



Wildlife at RAF Lakenheath



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Legally protected for Wildlife

English Nature has notified RAF Lakenheath as a Site of Special Scientific Interest (SSSI) because it consists of several large areas of flower-rich Breckland grassland. The number of rare and scarce plant species found here is higher than at any other site in Suffolk.

Sand Catchfly, *Silene conica*.
David Leonard



Perennial Knawel, *Scleranthus perennis ssp prostratus*.
Peter Wakeley/English Nature

In the UK the majority of these species are confined to Breckland which lies between Bury St Edmunds in Suffolk and Brandon in Norfolk. Breckland's climate is semi-continental, being the driest part of the British Isles and subject to great extremes of temperature. The soils are free-draining mixes of sand, chalk, silt, clay and flints. The SSSI grassland is also of international importance, and has been recommended by the British Government to the European Union as a candidate for the Special Area of Conservation designation (cSAC).

Site history

Four key factors have moulded the Breckland grassland: soil type, soil disturbance, a dry frost-prone climate, and grazing by sheep and rabbits.

In the Middle Ages it was predominantly sheep that grazed the grassland. However, sheep grazing alone does not maintain conditions suitable for the characteristic Breckland species. In 1251 a Royal Charter, granted by Henry VIII to the Prior of Ely, allowed rabbits to be introduced into the sheep walks at Lakenheath. It is the rabbits that inhabited the commercial warrens (established from the 13th century in the Breckland) and their descendants, that have had a profound effect on the vegetation - producing the characteristic open, sparse conditions. The building of the Airbase in 1941 caused some loss of habitat but where the grass has been regularly mown over the subsequent decades the rare plants and insects have survived. This is because the mowing has similar effects to rabbit grazing.

The beetle, *Ctenopius sulphureus*.
Roger Key/English Nature



Wild Grape hyacinth, *Muscari neglectum*. David Leonard

Maintaining the SSSI

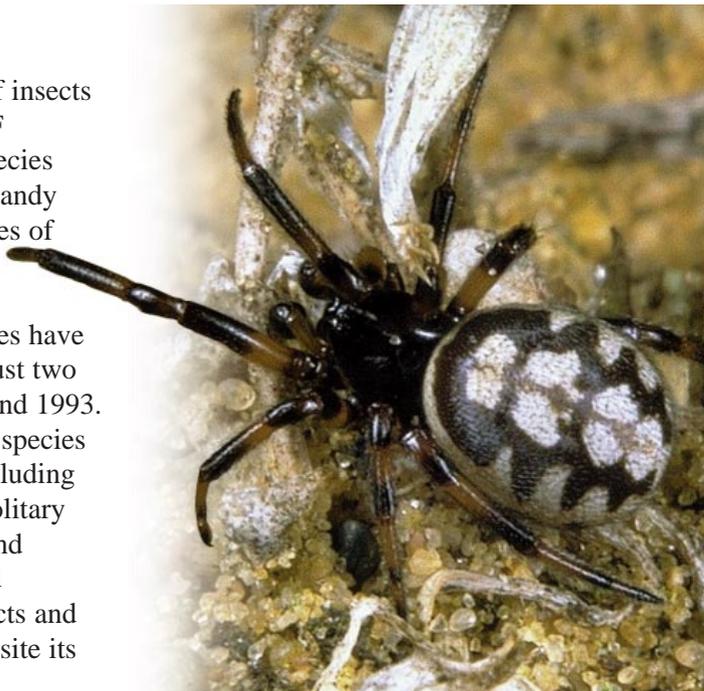
The management regime for the SSSI is designed to maintain favourable conditions for the rare plants and insects that rely on it.

Regular mowing of the grassland keeps it in a favourable condition by producing a characteristic Breckland sward of one to three inches high. The rare plant species found on the Airbase require short turf for their seeds to germinate so they are not over-grown by bigger plants. Stone curlews also need short turf for nesting and foraging.

The insects and spiders

An extremely wide variety of insects and spiders are found at RAF Lakenheath. Many of the species found are dependent on dry sandy conditions, particularly species of solitary wasps and bees.

