VERBESINA TIBURONENSIS (ASTERACEAE: HELIANTHEAE), A NEW SPECIES FROM ISLA TIBURÓN, GULF OF CALIFORNIA, MEXICO

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Abstract: *Verbesina tiburonensis* is a new species from Isla Tiburón, Sonora, Mexico. It is closely related to *Verbesina palmeri* and *V. oligocephala* both native to Baja California.

Keywords: Asteraceae, Heliantheae, *Verbesina*, *V. oligocephala, V. palmeri*, Sierra de San Pedro Mártir, Sierra Giganta, Baja California, Sonora

Preoccupation with a treatment of the Mexican species of *Verbesina* from Mexico has occasioned the present paper, this in my forthcoming Comps of Mexico (Vol. 24b, Subtribe Verbesininae).

Verbesina tiburonensis B.L. Turner, **sp. nov.** Fig. 1

SHRUBS divaricately branched, 0.5–1.0 m high. STEMS (uppermost) minutely hispidulous, the hairs ca 0.5 mm long. LEAVES (uppermost) alternate or opposite, 3–6 cm long, 2–4 cm wide; blades ovate, pinnately nervate, hairy above and below, mainly along the venation, the margins dentate to nearly entire; petioles 3–15 mm long, narrowly winged, passing into the blades. CAPITULESCENCE a terminal, congested paniculiform cyme of 3–10 heads, 2–3 cm high, 3–5 cm across; ultimate peduncles 5–12 mm long. INVOLUCRES campanulate, ca 15 mm high, 10 mm in diameter; involucral bracts linear-lanceolate, subequal, appressed, 3–6 mm long, 1.0–1.5 mm wide. PALES linear–lanceolate, shorter than florets with narrowly acute apices. RAY FLORETS 3–5, neuter; tubes ca 2 mm long; ligules yellow, 6–10 mm long, 2–4 mm wide. DISC FLORETS 15–20; corollas bright yellow, glabrous, 5–6 mm long, tubes, ca 2 mm long, lobes 5, ca 1 mm long; anthers yellow. CYPSELAE ca 5 mm long, 2–3 mm wide; marginal wings ca 0.5 mm wide; pappus of 2 stout, hispid awns, mostly 4–8 mm long.

TYPE. **MEXICO. Sonora:** Mpio. Hermosillo, Gulf of California, Isla Tiburón. Capaxolim, north-facing side of solitary peak just east of the main portion of the Sierra Kunkaak, ca 590 m, ca 28.98 N, 112.31 W, "Top of tallus and base of steep cliffs leading to the top of the mountain... common to occasional at base of cliffs." 24 Oct 2007, *Benjamin T. Wilder 07-476* [with *Brad Boyle et al.*] (HOLOTYPE: TEX).

ADDITIONAL SPECIMENS EXAMINED. locality as above but "east side of the island, canyon at the northern base of Sierra Kunkaak... On the south-east-facing mountain slope in the upper reaches of canyon," ca 385 m, ca 28.98° N, 112.32° W, 24 Nov 2006, *Wilder 06-432* (TEX).

Both of the above specimens were identified as *Verbesina palmeri* S. Wats subsp. *oligocephala* (I.M. Johnst.) Felger & Lowe (= *V. oligocephala* I.M. Johnst.), a taxon endemic to the Sierra de la Giganta of Baja California Sur (Fig. 2). Wiggins (1980) recognized *V. oligocephala* and *V. palmeri* as distinct species, the latter confined to southeastern Baja California but he did not account for the floristic elements on Isla Tiburón, presumably taking these to be part of the Flora of Sonora. Felger et al. (2012), in their floristic treatment of Isla Tiburón, retained the specific name *V. palmeri* for their taxon, noting that it occurred on the higher peaks of that island. Partial examination of their material shows such plants to belong to my concept of *Verbesina tiburonensis;* indeed, *Wilder 07-476* is the holotype number for the latter. *Verbesina tiburonensis*

FIG. 1. *Verbesina tiburonensis* (Holotype: TEX).

FIG. 2. Distribution of the *Verbesina palmeri/V. oligocephala* complex.

differs from *V. oligocephala* in size and shape of heads, texture and shape of outer involucral bracts (linear-lanceolate, appressed and eciliate vs. oblanceolate, loose or recurved and markedly ciliate), size and shape of fruit bodies (ca. 5 mm long and narrowly winged vs. 6–9 mm long and broadly winged), anther color (yellow vs. brown).

Verbesina tiburonensis is a somewhat smaller plant with smaller leaves than the two related taxa. It has a capitulescence similar to that of *V. oligocephala*, being short and compact, unlike the larger, more openly divaricate capitulescence found in *V. palmeri* which is largely endemic to the eastern slopes of Sierra San Pedro Mártir and marginal islands of Baja California (where it reportedly occurs on the higher peaks [to 1100 m] on Isla de la Guarda, a large island to the west of Tiburón (Moran 1983). So far as known, none of the taxa concerned grow together.

Búrquez et al. (1999) commented that "The vegetation and flora of Isla Tiburón, Mexico's largest island, is remarkably similar to that of the mainland- no doubt due to its close proximity and relatively recent connection to Sonora as well as its large area. Its vegetation includes sea grass meadows, mangroves, salt scrub, and dune vegetation along its coast, desert scrub on the plains, and thorn scrub on the north-facing slopes of the highest mountain range (Felger and Lowe 1976). In contrast, Isla Angel de Guarda [where *V. palmeri* occurs] has not been recently connected to the mainland and, despite its large size and relief, has a rich but relatively arid vegetation lacking thorn scrub." In short, the two closely aligned large islands have different biogeographic histories, perhaps accounting for the novel *Verbesina*. The following key should serve to identify the taxa concerned.

KEY TO RELEVANT SPECIES OF *VERBESINA*

1. Heads in open cymes, the peduncles 2–5 cm long; Baja California: Sierra de San Pedro Mártir, eastern slopes and adjacent islands. . . . . **V. palmeri**
1. Heads in congested cymes, the peduncles 5–10 (25) mm long . . . . . (2)
   2. Outer involucral bracts linear-lanceolate, strictly appressed, eciliate or nearly so; ray florets 3–5; anthers yellow; Sonora, Isla Tiburón . . . . . **V. tiburonensis**

2. Outer involucral bracts obovate, loosely arranged, ciliate; ray florets 8–21; anthers brown; Sierra de la Giganta, Baja California Sur . . . . . **V. oligocephala**

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