funicular article subequal to combined lengths of articles 2–4, (iii) punctures of ventrites I and II smaller, lateralmost areas of ventrite I with 3–4 punctures along length (Fig. 18), and (iv) penis with apex truncate, slightly expanded laterally towards base, endophallus distally with asymmetrical, elongate, fluted, gutter-like endophallite with one margin longer, much thicker and more heavily sclerotized than the other, duct attached to the latter, apodemes ca. 1.7× longer than length of penis body (Fig. 20).



FIGURES 1–6. *Crostis boreas*, dorsal and lateral aspects. **1, 2,** elongate male, Texas; **3,** elongate female, Querétaro; **4,** moderately stout female, Querétaro; **5, 6,** very stout male, Querétaro. Scale bars 0.5 mm.

Etymology. The name is derived from Ancient Greek βορέας, referring to the North.

Natural history. Most specimens have been sifted from leaf litter in various types of forests and one specimen was sifted from leaf litter in a cave. No host associations are known. In Mexico, specimens have been collected in forests from 1400–3100 m.

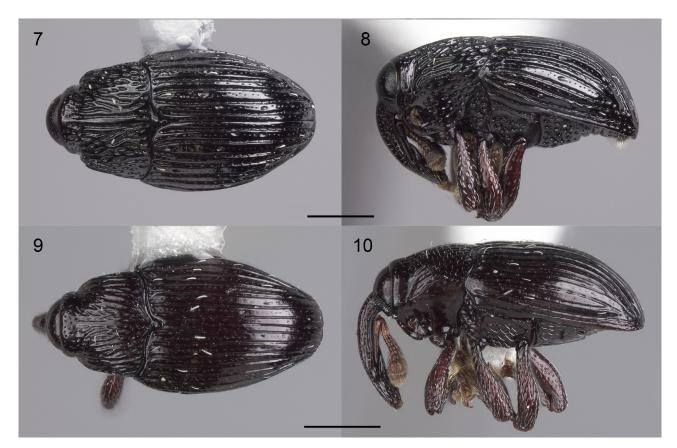
Material examined. Holotype male, USA: Texas, Brewster County, Big Bend National Park, Oak Canyon, 1463 m, 8 Sep 1988, R. Anderson, berlese hardwood litter (CMNC). Paratypes (19 males, 23 females): USA: Arkansas, Newton County, 3.5 mi S Boxley, 22 Aug 1974, pitfall trap, R. Chenowith (1 male, JPPC). Texas, Coryell County, Porter Cave, Foot Hood, 31 Mar 2004, C. Pekis and J. Reddell, leaf litter berlese (1 male, CMNC). Texas, Hays County, Scott Ecolab, 8.6 km E. Payton, N 30.105, W98.216, 24 Jan-2 Apr 2007, J.C. Abbott (1 female, UTIC; images available at https://bugguide.net/node/view/1331970/bgimage). MEXICO: Querétaro, Municipio Caderyta, 3 km E. Chavarrias, 2850 m, 20°49.459N, 99°35.191W, 27 Jul 2006, R.S. Anderson, oak forest litter, RSA2006-19 (1 male, 3 females, CMNC, JPPC). Municipio Pinal de Amoles, 1.9 km N.E. Pinal de Amoles, 2250 m, 21.14974, -99.61576 +/-26 m, 18 Aug 2009, M.G. Branstetter, oak-pine forest leaf litter, MGB1427 (1 male, CMNC). 4.5 km S.W. Pinal de Amoles, 21.11217, -99.66315 +/-10 m, 2730 m, 22 Oct 2017, M.G. Branstetter, oak-pine forest, sifted litter, MGB3592 (1 male, 1 female, CMNC). 5.1 km W.S.W. Pinal de Amoles, 21.12228 -99.67293, 2610 m, 18 Aug 2009, M.G. Branstetter, oak-pine forest leaf litter, MGB1418 (2 males, CMNC). 5 km S.W. Pinal de Amoles, 21°07'22"N, 99°40'31"W, 11 Mar 2017, R. Jones, 2700m, bosque encinos (1 male, UNAM). 4.8 km W. Pinal de Amoles, 21°07'08"N, 99°40'09"W, 2 Nov 2017, R. Jones, 2600m, bosque encinos (1 female, CASC; 1 female, TAMU; 1 male, 1 female, UAQM). 