

common brassbuttons

Cotula coronopifolia L.

Synonyms: None

Other common names: cotule, brassbuttons, mud-disk

Family: Asteraceae

Invasiveness Rank: 42 The invasiveness rank is calculated based on a species' ecological impacts, biological attributes, distribution, and response to control measures. The ranks are scaled from 0 to 100, with 0 representing a plant that poses no threat to native ecosystems and 100 representing a plant that poses a major threat to native ecosystems.

Description

Common brassbuttons, in its native, subtropical habitat, is a low-growing, decumbent, perennial plant. In Europe, the species behaves as a summer annual because it dies during the first autumn frost (van der Toorn 1980). Plants are aromatic, glabrous, and highly branched from the base. They grow up to 30½ cm tall. Stems are often trailing and root at the nodes. Leaves are 2½ to 6 cm long, oblong, sessile, and pinnately lobed to entire. Leaf bases are sheathed around the stem. Flower heads are yellow and are arranged at the ends of leafless peduncles. They are composed only of disc florets. Involucral bracts are lanceolate or oblong and yellowish (Hultén 1968, Welsh 1974, McClintock 1993).



Cotula coronopifolia L.

Similar species: It is unlikely that common brassbuttons could be confused with other taxa in Alaska. Common tansy (*Tanacetum vulgare*) is another rayless composite with yellow flowers. Unlike common brassbuttons, common tansy is tall and leafy, has pinnately compound leaves, and is not tolerant of saline conditions. Pineappleweed (*Matricaria discoidea*) also lacks ray florets and has yellow disc florets. Pineappleweed can be distinguished from common brassbuttons by its finely pinnate leaves and more strongly conical and greenish receptacle.

Ecological Impact

Impact on community composition, structure, and interactions: Common brassbuttons can form large, monospecific stands along upper coastal habitats and mud flats. It integrates into densely vegetated wetland sites in California (Bixby 2004). Flowers are pollinated by insects (Plants for a Future 2002).

Impact on ecosystem processes: Common brassbuttons is a pioneer colonist of bare, wet soils (van der Toorn 1980, van der Toorn and ten Hove 1982). It can likely hinder colonization of disturbed areas by native species.

Biology and Invasive Potential

Reproductive potential: Common brassbuttons reproduces by seeds (Plants for a Future 2002).

Role of disturbance in establishment: Common brassbuttons inhabits bare, wet mud and areas grazed by geese in estuaries and river banks. It also occurs in inland sites, usually in anthropogenically disturbed areas (van der Toorn 1980).

Potential for long-distance dispersal: Seeds are dispersed by water. Common brassbuttons disperses 350 to 450 m per year. Dispersal by birds is possible, but it rarely occurs (van der Toorn 1980).

Potential to be spread by human activity: Human dispersal of common brassbuttons seems unlikely. It has invaded areas that are usually inaccessible to people (van der Toorn 1980). Common brassbuttons is occasionally grown in gardens (Plants for a Future 2002).

Germination requirements: Freshly harvested seeds showed nearly 100% germination; seeds do not require cold stratification to germinate. Seeds usually germinate in late fall or winter. Most of the seedlings, therefore, die during the winter (van der Toorn and ten Hove 1982). The amount of time seeds remain viable is unknown.

Growth requirements: Common brassbuttons is adapted to sand, loam, and clay. It is not shade tolerant. It requires moist or wet soil (Plants for a Future 2002). This species has a very low tolerance of frost (van der Toorn and ten Hove 1982).

Congeneric weeds: Australian waterbuttons (*Cotula*

australis) is known to occur as a non-native weed in North America, but is not listed as an invasive species (McClintock 1993, USDA 2006).

Legal Listings

- Has not been declared noxious
- Listed noxious in Alaska
- Listed noxious by other states
- Federal noxious weed
- Listed noxious in Canada or other countries

Distribution and abundance

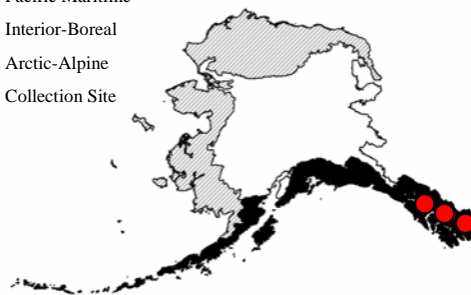
Common brassbuttons is widely distributed along the beaches, tidal flats, and estuaries of the world.

Native and current distribution: Common brassbuttons is most likely native to South Africa. It grows in all states on the Pacific Coast of the U.S. as well as in British Columbia, Europe, South America, New Zealand, Australia, and Tasmania (Hultén 1968, USDA 2006). Common brassbuttons has been reported from the Pacific Maritime ecogeographic region of Alaska (Hultén 1968, Welsh 1974, UAM 2010).

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- Pacific Maritime
- Interior-Boreal
- ▨ Arctic-Alpine
- Collection Site



Distribution of common brassbuttons in Alaska

Management

Control options have not been investigated. Common brassbuttons can grow on very soft, deep mud, making infestations nearly inaccessible by foot or boat. No herbicides are selective enough to be used in wetlands without the potential for injuring native species.