## Senecio (Compositae) in Honduras, Nicaragua and El Salvador: A Synopsis

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The present account of the Senecios was prepared to provide a synoptic account of those species found in central Central America. Two of these Senecios, *Senecio merendonen*sis and S. morazensis, are montane cloud forest species known at present only from Honduras. The others are distributed at least from south Mexico and Guatemala into our region and two of them extend as far as Costa Rica or Panama.

## SENECIO (Tournefort) Linnaeus

Annual or perennial herbs, shrubs, vines or weak trees. Leaves alternate or radical, pinnately or palmately veined, entire or variously dentate or divided. Heads heterogamous and radiate, or discoid; involucre cylindrical or campanulate, usually subtended by one or more bracteoles; phyllaries of the involucre uniseriate or by overlapping subbiseriate, variable in number (but usually subdefinite in a given species); ray flowers when present dispersed in a single row, fertile, the rays sometimes reduced; disk flowers perfect or heterogamous with the corollas tubular to ampliate and campanulate above, the 5 teeth or lobes of the limb usually short but sometimes nearly as long as the throat; anthers obtuse or subsagittate at the base; style branches subterete, truncate, rounded-obtuse or with a tuft of hairs, recurved or spreading, rarely terminated by an acute or acuminate appendage; achenes subterete, usually ribbed, glabrous or hirtellous especially on the angles; pappus of numerous, usually white (rarely purple) setae.

Senecio is a large and complex genus distributed through much of the world, with perhaps as many as 1,500 species. It

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is found from deserts and cold arctic regions to deep tropical rain forests. The genus contains considerably fewer species in our region than are found in the neighboring republic of Guatemala; only two of our species are not found in Guatemala and only one extends as far as Panama. *Senecio oerstedianus* Benth. is found at high elevations in Mexico, Guatemala, and Costa Rica, but since the ecological situation which it prefers does not occur in our region, it probably will not be found here.

Plants vines or shrubs of the cloud forest, usually epiphytic; leaves fleshy and shining ..... S. morazensis.

Plants suffrutescent herbs, shrubs, or trees; if vines, not of the cloud forest, and with brightly colored flowers. Plants vines of thickets and forest edges with brightly colored flowers; style branches terminated by

triangular, dorsally hispidulous appendages ...... S. chenopodioides.

Plants suffrutescent herbs, shrubs, or trees; style branches truncate, rounded-obtuse, or terminated with a penicillate tuft of hairs.

Mature leaves about as broad as long, or broader, lobate.

Lobes of the leaves rounded or obtuse; lower leaf surface usually densely floccosetomentose ..... S. petasioides.

Lobes of the leaves acute to acuminate; lower leaf surface sparsely floccose to glabrous. S. jurgensenii.

Mature leaves obviously much longer than broad, entire or variously lobate or dissected; shrubs or weak trees.

Leaves glabrous or nearly so, if sparsely floccose then appearing stellate-floccose.
Leaves linear to elliptic-linear, 0.2-1 cm. broad
Leaves narrowly lanceolate to ovate, mostly more than 3 cm. broad.
Phyllaries 5.
Leaves elliptic-oblanceolate to oblanceolate, long-attenuate to the base, on short petioles, entire or rarely somewhat dentate-serrate above; florets usually 5 with 1-2 radiate or all discoid S. cobanensis.
Leaves lanceolate or lanceolate-oblong to ovate, obtuse or abruptly attenuate to the base, not long cuneate, entire or lobate-dentate; heads mostly radiate with more than 5 florets
S. schaffneri.

Phyllaries 8 (-7) ..... S. arborencens.

Senecio arborescens Steetz. — Weak, simple or branched shrubs or trees to 12 m. tall but usually less, young stems floccose, becoming glabrous; leaves petiolate, sinuately-lobate to deeply incised, oblong to ovate, obtuse to acuminate, glabrous above at maturity, mostly 10-40 cm. long and 5-25 cm. broad; inflorescences usually large, corymbose panicles; heads radiate, campanulate, 7-8 mm high; involucre with usually 8 linear or narrowly lanceolate phyllaries to about 4-6 mm. long; heads with 5-11 florets of which 2-3 radiate, disk florets tubular, about 5 mm. long. (Telanthophora arborescens (Steetz) Rob. & Bret.) — Commonly in ravines and boggy places in wet forests mostly at 1,200-1,600 m. South Mexico to Panama. Easily distinguished by the sinuately-lobate, incised leaves.

Senecio chenopodioides HBK. — Small herbaceous tò large suffrutescent terrestrial vines to 5 m. or perhaps longer; leaves petiolate, lanceolate to lanceolate-ovate, rarely subcordate, the blades mostly 3-12 cm. long; inflorescences from a single head to a many-headed panicle; heads radiate, commonly 1.5 cm long; phyllaries numerous, linear, hispidulous or glabrous; ray corollas bright orange to red; disk corollas yellow to orange or red, about 1 cm long. (S. kermesinus Hemsl.; S. chinotegensis Klatt; S. hoffmannii Klatt.) — Our only terrestrial vine, usually most conspicuous-because of the brightly colored corollas, commonly in thickets and forest edges at 700-1,200 m. Mexico to Costa Rica.