A total of 513 different species have been found at the site from just two surveys carried out in 1992 and 1993. At a national level, 11 of the species found are extremely rare (including solitary bees, mining bees, solitary wasps, a digger wasp, flies and several species of beetle) and 47 are very scarce. The insects and spiders alone could earn this site its SSSI status.



Comb-footed spider, *Steatoda albipunctata*.
Roger Key/English Nature

The stone curlew

In recent years two pairs of Stone curlews (*Burhinus oediconemus*) have nested on the base with good fledgling success. This makes RAF Lakenheath an extremely important site because the Stone curlew is one of Britain's rarest and most threatened birds.

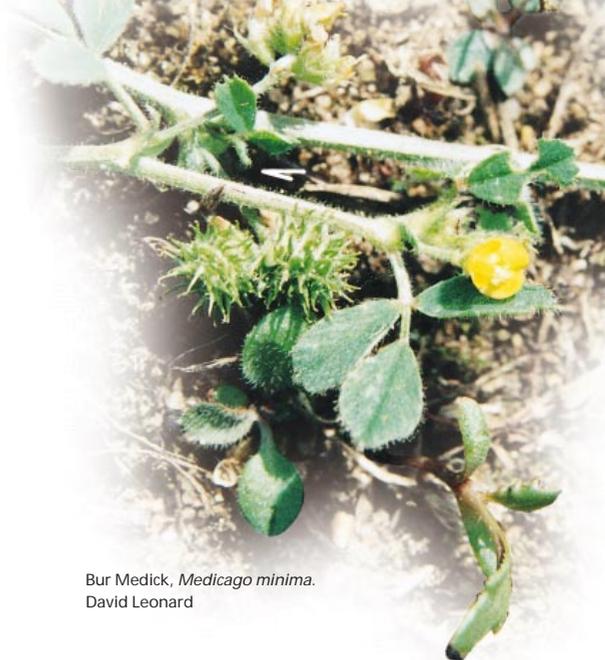
Distribution of this rare bird is restricted to free draining, sandy soils like those found at RAF Lakenheath. This habitat preference is almost certainly due to selection for a background against which the bird, its eggs and chicks are well camouflaged.

Stone curlews that breed in England over-winter in southern Spain and North and West Africa. They nest in England between April and August and during this period zones are reserved for them at the base, where disturbance is kept to a minimum. Stone curlews lay their eggs in a scrape on the ground with sparse growth on sandy soils and like to have a clear view to spot any approaching predators. People up to a few hundred yards away can easily disturb these birds, which will then leave the nest, and their eggs or young chicks may die of cold or be exposed to predators.

Stone Curlews are hunters of the night, feeding for earthworms and insects on the soil surface in areas of short vegetation. Their eyes are huge and owl-like and their eerie cries can be heard on a quiet night from over half a mile away.



Stone Curlew, Stan Duminian



Bur Medick, *Medicago minima*.
David Leonard

The rare flowers of RAF Lakenheath

Perennial Knawel (*Scleranthus perennis ssp prostratus*) is one of the most vulnerable plant species on the SSSI and is individually protected by law. It has only ever been found in Norfolk, Suffolk and Cambridgeshire and there have never been more than 9 sites recorded through history. The colony on the base is found at the Brandon Road end of the runway. This species will not tolerate any competition and is therefore ideally suited to the short grass-mowing regime. It does, however, like tiny amounts of soil disturbance caused by the mowers.

Blue Fescue (*Festuca longifolia*) is found in quite a few patches on the Base, mostly in the north-eastern corner.



Treehopper bug, *Gargara genistae*.
Roger Key/English Nature

Spanish Catchfly (*Silene otites*) on Base is the biggest population in the British Isles.

Breckland Thyme (*Thymus serpyllum*) is a long-lived low-growing thyme that flowers in July. Like many of the Breckland plants it too cannot stand competition – it requires an open, low-cut sward. It is closely related to the thyme, which is much used as a herb for cooking.

Smooth Rupturewort (*Herniaria glabra*) has only been recorded once on the base, but it is possible that live seeds remain in the soil. It is difficult to find because it is a low-growing plant and its tiny flowers are green. It is confined to Norfolk, Suffolk and one site in Lincolnshire.

