

Starry Breck Lichen (*Buellia asterella*) Species statement

The Starry Breck-Lichen grows in turf which is calcareous, sandy, lichen-dominated and rabbit grazed. As well as the UK, it is found in Germany, France, Norway and Switzerland.

Current status

The past eleven years have seen a dramatic contraction in the range of three rare and five notable Breckland lichens. One of them, Starry Breck Lichen has become extinct during the period 1991-2002. The Breckland area was the only area of the UK where this species occurred. The cause of this decline is that the previously open grassland has closed up due to the spread of higher plants and bryophytes, denying the lichens the light and calcareous mineral soil they require as a substrate.

Natural Areas

Breckland

Current factors causing loss or decline

The current factors affecting this species are not fully understood but may include the following:

- Lack of grazing by Rabbits and resultant invasion of open grassland by higher plants
- Invasion and resulting soil acidification caused by conifer seedlings spreading from nearby plantations
- Spray drift and nitrogen deposition may pose a threat

Current Action

The species has been the subject of an English Nature Species Recovery Programme Project to assess habitat requirements and also investigate the success of transplanting the lichen between Breckland sites. Six Breckland sites were assessed in 1991 and 2002. Transplanting populations of the lichen was not successful. At Lakenheath Warren, the last remaining site, sward closure due to aerial nitrogen inputs from agriculture or transport contributed to the demise of the lichen. Introduction of cattle grazing, to improve the condition of the grassland, may have caused trampling damage to the lichens but it is not likely that the lichens would have survived without grazing. Starry Breck Lichen is now believed to be extinct in the UK.

Objectives for the species

- Maintain Breckland calcareous grassland sites for benefit of rare lichens. There is a very small chance Starry Breck Lichen propagules could drift in naturally from the continent and could grow if habitat conditions were suitable.

Proposed action

The aim is to provide the appropriate habitat so that air-borne propagules may colonise. This will mean the provision of bare chalky compacted ground that can be created by digging away topsoil at places where chalk rock is close to the surface. There is a minimum patch size so that vegetative growth from the edge is proportionately small and it is most likely to be beneficial on former sites.