2.8 km S.W. Pinal de Amoles, 21°08'05"N, 99°38'49"W, 6 Nov 2014, R. Jones, 2400m, hojarasca (1 male, CASC). 7 km N.W. Pinal de Amoles, 21°08'55"N, 99°41'28"W, 29 May 2016, R. Jones, 3000m, leaf litter (1 male, BMNH). 7 km N.W. Pinal de Amoles, 21°08'55"N, 99°41'28"W, 30 Mar 2014, R. Jones, 3000m, leaf litter (1 male, ASUCOB). 7 km N.W. Pinal de Amoles, 21°08'55"N, 99°41'28"W, 8 Jul 2014, R. Jones, 3100m, leaf litter (2 females, BMNH; 2 females, ASUCOB). 7 km N.W. Pinal de Amoles, 21°08'55"N, 99°41'28"W, 15 Dec 2014, R. Jones, 3000m, leaf litter (1 female, UNAM). 2.5 km S.W. Pinal de Amoles, 21°07'05"N, 99°38'49"W, 30 Dec 2014, R. Jones, 2400m, leaf litter (2 females, USNM). 2.8 km S.W. Pinal de Amoles, 21°07'23"N, 99°38'45"W, 4 Jan 2015, R. Jones, 2500m, leaf litter (1 female, UNAM). 6 km W. Pinal de Amoles, 21°07'22"N, 99°41'03"W, 21 Aug 2014, R. Jones, 2900m, hojarasca (1 female, UNAM). Cruz de Palo, 21°08.14'N, 99°38.11'W, 2 July 2009, Jones & Bizuet, 2470m, leaf litter (1 female, UNAM). Las Ranas, 1.4 km N. San Joachin, 2360 m, 20.92642, -99.56193 +/-3 m, 16 Aug 2009, M.G. Branstetter, oak forest leaf litter, MGB1407 (2 males, CMNC). Municipio San Joaquin, above Campo Alegre, 20°54.82'N, 99°34.80'W, 14 Aug 2004, R. Jones, leaf litter, 2500m (1 male, UNAM). above Campo Alegre, 20°54.82'N, 99°34.80'W, 2 Nov 2009, Jones & Bizuet, leaf litter, 2500m (1 male, UNAM). above Campo Alegre, 20°54.75'N, 99°34.81'W, 17 May 2004, R. Jones, leaf litter, 2485m (1 male, 1 female, UNAM). above Campo Alegre, 20°54.82'N, 99°34.80'W, 12 Dec 2003, R. Jones, leaf litter, 2500m (1 female, UNAM). Municipio Huimilpan, 2440m, Cerro Cristo Dormido, 20°23'46"N, 100°19'41"W 18 Nov 2017, hojarasca (1 male, UNAM). 1 km N.W. La Beata, 20°18.42'N, 100°14.49'W, 2 Dec 2003, R. Jones, leaf litter 2500m (1 female UNAM). Municipio Jalpan de Sierra, I km E. Est. Pilon, 21°29.77'N, 99°09.84'W, 1 Oct 2005, M. Pérez, 1229m (1 female, UNAM). 3.2 km S.W. San Juan de los Durán, 21°27'33"N, 99°08'58"W, 1691m, 13 Oct 2018, R. Jones, leaf litter (1 female, UNAM). Tamaulipas, El Cielo, Joya de Manantiales, 1430 m, 23.00835, -99.28511 +/-20 m, 22 Aug 2009, M.G. Branstetter, mesophyll forest, sifted leaf litter. MGB1446 (1 male, CMNC).

Notes. We have examined specimens from the U.S.A., Querétaro, and Tamaulipas (Fig. 23) and can find no differences that would warrant separate species status. Dissections of male genitalia reveal no differences among the specimens. This is the species reported by Jones *et al.* (2022).

