

# Grey long-eared bat

## Plecotus austriacus



*Plecotus austriacus*  
Grey long-eared bat

0 100 km



Current distribution of grey long-eared bat in the UK including records from Razgour (2012).

### Introduction

Grey long-eared bats are very rare medium sized bats found only in a few places in southern England. It can be very difficult to distinguish the rare grey long-eared from the more common brown long-eared bat (*Plecotus auritus*).

### Vital statistics

Head & body length: 41mm - 58mm

Forearm length: 37mm - 45mm

Wingspan: 255mm - 300mm

Weight: 7g - 12g Thumb: 5mm - 6.5mm

Tragus: 5.2mm - 6.6mm

Colour: Larger and greyer than the brown long-eared - sometimes confused with juveniles of the latter. Face often darker with a blackish mask.

### General

A grey long-eared bat's ears are nearly as long as the body, but are not always obvious; when at rest they curl their ears back like rams horns, or tuck them away completely under their wings leaving only the pointed inner lobe of the ear (the tragus) visible. The most reliable distinguishing features between brown and grey long-eared bats are dorsal hair colour (dark and light bands along the hairs in the brown long-eared), the length of the thumb, the ratio of the length of the thumb to the length of the forearm, the width of the tragus, and face colour (pinkish- brown in the brown long-eared bat) and shape (grey long-eared bats have a longer and darker muzzle). Since the northern edge of the grey long-eared bat's distribution is 53°N, bats found above this latitude are more than likely brown long-eared bats, which are far more common and widespread in Britain.

## Habitats

Relatively little is known about the habitat use of the grey long-eared bat. Recent radio-tracking studies show that they tend to forage over meadows, grasslands, gardens and near forest edges, up to 6 km away from the roost. Long-eared bats are most often found in older houses with large open roof voids which allow the bats to fly around in the roof. Bats can be found in these roosts throughout the year, though numbers are higher in the summer. As well as using the roof void, the bats will tuck themselves away behind rafters, so they may not always be seen. A favourite roosting place is on or above the ridge beam of the roof and a line of droppings beneath is often a good indication of their presence. In winter, long-eared bats may still be found in roofs in small numbers and some are seen in underground sites such as caves, mines and cellars.

## Distribution & conservation

The grey long-eared bat is a southern European species, with a distribution extending from the northern Mediterranean coast in the south to southwest England and the Black Sea coast in the north (up to latitude 53°N). In England, grey long-eareds are restricted to a few colonies in Sussex, Hampshire, the Isle of Wight, Dorset, Devon and Somerset. Although grey long-eareds are widespread in southern Europe and have a Lower Risk Least Concerned global conservation status (IUCN Red List 2009), it is extremely rare in countries at the northern edge of its range.

## GB status and rarity

This species has been placed on the official Red List of Threatened Species at both GB and England level, and is classified as endangered (see Mathews et al. (2018), The Population and Conservation Status of British Mammals, Natural England).

There is a conservation management plan for this species; see Razgour et al. (2013), Conserving Grey Long-Eared Bats (*Plecotus austriacus*) in our Landscape: a Conservation Management Plan.

## Diet

Moths, Diptera (mainly Tipulids – crane flies), small beetles.

## Protection under the law

In Britain all bat species and their roosts are legally protected, by both domestic and international legislation. This includes the Wildlife and Countryside Act (1981) and the Conservation of Habitats and Species Regulations (2010).

## Reproduction & life cycle

As with other species, long-eared breeding colonies gather in roosts during April and May. Generally numbers are quite low, averaging 10-59 bats. Males are often found in these roosts and are obviously tolerated by the females. The single baby is born in the end of June/ beginning of July and is able to fly by August.

## Echolocation

This species emerges in darkness and, like the brown long-eared, is a very skilful flier. Although the two species have similar wing morphology however, the grey long-eared bat mainly forages in open spaces and catches prey in flight, while the brown long-eared bat mainly forages in woodlands and gleans prey from the vegetation. The echolocation pulses produced by these bats are very quiet - this is thought to help with finding insects on foliage as well as to avoid warning moths of the presence of the bat. Call duration: 1.7ms, Minimum frequency: 29.8kHz, Maximum frequency: 62.5kHz

## Reasons for decline

One of the key drivers for the decline of this species is dramatic changes in foraging habitat, particularly the loss of species-rich meadows and wet grassland. Other causes include a loss of viable roosting sites through building conversions and development, encroaching urban development, impacts of roads through collision with vehicles and artificial night lighting.