

## A SMALL JEWEL HIDDEN IN THE HEATH

NAME: Cladonia coccifera (L.) WILLD.

Common name: pixie cup lichen; no common name in Italian

Habitat: H4030 - European drylands.

(n.b. also found sporadically in other target habitats of the project))

Dove si trova: In Italy this species is rather widespread in mountainous and alpine ranges, in the Alps, the Apennines and the main mountainous reliefs in Sardinia and Sicily. At lower altitudes, however, it is associated with dry habitats, the only ones where it has so far been found in the Piedmont and Lombardy parts of the Po Valley.

**Identification**: it is a terricolous lichen made up of two parts: the primary and the secondary thallus. The primary thallus consists of small bifacial squamules, yellowish-green or blueish-green on top and white beneath, that develop close to the ground. The secondary thallus is a yellow-green or blue-green, 1.5-2 cm high cup- or funnel-shaped structure. When fertile, the scarlet red ascomas (disk-shaped fruiting bodies) that develop on top of the cups make it easy to spot despite its small size.

It should be emphasised that lichens, particularly those of the Cladonia genus, can be difficult to identify correctly: there are many similar species that may not be distinguishable without

in-depth morphological and chemical analyses especially when reproductive bodies are absent. Some of these are common in the target habitats of this project (C. chlorophaea, C. conista, C. pyxidata).

## **Facts**

- > Cladonia coccifera needs to be protected in Po plain areas because it is very rare at low altitudes, although not a rare species in general.
- > Unlike other, more strictly pioneer Cladonia species, C. coccifera develops on substrates that already contain some organic matter.

## Curiosità

- > Although already known, it was named Lichen cocciferus by Linnaeus, who grouped all species under the single genus
- > Like many other lichens, it produces some unique chemical compounds (secondary metabolites); a particularly interesting one of these is usnic acid, currently studied by many researchers for its antimicrobial, antifungal, and potential antitumoral properties.

Siti di intervento: ZSC IT 2010010 Brughiera del Vigano (Golasecca e Somma Lombardo, Varese province)

- > It is considered vulnerable to local extinction at lower altitudes, due to the disappearance of the habitats it occupies there. In dry plain habitats, terricolous lichens can also be threatened by invasion of the allochthonous moss Campylopus introflexus.
- > In Life Drylands, the interventions planned to improve Habitat 4030, especially top-soil inversion, are fundamental for the conservation of terrestrial lichens in general, as maintaining good habitat quality is the best way to prevent their disappearance.























