

# Species fact sheet



# Myotis emarginatus

Geoffroy's bat Wimperfledermaus

Vespertilio smarginato Murin à oreilles echancrées

Vespertil cun tschegls

**Characteristics** 

Wingspan: 22-25 cm 4.5-10 g Weight: Max. age: >16 years

Offspring/year: 0-2, mostly I

**Status** 

Protection: Red List: **National Priority** 

Other:

protected by NCHA EN (Endangered) I (very high)

Synergies: Greater mouse-eared bat, Bechstein's bat, Natterer's bat, Brown long-eared bat, Grey long-eared bat





# Habitat use

#### **Roosts**

In the summer months, mainly inhabits buildings, but not very choosy about roosts. Uses attics, roof interspaces and cowsheds. Often also on building outside façades, at the top under the eaves. Regularly associates with other bat species (especially horseshoe bats). Hibernates in larger caves - free-hanging or hidden in narrow crevices.

# Foraging grounds

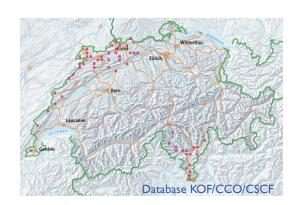
Often uses dense, multi-layered forests with a wide variety of structures as foraging habitats. Size of foraging areas: I-10 ha. Also often forages inside cattle sheds for flies, which are gleaned from the surface. Foraging areas up to 12 km away from the roost.

# Flight corridors

Highly structure-bound species, hardly ever found in open airspace. Good connectivity of the landscape with vertical, night-dark structures such as hedges or tree rows is of central importance for its occurrence.

## **Distribution**

Disjunct distribution in Switzerland with an emphasis on the Jura and southern Switzerland. Nursery roosts only known from the lowest altitudes in the cantons of GR (Misox), JU and TI. Swarming and winter roosts, however, also in other cantons and up to over 1000 m above sea level. Probably has never been common in Switzerland due to its great need for warmth. Populations abroad have partially recovered after collapses in the 20th century.



## **Threats**

- Loss of roosts due to unaccompanied building works: Renovations, energetic optimization of the building envelope, closure of access points, conversions, use of toxic wood preservatives
- Energy loss due to disturbance caused by cave tourism during hibernation
- Habitat loss/fragmentation: light pollution (roosts, flight corridors) in urban areas, structural
- · clearing of the landscape, infrastructure construction (roads, railroad lines)
- Decrease in food supply in agricultural areas due to declining insect biomass and conversion of livestock farming to fly-free pens
- Sticky fly traps in cattle sheds, to which the animals can stick when foraging for flies

# Mitigation measures

Conservation and propagation measures necessary: Monitoring of known nursery roosts, hibernacula and swarming sites, development of cantonal action plans, closing of knowledge gaps at roost level. Involvement of the Regional Coordination Center for Bat Conservation is mandatory for all measures. Species could benefit from global warming in the medium term.

#### **Roosts**

Strengthening of the protection of existing nursery roosts (inclusion in regional planning acts). Inclusion of the wider surroundings of the roosts in conservation efforts, especially with regard to light pollution and connection to the forest. Avoidance of illuminating the façades of roost buildings in the summer months. Protection of known winter roosts in caves by restriction of access.

# Foraging grounds

Promotion of structural diversity in the forest. Continuation of livestock farming methods that ensure a high fly biomass. In barns, synergies with the promotion of barn swallows.

# Flight corridors

Recording, inclusion in regional planning acts and consistent protection of nocturnal flight corridors between roosts and foraging grounds. Revision, and, where necessary, optimization of lighting regime and landscape structuring near roosts. Synergies with other target species to establish an ecological infrastructure through the settlement area (especially dark corridors).



# Literature

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Lugon et al. (2017). Fledermausschutz bei der Planung, Gestaltung und Sanierung von Verkehrsinfrastrukturen-Arbeitsgrundlage.

Mitchell-Jones et al. (2017). Protecting and managing underground sites for bats, 5th edition. UNEP/EUROBATS, Bonn.

## Links

fledermausschutz.ch institutions.ville-geneve.ch/fr/cco/ pipistrelliticino.ch