CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE

California Pest Rating Profile for

***Hypericum canariense* L., Canary Island St. Johnswort**

Family: Hypericaceae

Pest Rating: B

Synonyms: *Hypericum floribundum* Aiton

Comment Period: 03/15/2021 through 04/29/2021

Initiating Event:
Hypericum canariense is designated as a noxious weed as defined by the California Food and Agricultural Code (FAC) Section 5004 and is listed in Title 3, California Code of Regulations, Section 4500. A pest rating proposal is required to evaluate the current rating and status of the species in California.

History & Status:

Background: *Hypericum canariense* is a large erect woody shrub, ranging from one to up to five or more meters in height (Preston and Talbot, 2012; Robson, 2015). Mature plants develop multiple stems and a large taproot and rhizomes. Leaves are opposite and sessile, waxy, 2-7 cm long, oblong to narrowly elliptic or lanceolate with a tapered base and pointed tip, smooth margin, and prominent midvein. Leaves may have pale translucent glands containing essential oils (Robson, 1996), but lack the dark-colored glands (described as dark spots) that are typical of some other species of *Hypericum* such as *H. perforatum* (klamathweed). Leaves remain green throughout the winter, turn yellowish to orange in the summer, and drop by late summer (Dlugosch and Parker, 2007).

Flowers are bisexual and showy, with five bright yellow petals 1.2-1.7 cm in length and numerous stamens in five fascicles surrounding the pistil. Flowers are arranged in dense cymose clusters containing up to 30 flowers per stem. The flower parts are also not dotted with the dark colored glands typical of some other species of *Hypericum*. The fruit is a dry, leathery, capsule that dehisces to release hundreds of small (1.5-2 mm), yellowish-brown, minutely pitted seeds (Robson, 1996).

Unlike some other species of *Hypericum*, *H. canariense* lacks the chemical hypericin, which is found in the dark-colored glands and linked to non-lethal photosensivity after ingestion by grazing animals (cattle, goats, sheep, pigs, and horses; Nürk and Crockett, 2011).

Worldwide Distribution: *Hypericum canariense* is native to the Canary Islands and Madeira off the coast of Africa, and is naturalized in Australia, New Zealand, Hawaii and California (Robson, 2015; USDA GRIN, 2020). The species has in the past been grown as a horticultural ornamental, but is currently grown to only a limited degree in North America (Tu, 2001).

Official Control: *Hypericum canariense* is designated as a noxious weed in California and has received a pest rating of B. Plants, plant products, or conveyances infested with the species are subject to refused entry, quarantine, or destruction as specified by agricultural officials.

Hypericum canariense is designated as a restricted noxious weed seed in the California Seed Law (California Food and Agriculture Code, Division 18, Chapter 2, Section 52257). Intrastate shipments of agricultural or vegetable seed lots contaminated with restricted noxious weed seeds are subject to tolerances and noxious weed seed labeling requirements.

California Distribution: *Hypericum canariense* has been collected in wildland settings in coastal counties of several regions of California. Based on the vouchered collections in the Consortium or California Herbaria database (2020) the species is known from multiple localities in San Diego, Orange, Santa Barbara, Santa Cruz, and San Mateo counties. The species has been planted as a horticultural ornamental in California since at least 1928. The species had become naturalized in Santa Barbara County by 1950, and was first collected in San Mateo County in the San Francisco Bay Area in 2000. It was reported growing naturalized on Angel Island in Marin County in 2003 (Bugwoodwiki, 2020), and also has mapped localities in the Calflora database (2020) in Ventura, Marin, Mendocino, Humboldt, and Del Norte counties which are not yet reflected in vouchered Consortium records.

California Interceptions: There are no records of *Hypericum canariense* being intercepted in transit and sent to the CDFA Plant Pest Diagnostic Laboratory for identification (CDFA PDR Database, 2020).

Consequences of Introduction

1) **Climate/Host Interaction:** Score is **Medium (2)**
   In its native environment, *Hypericum canariense* occurs in dry scrub and moist forest habitats, from 200 to 800 meters in elevation (Robson, 1996; Dlugosch and Parker, 2007). In California, it occurs in disturbed areas, rocky slopes, cliffs, ravines, and in coastal sage scrub and grassland habitats up to 100 meters in elevation (Tu, 2001). The known infestations in California are in areas with significant inputs of fog (Cal-IPC, 2020).

   Evaluate if the pest would have suitable hosts and climate to establish in California

   - Low (1) Not likely to establish in California; or likely to establish in very limited areas
   - **Medium (2) may be able to establish in a larger but limited part of California**
   - High (3) likely to establish a widespread distribution in California

2) **Known Pest Host Range:** Score is **High (3)**

Hypericum canariense can occur wherever general ecological conditions exist that are conducive to its survival.

- Low (1) has a very limited host range
- Medium (2) has a moderate host range
- **High (3) has a wide host range**

3) Pest Dispersal Potential: Score is High (3)

Hypericum canariense reproduces sexually through the production of seed. Plants are reproductively mature in as little as one year of growth, are capable of self-pollination, can live for several years, and can produce thousands of seeds each year. Seeds are released into the surrounding area from ruptured seed pods, which remain on the plant after dehiscence (Dlugosch and Parker, 2007). Seeds may be moved long distances in contaminated soil or attached to vehicles and equipment (Gluesenkamp and Heath, 2008). The species is also capable of limited rhizomatous expansion (Dlugosch and Parker, 2007).

