

FIGURE 15. Distribution of Morsei Group species.

***Aglaothorax kelainops* Cole, Weissman, and Lightfoot, sp. nov.**

Fig. 15 (distribution), Fig. 26 (male and female habitus, calling song, male and female terminalia, karyotype), Plate 5 (male terminalia), Plate 8 (female subgenital plate), Plate 12 (male titillators), Plate 15 (male calling song).

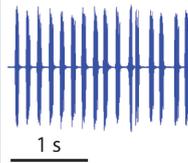
Common name. Ojos Negros Shieldback.

History of recognition. None.

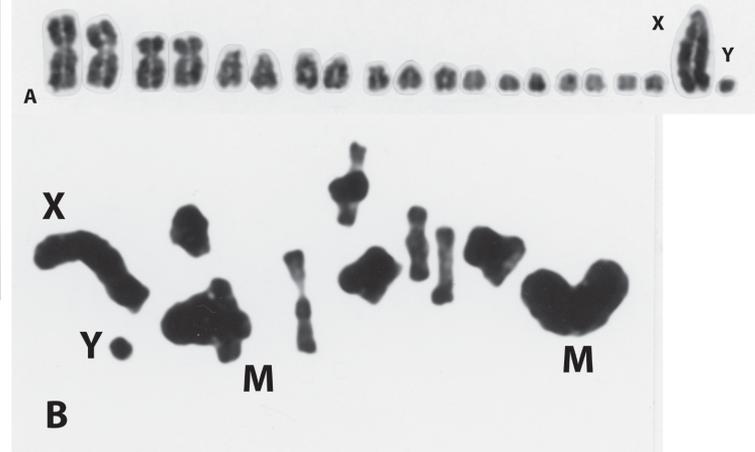
male HOLOTYPE México. Baja California. S88-84, R88-135, T88-52



calling song HOLOTYPE México. Baja California. 25.0°C R88-135



karyotype PARATYPE México. Baja California. S80-21, T80-19



female PARATOPOTYPE México. Baja California. S88-84



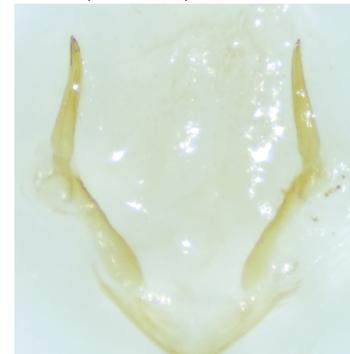
male terminalia HOLOTYPE México. Baja California. S88-84 R V



male PARATOPOTYPE México. Baja California. S85-90, R85-204



titillator PARATOPOTYPE S88-84, R88-122, T88-50



female subgenital plate PARATOPOTYPE S88-84



FIGURE 26. *A. kelainops* male and female habitus, calling song, male and female terminalia, and karyotype. Idiogram A. showing karyotype $2n\♂=20$, showing two largest autosomal pairs composed of metacentric chromosomes; B. Metaphase I in same male showing association of X and Y sex chromosomes; and two largest pairs of metacentric (M) autosomes.

Type material. HOLOTYPE MALE: **México, Baja California**, 41.3 km south of Ensenada on Highway 1, at km sign post 41.3, 31.49660N, 116.59972W, 9-VIII-1988, DB Weissman & DC Lightfoot leg., S88-84, R88-135, T88-52, 86 [stridulatory file tooth count], 3.3 [stridulatory file length], excised tegmen in gelcap below specimen, deposited in CAS, Entomology type #20377. PARATYPES: (n=18) **México, Baja California**, same data as holotype, CAS, 1♂, 1♀; 42 km S of Ensenada, 31.55439, -116.40891, 370 m, 19-VII-1985, d B Weissman, d C Lightfoot, d K Faulkner, CAS, 4♂, 1♀; 10 km N Santo Tomas at km 41 on Mex. 1, 31.62494, -116.46102, 18-VI-1980, d B Weissman, CAS, 1♂; 20 km S Maneadero at 0.32 km N, km 42 S Ensenada on Mex. 1, 31.54073, -116.40891, 28-VII-1978, d B Weissman, d C Lightfoot, CAS, 1♂, 2♀; 61.5 km south of Ensenada at Highway 1 km 61.5, 31.43738, -116.30825, 490 m, 2-VI-1989, d B Weissman, d C Lightfoot, CAS, 2♂; Highway 1, 30.4 km south of Ensenada, 31.63611, -116.47167, 177 m, 29-VI-2019, JA Cole, d B Weissman, LACM, 1♀; Highway 3, 4.3 km west of Ojos Negros, km marker 36, 31.87889, -116.30444, 762 m, 29-VI-2019, JA Cole, d B Weissman, AMNH, 1♂; same data except LACM, 2♂, 1♀.

