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Brett C. Ratcliffe

*University of Nebraska-Lincoln*, bratcliffe1@unl.edu

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A NEW SPECIES OF *ANCOGNATHA* FROM PANAMA  
(COLEOPTERA: SCARABAEIDAE: DYNASTINAE)

BRETT C. RATCLIFFE

Systematics Research Collections, W436 Nebraska Hall,  
University of Nebraska State Museum,  
Lincoln, 68588-0514, U.S.A.

ABSTRACT

*Ancognatha vexans* is described as new from the mountains of Chiriqui Province in western Panama. It is distinguished from similar species, and its diagnostic characters are illustrated.

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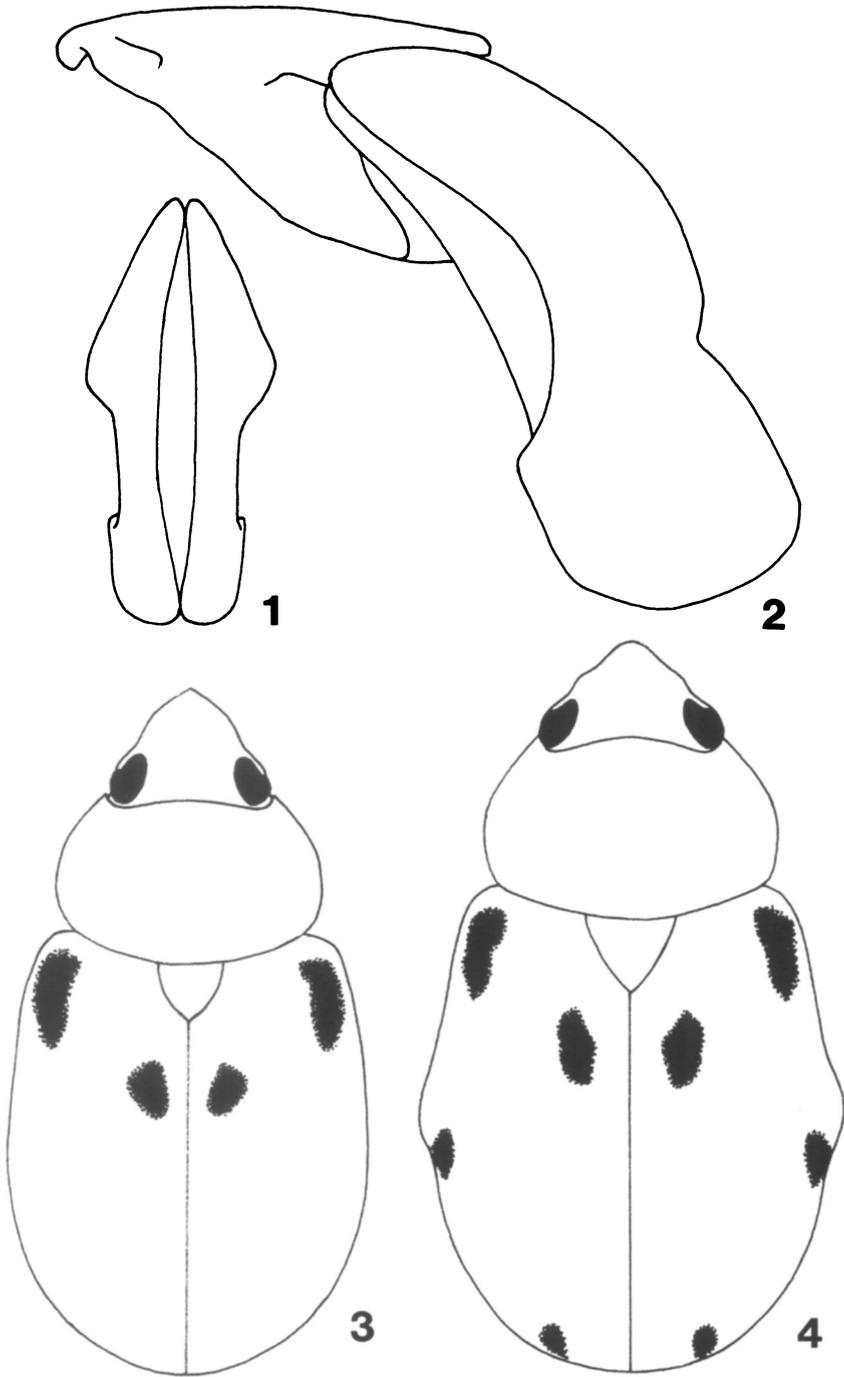
During my field studies on the dynastine scarabs of Panama, I collected a series of a new species of *Ancognatha* at Cerro Punta in Chiriqui Province. Recognition of this particular species proved to be challenging because, while it did not go through Endrödi's (1985) key well, it also appeared very close to other known species. It is described and distinguished below.

