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Lobaria pulmonaria in the southwestern Baltic area

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Summary
Lungwort lichen, Lobaria pulmonaria (L.) Hoffm., was surveyed in the southwestern Baltic area in 2016–2018. At each of the localities, the habitat ecology and lichen viability were investigated. A substantial decline was noted, particularly in Skåne. The commonest habitats for L. pulmonaria in southernmost Sweden are lime-maple and species-poor, oligotrophic beechnets, and the commonest substrates were trunks of beech and maple, followed by oak. Lobaria pulmonaria often survived on trees growing on rocky boulder-rich, meso- to oligotrophic soils in the upper part of steep slopes. Localities with a locally cool climate (southwestern Skåne and Blekinge, southwesternmost Småland and southern Öland) are presented.

Distribution in the southwestern Baltic area
Lobaria pulmonaria has a very wide distribution range covering the Northern Hemisphere and Southern Africa (LITTELSK 1999). It was formerly widespread in the nemoral zone of Sweden, from Skåne to southern Öland by checking localities reported to Artportalen (www.artportalen.se) after 1990. Literature and databases were consulted to study the historical distribution.

Climatic factors
Lobaria pulmonaria avoids very warm areas in Skåne and Blekinge, and occurs almost exclusively in regions where acidophilous beech or oak forests potentially form the natural vegetation. In contrast, the annual precipitation seems to have had less influence on its distribution in the study area.

Conclusion
Lobaria pulmonaria has survived in the study area almost entirely at very special sites offering a stable environment in terms of light, moisture and temperature, which has been little influenced by air pollution, agriculture and forestry practices.

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