

Added to CNPS Inventory on March 23, 2011

Rare Bryophyte Adds:

***Buxbaumia viridis* Rank 2.2, G3G4 / S2**

***Ptilidium californicum* Rank 4.3, G3G4 / S2S3**

***Riella americana* Rank 2.2, G2? / S1?**

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Background

The following three bryophytes will be added to the CNPS Inventory based on results from an in-person meeting held with the leading moss experts of our state in Albany, California on January 26, 2010. They are currently included on the Special Vascular Plants, Bryophytes and Lichens List and are tracked by the CNDDDB.

Buxbaumia viridis is only known from 5 occurrences within Modoc and Yuba Counties of California. It is also known from Oregon to Montana, British Columbia, and Europe, where it is considered threatened as a whole and endangered in the United Kingdom. *Buxbaumia viridis* is included in the *Flora of North America* (Volume 27). It has tiny leaves that are invisible in the field, which means it can only be spotted when its distinctive fruiting bodies are present. *Buxbaumia viridis* has a relatively large capsule raised on a stalk with a combining height of 2 cm. It is similar to *B. aphylla*, but can be told apart by examining the upper face of a mature capsule: in *B. aphylla*, the upper face of the mature capsule has a shiny ridge bounding the margin of the face, while in *B. viridis* it is not or weakly bounded by a marginal ridge and gradually merging with the lower face of the capsule. The capsules of *B. viridis* are green and turn brown as they mature in late summer to fall.

Buxbaumia viridis grows on fallen, decorticated wood or humus banks in coniferous forests at an approximate elevation of 975 to 2,200 meters.

Buxbaumia viridis is probably overlooked due to its lack of leafy stems and seasonal appearance (Malcolm et al. 2009), and therefore additional populations likely occur throughout coniferous forests throughout northern California. It is threatened by trampling from livestock and timber harvest practices, which lead to alterations of habitat and creek flow, as well as shade reduction; is possibly threatened by recreational activities as one occurrence is near a hunting camp where wood gathering appears to have occurred; and is potentially threatened in Modoc NF by Golden Predator gold mine development.

Ptilidium californicum is a medium sized liverwort known from approximately 177 occurrences throughout 5 National Forests in northern California. It has a North Pacific distribution and is known throughout northwestern United States in addition to Japan, Russia, and British Columbia; becoming more common at lower elevations in its northern distribution throughout Oregon and Washington. *Ptilidium californicum* is golden-green or golden to coppery-red in color, has deeply divided leaf lobes with cilia along the margins, and often appears as a

“fuzzy mat”. It is similar in appearance as other *Ptilidium* species; however, most do not occupy the same distribution. *Ptilidium californicum* produces sporophytes from May through August in the northern portions of its range.

Ptilidium californicum occurs in small, coin sized patches and is usually epiphytic on trees, but can also be found on fallen and decaying logs and stumps; rarely on humus over boulders. It occurs at an approximate elevation of 1,800 meters.

Ptilidium californicum was identified as a Survey and Manage strategy 1 and 2 species in 1994 (USDA Forest Service and USDI Bureau of Land Management), and is potentially threatened by habitat alteration.

Riella americana is known from only 2 collections in California, both from Big Sage Reservoir, Modoc National Forest. It also occurs in Mexico and South America, and is known from greatly disjunct populations in North America from Texas, New Mexico, and South Dakota, in addition to California. *Riella americana* is similar to *R. affinis*, but has an absence of longitudinal lamellae on the archeogonial involucre, whereas *R. affinis* typically has 8. The sporophytes of *R. americana* mature from August through September.

Riella americana is found in arid and semiarid regions within lower coniferous forest and pinyon juniper woodland. It grows as a submerged aquatic in mud flats near reservoirs and stock ponds at an approximate elevation of 1615 meters.

Threats to *R. americana* are unknown.

CNPS Inventory Records

Please visit www.rareplants.cnps.org