

## Comparative Seed Manual: Brassicaceae

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This seed manual consists of photos and relevant information on plant species housed in the Integrative Subsistence Laboratory at the Anthropology Department, University of California, Santa Barbara. The impetus for the creation of this manual was to enable UCSB graduate students to have access to comparative materials when making in-field identifications. Most of the plant species included in the manual come from New World locales with an emphasis on Eastern North America, California, Mexico, Central America, and the South American Andes.

### Published references consulted<sup>1</sup>:

1998. Moerman, Daniel E. *Native American ethnobotany*. Vol. 879. Portland, OR: Timber press.

2009. Moerman, Daniel E. *Native American medicinal plants: an ethnobotanical dictionary*. OR: Timber Press.

2010. Moerman, Daniel E. *Native American food plants: an ethnobotanical dictionary*. OR: Timber Press.

### Species included herein:

*Botrytis oleracea*

*Lepidium crenatum*

*Lepidium dictyotum*

*Lepidium flavum*

*Lepidium fremontii*

*Lepidium meyenii*

*Lepidium nitidum*

*Lepidium sativum*

*Lepidium virginicum* var. *pubescens*

*Nasturtium officinale*

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<sup>1</sup> **Disclaimer:** Information on relevant edible and medicinal uses comes from a variety of sources, both published and internet-based; this manual does **NOT** recommend using any plants as food or medicine without first consulting a medical professional.

*Botrytis oleracea*



**Family:** Brassicaceae

**Common Names:** Romanesco broccoli, Cauliflower, Broccoli

**Habitat and Growth Habit:** This plant is Native to Western Europe.

**Human Uses:** There are many culinary uses. The immature flowering beds can be eaten raw or cooked. The leaves can be eaten cooked. There is an extract derived from the plant that has antifungal activity, but more studies need to examine this. Cauliflower and Broccoli have very high concentrations of antioxidants and anticancer compounds.

**Sources Consulted:**

<http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=261913&isprofile=0&>, accessed April 29, 2019.

<http://floridata.com/Plants/Brassicaceae/Brassica%20oleracea%20var.%20botrytis/637>, accessed April 29, 2019.

<http://www.pfaf.org/user/Plant.aspx?LatinName=Brassica+oleracea+botrytis>, accessed April 29, 2019.

*Lepidium crenatum*



**Family:** Brassicaceae

**Common Names:** Alkali pepperwood, Alkaline pepperwort, Alkali pepperweed

**Habitat and Growth Habit:** This plant is native to regions of Colorado, Utah, and New Mexico. Its habitat includes desert, woodlands, chaparral, and arroyo banks.

**Human Uses:** No known uses of the particular species at this time.

**Sources Consulted:**

<http://www.cnhp.colostate.edu/download/projects/rareplants/guide.asp?id=25209>, accessed April 29, 2019.

<https://www.forestryimages.org/browse/subthumb.cfm?sub=12532>, accessed April 29, 2019.

<https://plants.usda.gov/core/profile?symbol=LECR12>, accessed April 29, 2019.

*Lepidium dictyotum*



**Family:** Brassicaceae

**Common Names:** Alkali pepperweed, Gray alkali pepperweed, Alkali pepperwort, Net pepper grass

**Habitat and Growth Habit:** This annual herb is native to California and other regions of western North America. It is found in dry, saline, and alkaline soils. As well, it is distributed in valley grassland, alkali sinks, and wet land riparian regions.

**Human Uses:** Particular human uses towards this species are unknown and under study. However, Native Americans have used other species in the *Lepidium* genus in medicine, food, and ritual.

**Sources Consulted:**

[http://www.calflora.org/cgi-bin/species\\_query.cgi?where-taxon=Lepidium+dictyotum](http://www.calflora.org/cgi-bin/species_query.cgi?where-taxon=Lepidium+dictyotum), accessed May 3, 2019.

<https://plants.usda.gov/core/profile?symbol=LEDI2>, accessed May 3, 2019.

*Lepidium flavum*



**Family:** Brassicaceae

**Common Names:** Yellow pepperweed, Yellow peppergrass

**Habitat and Growth Habit:** This plant is native to California, Nevada, and Baja California. It is distributed in the Sonoran and Mojave Deserts. It is also found in woodlands and near river banks.

**Human Uses:** There is no information on human uses for this particular species. However, it is not unlikely that it has been used for food, medicine, or ritual.

**Sources Consulted:**

[http://www.calflora.org/cgi-bin/species\\_query.cgi?where-taxon=Lepidium+flavum](http://www.calflora.org/cgi-bin/species_query.cgi?where-taxon=Lepidium+flavum), accessed May 3, 2019.

[https://www.wildflower.org/plants/result.php?id\\_plant=LEFL2](https://www.wildflower.org/plants/result.php?id_plant=LEFL2), accessed May 3, 2019.

*Lepidium fremontii*



**Family:** Brassicaceae

**Common Names:** Desert pepperweed, Desert allysum, Desert pepper grass

**Habitat and Growth Habit:** This species is found in the western United States and distributed amongst sandy desert flats, rocky slopes, woodlands, Creosote bush scrub, and in Joshua Tree Woodland.

**Human Uses:** The Kawaiisu have used this plant as food. The seeds can be pounded and mixed with water to make a beverage.

**Sources Consulted:**

Moerman, 1998

Moerman, 2010

[http://www.calflora.org/cgi-bin/species\\_query.cgi?where-calrecnum=4683](http://www.calflora.org/cgi-bin/species_query.cgi?where-calrecnum=4683), accessed May 3, 2019.

