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A new species of *Cymatodera* Gray (Coleoptera: Cleridae)
from central Arizona

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A new species of *Cymatodera* Gray (Coleoptera: Cleridae) from central Arizona

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Abstract. *Cymatodera campbelli*, **new species** (Coleoptera: Cleridae), is described from central Arizona. Though superficially similar to several other small species of Southwestern *Cymatodera* Gray that are commonly collected at lights, this apparently rare species has distinctive coloration and surface sculpturing. Its discovery suggests that systematic collecting even in areas that have historically attracted entomological attention may still yield additions to our fauna.

Key words. Checkered beetles, fauna, endemism, rarity.

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Introduction

Arizona is home to approximately 36 species of *Cymatodera* Gray (Coleoptera: Cleridae). As a rule, these are nocturnal, predaceous beetles, usually encountered at lights on warm summer nights, or beaten from vegetation, particularly species of oak, *Quercus* L. (Fagaceae). The Arizona *Cymatodera* fauna includes many desert-adapted species whose ranges extend southeastward into New Mexico and Texas, directly south into northern Mexico and west into the Colorado and Mojave deserts of California. Other elements of the fauna appear to have affinities to, or are possibly conspecific with, Pacific coast species. Examples of the latter are the pairs *C. horni* Wolcott / *C. californica* Horn, *C. scitula* Barr / *C. pseudotsugae* Barr, and *C. brevicollis* Schaeffer / *C. angustata* Spinola (Barr 1972). These species are forest dwellers, mostly associated with oaks, pines (*Pinus* L., Pinaceae) and junipers (*Juniperus* L., Cupressaceae). Finally, there are a few endemic species— for example *C. cazierorum* Barr and *C. parkeri* Barr— that appear to have restricted distributions in Arizona's sky island mountain ranges (e.g. Huachuca, Chiricahuas) or other higher elevation habitats (Barr 1972). This paper describes *Cymatodera campbelli*, an addition to this short list of endemic congeners from Arizona's uplands.

Materials and Methods

Specimens were photographed through the eyepiece of a Zeiss stereo dissecting microscope using the camera in an Apple iPhone 11, and with an Olympus TG-5 fitted with an Olympus LED light guide (LG-1), using the onboard photo stacking software. Measurements were established using the ocular grid in a Zeiss stereomicroscope and a millimeter scale. Sex of the types was undetermined, because I hesitated to dissect the genitalia at this time for fear of destroying these apparently rare specimens.

The holotype was borrowed from the Canadian National Collection of Insects, Ottawa, Ontario, Canada (CNCI) where it will be deposited. A paratype is retained in my personal collection: Jacques Rifkind Collection, Valley Village, California, USA (JNRC).

Results

Cymatodera campbelli Rifkind, new species

(Fig. 1–4)

Type specimens. Holotype, sex undetermined. U.S.A., Arizona, Gila Co., Tonto Creek, 15 mi E. Payson, 1640 m, VII-26-76, J. M. Campbell. The holotype is deposited in CNCI.

Paratype. Same data as holotype. Deposited in JNRC.

Description. (Holotype). Length: 6 mm. Form: robust; elytra subparallel (Fig. 1–2). Color: Castaneous; elytra concolorous; pronotum dark brown; head piceous on cranium, reddish-brown anteriorly; pro- and metasterna brown; mouthparts, antennae and abdominal ventrites, testaceous. Head: surface shining, rather sparsely, finely punctulate; moderately sparsely set with fine, reclinate white setae intermingled with longer, erect, more robust pale setae; eyes moderate, ommatidia coarse. Antennae: of medium length; rather robust in aspect; antennomere 2 subglobose; antennomere 3 subconical, 1.3x as long as antennomere 2; antennomere 4 subconical, shorter than antennomere 3; antennomeres 5–10 subserrate; antennomere 11 elongate / aciculate (Fig. 4). Pronotum: a little longer than broad; surface densely, deeply and coarsely punctate, transversely rugose on disk; sparsely but distinctly clothed with rather long, mostly erect, robust pale setae (Fig. 2–3). Scutellum small, round, sparsely setose. Elytra: robust; barely 2x as long as wide; rather deep in cross-section; disk slightly depressed at middle; anterior margin slightly emarginate at middle; humeri moderate; sides nearly parallel; arcuately rounded posteriorly to slightly dehiscent, separately rounded apices; surface shining, coarsely, deeply and densely punctate; punctures arranged in regimented striae, nearly complete to apices; vestiture inconspicuous, consisting of mostly fine, pale, suberect setae of medium length, interspersed with fewer erect testaceous setae. Metasternum: shining; roughened laterally; nearly smooth ventrally; vestiture fine, pale, short. Abdomen: ventrites shallowly, diminutively granulate; sparsely clothed with short, pale reclinate setae; posterior margins of visible ventrites 1–4 narrowly membranous; ventrite 5 with sides slightly oblique; posterior margin broadly subtruncate; ventrite 6 small, rounded, feebly inflected at middle of hind margin; tergite 6 small, scutiform, rounded posteriorly where it slightly surpasses sternite 6. Genitalia: not examined. The pygidium is unmodified, a not unprecedented condition among species of small *Cymatodera*.

Variation. The single paratype is very similar in all aspects to the holotype.

Etymology. The specific epithet is a patronymic honoring the Canadian entomologist J. M. Campbell, collector of the types, and a noted authority on the Staphylinidae.

Distribution. Known from a single locality in central Arizona, Tonto Creek, below the Mogollon Rim.

Diagnosis. *Cymatodera campbelli* is similar in size and habitus to several Arizona congeners. With one exception, however, all of these have the elytra marked to a greater or lesser degree with a pale fascia, unlike the concolorous elytra of the new species (Fig. 1, 2). Some specimens of *Cymatodera schwarzi* Wolcott are immaculate, but this species lacks the coarse, strial elytral punctation, and coarsely punctate pronotal integument of *C. campbelli*, and has the elytra expanded posteriorly. Furthermore, the two species are allopatric: *C. schwarzi* has only been collected in southern Arizona (the Santa Cruz River Valley, and the Huachuca and Santa Rita Mountains) (Barr, personal communication). A unique combination of size, coloration, and integumental sculpturing will readily distinguish the new species from any known congeners.

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Figures 1–4. *Cymatodera campbelli*, holotype. 1) Habitus. 2) Dorsolateral aspect. 3) Pronotum. 4) Antenna.

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