

BARESTEM BISCUITROOT

Lomatium nudicaule (Pursh) J.M.
Coulter & Rose
Plant Symbol = LONU2

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Center



Barestem biscuitroot. Image courtesy of Heritage Seedlings Inc.

Alternate Names

Consumption plant, desert parsley, nakedstem biscuitroot, pestle lomatium

Cogswelia nudicaule, *Peucedanum latifolium*, *Smyrniium nudicaule*

Uses

Barestem biscuitroot is palatable primarily to sheep but grows in such limited quantities that it is hardly an important forage species (Hermann 1966). It serves as a host plant for the larvae of anise swallowtail butterfly (*Papilio zelicaon*) (Pelini et al 2009).

Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g., threatened or endangered species, state noxious status, and wetland indicator values).

Description

General: Carrot family (Apiaceae). Barestem biscuitroot is a perennial forb arising from a stout taproot. The plants reach a mature height of 20 to 45 cm (8 to 18 in). The

leaves are compound ternate to bi-ternate (dividing into groups of three leaflets). The leaflets are larger than the finely dissected leaflets common to other biscuitroots and very distinctive for the genus. Each leaflet is 2 to 5 cm (0.8 to 2 in) long and ovoid to orbicular in outline with coarse teeth near the tip. The inflorescence is an umbel with 7 to 27, 8 to 10 cm (3 to 4 in) long rays. The petals are yellow. The fruit is 8 to 12 mm (0.3 to 0.5 in) long; 2 to 5 mm (0.08 to 0.2 in) wide with 0.5 mm (0.02 in) wide wings (Welsh et al 2003).

Ethnobotany

Barestem biscuitroot was used by numerous Native American tribes. It was used as a cold remedy or cough medicine by the Cowichan, Kwakiutl, Nitinaht, Saanich and Thompson tribes (Turner and Bell 1971; Boas 1966; Turner et al 1983; Turner et al 1990). It was eaten raw and used like celery by the Okanagon, Atsugewi and Paiute tribes (Garth 1953; Perry 1952; Mahar 1953). It was also boiled in water and drank as a tea by the Thompson tribe (Steedman 1928).

Distribution: Barestem biscuitroot is found in western North America in British Columbia, Idaho, Utah, Washington, Oregon, Nevada and California. For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site.

Habitat: Barestem biscuitroot is found in dry, open to sparsely wooded places in lowlands to middle elevations (Cronquist et al 1997). It is often found growing in sagebrush, pinyon-juniper, ponderosa pine, and mountain brush communities in the Intermountain West (Welsh et al 2003).

Adaptation

Barestem biscuitroot grows in sandy soils (Walker and Shaw 2005) in areas receiving 350 mm (14 in) or more mean annual precipitation.

Establishment

Biscuitroot species can be broadcast or drill seeded (Walker and Shaw 2005). Best results can be obtained from dormant fall seedings into a firm, weed-free seed bed. Seed should be placed at a depth of 0.6 to 1.2 cm (0.25 to 0.5 in) and packed to ensure good seed to soil contact.

Management

Arrowleaf balsamroot should be used as a minor component of seed mixtures. Management strategies should be based on the key species in the established plant community. Grazing should be deferred on seeded lands for at least two growing seasons to allow for full stand

establishment (Ogle and others, 2011; Stevens and Monsen, 2004). Once established, barestem biscuitroot is very competitive against weeds due to its deep taproot.

Pests and Potential Problems

There are no known pests or potential problems regarding barestem biscuitroot.

Environmental Concerns

Barestem biscuitroot is native to western North America and poses no known environmental concerns.

Seed and Plant Production

Flowering occurs from April to June and seed is typically harvested in mid July. A cold-moist stratification is necessary for germination (Russell 2011). Bartow (2003) achieved 90% germination from seed sown into conetainers, bagged in polyethylene and put in a cooler at (35 to 40 F) for 6 weeks. The conetainers were then transferred to greenhouse with temperatures of 70° F daytime and 50° F nighttime temperatures. The plants were slow to mature. Recommended growing time is 5 months. Dormant tubers are easily transplanted with high establishment success.

New techniques are being investigated regarding the feasibility of growing biscuitroot species in rooting beds at high densities prior to field establishment. This method would allow a grower to sacrifice a much smaller area in the first 1 to 2 years of plant development while the plants are not producing seed.

Cultivars, Improved, and Selected Materials (and area of origin)

Seed of barestem biscuitroot is available in limited quantities on the commercial market. Larger quantities of seed can be grown on a contract basis (Walker and Shaw 2005).

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