<http://www.laspilitas.com/nature-of-california/plants/381--lepidium-fremontii>, accessed May 3, 2019.

*Lepidium meyenii*



**Family:** Brassicaceae

**Common Names:** Maca, Peruvian ginseng, Pepperweed, Maka, Mace, Maca-maca, Maino, Ayak chichira, Ayuk willku

**Habitat and Growth Habit:** Maca is native to the Andes Mountains. It is distributed in South America. Regions of growth and cultivation include Peru and Bolivia. Maca is distributed in rocky soils and grows in extreme climatic conditions.

**Human Uses:** The root or tuber is used for both food and medicine. The root can be eaten raw or cooked. It can also be boiled to create a sweet beverage, *maca chicha*. Maca is high in iron and iodine. Traditionally, maca has been used to increase energy and balance body system. In Peruvian medicine today Maca is used to increase stamina, sexual drive, fertility, mental clarity, and to treat chronic fatigue syndrome. Notably, this plant is an adaptogen and works with the body system it is in.

**Sources Consulted:**

<http://www.pfaf.org/user/Plant.aspx?LatinName=Lepidium+meyenii>, accessed May 3, 2019.

<http://www.rain-tree.com/maca.htm#.WKH1QTgqOXk>, accessed May 3, 2019.

<http://www.themacateam.com/what-is-maca>, accessed May 3, 2019.

*Lepidium nitidum*



**Family:** Brassicaceae

**Common Names:** Shining pepperweed, Shining peppergrass, Tongue grass

**Habitat and Growth Habit:** Shinning peppergrass is native to California and the western regions of North America. Areas of distribution include Washington, Nevada, California, and Baja California. It is found amongst chaparral, wetland riparian, valley grassland, and coastal sage scrub.

**Human Uses:** Cahuilla have used this species as a dermatological aid. For example, the leaves of the plant have been used to wash hair and the scalp and prevent baldness. Diegueño have used this species as a gastrointestinal aid to help with indigestion.

**Sources Consulted:**

Moerman, 2009

[http://www.calflora.org/cgi-bin/species\\_query.cgi?where-taxon=Lepidium+nitidum](http://www.calflora.org/cgi-bin/species_query.cgi?where-taxon=Lepidium+nitidum), accessed May 3, 2019.

<http://www.ssseeds.com/plant-database/lepidium-nitidum/>, accessed May 3, 2019.



*Lepidium sativum*



**Family:** Brassicaceae

**Common Names:** Cress, Garden cress, Poor man's pepper, Mustard

**Habitat and Growth Habit:** Garden cress is found in regions such as England, France, Netherlands, Scandinavia, and North America.

**Human Uses:** This plant has a history of being an edible herb. It is used in medicine to reduce symptoms of Asthma, improve lung function, regulation of menstrual cycles, and as a hair loss remedy. Garden cress is anticarcinogenic with many other properties and traditional uses for medicine.

**Sources Consulted:**

<http://www.luontoportti.com/suomi/en/kukkakasvit/garden-cress>, accessed May 3, 2019.

<https://plants.usda.gov/core/profile?symbol=LESA2>, accessed May 3, 2019.

<https://globalfoodbook.com/15-astonishing-benefits-of-garden-cress/>, accessed May 3, 2019.

*Lepidium virginicum* var. *pubescens*



**Family:** Brassicaceae

**Common Names:** Virginia pepperweed, Wild peppergrass, Peppergrass, Hairy pepperweed

**Habitat and Growth Habit:** This annual herb is native to California. It can be found in other areas of North America, Southern Canada, and Central America. It is distributed in sunny regions and in dry soil, grassy meadows, chaparral burns, roadsides, and clay banks.

**Human Uses:** This species has been used for food and as a substitute for black pepper. Cherokee have used Virginia pepperweed as a dermatological aid. A poultice of the root has been applied to “draw blister quickly.” It has also been used as a pulmonary aid, veterinary aid for sick chickens, and more. Houma have used this herb as a tuberculosis remedy. Menominee have used the herb as a dermatological treatment for poison ivy.

**Sources Consulted:**

Moerman, 2009

[http://www.calflora.org/cgi-bin/species\\_query.cgi?where-calrecnum=4714](http://www.calflora.org/cgi-bin/species_query.cgi?where-calrecnum=4714), accessed May 3, 2019.

<https://plants.usda.gov/core/profile?symbol=LEVIP>, accessed May 3, 2019.

<http://explorer.natureserve.org/servlet/NatureServe?searchName=Lepidium%20virginicum%20var.%20pubescens>, accessed May 3, 2019.

*Nasturtium officinale*



**Family:** Brassicaceae

**Common Names:** Watercress

**Habitat and Growth Habit:** Watercress is native to California, but it can be found in other places in North America, such as the Great Lakes. It was also introduced to Europe. This perennial herb is aquatic/semi-aquatic. It can be found in streams, semi-desert areas, and foothills.

**Human Uses:** Watercress has edible and medicinal uses. There is a peppery taste associated with this species. Notably, it could be unsafe to consume in the wild due to contaminated water.

**Sources Consulted:**

[http://www.calflora.org/cgi-bin/species\\_query.cgi?where-calrecnum=9597](http://www.calflora.org/cgi-bin/species_query.cgi?where-calrecnum=9597), accessed May 3, 2019.

<https://nas.er.usgs.gov/queries/greatlakes/FactSheet.aspx?SpeciesID=229&Potential=N&Type=0&HUCNumber=DHuron>, accessed May 3, 2019.

<http://www.swcoloradowildflowers.com/White%20Enlarged%20Photo%20Pages/nasturtium%20officinale.htm>, accessed May 3, 2019.