Hypericum canariense is likely to have been introduced into California as an ornamental early in the 20th century (Cal-IPC, 2020). It is reported to be grown in a limited number of botanical gardens worldwide (Gluesenkamp and Heath, 2008), but is not widely grown as a landscape plant (Tu, 2001).

Evaluate the natural and artificial dispersal potential of the pest.

- Low (1) does not have high reproductive or dispersal potential
- Medium (2) has either high reproductive or dispersal potential
- **High (3) has both high reproduction and dispersal potential**

4) Economic Impact: Score is **Low (1)**

Shipments of agricultural commodities into or within California (plants or seeds) that are contaminated with *Hypericum canariense* may be subject to quarantine or abatement actions at the expense of the owner.

Where implemented, eradication, containment, or control efforts of *Hypericum canariense* are reported to be difficult due to the large size of the infestations and of the individual plants, including the taproot and rhizomes. Multiple years of monitoring are needed due to the large seed bank produced by the species (Gluesenkamp and Heath, 2008). Control methods can include the use of herbicides, manual removal, and on-going surveys.

In 2012, *Hypericum canariense* was identified as a "high priority" species by San Diego County's Natural Community Conservation Programs (NCCP), with recommendations for coordinated eradication and control efforts costing $145,000 annually (NCCP, 2012).

A. The pest could lower crop yield.
B. The pest could lower crop value (includes increasing crop production costs).
C. The pest could trigger the loss of markets (includes quarantines).
D. The pest could negatively change normal cultural practices.

E. The pest can vector, or is vectored, by another pestiferous organism.
F. The organism is injurious or poisonous to agriculturally important animals.
G. The organism can interfere with the delivery or supply of water for agricultural uses.

Economic Impact:
- Low (1) causes 0 or 1 of these impacts
- Medium (2) causes 2 of these impacts
- High (3) causes 3 or more of these impacts

5) Environmental Impact: Score is **High (3)**

Where *Hypericum canariense* is established, it can quickly outcompete other plants and can form dense, monotypic thickets (Starr et al., 2003). It can alter vegetation structure and displace native species, including *Baccharis* spp. (coyote brush), which provide important habitat for small mammals and beneficial insects (Smither-Kopperl, 2016).

Gluesenkamp and Heath (2008) report that dense stands of *Hypericum canariense* appear to be devoid of birds.

A. The pest could have a significant environmental impact such as lowering biodiversity, disrupting natural communities, or changing ecosystem processes.
B. The pest could directly affect threatened or endangered species.
C. The pest could impact threatened or endangered species by disrupting critical habitats.
D. The pest could trigger additional official or private treatment programs.
E. The pest significantly impacts cultural practices, home/urban gardening or ornamental plantings.

Environmental Impact:
- Low (1) causes none of the above to occur
- Medium (2) causes one of the above to occur
- High (3) causes two or more of the above to occur

Consequences of introduction to California for *Hypericum canariense:* **Medium (12)**

Low = 5-8 points
Medium = 9-12 points
High = 13-15 points

6) Post Entry Distribution and Survey Information: Score is **Medium (2)**

-Not established (0) Pest never detected in California or known only from incursions.
-Low (-1) Pest has a localized distribution in California or is established in one suitable climate/host area (region).
-Medium (-2) Pest is widespread in California but not fully established in the endangered area, or pest established in two contiguous suitable climate/host areas.

-High (-3) Pest has fully established in the endangered area, or pest is reported in more than two contiguous or non-contiguous suitable climate/host areas.

7) Final Score: Medium 12 (12-2=10)

Uncertainty: There is little uncertainty as the species is known from naturalized populations in California for approximately 70 years and has continued to spread in areas of coastal California.

Conclusion and Rating Justification: Due to the invasive behavior in wildland communities and potential for broader establishment of *Hypericum canariense* in coastal California, a B-rating is recommended.

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***Comment Period:** **03/15/2021 through 04/29/2021**

***NOTE:**

You must be registered and logged in to post a comment. If you have registered and have not received the registration confirmation, please contact us at permits[@]cdfa.ca.gov.

Comment Format:

- Comments should refer to the appropriate California Pest Rating Proposal Form subsection(s) being commented on, as shown below.

  Example Comment:

  Consequences of Introduction: 1. Climate/Host Interaction: [Your comment that relates to "Climate/Host Interaction" here.]

- Posted comments will not be able to be viewed immediately.

- Comments may not be posted if they:

  Contain inappropriate language which is not germane to the pest rating proposal;

  Contains defamatory, false, inaccurate, abusive, obscene, pornographic, sexually oriented, threatening, racially offensive, discriminatory or illegal material;

  Violates agency regulations prohibiting sexual harassment or other forms of discrimination;

  Violates agency regulations prohibiting workplace violence, including threats.

- Comments may be edited prior to posting to ensure they are entirely germane.
- Posted comments shall be those which have been approved in content and posted to the website to be viewed, not just submitted.

Pest Rating: B