Arctostaphylos uva-ursi (L.) Spreng.

Standardized Common Name: Uva-Ursi

Other Common Names: Bearberry, Kinnikinick

Family: Ericaceae

Taxonomy: The genus includes about 50 species, most confined to western North America. *A. uva-ursi* is circumpolar and widely distributed in North America, Europe and Asia. In North America, it is a polyploid complex with at least three main ploidy levels. A number of subspecies or varieties that differ in types of pubescence have been described. Rosatti showed that the American varieties are often commingled in nature and that varying environmental conditions could produce different "subspecies" from the same individual; thus, these varieties should not be recognized at all. However, Fromard found that in Europe there was a distinct separation between a northern diploid type and a southern tetraploid type, with the latter having a greater diversity of flavonols and anthocyanins in Spain and France.

Description: Prostrate creeping shrub, sometimes vinelike; stems slender, much-branched, with peeling bark, the younger pubescent with combinations of short or long, glandular or non-glandular hairs. Leaves alternate, short-petioled, entire, obovate to spatulate or elliptical, 1–3 cm long, evergreen, thick and leathery, glabrate at maturity; base tapering; apex rounded to slightly obtuse or emarginate; upper surface glossy, lower surface dull, pale, with raised midrib. Inflorescence a small, few-flowered raceme. Sepals 5; corolla fused, urceolate (urn-shaped, narrowed at the mouth), pink to white, 4–5 mm long, with 5 reflexed lobes; stamens 10, in two whorls; ovary superior, 5-loculed. Fruit a drupe, red, 3–11 mm in diameter.

References:

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Parts in Commerce: Leaves

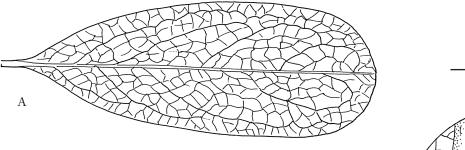
Identification:

- Usually obovate, ranging to oblanceolate, spathulate or elliptical
- 1–3 cm long, 4–14 mm broad
- Base tapering to very short (1–5 mm) petiole
- Apex rounded, sometimes rounded-obtuse or slightly emarginate
- Margins entire or barely revolute
- Texture leathery
- Petiole and margins frequently pubescent with soft, weak white hairs
- Upper surface pale to olive green, sometimes brown-tinged, glossy, glabrous
- Lower surface dull pale or greyish green, glabrous or, in young leaves, very sparsely pubescent on midrib or throughout
- Midrib visible for most of length of leaf; secondary veins inconspicuous, mostly short, netted, sometimes a few long and emerging from midrib at narrow acute angle; venation slightly raised and darker than blade below, slightly sunken above
- Taste astringent

Adulterants: The only other European species of Arctostaphylos is quite different in appearance and could not readily be substituted. Wichtl indicates that material from Mexico and the southern United States may be adulterated with Arctostaphylos pungens H.B.K., which does not contain arbutin (believed to be the most important active compound). Leaves of A. pungens are sometimes larger than those of A. uva-ursi, up to over 4 cm long with petioles to over 1 cm long, and are more typically elliptical than obovate. The leaf apex is almost always acute or mucronulate; the elongated straight secondary veins are frequently more conspicuous; and young leaves are more densely pubescent especially on the petioles, with the upper surface often pubescent as well.

Vaccinium vitis-idaea L. (Ericaceae), a cranberry relative, is another historical adulterant. The lower surface is pale with scattered dark stiff trichomes and lacks visible secondary venation; the margins are strongly revolute; and the upper surface may be dark green and may have conspicuous secondary venation or short hairs along the midrib.

_____5 mm





В

5 mm

Figure 7: a—b, *Arctostaphylos uva-ursi*, leaf and close-up of lower surface.