Wild Grape hyacinth (*Muscari neglectum*) on Base is the biggest population in the British Isles. The grass must not be cut around it before it sets seed in July. It flowers in April, and it can be seen from Maidscross



Spring Speedwell, *Veronica verna*, David Leonard

Hill (open to the public on foot) if you look through the security fence onto on the old dog-training area and the assault course.

Sand Catchfly (*Silene conica*) only appears if the ground is disturbed - its long-lasting seed allows it to survive between such favourable conditions. It can be seen in patches around the golf course.

Bur Medick (*Medicago minima*) is so-called because its seeds have many little hooks to aid dispersal. Wherever the surrounding grass is allowed to grow taller Bur Medick becomes increasingly rare, highlighting its low tolerance of competition from other plants.

Sickle Medick (*Medicago sativa ssp falcata*) has sickle-shaped seedpods. Despite the fact that it is taller and deeper rooted than the other species mentioned here, it too cannot tolerate much competition.

Grey Hair-grass (*Corynephorus canescens*) requires exposure to wind and sand movement to thrive and is chiefly a coastal plant. The colonies on the base (appearing in patches near the runway) and on a nearby inland sand dune form an important component of the UK population.

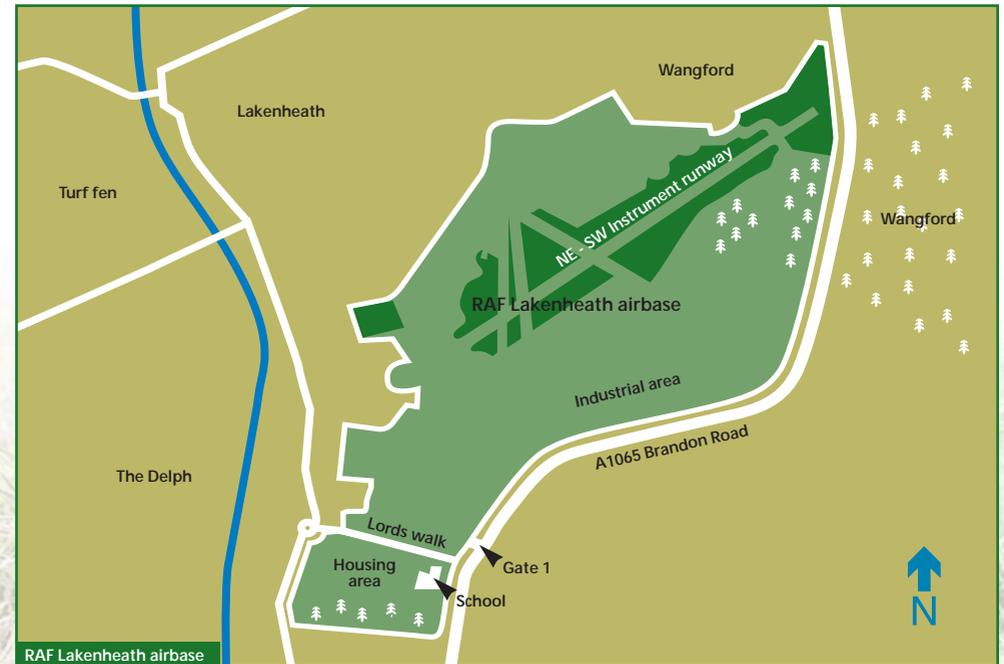
Spring Speedwell (*Veronica verna*) has only been found on the base quite recently in an area of the old assault course.

Do's and Don'ts:

- Do** treat the grassland and its rare plants with respect, including those areas of grassland habitat that are outside the SSSI.
- Don't** do anything that will damage the SSSI grassland, such as driving on it, digging, engineering works etc, unless you are sure that English Nature has given assent. This is a legal requirement.
- Do** consult your RAF Lakenheath environmental experts if you are not sure about anything (48 CES/CEV extension 3990).
- Don't** go into zones reserved as nesting sites for Stone Curlews.

Acknowledgments:

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Conifer
SSSI



RAF Lakenheath airbase





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Top left: Breckland thyme,
(*Thymus serpyllum*). David Leonard
Bottom left: Blue Fescue,
(*Festuca longifolia*). David Leonard
Main: F-15 taking off at RAF
Lakenheath airbase. USAFE



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