

**Rare Plant Status Review: *Hoffmannseggia peninsularis*  
Proposed Addition to California Rare Plant Rank 1B.1, G2 / S1**

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This status review is being expedited through an agreement between the California Native Plant Society and the Center for Plant Conservation (CPC), with contributions from the state of California, CPC, and the California Plant Rescue initiative. Aside from being advanced as part of this agreement, the process, content, and information provided herein is not altered, modified, or developed differently in any way or form compared to other status reviews developed by CNPS.

**Background and Taxonomy**

*Hoffmannseggia peninsularis* (Britton) Wiggins is a low-growing, highly branched sub-shrub in the Fabaceae (Simpson 1999). It is currently known from Imperial County, California as well as the municipios of Ensenada and Mexicali in Baja California Norte, Mexico (CCH2 2022, iNaturalist 2022, Seinet 2022, UNAM Datos Abiertos 2022). This species was thought to be endemic to the Baja Peninsula until 2016, when it was discovered in Imperial County by Andrew Sanders (CCH2 2022, Simpson 1999). It was not included in *The Jepson Manual* (Hickman 1993) or the *Jepson eFlora* (Baldwin et al. 2012); the Fabaceae treatment for *Flora of North America* has not yet been published (FNA 1993+). *Hoffmannseggia peninsularis* is most closely related to (but phylogenetically distinct from) *Hoffmannseggia intricata* and *H. microphylla* (Simpson and Ulibarri 2006), both of which occur on the Baja Peninsula; *Hoffmannseggia microphylla* also occurs in the deserts of southern California and western Arizona (Simpson 1999). *Hoffmannseggia peninsularis* differs from the other two species by being nearly prostrate and having zig-zag branching, sticky, glandular trichomes on its young growth, and flowers 3–4 mm long. In contrast, both of the other species lack zig-zag branching and sticky, glandular trichomes. *Hoffmannseggia microphylla* is an upright shrub to 2.5 m tall with flowers 12–15 mm long, while *H. intricata* is a shorter shrub with flowers 5–9 mm long (Simpson 1999). Although the distribution of *H. peninsularis* overlaps with that of *H. microphylla*, the distribution of *H. intricata* is to the south of known locations of *H. peninsularis* (Simpson 1999). First described in 1930 (as *Larrea peninsularis*), the specific epithet of this species refers to the Baja Peninsula (Britton and Rose 1930).

**Ecology**

*Hoffmannseggia peninsularis* flowers and fruits in winter and early spring. In California, it has been collected in flower from January to March. In Baja, it has been observed in flower between December and April (CCH2 2022, iNaturalist 2022, SEINet 2022). Although it is possible that it could take advantage of summer monsoonal rains, there are no known records of this species flowering in the summer or fall months. Plants grow on rocky slopes, with loose, gravelly or talus soil and sparse vegetation (CCH2 2022, SEINet 2022, Simpson 1999). In California, it has been found growing on mixed metamorphic/igneous bedrock substrate with *Encelia farinosa*, *Dalea mollissima*, *Eriogonum thomasi*, *E. inflatum*, *Fagonia laevis*, *Trichoptilium incisum*, *Cryptantha maritima*, *Johnstonella angustifolia*, *C. angustifolia*, *Phacelia crenulata* var. *ambigua*, *Perityle* sp., *Aristida adscensionis*, and *Chorizanthe rigida* (CCH2 2022, CDC 2022). Although collections and observations on the Baja Peninsula are mostly from elevations less than

150 m (500 ft), those from California are from 256–276 m (840–905 ft) (CCH2 2022, SEINet 2022).