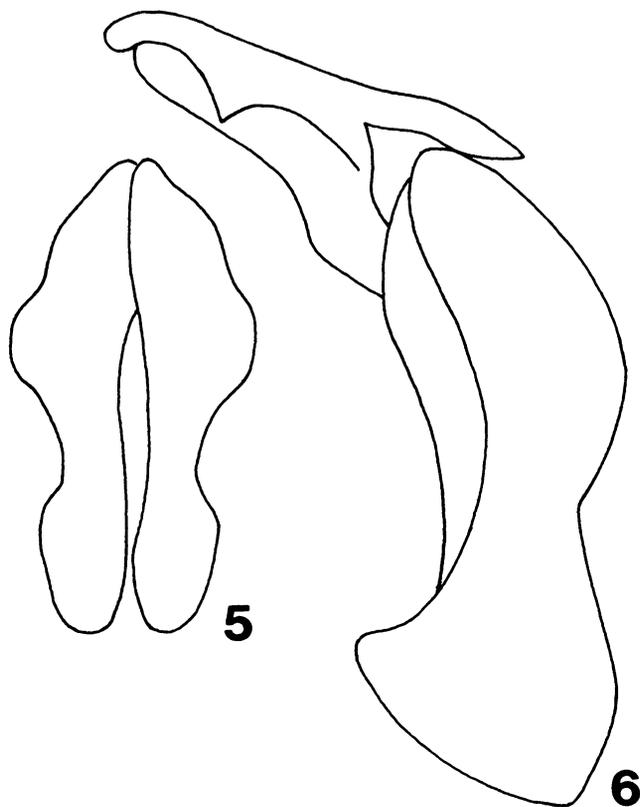
*Ancognatha vexans* Ratcliffe, new species

TYPE MATERIAL. Holotype and allotype labeled "PANAMA: Chiriqui, Cerro Punta, VI-2-3-1986, B. C. Ratcliffe, Elton cabin, Elev. 7,325 ft, temp. 53°F." 92 paratypes with same data; 22 additional paratypes labeled "PANAMA: Chiriqui Prov., Cordillera Central just N. Cerro Punta, VI-2/3-1986, at MV light, mixed primary rain forest and vegetable farms, 7,325 ft elev., R. M. Young collector."

Holotype and allotype deposited at the University of Nebraska State Museum (Lincoln, NE). Paratypes deposited in the collections of Museu Nacional de Costa Rica (Santo Domingo de Heredia), U.S. National Museum (Washington, D.C.), California Academy of Sciences (San Francisco, CA), University of Nebraska State Museum (Lincoln, NE), Canadian National Collection of Insects (Ottawa, CANADA), Henry Howden (Ottawa, CANADA), Miguel Morón (Xalapa, MEXICO), Ronald Young (Bryan, TX), and Brett C. Ratcliffe (Lincoln, NE).

DESCRIPTION. Holotype male. Length 22.7 mm; width across humeri 10.2 mm. Color testaceous with black humeral spot, post-scutellar spot (Fig. 3), sternites 1-4, trochanters, apices of tibiae and bases and apices of femora, and tarsi. *Head*: Frons moderately punctate, punctures small. Clypeus moderately densely punctate, punctures moderate in size; slightly declivous sides becoming rugopunctate. Head lacking tubercles or gibbosities. Clypeus with apex acuminate, margins narrowly reflexed. Interocular width 2.8 transverse eye diameters. Antenna 10-segmented, club a little longer than segments 2-7. Mentum with apex deeply incised (to about half length of mentum). *Pronotum*: Surface sparsely punctate; punctures small on disc, becoming moderate in size in anterior and posterior angles. Base lacking marginal bead. *Elytra*: Surface punctate-striate, double rows distinct; punctures mostly large, ocellate. *Pygidium*: In lateral view, strongly convex. Surface sparsely punctate; punctures small, shallow, setigerous; setae moderate in length, slender, pale, testaceous. *Legs*: Foretibia tridentate, teeth equally spaced. Anterior claw with apex of large ramus split. Ventral side of meso- and metatarsi with dense fringe of





Figs. 5–6. *Ancognatha humeralis*: caudal (5) and lateral (6) views of parameres.

testaceous setae. Posterior tarsus nearly twice as long as posterior tibia. *Venter*: Apex of last sternite with dense fringe of long, pale setae. *Parameres*: Figs. 1–2.

