

Atmospheric deposition of nitrogen threatens European forest diversity

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The CEAM has participated in a recent study that analyzes the impact of atmospheric N deposition in European forests. This work focuses on lichens, a kind of organisms which are more sensitive to atmospheric N deposition than plants. The species of lichens on 1155 trees from 83 plots distributed throughout Europe (belonging to the European network of forest health ICP- Forests) have been studied, and its diversity and species composition has been compared with measured levels of atmospheric N deposition. With these results, it has been possible to establish a level for forest protection (critical load) of 2.4 kg of N per hectare and year. Higher levels cause a decrease sensitive lichen species. 75% of the studied plots exceeded this threshold, a result that highlights the need to continue with the European policies to reduce NO₂ and NH₃ emissions in order to protect forest biodiversity.

Link: [Detecting the nitrogen critical loads on European forests by means of epiphytic lichens. A signal-to-noise evaluation](#)



Species such as *Xanthoria parietina*, typical from N enriched habitats, replace N sensitive species in forest with high N deposition.