ornamental jewelweed
Impatiens glandulifera Royle

Synonyms: *Impatiens roylei* Walp.
Other common name: policemen's helmet, Himalayan balsam, Washington orchid
Family: Balsaminaceae

Invasiveness Rank: **82** 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
Ornamental jewelweed is an annual plant that grows from 91 to 152 ½ cm tall. Stems are erect, hollow, smooth, hairless, reddish, and multi-branched with large, swollen nodes. Leaves are large, simple, ovate to elliptic, 15 cm long, 7 ½ cm wide, and opposite (although they occasionally form whorls of 3) with sharply toothed margins. Flowers grow in sparse clusters from the leaf axils. They are irregular and have five petals each. They can be white, pink, red, or purple. Capsules burst open explosively at maturity when touched. Seeds are large, 3 to 5 mm, and black at maturity (Lid and Lid 1994, King County 2004).

Impatiens glandulifera Royle. Photo by B. Tokarska-Guzik.

Similar species: No other plants are likely to be confused with ornamental jewelweed. The native western touch-me-not (*Impatiens noli-tangere*) can be distinguished from ornamental jewelweed by the presence of yellow flowers (Hultén 1968).

Ecological Impact
Impact on community composition, structure, and interactions: Ornamental jewelweed can reduce the growth of and eventually displace native plant species (King County 2004, Prots and Klotz 2004). The presence of ornamental jewelweed alters the composition and behavior of pollinating insects. Pollinators of ornamental jewelweed include several species of bumblebees, honeybees, moths, and wasps (Beerling and Perrins 1993, Chittka and Schürkens 2001, King County 2004). Ornamental jewelweed negatively impacts the habitats of wildlife species. Because of their high holocellulose contents, the stems persist as litter during the following spring, suppressing the seedlings of other plant species (Beerling and Perrins 1993).
Impact on ecosystem processes: At high densities, ornamental jewelweed can alter water flow, increase erosion, and cause flooding (King County 2004).

Impatiens glandulifera Royle infestation in Alaska. Photo by M. Shephard.

Biology and Invasive Potential
Reproductive potential: Ornamental jewelweed reproduces by seeds only. Each plant can produce from 800 to 2,500 seeds. Seeds remain viable for 18 months or more. They can geminate under water (King County 2004).
Role of disturbance in establishment: Ornamental jewelweed requires a moderate amount of local disturbance and exposed soil to establish successfully

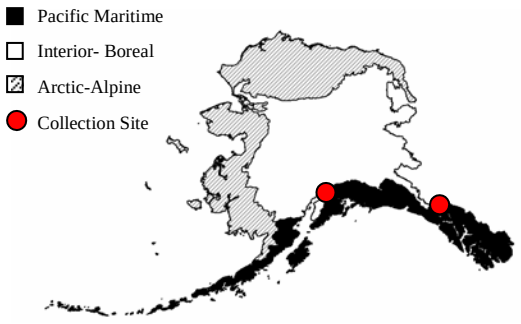
(Beerling and Perrins 1993).
Potential for long-distance dispersal: Seeds are ejected up to 6 meters from mature capsules. They can be transported along waterways or dispersed by small mammals (King County 2004). The rate of spread in Britain was estimated at 2 to 5 km per year (Beerling and Perrins 1993).
Potential to be spread by human activity: Ornamental jewelweed is frequently planted as a garden ornamental (King County 2004). It has been widely planted in gardens in south-central and southeast Alaska.
Germination requirements: Seeds require cold stratification to break dormancy. They usually germinate in late spring. The best germination response occurs when seeds are stored at 5°C (Mumford 1988, Beerling Perrins 1993, King County 2004).
Growth requirements: Ornamental jewelweed is tolerant of many soil types. It grows on fine and coarse alluvium, maritime shingle, free-draining mineral soils, and peats. It can tolerate both nutrient-rich and nutrient-poor soils. It grows best in soil that has a pH between 3.4 and 7.7. It is partially shade tolerant. Plants of all ages are sensitive to frost (Beerling Perrins 1993).
Congeneric weeds: Buzzy lizzy (*Impatiens walleriana*) is considered an invasive weed in Hawaii (USDA 2002). Smallflower touch-me-not (*Impatiens parviflora*), which is native to East Asia, is an invasive weed in northern Europe (Lid and Lid 1994).

Legal Listings

- ☐ Has not been declared noxious
- ☐ Listed noxious in Alaska
- ☒ Listed noxious by other states (CT, OR, WA)
- ☐ Federal noxious weed
- ☐ Listed noxious in Canada or other countries

Distribution and Abundance

Ornamental jewelweed grows in riparian areas, wet meadows, moist forests, stream sides, and roadside ditches. It is planted in gardens and parks (Beerling and Perrins 1993, Lid and Lid 1994, King County 2004).
Native and current distribution: Native to the western Himalayas, ornamental jewelweed has naturalized in 31 countries. It is widespread in Europe, North America, and Asia between the latitudes of 30°N and 64°N (Beerling and Perrins 1993, Lid and Lid 1994, Prots and Klotz 2004). Ornamental jewelweed has been recorded in California, Connecticut, Idaho, Maine, Massachusetts, Michigan, Montana, New York, Oregon, Vermont, Washington, and several Canadian provinces (Hitchcock and Cronquist 1973, USDA 2002). Its range in North America is rapidly expanding (Prots and Klotz 2004). In Alaska, ornamental jewelweed has been recorded from Anchorage and Haines (Weeds of Alaska Database 2004).



Distribution of ornamental jewelweed in Alaska

Management

Small populations can be hand-pulled or dug up. Sites should be monitored the following year for new seedlings from the seed bank. Mowing is very effective and causes less erosion than hand-pulling, but mowed or cut plants may resprout later in the season. A restricted set of herbicides can be used to control infestations in wetlands. No biological control agents have been identified (King County 2004).

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