

Figure 1S: Extraction yields for the lichen samples. 250 mg of ground lichen species were extracted with 6 mL of a mixture chloroform/methanol (2/1) during 2 hours at room temperature under stirring. This operation was repeated three times and filtrates were combined to give the organic extracts which were then evaporated to be weighed and stored under nitrogen. The extraction yield represents the ratio between the weight of the extract and the weight of the lichen powder.



Figure 2S: Morphology of the eleven species included in the study

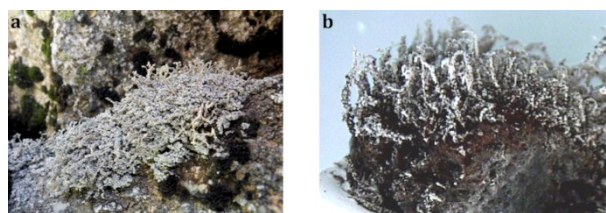


Figure 3S: Morphology of *Stereocaulon vesuvianum* (a) and *Stereocaulon vulcani* (b)

		<i>Collema cristatum</i> (n=7)	<i>Lichina pygmaea</i> (n=8)	<i>Nostoc</i> (n=8)	<i>Peltigera membranacea</i> (n=7)	<i>S. Evolutum</i> (n=7)	<i>S. Vesuvianum</i> (n=8)	<i>S. Vulcani</i> (n=8)	<i>S. Scutelligerum</i> (n=6)	<i>Cladonia Convoluta</i> (n=8)	<i>Cladonia portentosa</i> (n=6)	<i>Cladonia rangiferina</i> (n=8)
Model prediction	<i>Collema cristatum</i>	7	0	0	0	0	0	0	0	0	0	0
	<i>Lichina pygmaea</i>	0	8	0	0	0	0	0	0	0	0	0
	<i>Nostoc</i>	0	0	8	0	0	0	0	0	0	0	0
	<i>Peltigera membranacea</i>	0	0	0	7	0	0	0	0	0	0	0
	<i>S.evolutum</i>	0	0	0	0	7	0	0	0	0	0	0
	<i>S.vesuvianu m</i>	0	0	0	0	0	8	0	0	0	0	0
	<i>S.vulcani</i>	0	0	0	0	0	0	8	0	0	0	0
	<i>S.scutelligeru m</i>	0	0	0	0	0	0	0	6	0	0	0
	<i>Cladonia Convoluta</i>	0	0	0	0	0	0	0	0	8	0	0
	<i>Cladonia portentosa</i>	0	0	0	0	0	0	0	0	0	6	0
	<i>Cladonia rangiferina</i>	0	0	0	0	0	0	0	0	0	0	8

Table 1S : PCA-LDA calibration result for the lichens extracts classification in the 1800-950cm⁻¹ domain

		<i>Collema cristatum</i> (n=2)	<i>Lichina pygmaea</i> (n=2)	<i>Nostoc</i> (n=2)	<i>Peltigera membranacea</i> (n=2)	<i>S. Evolutum</i> (n=2)	<i>S. Vesuvianum</i> (n=2)	<i>S. Vulcani</i> (n=2)	<i>S. Scutelligerum</i> (n=2)	<i>Cladonia Convoluta</i> (n=2)	<i>Cladonia portentosa</i> (n=2)	<i>Cladonia rangiferina</i> (n=2)
Model prediction	<i>Collema cristatum</i>	0	0	0	0	0	0	0	0	0	0	0
	<i>Lichina pygmaea</i>	0	2	0	0	0	0	0	0	0	0	0
	<i>Nostoc</i>	2	0	2	0	0	0	0	0	0	0	0
	<i>Peltigera membranacea</i>	0	0	0	2	0	0	0	0	0	0	0
	<i>S. evolutum</i>	0	0	0	0	2	0	0	0	0	0	0
	<i>S. vesuvianum</i>	0	0	0	0	0	2	0	0	0	0	0
	<i>S. vulcani</i>	0	0	0	0	0	0	2	0	0	0	0
	<i>S. scutelligerum</i>	0	0	0	0	0	0	0	2	0	0	0
	<i>Cladonia Convoluta</i>	0	0	0	0	0	0	0	0	2	0	0
	<i>Cladonia portentosa</i>	0	0	0	0	0	0	0	0	0	1	0
	<i>Cladonia rangiferina</i>	0	0	0	0	0	0	0	0	0	0	2

Table 2S : PCA-LDA validation result for the lichens extracts classification in the 1800-950cm⁻¹ domain