

***Collema coccophorum* in the Joshua Tree National Park (California, U.S.A.)**

Map collection



Collema coccophorum. Photo by Tim Wheeler.

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Abstract – *Collema coccophorum* is cosmopolitan lichen which is common in biological soil crusts throughout California. In Joshua Tree National Park it is a frequent species which commonly forms soil crusts where it is the only lichen component. It is a pioneer species and is an indicator of the re-establishment of biological soil crusts in disturbed areas. The map of distribution of *C. coccophorum* in Joshua Tree National Park is presented. We compiled a detailed list of records based on GPS data.

Key words – *Collema coccophorum*, lichens, map of distribution, soil crusts, Joshua Tree

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***Collema coccophorum* Tuck.**

DESCRIPTION. – Schultz et al. 2004.

WORLD DISTRIBUTION. – Cosmopolitan.

SUBSTRATE. – Soil, soft rock; on decaying monzogranite.

NOTES. – *Collema coccophorum* is common in biological soil crusts throughout California. It is often sterile and easily overlooked. It is also a pioneer species and is an indicator of the re-establishment of biological soil crusts in disturbed areas. In Joshua Tree National Park *C. coccophorum* often forms biological soil crusts, in which is it the only lichen component. Less frequently it forms biological soil crusts with *Clavascidium lacinulatum* (see above). It is documented by 38 collections in the Mojave and Sonoran Deserts in Joshua Tree. It usually occurs on soil, but also grows on soft monzogranite especially in drainages and seeps. It is often sterile and isidiate but in some populations apothecia are abundant and isidia absent or very reduced and scattered. A small amount of material was observed in the field that might be *Collema fuscovirens* (With.) J.R. Laundon.

DISTRIBUTION. – 49 Palm Canyon, Cottonwood Mountains, Covington Flats, Coxcomb Mountains, Hexie Mountains, hills near west entrance, Little San Bernardino Mountains (above Dillon Road, Berdoo Canyon, Eureka Peak, Pushwalla Pass), Lost Horse Mountains, Pinto Basin, Ryan Mountain, Saddle Rock, Skull Rock, Smith Water Canyon, Stirrup Tank, Wonderland of Rocks (Indian Cove, Keys Ranch).

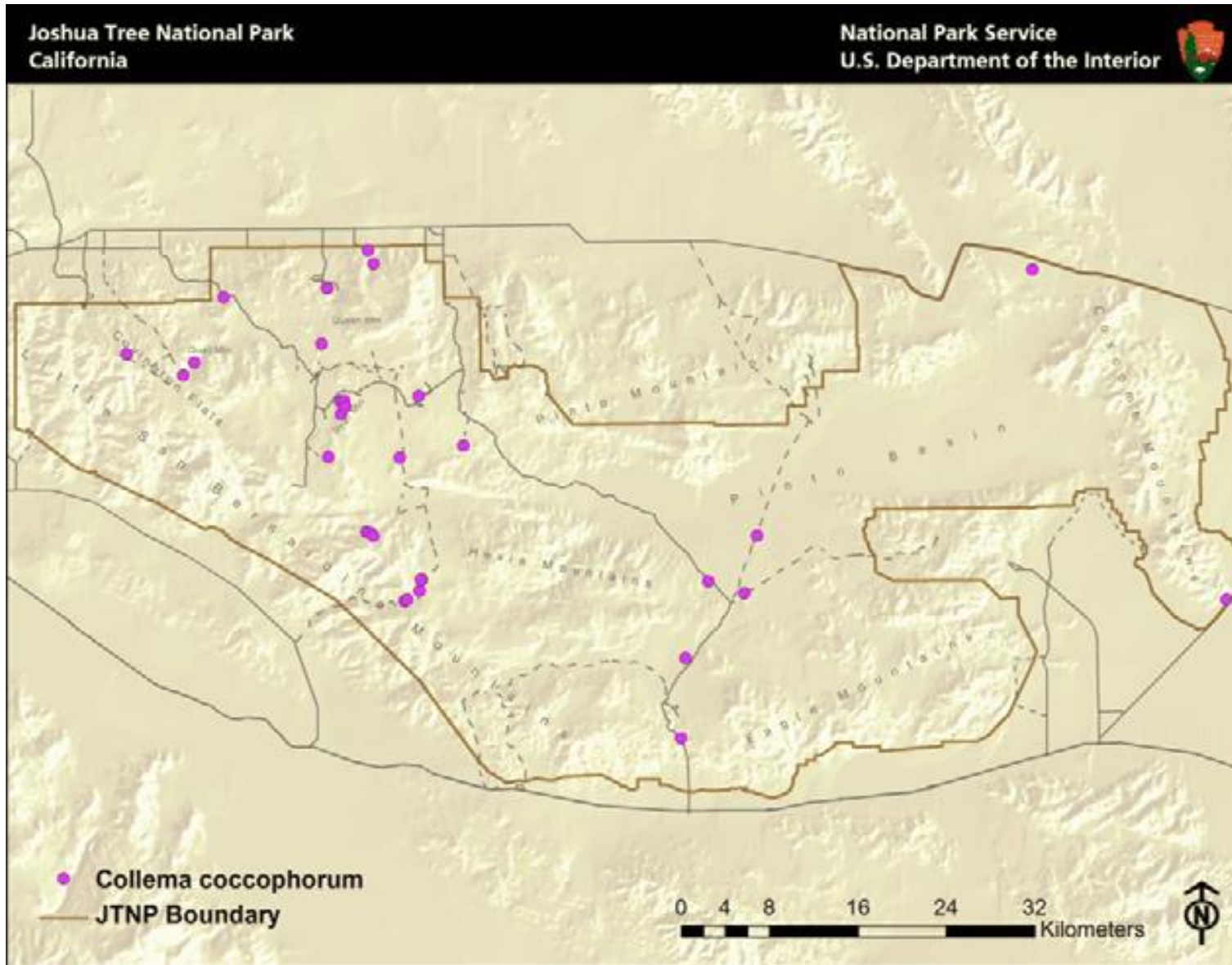
LITERATURE CITED

Schultz, M., B.D., Ryan, and T.H. Nash III. 2004. *Collema*. In: T.H. Nash III, B.D. Ryan, P. Diederich, C. Gries, and F. Bungartz (eds.) Lichen Flora of the Greater Sonoran Desert Region 2: 65–80. Lichens Unlimited, Tempe, AZ.

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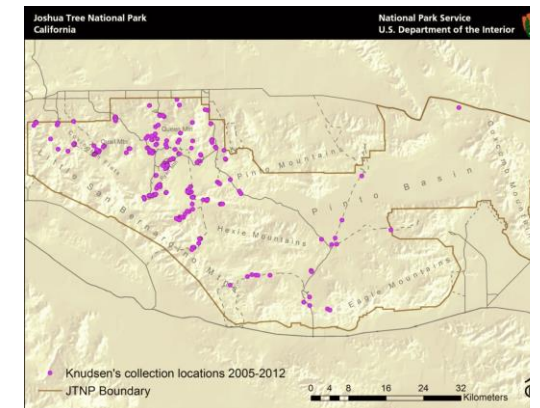
Collema coccophorum



Known distribution of *Collema coccophorum* in JTNP.



Location of Joshua Tree National Park in Southern California



All 238 of Knudsen's and Kocourková's lichen collection sites throughout Joshua Tree National Park between the years of 2005 and 2012.

Map collection, maps made in software ArcGIS, 10.1; electronic form, file type pdf.