

SPECIES FACT SHEET

Common Name: Navel lichen (a.k.a., Emery rocktripe)

Scientific Name: *Umbilicaria phaea* var. *coccinea* Llano

Division: Ascomycota

Class: Lecanoromycetes

Order: Umbilicariales

Family: Umbilicariaceae

Technical Description: A technical description of *Umbilicaria phaea* var. *coccinea* was not located at the time of this writing. A description of the similar *U. phaea* var. *phaea* is presented instead. **Thallus** foliose, umbilicate, lower surface generally pale or brown (not jet black), lacking rhizines, distinctly and more or less evenly grainy textured throughout as readily observed with hand lens; upper surface smooth or with sparse indentations and, distinctive to *U. phaea* var. *coccinea*, bright red due to abundance of anthraquinone pigments; margins rounded or weakly lobed; isidia and soredia lacking. **Apothecia** common, with concentric fissures, round or star-shaped, sessile or embedded in thallus. **Spores** not described. **Chemistry:** of little diagnostic value in the genus. **Distinctive features:** A bright red or red-orange umbilicate foliose lichen. **Similar species:** Basically a singular species in its combination of foliose-umbilicate morphology and bright red color. Regarding only morphology, other species of *Umbilicaria* bear varying degrees of similarity to *Umbilicaria phaea* var. *coccinea*. The thallus margins of *U. polyphylla* are crowded with lobes. *U. hyperborea* has a more verrucose upper surface and rounder, superficial (not embedded) apothecia. *U. angulata* has a similar upper surface, including apothecia, but has abundant rhizines.

Life History: Details for *Umbilicaria phaea* var. *coccinea* are not documented. Given the absence of soredia and isidia within the species, it is reasonable to assume asexual reproduction by fragmentation of thalli plays some role in maintenance and spread of populations. Establishment of new thalli by sexual means is poorly understood in lichens, in general.

Range, Distribution, and Abundance: *Umbilicaria phaea* var. *coccinea* appears to be endemic to the Pacific Northwest, with known sites in 1) the upper Klamath River watershed on both sides of the California (Siskiyou Co.)-Oregon (Klamath Co.) border, 2) Crook Co., the Maury Mountains in central Oregon, on private land, just outside Ochoco National Forest boundary, and 3) Kittitas, Chelan and Douglas Counties in central Washington; sites in the latter two counties are reportedly on land managed by Spokane BLM. Based on site reports, it is reasonable to consider *Umbilicaria phaea* var. *coccinea* documented on Spokane BLM in Washington and could occur on lower to mid-elevation rock outcrops on all federal lands (BLM; USFS) in and east of the lower Cascades flank in both Oregon and Washington.

Habitat Associations: Arid environments on exposed or partly shaded basalt and ultramafic rock, often on steep slopes, at elevations of near sea level to 4445 feet. Associated vegetation includes chaparral and oak savanna (*Quercus garryana*/*Ceanothus*); *Juniperus occidentalis*-*Pinus ponderosa*-*Pseudotsuga menziesii*; open *Pinus ponderosa*. Usually found in association with *Umbilicaria phaea* var. *phaea*.

Threats: Wildfire, particularly wildfire promoted by invasion of annual grasses, and substantial mechanical site disturbance, such as a new road construction, would appear to represent primary local threats. The reportedly very small size of the central Oregon and Columbia River populations make them especially susceptible to extirpation due to stochastic events.

Conservation Considerations: Consider efforts to relocate the known sites and conduct local surveys to better understand extent of the local populations. Consider periodic monitoring visits to the re-located known sites. Consider some form of habitat modeling to identify promising, under- or unexplored habitats in eastern Oregon and eastern Washington. Consider supporting research to better understand the genetic/taxonomic relationship between *Umbilicaria phaea* var. *coccinea* and the relative common and typically co-located *U. phaea* var. *phaea*.

Conservation rankings: G5?, T3Q; WANHP S1, proposed endangered; ORBIC S2, List 3.

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References:

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Ways of Enlichenment Photo Gallery @ www.waysofenlichenment.net/lichens



Umbilicaria phaea var. *coccinea* Llano. Photographed by Steve Sheehy, on basalt at Doak Mountain, Klamath County, Oregon, 10/9/2010. Photo accessed at <http://www.waysofenlichenment.net>