Crostis boreodes Prena & Anderson new species

Diagnosis. Total length 2.5–2.8 mm; body form oblong-ovate, L/W elytra 1.06–1.23 (Figs. 7–8). Characteristic for this species of *Crostis* are (i) transverse pronotum with disc longitudinally striate or with striae broken into elongate punctures and most of flanks with elongate punctures (Figs. 13–14), (ii) length of first funicular article slightly shorter than combined lengths of articles 2–4, (iii) punctures of ventrites I and II large (Fig. 19), lateralmost areas of ventrite I with 2 punctures along length, ventrites I and II with distinct isodiametric microsculpture (also on metasternum), and (iv) penis with apex protruded medially, strongly expanded laterally towards base, endophallus distally with symmetrical, elongate, fluted, gutter-like endophallite with equally thickened and sclerotized margins, apodemes *ca.* 2.2× longer than length of penis body (Fig. 21).

Etymology. The name is derived from the similarity of this species to *C. boreas*.



FIGURES 7–10. Crostis boreas species group, dorsal and lateral aspects. **7, 8,** C. boreodes, Michoacán; **9, 10,** C. caperata, Chiapas. Scale bars 0.5 mm.

Natural history. The three known specimens have been sifted from leaf litter in forests from 2600–3170 m in elevation.

Notes. Two of the specimens are incorrectly labelled as Querétaro but GPS coordinates indicate the locality is just across the state border into Michoacán.

Material examined. Holotype male, **MEXICO**: **Michoacán [Querétaro** on label], 13.6km SSE Huimilpan, 20.25213, -100.25499, 2720m, 17 viii.2009, L. Saenz, oak forest leaf litter (CMNC). Paratypes (1 male, 1 female): **Michoacán [Querétaro** on label], Municipio Amealco, 4 km SE. Lag Servin, 20°15.25'N, 100°15.19'W, 22 Aug 2002, R. Jones, 2600m, hojarasca (1 male, UNAM). **Guanajuato**, Municipio Tierra Blanca, Cerro Zamorano, 20°56'01"N, 100°11'06"W, 24.xi.2012, J. Vadillo, 3170m, leaf litter (1 female, CMNC).

Crostis caperata Prena & Anderson new species

Diagnosis. Total length 2.3–2.6 mm; body form oblong-ovate, L/W elytra 1.25–1.31 (Figs. 9–10). Characteristic for this species of *Crostis* are (i) transverse pronotum with disc with very fine erect hairs (especially visible in lateral view), longitudinally striate or with striae broken into elongate punctures, flanks glossy, impunctate (Figs. 15–16), (ii) length of first funicular article slightly shorter than combined lengths of articles 2–4, (iii) punctures of ventrites I and II small, shallow, large areas of ventrites almost impunctate, glossy, and (iv) penis with apex truncate, slightly expanded laterally towards midlength, endophallus distally with elongate, slender, basally sinuate endophallite with pair of flexible, dorsal prongs in basal third, apodemes *ca.* 2.6× longer than length of penis body (Fig. 22).

Etymology. The name is a Latin adjective meaning wrinkled.

Natural history. All known specimens have been sifted from leaf litter in hardwood forests from 2300–2650 m elevation.



FIGURES 11–16. *Crostis boreas* species group, details of pronotum. 11, 12, *C. boreas*, Texas; 13, 14, *C. boreodes*, Michoacán; 15, 16, *C. caperata*, Chiapas.



FIGURES 17–19. *Crostis boreas* species group, ventral aspects. **17,** *C. boreas*, prosternum with anteriorly covered fovea; **18,** *C. boreas*, punctation on ventrites; **19,** *C. boreodes*, punctation on ventrites. Scale bars 0.5 mm.



FIGURES 20–22. *Crostis boreas* species group, male genitalia, dorsal aspect. **20,** *C. boreas*, Texas; **21,** *C. boreodes*, Michoacán; **22,** *C. caperata*, Chiapas. Scale bar 0.2 mm.

Material examined. Holotype male, MEXICO. Chiapas, Municipio San Cristobal de las Casas, Cerro Huitepec, ca. 5 km W. San Cristobal, 2650m, 17 Sep 1991, R. Anderson, wet oak forest litter, 91-106 (CMNC). Paratypes (4 males, 2 females): same data as holotype (1 male, 1 female, CMNC). Reserva Huitepec, 2300m, 16.759, -92.681, 15 Jul 2005, R. Anderson, mixed oak forest litter 2005-001B (1 female, CMNC). Reserva Huitepec, 27-vi-95, B. Gómez, M. Girón, HR-41-8 (1 male, JPPC). Reserva Huitepec, 22-xi-95, A. Mendoza, M. Girón, HR-58-2 (1 male, JPPC). Municipio Huixtan, Guadalupe Shanikala, 2350m, 16°38'N, 92°25'W, 25 Jul 2005, R. Anderson, mixed hardwood (no oaks) forest litter, 2005-007B (1 male, CMNC).

