

NEW NAMES AND COMBINATIONS IN ASTERACEAE: HELIANTHEAE-
ECLIPTINAE

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ABSTRACT

The following nomenclatural changes are provided for my contribution to the Flora North America Project. The new genera *Agnorhiza* and *Scabrethia* are segregated from *Wyethia*, and subspecific rank is proposed for races of *Helianthella californica*. Specific status is proposed for *Balsamorhiza hookeri* var. *lanata*.

KEY WORDS: *Agnorhiza*, *Balsamorhiza*, *Helianthella*, *Scabrethia*, Asteraceae, Flora of North America

AGNORHIZA

Agnorhiza (Jepson) W.A. Weber, *gen. nov.* TYPE: *Helianthus invenustus* Greene, Pittonia 1:284. 1889. *Balsamorhiza*, section *Agnorhiza* Jepson, *Fl. California* 1077. 1925. *Wyethia*, section *Agnorhiza* (Jepson) W.A. Weber, *Amer. Midl. Naturalist* 35:416. 1946.

The species of *Agnorhiza* differ from *Wyethia* in lacking basal leaves and in having clearly petiolate, cordate-ovate, usually strongly reticulate-veined cauline leaves, as opposed to the lanceolate ones of *Wyethia*, and long, slender caudices, stout and short in *Wyethia*. They are narrow endemics of the "Mother Lode" area of the western foothills of the Sierra Nevada of California.

Agnorhiza bolanderi (A. Gray) W.A. Weber, *comb. nov.* BASIONYM: *Balsamorhiza bolanderi* A. Gray, *Proc. Amer. Acad. Arts* 7:356. 1868.

Agnorhiza elata (H.M. Hall) W.A. Weber, *comb. nov.* BASIONYM: *Wyethia elata* H.M. Hall, *Univ. California Publ. Bot.* 4:208. 1912.

Agnorhiza invenusta (Greene) W.A. Weber, *comb. nov.* BASIONYM: *Helianthus invenustus* Greene, Pittonia 1:284. 1889.

Agnorhiza ovata (Torrey & Gray) W.A. Weber, *comb. nov.* BASIONYM: *Wyethia ovata* Torrey & Gray *ex* Torrey in Emory, *Mexican Boundary Survey* 143. 1848.

Agnorhiza reticulata (Greene) W.A. Weber, *comb. nov.* BASIONYM: *Wyethia reticulata* Greene, Bull. California Acad. Sci. 1:9. 1884.

BALSAMORHIZA

Balsamorhiza lanata (W.M. Sharp) W.A. Weber, *comb. nov.* BASIONYM: *Balsamorhiza hookeri* Nutt. var. *lanata* W.M. Sharp, Ann. Missouri Bot. Gard. 22:130. 1935.

HELIANTHELLA

Helianthella californica A. Gray subsp. *nevadensis* (Greene) W.A. Weber, *comb. nov.* BASIONYM: *Helianthella nevadensis* Greene, Bull. California Acad. Sci. 1(3):89. 1885.

Helianthella californica A. Gray subsp. *shastensis* (W.A. Weber) W.A. Weber, *comb. nov.* BASIONYM: *Helianthella californica* A. Gray var. *shastensis* W.A. Weber, Amer. Midl. Naturalist 48:30. 1952.

SCABRETHIA

Scabrethia W.A. Weber, *gen. nov.* [for "scabrous *Wyethia*"]. TYPE: *Wyethia scabra* W.J. Hooker, London J. Bot. 6:245. 1847.

Perennis, tota hispida et scabrida. Cauli numerosi, 1.5–4.0 dm alti; folia basalibus desunt; folia caulina linearibus, triplinervia. Capitulo solitario, 2 cm lato, phyllaria ad basin ovata, supra attenuata. Flores fertiles; flosculis radiorum 10–13, 3.5 cm longis. Cypselae glabrae; pappi coroniformi, aristae desunt.

Stems numerous from underground caudices crowning a taproot, 1.5–4.0 dm high, very pale or white, hispid the entire length, as are all the vegetative parts, the long multicellular hairs becoming more dense toward the inflorescence, finally breaking off and leaving swollen bases which cause the surface of the plant to be very harshly scabrous. Leaves progressively reduced toward the base to about 2-3 cm

long, withering early; basal leaves absent. Leaves largest at the middle of the stem, linear, very stiff and harsh, entire, sessile, 3–15 cm long, 3–17 mm wide, abruptly narrowed or truncate at the base, mucronate at the apex, the nerves very pale, the lateral ones confluent toward the margin, giving the leaves a triple-nerved appearance. Heads solitary, terminal, ca. 2 cm wide. Involucre hemispherical, the outer series of phyllaries narrowly lanceolate to linear, attenuate from broad, ovate bases, pubescent mostly on the margins; inner series broader, rigid, ovate-lanceolate with attenuate tips, the trichomes finer, more appressed, and covering the entire surface. Disk-flowers glabrous. Ray-flowers 10–13, ca. 3.5 cm long, lemon-yellow, rather densely pubescent on the tube and dorsally along the nerves. Paleae deeply carinate above, pubescent on the midribs and margins. Achenes glabrous, 6–8 mm long. Pappi low, coroniform, lacking conspicuous awns.

One complete plant of subspecies *scabra* was excavated at the Moffat County, Colorado site. The main root body was 12 cm long, 3 cm wide, with loose, flaking bark. A few slender, elongate lateral branches 0.5 cm wide, arise from this. The main root forks below, producing two branches averaging 2.5 cm wide and 6 dm long. Distally, the root gives rise to two caudices 2 cm wide and 5 cm long; these in turn produce 2–4 smaller caudices which give rise just below ground level into 4–6 still smaller ones. From these caudices arise 30–40 aerial stems.

The scabrous pubescence consists of 3-celled trichomes curved toward the leaf and stem apex; the terminal cell is thick-walled, smooth, rigid, and sharply pointed. The two basal cells are isodiametric, roughly spherical, and papillose. Most of the trichomes lack the terminal cell, which results in the extreme scabrosity. The basal cell of each trichome is surrounded by a rosette of bulliform cells distinctly larger than the adjacent epidermal cells. Stomata are extremely numerous.

Scabrethia scabra (W.J. Hooker) W.A. Weber, *comb. nov.* BIASIONYM: *Wyethia scabra* W.J. Hooker, London J. Bot. 6:245. 1847.

Scabrethia scabra (W.J. Hooker) W.A. Weber subsp. *attenuata* (W.A. Weber) W.A. Weber, *comb. nov.* BIASIONYM: *Wyethia scabra* W.J. Hooker var. *attenuata* W.A. Weber, Amer. Midl. Naturalist 35:425. 1946.

Scabrethia scabra (W.J. Hooker) W.A. Weber subsp. *cinerea* (W.A. Weber) W.A. Weber, *comb. nov.* BIASIONYM: *Wyethia scabra* W.J. Hooker var. *cinerea* W.A. Weber, Amer. Midl. Naturalist 35:425. 1946.