Senecio cobanensis Coulter—Shrubs or weak trees mostly 2-3 m. tall, glabrous; leaves petiolate, elliptic-oblanceolate to oblanceolate, entire or rarely dentate, 8-20 cm. long and to 2.5 cm. broad; inflorescences often massive cymes; heads radiate or discoid, mostly 6-8 mm. long; involuce glabrous, rarely glandular; phyllaries 5, lance-oblong, acute, 5-6 mm. long; florets mostly 5, sometimes one radiate or all discoid and 5-6 mm. long; pappus about as long as the corollas; achenes mostly 5-costate, glabrous. (Telanthophora cobanensis (Coulter) Rob. & Bret.)— Wet forests and forest edges mostly above 1,200 m. Mexico (Chiapas), Guatemala, Honduras, perhaps Él Salvador.

Senecio deppeanus Hemsl. — Erect branching shrubs or weak trees to 5 m tall but commonly much less, densely tomentose becoming glabrescent with age; leaves linear-lanceolate to lanceolate, 5-20 cm long, densely floccose tomentose below; inflorescences mostly corymbose panicles to 10 cm. long; heads radiate, mostly 6-8 mm; high; phyllaries 12-15, linear, glabrous or nearly so, 5-6 mm. long. (S. thomasii Klatt). — Thickets and open and mixed forests, disturbed roadsides, mostly at about 1,000 m. Our only species with floccose-tomentose stems and lower surfaces of the narrow leaves. Locally common from southern Mexico to Honduras.

Senecio jurgensenii Hemsl. — Weak shrubs to 5 m. tall, hispidulous or glabrous, often with muricate processes on the stems; leaves long-petiolate, suborbicular to subreniform, usually subcordate, 5(-7)—lobate with callose-denticulate margins, hispidulous to glabrous below, upper leaves sometimes sessile or the petioles alate, 5-15 cm. long and as broad; inflorescence a diffuse corymbose panicle; heads with 10-14 florets, 2-5 radiate, the others discoid; phyllaries 7-8, usually glandularhispidulous. (Roldana jurgensenii (Hemsl.) Rob. & Bret.) — Rare in moist mixed or coniferous forests at nearly 2,000 m. Southern Mexico to Honduras and El Salvador. Easily distinguished by the non-peltate, nearly or quite glabrous leaf blades, often broader than long.

Senecio merendonensis A. Molina — Herbs mostly less than 50 cm. tall; leaves long-petiolate, peltate, the blade suborbicular, shallowly 8-9-lobulate; inflorescence a few-headed raceme. — Wet cloud forests at about 1,800 m., known only from Cordillera Merendón, Honduras, and to be expected in El Salvador. Our only Senecio with peltate leaves. The related genus *Psacalium* with peltate leaves may be expected in our area.

Senecio morazensis Greenm. — Entirely glabrous, scandent shrubs or vines, usually epiphytic; leaves petiolate, ellipticlanceolate, mostly 4-8 cm long, somewhat fleshy, cuneate to the base; inflorescence paniculate; heads heterogamous, about 1 cm. long; involucre campanulate, with 8 linear-lanceolate or oblong phyllaries 6-7 mm. long; radiate florets about 8, the disk florets about 30. (Senecio magistri Standl. & L. Wms.) — Known only from the high cool cloud forests of central Honduras where it is usually epiphytic. It is the only forest-inhabiting, fleshy-leaved vine in our region.

Senecio petasioides Greenm. — Weak shrubs to 2 m. tall, the stems subtomentose to nearly glabrous; leaves suborbicular to subcordate-reniform, callose-denticulate and 5-9-lobate, usually densely floccose-tomentose below, 6-20 cm. long and usually a bit broader; inflorescence a diffuse corymbose panicle; heads with 2-4 ray florets and 10-14 ray florets. — Moist or wet forests and thickets at 1,400 m. and above. Mexico to Nicaragua. The only species with leaves usually broader than long and densely floccose-tomentose below.

Senecio salignus DC. — Erect branched glabrous or nearly glabrous shrubs to 2.5 m. tall; leaves linear to ellipticlinear, entire or obscurely denticulate, 3-13 cm. long; inflorescence a multicapitate corymbose panicle; heads radiate, narrowly campanulate, 6-8 mm. high at anthesis; involucre with the 8 phyllaries usually subglandular and darker at the base, 4-5 mm. long; disk forets 15-20. (Cineraria salicifolia HBK., not Pers., Barkleyanthus salicifolius (HBK.) Rob. & Bret.) — Open slopes and thickets or open oak forests, above 1,300 m. Mexico to El Salvador and to be expected in Honduras. The very

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narrow glabrous leaves, shrubby habit, small heads, and mostly open habitat are distinctive.

Senecio schaffneri Sch.-Bip. — Shrubs or weak tress 1-4.5 m. tall, the stems -arachnoid-tomentulose to glabrous; leaves petiolate, coriaceous, elliptic-lanceolate to lanceolate-ovate, or rarely sinuate-dentate, mostly 8-20 cm. long; heads radiate or discoid, 5-flowered, mostly about 8 mm. high; phyllaries 5, much shorter than the heads; ray florets 2 to none, disk florets 6-7 mm. long. (*Roldana schaffneri* (Sch.-Bip.) Rob. & Bret.) — Occasional in montane forests or forest edges along open slopes, 1,000-2,000 m. Mexico to Honduras. The coriaceous leaves, and the phyllaries much shorter than the heads help to distinguish it.