

FIGURE 28. Distribution of Diminutiva Group species.

Aglaothorax poecilonotum Cole, Weissman, and Lightfoot, sp. nov.

Fig. 28 (distribution), Fig. 34 (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. Santa Ynez Shieldback.

History of recognition. None.

Type material. HOLOTYPE MALE: USA, California, Santa Barbara County, Upper Oso Campground, Los Padres National Forest, 34.55469N, 119.76960W, 349 m, 10-VIII-2021, DB & DW Weissman, S21-22, R22-8, F1 [reared], deposited in CAS, Entomology type #20379. PARATOPOTYPES (n=45) USA, CA, Santa Barbara Co., same data as holotype, CAS, 6♂, 21♀; Upper Oso Campground, Los Padres National Forest, 22 miles northwest of Santa Barbara off SR154 (Paradise Rd.), 34.5544, -119.7683, 376 m, 11-12-VI-2008, JA Cole, LACM, 10♂; same data except 7-8-VI-2002, JA Cole, AMNH, 2♂; same data except LACM, 5♂, 1♀.

Measurements. (mm, ♂n=6, ♀n=5) Hind femur ♂12.13–14.43, ♀13.65–16.55, pronotum total length ♂6.85–8.59, ♀6.47–8.38, prozona length ♂3.15–4.20, ♀3.26–4.79, metazona dorsal length ♂3.55–5.05, ♀2.60–4.18, pronotum constriction width ♂2.36–2.80, ♀2.50–3.40, metazona dorsal width ♂5.10–6.11, ♀4.60–6.15, head width ♂3.41–3.90, ♀3.77–4.41, ovipositor length ♀10.34–11.83.

Distribution. Santa Ynez Mountains of Santa Barbara County, California.

Habitat. Oak woodland understory and riparian. On *Ceanothus* spp., Scrub Oak, and Sage (*Salvia* spp.).

Seasonal occurrence. Adult activity from late spring (7-VI-2002, JA Cole, LACM) through summer (10-VIII-2021, DB Weissman, CAS). A captive reared nymph matured on 30-IV, which may be earlier than during a typical season in nature.

Stridulatory file. (n=5) length 2.9–3.5 mm, 88–103 teeth, tooth density 30.3±4.2 (25.7–35.5) teeth/mm.

Song. (n=5) Common song type of small *Aglaothorax*. Pulse trains of length 40 ms are repeated at a rate of 4.42±0.45 s⁻¹. Mean peak frequency is 18.74±3.02 kHz; high frequency recording equipment places the peak frequency within the ultrasonic at 22.80 kHz. Echemes are variable in length and contain 11–40 (mean 26±11) pulse trains. Silent intervals between echemes are brief at 8±4 s (range 5–12.5 s). At the type locality males were first heard singing at 2100 h and peak acoustical activity began after 2330 h.

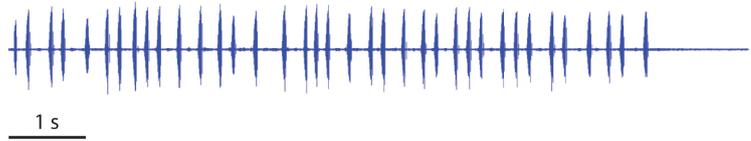
Karyotype. (n=3) 2n♂=24 (22t+Xty t) paratype T21-18 (S21-22).

Recognition. Morphology, geography. The male paraproct process has an apical mesal tooth unlike the generally subapical tooth of most Morsei Group species. The male titillator is long and bowed, unlike the short slightly curved titillator arm of *A. constrictans* and the morse Group. The strong lateral curve to the titillator and lack of a basal constriction on the titillator arms together eliminate *A. oreibates* from consideration, which has less lateral curvature and a basal constriction. The *A. poecilonotum* female subgenital plate has digitiform lateral processes that are broad at base and rather blunt at the apex, unlike the long, narrow, and sharp processes of *A. dactyla*. The *A. poecilonotum* subgenital plate lateral processes round onto the caudal margin of the plate unlike the right angle observed in female *A. diminutiva*. Female *A. poecilonotum* may be morphologically indistinguishable from those of *A. acrolophitus* and *A. oreibates*. The range of *A. poecilonotum* is restricted to the Santa Ynez Mountains.

male HOLOTYPE USA. CA: Santa Barbara Co. S21-22, R22-8



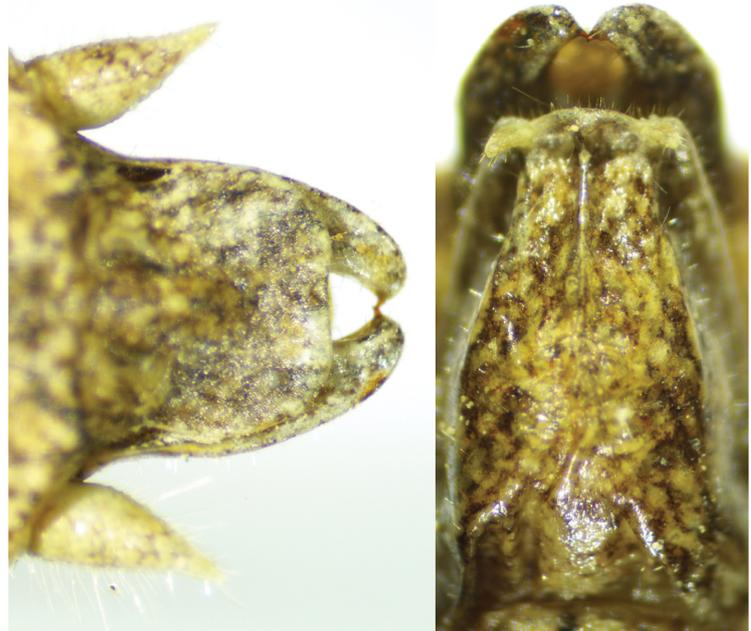
calling song PARATOPOTYPE USA. CA: Santa Barbara Co. 24.5°C JCR08UO01



karyotype PARATOPOTYPE USA. CA: Santa Barbara Co. S21-22, T21-18



male terminalia HOLOTYPE USA. CA: Santa Barbara Co. S21-22 R V



female PARATOPOTYPE USA. CA: Santa Barbara Co. S21-22



titillators PARATOPOTYPE JAC000002611



female subgenital plate PARATOPOTYPE S21-22



male PARATOPOTYPE USA. CA: Santa Barbara Co. JAC000002603



FIGURE 34. *A. poecilonotum* male and female habitus, calling song, male and female terminalia, and karyotype. Idiogram shows karyotype $2n_{\text{♂}}=24$.

Etymology. *Gr. poecilo* variegated, many colored + *notum* the back. Descriptive of the variable color patterns exhibited among individuals, of which one of the color patterns is also variegated.

Notes. There was little singing when the type series was collected on 10-VIII-2021 (S21-22), but many adult females and two adult males were attracted to a long oatmeal trail. Five field-collected adult females were housed together at room temperature as described on p. 6 starting on 10-VIII-2021. On 28-IX-2021, the sand was examined for eggs and a total of 30 were harvested. All eggs were kept at room temperature (between 15–25°C) and natural photoperiod until hatching commenced on 4-I-2022. Between 4-I-2022 and 30-I-2022, a total of 17 eggs hatched. The 13 unhatched eggs were continued at room temperature until they were chilled at 3°C from 3-IX-2022 to 6-III-2023, before being returned to room temperature and natural photoperiod. Between 6-III-2023 and 25-III-2023, another eight eggs hatched, for a total of 25 out of 30 eggs successfully hatched.

Material examined. See Type Material above.