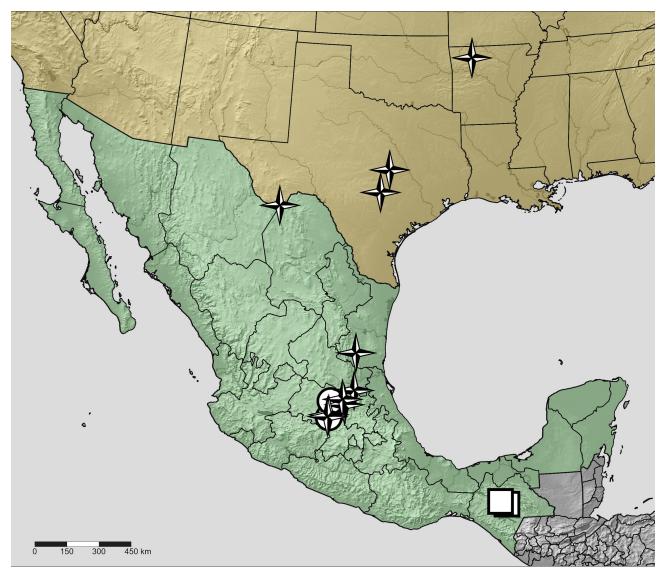


FIGURE 23. Map depicting known occurrences of *C. boreas* (stars), *C. boreodes* (circles), and *C. caperata* (squares) in southern U.S.A. and Mexico.

Future studies

The subfamily Baridinae is one of the most poorly known groups of weevils in the Neotropial Region. Chief reasons for this, among other obstacles generally prevalent in the study of hyperdiverse organisms, are (i) the convoluted history of isolated studies by G. Bondar, T. Casey, A. Hustache, and E. Voß during the 20th Century before WWII; (ii) the often insufficiently documented whereabouts of European private collections of the 19th Century; and (iii) the additional need for taxonomic expertise on the respective, often imperfectly known host taxa for targeted collecting. That a genus historically known from one specimen of one species from Brazil can be demonstrated to be composed of multiple species spanning all of the Americas from the southern U.S.A. to Argentina underscores the need for much field work and taxonomic study focused on these weevils. Inappropriate collecting methods may

have contributed in this particular case (as many specimens are from leaf litter samples, a habitat not commonly associated with baridine weevils), but almost all baridine genera presently regarded as North American endemics occur also in southern South America and at high elevations in the intermediate tropical zone. A reconciliation of the existing isolated taxonomic studies will be a time-consuming but inevitable requirement for future studies throughout the Americas.

Acknowledgements

We thank Olaf Jäger for loaning the type of *C. thoracica* and Robert W. Jones for numerous additional specimens from Querétaro, Mexico. We also thank Jim Wappes, Henry Hespenheide, Charles W. O'Brien, and Michael Branstetter for the gifts of specimens from their fieldwork. Alexander Wild arranged for the loan of the specimen photographed on bugguide.net from UTIC. Thoughtful comments by two reviewers were much appreciated.

References

- Casey, T.L. (1922) Studies in the rhynchophorous subfamily Barinae of the Brazilian fauna. *Memoirs on the Coleoptera*, 10, 1–520.
- Hustache, A. (1938) Curculionidae: Barinae. *In:* Junk, W. & Schenkling, S. (Eds.), *Coleopterorum Catalogus, 's-Gravenhage*, 30 (163), pp. 1–219.
- Jones, R.W., Bizuet-Flores, Y. & Luna-Cozar, J. (2022) Species richness and abundance of leaf litter weevils (Coleoptera: Curculionidae) in oak forests under different disturbance regimes in Central Mexico. *Revista Mexicana de Biodiversidad*, 93 (e933848), 1–11.
 - https://doi.org/10.22201/ib.20078706e.2022.93.3848
- Kunzler, J., Sequeira Fernandes, A.C., Medina da Fonseca, V.M. & Jraige, S. (2011) Herbert Huntington Smith: um naturalista injustiçado? *Filosofia e História da Biologia*, 6, 49–67.