

John F. Pruski of The New York Botanical Garden noted the need for this combination on some herbarium annotation labels several years ago. I agree with the utility of the transfer to Senecio and it is my pleasure to join John Pruski in presenting this combination.


Senecio billieturneri T.M. Barkley, sp. nov. Figure 1. TYPE: MÉXICO. Durango: Lecheria, about 6 miles W of El Salto, along road to Mazatlan, along banks and in shallow water of stream, elev ca 8500 ft, perennial herb with ray and disk florets both yellow, (no date), Howard Scott Gentry 10610 (HOLOTYPE: MICH; Isotype: MEXU).

Senecio multidentato Sch.-Bip. similis, sed capitulis magnis (1-) 4-10, disco 12-20 mm diametro et involucris bracteis 9-12 mm longis, necnon foliis caulinis medianis ac superioribus caulem circumdantibus semiamplexicaulibus, ulteris ecologia semiaquatrica diversus.

Coarse, soft stemmed herb to 6+ dm tall. Herbage mostly glabrate at flowering time, but with scattered short hairs on the upper stem, the pedicels and base of the heads; variously dense pubescent on the involucral bracts. Stems arising singly or 2-3 loosely clustered from an elongate rhizome with abundant fleshy fibrous roots; the roots unbranched or with a few thin, lateral branches. Basal leaves and those of the lower 1/2 of the stem of about equal size and not disposed in a clearly defined basal cluster, upper leaves few and somewhat reduced; the well developed leaves linear-lanceolate to narrowly lanceolate, the blade 8-15 cm long and 1-2.5 cm wide, tapering to a winged petiole about as long as the blade or shorter, the middle and upper caudal leaves becoming sessile and with the bases encircling and weakly sheathing the stem, but not at all auriculate clasping, margins subentire or obscurely wavy, with a few, minute, callose denticles. Inflorescence a corymbiform cyme of (1-)4-10 heads; the ultimate branches of the inflorescence (pedicels) 3-7(-10) cm long, with 3-5 subulate bracts 5-7 mm long, equidistantly placed along the length
of the pedicel. Heads cylindrical to campanulate at maturity, the disk 12-20 mm across; principal involucral bracts ca 21, triangular-lanceolate, 9-11+ mm long, the central rib prominent, greenish and ± permanently short pubescent, the margins scariosus-stramineous and glabrous, the tip weakly attenuate and darkened, but without a distinctive blackish spot; calyculate bracts mostly 5-8, greenish, subulate, (3-)5-9 mm long; receptacle flat or low hemispheric, sometimes infested with insect larvae, naked or with low, erose ridges among the achenes; ray florets ca 13, pistillate and apparently fertile, the ligule bright yellow, 10-15+ mm long in dried specimens; disk florets numerous, often more than 50, bisexual and apparently fertile, corolla yellow, 7-8 mm long, the throat separating the tube from the limb ca 2/5 the distance up from the base, the limb narrowly tulip shaped and flared upward to 5 small triangular lobes, ca 1 mm long or less. Achenes 5-6 mm long (immature), angled, glabrous; pappus a single series of grayish white, minutely barbellate, capillary bristles, 3-5+ mm long but of uneven lengths.

Paratypes: (All from MEXICO. Durango: along or near Mexican highway 40, west of the city of Durango): Alrededores del Mil Diez, 2 kms al N de El Salto, Mpio. de El Salto, alt 2200 m, Junio 27, 1982, R. Hernández M. 7414 y P. Tenorio (KSC); wet meadow in Pinus lutea and Pinus durangensis forest, 10 miles west of El Salto on Route 40, elev 9000 feet, July 16, 1964, Miles & Wilma Johnson 1859 & 1861 (both WIS); 10 miles W of El Salto along Mexican Rte 40, pastured pine woodland, 27 June 1974, Marvin L. Roberts & David Keil 10319 (F,OS); 4.5 km al SW de El Salto, brecha El Salto-Pueblo Nuevo, Mpio. de El Salto, alt 2100 m, 3 de Julio de 1982, P. Tenorio L. 808 y C. Romero de T. (KSC); Las Adjuntas, Mpio. de El Salto, alt 2000 m, 5 de Julio de 1982, P. Tenorio L. 829 y C. Romero de T. (KSC).

Senecto billieturneri is referable to Group 11c, Triangulares, in the scheme of Barkley (1985). It is similar to S. multidentatus Sch.-Bip. and the closely related S. huachucanus A. Gray (which is transferred in this paper to varietal status within S. multidentatus). It differs from them in having (1-)4-10 notably large heads, the middle and upper cauline leaf bases encircling and weakly sheathing the stem, and in a semi-aquatic habitat, or at least the ability to grow as a facultative aquatic. The species is further noteworthy in its rather long achenes in comparison to the length of the corolla and the pappus of the disk florets.

Two of the paratypes noted above, Miles & Wilma Johnson 1859 & 1861, are distinctive in being monocephalous and in having few and reduced cauline leaves. Otherwise, they cannot be excluded from S. billieturneri as it is conceived here.

It is a pleasure to name this species for Dr. B.L. Turner of the University of Texas, who has made notable contributions to the knowledge of the botany of North America, and who has been an inspiration for two generations of botanists.