

FIGURE 28. Distribution of Diminutiva Group species.

***Aglaothorax constrictans* (Rentz & Weissman, 1981) stat. rev.**

*Neduba (Aglaothorax) diminutiva constrictans*—Rentz & Weissman, 1981: 92

*Aglaothorax constrictans* **stat. rev.** (Revised to species level).

Fig. 28 (distribution), Fig. 30 (male and female habitus, calling song, male and female terminalia, karyotype), Plate 6 (male terminalia), Plate 9 (female subgenital plate), Plate 13 (male titillators), Plate 15 (male calling song).

**Common name.** Constricted Shieldback.

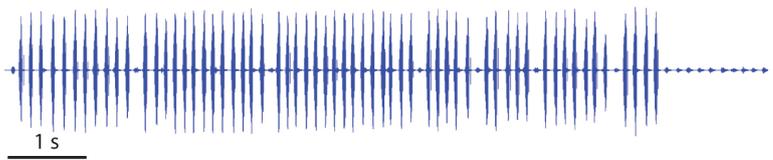
**History of recognition.** Described as a subspecies of *Neduba (Aglaothorax) diminutiva* from male material only (Rentz & Weissman 1981). We elevate this taxon to species rank based on aberrant morphology for the Diminutiva Group in both males and females, and due to the appreciable genetic distance from other Diminutiva Group lineages.

**Type material.** The type series was collected from a dune area near the lighthouse at Bixby Ranch, Point Conception, Santa Barbara County, California. Images of the holotype and a paratype are available at OSFO (Cigliano *et al.* 2025). PARATYPES EXAMINED (n=13): USA, CA, Santa Barbara Co., Point Conception, Bixby Ranch, dunes nr. Lighthouse, 34.44860, -120.47155, 8-VI-1971, d C Rentz, d B Weissman, CAS, 1♂; same data except 8-VII-1971, d C Rentz, d B Weissman, CAS, 1♂; same data except 8-VIII-1974, d C Rentz, d B Weissman, CAS, 11♂.

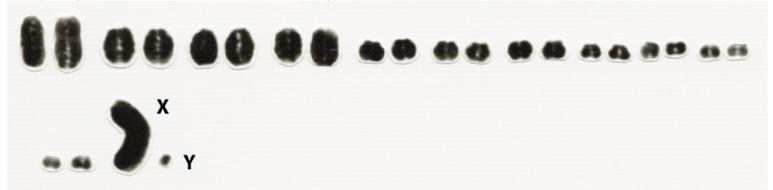
male USA. CA: Santa Barbara Co. S82-51



calling song USA. CA: Santa Barbara Co. 25.8°C JCR130827\_03



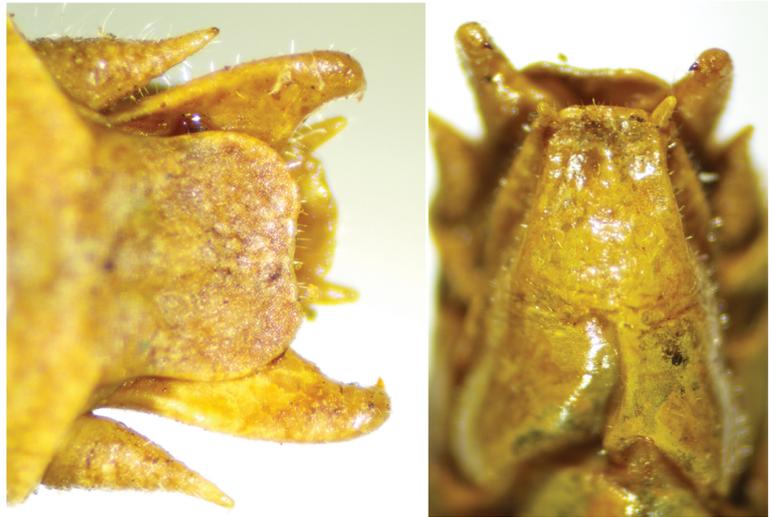
karyotype USA. CA: Monterey Co. S82-46, T82-47