### **Distribution and Abundance**

In California, *Hoffmannseggia peninsularis* is currently known from just two recent estimated occurrences located on either side of a wash in the Chocolate Mountains of Imperial County (CCH2 2022). In addition, approximately 17 occurrences are known from northeastern Baja California (13 historical and four recent); as the Baja occurrences are mostly historical, and the georeferencing is not exact, there could be fewer Baja occurrences (CCH2, iNaturalist 2022, Rebman 2022 pers. comm., SEINet 2022, UNAM Datos Abiertos 2022). In the Chocolate Mountains, population numbers were low when observed in 2016 and 2017, with thinly scattered plants at occurrence #1 and two plants seen at occurrence #2. In Baja, only one location had enough plants to be described as “locally common” in 1970 (occurrence #15); the other four occurrences with population descriptions have the comments “infrequent” and “occasional.” In California, *Hoffmannseggia peninsularis* is only known from lands managed by the Department of Defense on the Chocolate Mountains Aerial Gunnery Range. The ownership of the lands where this species occurs in Baja California is currently unknown.

### **Status and Threats**

*Hoffmannseggia peninsularis* has no conservation status (NatureServe 2022). The two known California occurrences of *Hoffmannseggia peninsularis* are located on lands managed by the Department of Defense. Therefore, there is the potential for disturbance by military activities. Currently, the populations are in a relatively undisturbed part of the property (Sanders 2022 pers. comm.). There is also the potential for competition with invasive species, such as *Brassica tournefortii*, although that species is not common on the bedrock habitat where *Hoffmannseggia peninsularis* is growing (Sanders 2022 pers. comm.). In addition, as the populations are small, there is the potential for extirpation due to stochastic processes.

### **Summary**

Based on the available information, CNPS and CNDDDB recommend adding *Hoffmannseggia peninsularis* to California Rare Plant Rank 1B.1 of the CNPS Inventory. If knowledge on the distribution, threats, and rarity status of *G. species* subsp. *subspecies* changes in the future, we will re-evaluate its status at that time.

### **Recommended Actions**

CNPS: Add *Hoffmannseggia peninsularis* to CRPR 1B.1

CNDDDB: Add *Hoffmannseggia peninsularis* to G2 / S1

### **Draft CNPS Inventory Record**

*Hoffmannseggia peninsularis* (Britton) Wiggins

common name: Baja peninsula rushpea

Family: Fabaceae

USDA Plants Symbol: none

Synonym(s)/Other Name(s) in CNPS Inventory: none

CRPR 1B.1

Counties: Imperial

States: California, Baja California

Quad name (code): Tortuga (3311523)

General Habitat: Sonoran Desert scrub

Microhabitat Details: In sparse vegetation on igneous/metamorphic bedrock slopes.

Microhabitat: Gravelly, rocky, metamorphic (sometimes), volcanic (sometimes)

Elevation: elevation 255-275 meters

Life form: Perennial shrub

Blooms: January to March

Notes: Documented in California in the Chocolate Mtns. of IMP Co. in 2016 by A. Sanders. Not yet included in the *Jepson eFlora*.

Threats: Potentially threatened by military activities, invasive plants, and small population size.

Taxonomy: Similar to *H. intricata* and *H. microphylla*; differs in being nearly prostrate and having zig-zag branching, sticky, glandular trichomes on its young growth, and flowers 3–4 mm long (*H. intricata* is also not known from California).

Selected References:

- CNPS Status Review: Proposed Addition to CRPR 1B.1 (2023)
- Original Description: *North American Flora*, Volume 23 (5): 311 (1930)
- Taxonomic Treatment: *Lundellia* 2: 14–54 (1999); *Lundellia* 9: 7–33 (2006)

### Literature Cited

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UNAM Datos Abiertos. 2022. Universidad Nacional Autónoma de México, Portal de Datos Abiertos. Available at: <https://datosabiertos.unam.mx/> [accessed December 2022].

### **Personal Communications**

Rebman, Jon. 2022. San Diego Natural History Museum, Interim Vice President of Science and Conservation/Curation of Botany. Email correspondence regarding distribution of *Hoffmannseggia peninsularis*. Personal communication 3 November 2022.

Sanders, Andrew. 2022. Curator, Herbarium, University of California, Riverside. Email correspondence regarding threat to and status of *Hoffmannseggia peninsularis*. Personal communication 1 December 2022.