

ARNICA AURANTIACA, Greene, Torreyia i, 42, founded on a plant of Oregon collected only by Mr. Cusick until now, must be credited to British Columbia, Mr. Macoun's No. 26,934 from the Chilliwack region matching perfectly the originals of the species.

ARNICA CONFINIS. Less than a foot high, monocephalous, or else with also a pair of monocephalous peduncles from the axils of the uppermost pair of leaves, these surpassing the terminal one; herbage of a light green, viscid-puberulent as to the foliage, the stem with a sparse hairiness: lowest leaves obovate to oblanceolate, an inch long or more and petiolate, the cauline in about three pairs, ovate to lanceolate, 1 to 2 inches long, callous-denticulate, or serrate-dentate, or even subentire, acutish: heads of middle size, the involucre bracts biserial, acuminate, sparsely hirsute: rays deep-yellow, not large; disk-corollas with hirsute tube and naked limb about equal; achenes with a few hirsute hairs; pappus tawny, subplumose.

Chilliwack Valley, B.C., Mr. Macoun, No. 26,933. In characters of pubescence, flower and fruit this approaches *A. ovata*, Greene, but in foliage and habit it differs widely.

ARNICA ASPERA. Stems clustered, often 2 feet high, equably leafy to the corymbose summit, loosely hirsute, more strongly and quite retrorsely so toward the base: leaves about 2 inches long, ovate-lanceolate, sessile by a broad base, the upper longer, the lower shorter than the internodes, rough-hairy on both faces, saliently callous-dentate: peduncles several, slender; involucre small for the plant, campanulate, their bracts uniserial, hispidulous with pustulate hairs; rays very obtuse and only minutely tridentate; disk-corollas with very short tube and rather longer limb about equally and very sparsely setose-hairy: achenes setose-hairy; pappus tawny, subplumose.

The type of this species is a plant found by myself on Mt. Rainier, 19 Aug., 1889, and then supposed to be *A. amplexicaulis*, which I have now for some time known to be a very different plant. *A. aspera* has also been collected by Mr. Piper at Snoqualmie Falls, Washington, and again in the Olympic Mountains. Mr. M. W. Gorman obtained it in 1897 among his plants of the Washington Forest Reserve.