

linear divisions, permanently white-tomentose; stem-leaves few and smaller; heads 1-5; involucre about 6 mm. high and 1 cm. broad, densely tomentose; bracts obovate with pale-yellow tips; corollas yellow; tube 1.5 mm. long; throat about 1.5 mm. long, longer than the ovate lobes; achenes 4 mm. long, densely silky-hirsute; squamellae very short, hidden by the hairs or often wanting.

TYPE LOCALITY: Ham's Fork of the Colorado of the West, Wyoming.
DISTRIBUTION: Wyoming.

16. *Hymenopappus eriopodus* A. Nelson, Bot. Gaz. 37: 274. 1904.

A leafy-stemmed perennial with a caespitose densely woolly caudex; stems 4-10 dm. high, striate and sparingly floccose; leaves 5-15 cm. long, bipinnatifid into filiform divisions, floccose when young, in age glabrate; heads 1-4, corymbose, with long slender peduncles; involucre rusty-tomentose, 7-8 mm. high, 10-12 mm. broad; bracts elliptic or obovate, with white or purple-tinged tips and margins; corollas yellowish; tube 2-2.5 mm. long; throat deeply campanulate, 3 mm. long, three times as long as the lobes; achenes 5 mm. long, silky; squamellae oblong, fully 1 mm. long.

TYPE LOCALITY: Diamond Valley, Utah.
DISTRIBUTION: Utah and Nevada.

— 17. *Hymenopappus columbianus* Rydberg, sp. nov.

A leafy-stemmed perennial with a densely woolly caudex; stems 3-5 dm. high, branched above, striate and floccose; leaves 7-15 cm. long, pinnatifid or bipinnatifid with spreading linear-filiform divisions nearly 1 mm. broad; heads 5-12, corymbose-paniculate; involucre white-tomentose, 7 mm. high, 10-12 mm. broad; bracts broadly obovate, with yellowish margins; corollas yellow; tube 2-2.5 mm. long; throat deeply campanulate, 2.5 mm. long, three times as long as the lobes; achenes 4 mm. long, villous; squamellae small, almost hidden by the hairs.

Type collected near Moses Lake, Washington, July 4, 1893, Sandberg & Leiberger 375 (U. S. Nat. Herb.).
DISTRIBUTION: Eastern Washington.

18. *Hymenopappus macroglottis* Rydb. Bull. Torrey Club 27: 636.
1900.

A subscapose perennial with caespitose caudex; stems 3-4 dm. high, striate, more or less floccose; leaves mostly basal, about 1 dm. long, bipinnatifid with narrowly linear divisions; stem-leaves reduced, simply pinnate or entire; heads few, corymbose; involucre 7-8 mm. high, 12-15 mm. broad; bracts oblong or oblong-obovate, with yellow tips and margins; corollas yellow; tube about 2 mm. long; throat deeply campanulate, 3-4 mm. long, 3-4 times as long as the lobes; achenes about 5 mm. long, hirsute; squamellae of the pappus about 1 mm. long.

TYPE LOCALITY: Oak Creek, Arizona.
DISTRIBUTION: Colorado to Arizona.

19. *Hymenopappus niveus* Rydberg, sp. nov.

A leafy-stemmed perennial with caespitose caudex; stems densely white-tomentose, 3 dm. high; leaves 5-10 cm. long, twice pinnatifid with short linear-filiform divisions, white-tomentose; heads 3-7, corymbose on erect peduncles; involucre somewhat turbinate, 8 mm. high, 8-10 mm. broad, densely tomentose below; bracts obovate, tipped and bordered with yellow; corollas yellow; tube about 2 mm. long; throat 2.5 mm. long, deeply campanulate, about 4 times as long as the ovate lobes; achenes densely silky, 4 mm. long; squamellae oblong, about equaling the corolla-tube.

Type collected at Springdale, Utah, May 14, 1894, M. E. Jones 5261 (herb. N. Y. Bot. Gard.).
DISTRIBUTION: Utah and Nevada.

20. *Hymenopappus lugens* Greene, Pittonia 4: 43. 1899.

A subscapose perennial with a caespitose woody caudex; stems 2-3 dm. high, floccose; leaves tomentose, 5-10 cm. long, bipinnatifid with linear-filiform divisions; heads 1-4, on rather