

Var. bracteosa Gray Syn. Fl. ii, 108. Smaller-flowered and ^{more}decumbent, with most of the flowers subtended by a foliaceous bract. Near the Coast, Puget Sound to California.

14 MERTENSIA Roth Catal. Bot. i, 34: 1797.

Perennial herbs with alternate leaves and rather large blue purple or white flowers in panicles, cymes, or racemes. Calyx 4-parted, herbaceous, the lobes lanceolate or linear, little enlarged in fruit. Corolla tubular funnellform, crested or unappendaged in the throat, its lobes imbricated in the bud. Stamens inserted on the tube of the corolla, included or scarcely exerted. Filaments flattened or filiform. Anthers oblong or linear, obtuse. Style filiform with entire stigma. Nutlets erect, coriaceous, wrinkled when mature, attached by a small or short scar just above their bases to a flat strongly convex gynobase.

M. oblongifolia Don Syst. iv, 320. Stem slender, 4-8 inches high, usually solitary from the short and thick corm-like root: leaves oblong to spatulate-lanceolate, obtuse, 6-20 lines long, the lowest ones small, the largest ones in the middle, smooth or the upper face scabrous with minute stiff hairs: flowers rather numerous, in a somewhat close terminal cluster: lobes of the calyx lanceolate little more than a line long, minutely ciliate: corolla funnellform, with a broad purple tube, 6 lines or more long, and ample blue limb, the throat rather abruptly dilated and open with pubescent crests at its base on a line with the stamens: filaments as broad and not longer than the anthers: style long and capillary, not exerted: nutlets dull and with obtuse angles. In moist places, Blue Mountains of Oregon to Nevada, Utah and the borders of Brit. Columbia.

M. longiflora Greene Pitt. iii, 261. Glabrous except the setulose-scabrous upper face of the leaves: lowest leaves elliptic-lanceolate, on long and slender petioles, the upper ones obovate oval or ovate, rounded or even cordate at base and closely sessile, all very obtuse, the largest 2 inches long by an inch broad: floral bracts acutish: flowers in a rather dense strictly terminal and subcorymbose panicle: calyx rather large, cleft to near the base, the lobes lanceolate: corolla about an inch long, with long slender tube and short erect narrow-campanulate limb: the almost capillary style nearly equalling the corolla. Eastern Washington. Perhaps only a form of *M. oblongifolia*.

M. Sibirica Don Syst. iv, 320. Glabrous and smooth or nearly so; pale and glaucescent: stems erect 1-3 feet high from a thick branching root, very leafy: leaves oblong to lanceolate and acute, or the lowest ones sometimes obovate and obtuse, hirsute-ciliate, all petioled, 1-4 inches long: racemes short, somewhat paniced: floral bracts like the leaves, 9-10 lines long: lobes of the calyx lanceolate, about 2 lines long, commonly ciliate: corolla blue, funnellform, 8-10 lines long, the broad tube nearly twice as long as the calyx, shorter than the ample limb, sparingly pubescent within: filaments as broad and much shorter than the anthers: style slightly exerted. Along mountain streams: California to the Arctic regions and the Rocky Mountains.

M. paniculata Don Syst. iv, 318. Roughish-pubescent: stem erect, 1-3 feet high, branched above: leaves thin, pinnately veined, the lower ones ovate, rounded or cordate at base, 2-5 inches long, long-petioled, upper ones ovate or ovate-lanceolate, acuminate at the apex, narrowed at the base into mostly slender petioles: racemes several-flowered, in loose terminal panicles: flowers purple-blue, 6-8 lines long, on filiform pedicels 4-10 lines long: calyx-lobes lanceolate, acute, about 2 lines long: corolla funnellform, crested in

the throat, the tube about twice as long as the calyx, and longer than the filaments flattened, slightly longer than the anthers: style filiform, usually somewhat exerted: nutlets rounded. In damp woods, California to Alaska, and Hudson Bay to Michigan, Nebraska and the Rocky Mountains.

M. platyphylla Heller Bull. Torr. Bot. Clmb xxvi, 548. Stems weak, 16-30 inches high, branched above, the branches slender and spreading: leaves all thin, light green, papillately roughened above; radical leaves usually about a foot long including the petiole, of about 8 inches, which is rough on the margins; blade broadly ovate, 3-4 inches broad, abruptly acuminate, usually cordate at base; lower stem-leaves broadly ovate, abruptly acuminate, on petioles about an inch long; upper ones ovate-lanceolate, gradually acuminate, sessile or nearly so, contracted at base: flowers in loose terminal panicles: pedicels slender, 3-7 lines long, pubescent with short appressed hairs: sepals linear-lanceolate, 3-4 lines long, ciliate: corolla bright blue, or turning rose-color 6-8 lines long, broad funnelform, the tube about 2 lines long, the acutish lobes with broad sinuses at base: anthers oblong: style slightly exerted. In rich moist ground, western Washington and Oregon.

M. nutans. Stems simple, 1-8 from the crown of a thick branching root, 3-10 inches high, very leafy to the top: leaves oblong to lanceolate or the lowest sometimes spatulate, the largest ones in the middle of the stem 1-3 inches long, mostly sessile by a broad base or the lowest sometimes petioled, all papillose-granulate above, not at all pubescent: flowers in a dense terminal drooping panicle, sessile or on short pedicels: sepals lanceolate, barely 2 lines long, obscurely ciliate: corolla 6-8 lines long, funnelform, with a broad purple or pinkish tube twice or thrice as long as the calyx: filaments as broad as and fully as long as the anthers: style slender, often slightly exerted. On the north side of high ridges, eastern Oregon and Washington.

15 PNEUMARIA Hill Veg. Syst. vii, 40, t. 36.

Glabrous fleshy perennials with alternate leaves and small blue pinkish or white flowers in loose terminal leafy-bracted racemes. Calyx-lobes somewhat enlarged in fruit. Corolla tubular-campanulate, crested in the throat, 5-lobed, the lobes imbricated in the bud, slightly spreading. Filaments scarcely exerted. Ovary 4-divided: style slender. Nutlets erect, fleshy, attached just above their bases to the somewhat elevated gynobase, smooth and shining, acutish-margined, becoming utricular-like when mature.

P. maritima Hill l. c. 40, t. 37, fig. 3. Very smooth, pale and glaucous, much branched and spreading; leaves fleshy, ovate, obovate, or spatulate-oblong, an inch or two long, upper surface becoming pustulate: flowers small, 3 or 4 lines long, on long and slender pedicels: tube of the blue or whitish corolla hardly as long as the limb and shorter than the ovate-triangular lobes of the calyx, the crests in the throat evident: filaments rather narrower and much longer than the anthers: nutlets acute, fleshy-herbaceous, in age becoming utricular, the scar small. Along the Coast, Puget Sound to Alaska, and Hudson Bay to New England also Europe.

16 MYOSOTIS. L. Gen. n. 180.

Low annual biennial or perennial herbs with alternate leaves and small blue pink or white flowers in so called spikes or racemes. Calyx 5-parted or 5-cleft. Corolla salverform or rotate, the tube rarely surpassing the calyx, the throat with small and blunt crests at the base of the small and rounded lobes: these convolute in the