

V. uliginosum L. Sp. 350. Glabrous or minutely puberulent: stem stiff, much branched, 6-24 inches high: leaves thickish, mostly pale or glaucescent, obovate oval or oblong-cuneate, obtuse or retuse, reticulate-veiny especially beneath, 5-12 lines long: corolla urn-shaped, globular or ovate, solitary or 2-4 together: berries dark blue with a bloom, 3-4 lines in diameter, sweet. Summits of the high mountains of Oregon to Alaska and across the Continent. Also in northern Europe and Asia.

Var. mucronatum Herder. Depressed-cespitose: leaves small, bright green both sides, conspicuously reticulated, usually roundish, abruptly mucronate or cuspidate. Along the coast, southern Oregon to Alaska.

V. occidentale Gray Bot. Cal. i, 451. Glabrous shrub, 1-3 feet high: leaves rather thin, glaucescent, obscurely veiny, from oval to obovate-oblong or oblanceolate, obtuse or acutish, 6-9 lines long: flowers mostly solitary: corolla oblong-ovate: berries small, 2-3 lines in diameter. In high-mountain marshes, Washington to California and Nevada.

* * Flowers solitary in the earliest axils, usually 5-merous and 10-anded: calyx less deeply or very slightly lobed.

+ Dwarf and cespitose: branchlets not angled.

V. cespitosum Michx. Fl. i, 234. Glabrous or nearly so 3-7 inches high: leaves from obovate to cuneate-oblong, obtuse or rarely acutish thickly serrulate, bright green both sides, reticulate-veiny; corolla ovate or ovoid-oblong: berries large, blue with a bloom, sweet. On the highest mountains, Washington to Alaska and across the Continent.

Var. cuneifolium Nutt. Proc. Am. Phil. Soc. viii, 262. Stem 8-12 inches high, bushy: leaves spatulate-cuneate with rounded apex to spatulate-lanceolate and acute, the earliest not rarely entire. Mountains of Brit. Columbia to California, Colorado, Utah and Lake Superior.

V. arbuscula. *V. cespitosum* var. *arbuscula* Gray. Stem erect, 6-18 inches high, much branched: leaves obovate, 5-7 lines long, thickish, pale green: corolla oblong-ovoid: berries 2-3 lines in diameter, dark blue with a bloom, sweet. In open pine forests, Alaska to California.

+ + Low: branches sharply angled and green: leaves small.

V. Myrtilus L. Sp. i, 349. "A foot or less high, glabrous: leaves ovate or oval, thin, shining, serrate, conspicuously reticulated-veiny, and with a prominent narrow midrib (in ours half to two-thirds inch long): limb of calyx almost entire: corolla globular-ovate: berries black, nodding. Alaska to Idaho and the Rocky Mountains. Eu., Asia."

V. microphyllum. *V. Myrtilus* var. *microphyllum* Hook. Stem erect, with numerous slender strict green branches and branchlets, 3-18 inches high: leaves ovate or oval, 2-4 lines long, bright green: corolla ovate, a line long: berries 1-2 lines in diameter, bright red, sweet. On the highest mountains, Washington to California and the Rocky Mountains.

+ + + Mostly tall with spreading branches.

V. membranaceum Dougl. Hook. Fl. ii, 32. *V. myrtilloides* Hook. not of Michx. Glabrous or glabrate, 1-5 feet high, with erect slightly angled branchlets: leaves ovate or oval to oblong, sharply serrulate, membranaceous, green both sides but not shining, loosely reticulate-veiny, 1-2 inches long, the larger and later ones mostly acute or acuminate: limb of the calyx entire: corolla depressed-globular or semi-globose-urceolate: pedicels erect in fruit: berries 3-4 lines in diameter, purplish-black, sweet. On the high mountains, Alaska to California, and east to Lake Superior.

Var. rigidum Hook. Branchlets slightly pubescent and more com-

pect: leaves rigid. In the mountains of Brit. Columbia and Washington

V. ovalifolium Smith in Rees's Cycl. No. 2. Glabrous and glaucescent, 4-12 feet high, straggling: branchlets more or less angled: leaves thin, oval to oblong, mostly obtuse or rounded at both ends, merely mucronulate, entire, or with a few irregular serratures, 1-2 inches long, pale and glaucescent: limb of the calyx minutely 10-toothed: corolla ovoid-urceolate-pedicels recurved in fruit: berries depressed-globose, 3-5 lines in diameter: blue with a bloom, acid but very good. Moist woods, Oregon to Alaska, Quebec and Michigan.

V. Alaskaensis. Stem erect, 2-12 feet high, with erect branches and spreading sharply angled branchlets: leaves thickish, 1-3 inches long when mature, mostly ovate or oblong, not rarely acute at both ends, mucronulate, on very short petioles, dark green above, paler beneath: limb of the calyx obscurely 10-toothed: corolla globular, 2 lines long: pedicels nodding in flower, erect in fruit: berries black, globular 4-6 lines in diameter, acid but fine for table use. In the Cascade Mountains of Oregon to Alaska.

V. parvifolium Smith l. c. 3. Stem 3-12 feet high, with straggling angled green branches and branchlets: leaves oblong or oval, obtuse or rounded at both ends, 3-8 lines long, entire, pale green, dull beneath, often sparse: limb of the calyx 5-lobed: corolla globular: pedicels nodding in fruit: berries bright red, acid, but fine for table use. Common in damp forests west of the Cascade Mountains, Oregon to Alaska.

§ 2 **VITIS-IDÆA** Koch. Leaves coriaceous and persistent. Flowers in short racemes or clusters from separate buds, bracteate and 2-bracteolate. Stamens with hairy filaments and awnless anthers.

V. Vitis-Idæa L. Fl. Dan. t. 40. Almost glabrous: branches tufted, 4-10 inches high from creeping stems: leaves crowded, obovate or oval, emarginate, shining above, pale and bristly dark-dotted beneath, 3-6 lines long, the margins revolute, entire or obscurely serrulate: flowers crowded in a short terminal secund and nodding bracteate raceme, 4-merous and 8-androus: bracts reddish, nearly persistent: limb of the calyx deeply 4-lobed: corolla white or rose-color, open-campanulate, rather deeply 4-lobed: berries dark red, acid and bitterish, edible when cooked. In marshes, northern Washington to Alaska and across the continent.

V. ovatum Pursh Fl i, 290. Stems erect or ascending, 2-8 feet high, with rather rigid branches; branchlets pubescent: leaves thick and firm, very numerous, from ovate to oblong-lanceolate, acute, minutely and acutely serrate, glabrous or nearly so, bright green both sides, 6-12 lines long: flowers in short and close axillary clusters: bracts and bractlets deciduous, usually red: corolla campanulate 2 lines long, rose-color or nearly white, barely thrice the length of the acute red calyx-lobes: berries black, acid. In moist woods near the coast, Brit. Columbia to California.

2 **OXYCOCCUS** Hill British Herbal, 324. (CRANBERRY.)

Low trailing or erect shrubs with alternate leaves, and axillary or terminal nodding flowers on long filiform pedicels. Calyx-tube adherent to the ovary, the limb 4-5-cleft, persistent. Corolla 4-5-parted, with long narrow reflexed segments. Stamens 8-10, the distinct filaments puberulent at base. Anthers connivent into a cone, awnless, upwardly prolonged into hollow tubes and opening by oblique pores at the top. Ovary 4-5-celled, destitute of false partitions. Fruit a many-seeded juicy berry.