female USA. CA: Monterey Co. JAC000002558



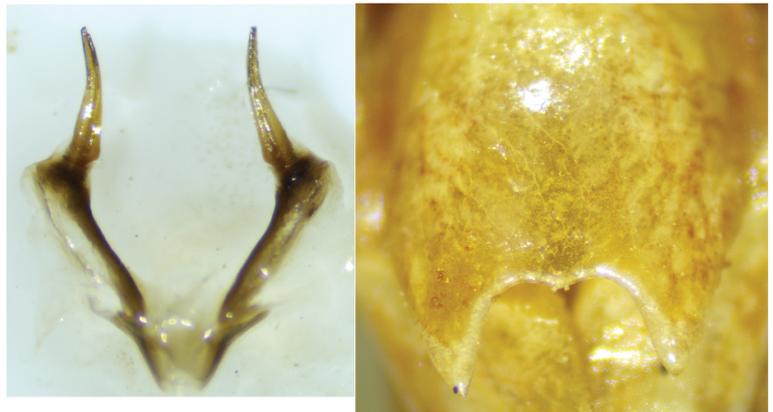
male terminalia PARATYPE USA. CA: Santa Barbara Co.  
R V



male USA. CA: Monterey Co. JAC000002555



titillators USA. CA: Santa Barbara Co. JAC000002537 female subgenital plate USA. CA: Santa Barbara Co. S82-51



**FIGURE 30.** *A. constrictans* male and female habitus, calling song, male and female terminalia, and karyotype. Idiogram shows karyotype  $2n\♂=24$ .

**Measurements.** (mm,  $\♂n=18$ ,  $\♀n=13$ ) Hind femur  $\♂12.45\text{--}15.05$ ,  $\♀14.70\text{--}18.37$ , pronotum total length  $\♂7.20\text{--}9.15$ ,  $\♀7.16\text{--}9.50$ , prozona length  $\♂3.34\text{--}3.94$ ,  $\♀1.34\text{--}4.76$ , metazona dorsal length  $\♂3.84\text{--}5.24$ ,  $\♀3.35\text{--}5.85$ , pronotum constriction width  $\♂2.40\text{--}5.47$ ,  $\♀2.45\text{--}3.55$ , metazona dorsal width  $\♂5.15\text{--}6.51$ ,  $\♀5.05\text{--}6.58$ , head width  $\♂3.40\text{--}3.95$ ,  $\♀4.00\text{--}4.60$ , ovipositor length  $\♀10.55\text{--}11.79$ .

**Distribution.** South Coast Ranges of California bordering the Pacific Ocean. Distribution extends from Point Conception north through the Santa Lucia Range.

**Habitat.** Coastal dunes, coastal sage scrub, chaparral, and oak savanna from the beachfront to mountain slopes.

**Seasonal occurrence.** Adult activity spans late spring (4-VI-2006, JA Cole, LACM) through summer (8-IX-2002, JA Cole, LACM).

**Stridulatory file.** (n=16) length 3.00–3.90 mm, 84–107 teeth, tooth density 28.7±2.3 (23.3–32.1) teeth/mm.

**Song.** (n=19) Common small *Aglaothorax* song with widely spaced, individually countable pulse trains. Length of pulse trains is 50±20 ms. Pulse trains repeat at a rate of 5.31±0.69 s<sup>-1</sup>. Mean peak frequency is 14.35±0.77 kHz. Long, variable echemes contain on average 38±19 (range 12–89) pulse trains. Silent intervals between echemes range from 7 to 29 s.

**Karyotype.** (n=4) 2n♂=24 (22t+Xty t), paratype T82-47 (S82-51).

**Recognition.** Typical for the Diminutiva Group, the male supra-anal plate is heart-shaped, expanded laterally and indented on the caudal margin, and the paraproct processes have an apical tooth. Otherwise, the morphology of this species is aberrant for the Diminutiva Group, the male titillators and female subgenital plate instead resembling those of the Morsei Group. Male titillator arms are short and barely curved as opposed to long and distinctly curved, the condition found in all other Diminutiva Group species. Females have short, triangular subgenital plate processes instead of long, digitiform processes as in the rest of the Diminutiva Group. For males, the apical position of the mesal tooth on the paraproct process excludes most Morsei Group species from consideration; *A. amathitis*, *A. costalis*, *A. longipennis*, and *A. morsei* all have a subapical tooth on the paraproct process along with a rounded supra-anal plate. The male titillator arms are notched at the base, a character state shared only with *A. morsei*. The female subgenital plate lateral processes are longer than wide unlike all Morsei Group females except *A. kelainops*.