ALLOTYPE. Female. Length 24.2 mm; width across humeri 10.7 mm. As holotype except in the following respects: Color similar except elytra with additional small, black spot just behind expanded marginal flange and small, black spot at apex of apical umbone (Fig. 4); sternites all testaceous. *Head*: Punctuation a little denser. *Pronotum*: Punctuation a little denser. *Elytra*: Lateral margin at middle expanded into rounded flange (Fig. 4). *Pygidium*: In lateral view, nearly flat. Surface more distinctly punctate; punctures small to moderate in size. *Legs*: Claw of anterior tarsus not enlarged. Meso- and metatarsi setose beneath but not in a dense fringe. Posterior tarsus subequal in length to posterior tibia.

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Figs. 1–2. *Ancognatha vexans*: caudal (1) and lateral (2) views of parameres of holotype.

Figs. 3–4. *Ancognatha vexans*: form and dorsal pattern of holotype (3) and allotype (4).

**VARIATION.** Males (48 paratypes). Length 21.8–24.7 mm; width across humeri 9.6–11.1 mm. As holotype except in the following respects: Size of elytral spots varies slightly. Small spot on apical umbone present in 37 specimens.

Females (66 paratypes). Length 21.0–25.2 mm; width across humeri 9.0–11.5 mm. As allotype except in the following respects: *Elytra*: Minor variation in size of elytral spots, small spot on apical umbone absent in 4 specimens. Two specimens with elytra mostly obscured by 4 long, black streaks on each elytron. *Pygidium*: Setae nearly abraded away in 6 specimens.

**DISTRIBUTION.** *Ancognatha vexans* is known only from the vicinity of the Elton cabin above and just north of Cerro Punta in Chiriqui Province, Panama. The elevation at this site, known as Bajo Grande, is 7,325 ft. In 1986, the area below the cabin was pasture and farms while the area above the cabin remained as cloud forest or was just beginning to be cleared for pasture.

**REMARKS.** In Endrödi's (1985) key to the species of *Ancognatha*, this species will go as far as couplet 19, which leads to either *A. vulgaris* Arrow or *A. humeralis* Burm. The parameres of *A. vulgaris* are radically different, leaving *A. humeralis* as the other choice. The parameres of *A. humeralis* and *A. vexans* appear somewhat similar (Figs. 1–2, 5–6), but (in lateral view) *A. vexans* has a different shape, especially at the apex. In caudal view, *A. vexans* possesses a sharp, dentiform angle at the base of the apical expansion whereas this area is rounded in *A. humeralis*. The margin of the elytra in females of *A. humeralis* is simple, and this margin is distinctly expanded in *A. vexans* (Fig. 4).

This species was collected at mercury vapor and ultraviolet lights over a two night period between dusk and 2 AM. The weather at this time was constant cloud mist or light rain and a seemingly very cold 53°F. *Ancognatha gracilis*, previously known only from Costa Rica, was also taken, and these specimens constitute a **NEW COUNTRY RECORD**.

**ETYMOLOGY.** From the Latin *vexo*, to vex or annoy. So named in reference to initial attempts at trying to identify this species.

#### ACKNOWLEDGMENTS

I thank Charlotte Elton and Rafael Spalding for the use of their cabin at Cerro Punta. The University of Nebraska Foundation (Putney Fund) provided travel funding which enabled this collecting trip. Ron Young (Bryan, Texas) is thanked for the loan of part of the type series. I thank the other members of my field party for their collecting assistance and companionship: Charles and Karen Messenger, Mary Liz Jameson, Paula SeEVERS, and Ron Young. Mark Marcuson and Gail Littrell (both University of Nebraska) provided the line drawings and word processing respectively.

#### LITERATURE CITED

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