

Rare Plant Status Review: *Heterotheca sessiliflora* ssp. *sessiliflora*

Kristi Lazar (CNPS) and Roxanne Bittman (CNDDB)

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Information in blue text has been added/modified since the original status review was sent out.

Background

Heterotheca sessiliflora ssp. *sessiliflora* is a perennial herb to subshrub in the Asteraceae. *H. sessiliflora* ssp. *sessiliflora* is known from the southern coastal regions of California and from Baja California. This species is known in California from approximately 15 occurrences from San Diego County. Several of these occurrences are quite old and may no longer be extant. There are 4 herbarium specimens identified as *H. sessiliflora* ssp. *sessiliflora* from Los Angeles, Monterey and San Bernardino Counties as well; however, in a paper written by John Semple in 1996, he mentions that this subspecies is restricted to San Diego County and northern Baja California. The Rancho Santa Ana Herbarium was kind enough to check the id of the specimen that they have from Los Angeles (RSA674588) and have re-identified the specimen as *H. sessiliflora* ssp. *echioides*. It is likely that the specimens from Monterey and San Bernardino Counties are also mis-identified given the distribution of ssp. *sessiliflora* mentioned in Semple's 1996 article ("A revision of *Heterotheca* sect. *Phyllothea* (Nutt.) Harms (Compositae: Asteraceae): The prairie and montane goldenasters of North America" *University of Waterloo Biology Series* No. 37: 1-164) and for this reason, these localities will not be included in the distribution list until the specimen ID's can be confirmed.

There are currently 23 records of *Heterotheca sessiliflora* in the Consortium of CA Herbaria that are not identified to subspecies; however, none were collected from San Diego County and likely do not represent this subspecies. The type specimen of *H. sessiliflora* ssp. *sessiliflora* comes from Santa Barbara County where it appears to now be extinct as the dunes are too disturbed and modified to be a viable habitat (pers. comm. J.C. Semple). Semple also brings up the possibility that the type specimen may have been mislabeled as this subspecies has not been found in Santa Barbara County since the type was collected.

Several of the 14 occurrences are from extremely vague localities (i.e. "La Jolla", "Chula Vista", "Mission Bay", "Silver Strand", "Tijuana River", "Imperial Beach") and were collected in the early 1900s. Only 5 herbarium specimens/observations were made in the last 20 years; all other occurrences are either historical or we have no information on the date they were collected or observed. John Semple mentions that during a field visit to San Diego (around 1988), the plant was present at multiple sites in San Diego but that efforts to find the subspecies at other previously collected locations south of San Diego were unsuccessful (pers. comm.. J.C. Semple).

Evidence therefore suggests that at least several of the 15 occurrences may be extirpated. Semple also says that his "impression after years of study of *H. sessiliflora* was that ssp. *sessiliflora* was the most vulnerable to loss of habitat and extinction of any of the taxa in the species."

This subspecies is distinguished from the other subspecies by its densely glandular and sparsely to moderately pubescent upper stem and branch leaves which have wavy margins. In addition, this subspecies has relatively large foliaceous bracts that subtend the involucre (*U.W. Biology Series*

No. 37: 36 (1996)). The treatment of the species in *The Jepson Manual* (1993) mentions that “subspecies can merge where ranges overlap”. The treatment of the species in the *Flora of North America* (2002) mentions that “the subspecies has become rare in California”. *H. sessiliflora* ssp. *sessiliflora* grows in coastal scrub, chaparral, and sand dunes. *H. sessiliflora* ssp. *sessiliflora* is known from less than 15 extant occurrences and requires review for inclusion in both the CNPS Inventory and the CNDDDB.

Recommended Actions

CNPS: Add to CNPS List 1B.1

CNDDDB: Add to CNDDDB as G4T2T3 / S2.1?

Please review the draft CNPS Inventory record below, respond Yes or No on the proposal to add this species to the Inventory and CNDDDB, and provide any edits/comments. If responding No, please provide supporting information.

Draft CNPS Inventory Record

Heterotheca sessiliflora ssp. *sessiliflora*
“beach goldenaster”
List 1B.1

Asteraceae

San Diego, Santa Barbara*; Baja California

011A [National City/3211761], 011B [Point Loma/3211762], 022B [Del Mar/3211782], 022C [La Jolla/3211772], 033C [Santa Ysabel/3311616], 033D [Julian/3311615], 035C [Rancho Santa Fe/3311712], 036D [Encinitas/3311713]

Coastal dunes, coastal scrub, chaparral (coastal) / sandy; elevation 0-1224 meters.

Perennial herb; blooms March-January.

Known from fewer than 20 extant occurrences. Need quad for Santa Barbara County. See *University of Waterloo Biology Series* No. 37: 1-164 for species account.