Measurements. (mm, ♂n=11, ♀n=6) Hind femur ♂13.43–15.10, ♀16.00–18.15, pronotum total length ♂7.41–9.10, ♀7.21–8.80, prozona length ♂3.36–3.99, ♀3.96–5.16, metazona dorsal length ♂3.88–5.13, ♀2.78–3.90, pronotum constriction width ♂2.46–3.06, ♀2.95–3.70, metazona dorsal width ♂5.26–6.32, ♀5.39–6.25, head width ♂3.51–3.79, ♀3.85–4.60, ovipositor length ♀10.52–13.45.

Distribution. Northern Baja California, México.

Habitat. Chaparral on laurel sumac.

Seasonal occurrence. Late spring into summer (2-VI-1989, DB Weissman & DC Lightfoot, CAS to 9-VIII-1988, DB Weissman & DC Lightfoot, CAS).

Stridulatory file. (n=8) length 3.10–3.60 mm, 80–97 teeth, tooth density 26.2 ± 0.9 (25.0–27.5) teeth/mm.

Song. (n=12) Common small *Aglaothorax* song with slow, countable pulse trains. Pulse trains 70 ± 20 ms in length delivered at a rate of 6.42 ± 0.68 s⁻¹. Mean peak frequency is 14.56 ± 1.02 kHz. Variable echemes contain 19 ± 7 (range 11–34) pulse trains that repeat at a rate between 7–13 min⁻¹.

Karyotype. (n=11) $2n\♂=20$ (4m+14t+Xty t), paratype T80-19 (S80-21). The presence of two metacentric autosomes, combined with an autosome chromosome number reduction from 22 to 18 when compared with other widespread Morsei Group members, is most easily explained by Robertsonian fusions involving four telocentric pairs.

Recognition. Morphology, karyotype. Males have a rounded, concave supra-anal plate unlike the flat, square plate of *A. nesiazio* to the north in San Diego County, California. The male paraproct processes are about two times longer than wide, also unlike *A. nesiazio* and *A. sphenosternum*. The prosternal spines are normally developed and spinelike compared with the conical spines of *A. sphenosternum*. The male paraproct processes have the internal tooth apical, unlike most Morsei Group species, and the supra-anal plate is not bilobed or indented on the caudal margin as in the Diminutiva Group. Male *A. kelainops* titillator arms are short and nearly straight, while those of *A. bufonoides* are smoothly curved laterally. The female subgenital plate lateral processes are longer than wide unlike *A. bufonoides* and *A. sphenosternum*, and *A. nesiazio* from Southern California. This is the only *Aglaothorax* with a $2n\♂=20$ karyotype.

Etymology. *G. kelain* black, murky + *ops* eyes. Named after the type locality near Ojos Negros in Baja California, México.

Notes. The Baja California peninsula harbors populations with three different karyotypes: *A. bufonoides* with the widespread $2n\♂=24$, this species with $2n\♂=20$, and *A. sphenosternum* with $2n\♂=22$ (see species account below, p. 67). *A. kelainops* is related to a subset of *A. bufonoides* populations (Figs. 3–4). Divergent karyotypes are a recurring theme in peripheral populations of *Aglaothorax*, echoed by *A. diminutiva* at the north limit of the range (see species account below, p. 71), *A. segnis* at the extreme east (p. 28), and *A. kelainops* and *A. sphenosternum* (p. 67) at the southern extreme of the distribution in northern Baja California, México. Taken together, if Robertsonian fusions are rare events, and given that *A. sphenosternum* does not share a recent common ancestor with *A. kelainops*, reduction of chromosome number from the common karyotype $2n\♂=24$ to $2n\♂=20$ involves intermediate $2n\♂=22$ populations that have not been observed.

Material examined. See Type Material above.