**Notes.** This species is genetically a member of the Diminutiva Group (Figs. 2–4) but possesses morphology that is characteristic of the Morsei Group. Genetically, the closest relative is *A. diminutiva* which occurs in the South Coast Ranges to the east. Shared morphology may be the result of historical gene flow. Currently the ranges of *A. constrictans* and *A. diminutiva* are separated by the Salinas Valley. Other Morsei Group and Diminutiva Group lineages are found in the area where the Transverse and Peninsular Ranges meet in Ventura and Santa Barbara Counties, California, but we have not found any occurrences of sympatry. This species was, however, sympatric with both *Neduba carinata* Walker and *N. lucubrata* Cole, Weissman, & Lightfoot at Bottcher's Gap in the Ventana Wilderness of the South Coast Ranges of California, this occurrence representing the highest count of sympatric nedubine species that we have encountered. The Nature Conservancy protected 25,000 acres of the Bixby Ranch type locality at Point Conception in 2017.

**Material examined.** (n=51) **All USA, CA, Monterey Co.,** 0.9 miles E of Arroyo Seco and G17, intersection on Arroyo Seco, 36.25466, -121.43208, 192 m, 12-VIII-1982, d B Weissman, CAS, 6♂, 4♀; Arroyo Seco Rd., 0.6 mi. W of intersection with G6, 36.235139, -121.473392, 274 m, 29-VII-1983, d B Weissman, CAS, 1♂, 1♀; Big Sur, SR1, 36.3547, -121.8136, 685 m, 20-VIII-2012, JA Cole, 1♂ sound recording; Bottcher's Gap, Los Padres National Forest, 19 miles north of Big Sur off SR1 on Palo Colorado Road, 36.3550, -121.8138, 652 m, 20-21-VIII-2012, JA Cole, LACM, 1♀; same data except JAC, 1♀; Bottcher's Gap, Los Padres National Forest, 19 miles north of Big Sur off SR1 on Palo Colorado Road, 36.3550, -121.8138, 652 m, 7-8-IX-2002, JA Cole, LACM, 1♂; Palo Colorado Rd., 3 mi. E of SR1, 36.3864, -121.8687, 327 m, 20-VIII-2012, JA Cole, LACM, 5♂, 1♀, 2 pairs in copula; same data except JAC, 1♂, 1♀; Pfeiffer Big Sur State Park, 36.248852, -121.782732, 5-VII-1986, d B & B Weissman, CAS, 1♂; **Santa Barbara Co.,** Gaviota Pass Rest Area, 34.489433, -120.225984, 22 m, 14-VIII-1986, B Hebert, CSUN, 1♀; Gaviota State Park, 34.47222, -120.22722, 4 m, 20-21-VIII-2013, JA Cole, AMNH, 1♂; same data except LACM, 8♂, 1♀; same data except JAC, 3♂; Harris Grade Road, 5 miles north of Lompoc, 34.7238, -120.4368, 216 m, 3-VI-2006, JA Cole, JAC, 1♂; same data except, 4-VI-2006, JA Cole, LACM, 1♂; same data except JAC, 1♀; junction Santa Rosa Rd. and US101, 34.603319, -120.284877, 14-VII-1976, CAS, 2♂; Santa Ynez Mountains, 0.8 mi. W Cold Arch Bridge on Hwy. 154, 34.528049, -119.843848, 320 m, DB Weissman, d C Lightfoot, CAS, 1♂, 1♀; Vandenberg Air Force Base, 2.7 mi. NW of intersection 13th and Airfield on 13th, 34.764161, -120.579461, 90 m, 13-VIII-1982, d B Weissman, CAS, 4♂, 1♀, CAS.