



## Species fact sheet

### *Myotis myotis*

Greater mouse-eared Bat  
Grosses Mausohr  
Grand murin  
Vespertilio maggiore  
Vespertil ureglia-mieur grond

**Characteristics**  
Wingspan: 35-43 cm  
Weight: 18-39 g  
Max. age: > 30 years  
Offspring/year: 0-2, mostly 1

**Status**  
Protection: protected by NCHA  
Red List: VU (Vulnerable)  
National Priority: I (very high)  
Other: Forest target species,  
Target species sparse forest

**Synergies:** Lesser mouse-eared bat, Brown long-eared bat, Grey long-eared bat, Alpine long-eared bat, Bechstein's bat



Nursery roost in the Church of Fläsch

### Habitat use

#### Roosts

Uses large, undisturbed attics during the day in summer, in which the females raise their young in colonies of sometimes >1,000 individuals. Mostly solitary males roost in tree hollows, bat boxes and underground caves in summer. Hibernate mainly in caves and tunnels.

#### Foraging grounds

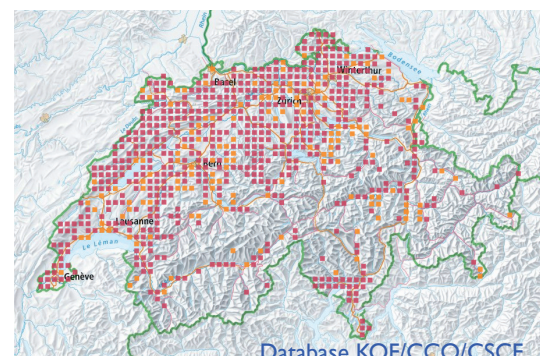
Forages mainly in older forests with a closed canopy and freely accessible ground area. Depending on the season, food supply and height of vegetation, also in pastures, fields and orchards. Size of foraging areas: 1-10 ha. Prey mainly ground beetles, which are hunted in flight just above the ground. Detection of prey often by its crawling sounds. Foraging grounds up to 20 km away from the roost.

#### Flight corridors

Strongly structure-bound species, especially in areas with increased light pollution. Flies on transit flights mostly along forest edges, hedges, watercourses, or dark corridors through the settlement areas. Distances between summer and winter roosts can be more than 100 km.

### Distribution

Suffered massive population collapses in the middle of the 20th century. Currently only around 100 nursery colonies, concentrated on the Central Plateau, Ticino and warm Alpine valleys. Total population in the nursery roosts around 18,000 adults. Can be found almost everywhere at low altitudes due to high mobility and scattered males.



Database KOF/CCO/CSCF



## 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
- Intrusion of martens and owls into roosts (buildings)
- Loss of energy due to disturbance caused by cave tourism during hibernation
- Habitat loss/fragmentation due to light pollution (roosts, flight corridors) in urban areas as well as noise pollution and infrastructure construction in foraging areas
- Loss of foraging habitats in forests: sharp decline in hall-like forests due to changes in growing conditions (compacted soils, hot dry summers, increased nitrogen concentration) and forestry practices
- Decline in food supply, especially in open areas due to intensified and large-scale agriculture and excessive use of fertilizers and pesticides

## Mitigation measures

Highly conservation dependent. Conservation and propagation measures necessary. Continuation and expansion of the [National Mouse-eared Bat Conservation and Monitoring Program](#). Elaboration of cantonal action plans and closure of local knowledge gaps, particularly with regard to flight corridors and foraging habitats.

Involvement of the [Regional Coordination Center for Bat Conservation](#) is mandatory for all measures.

### Roosts

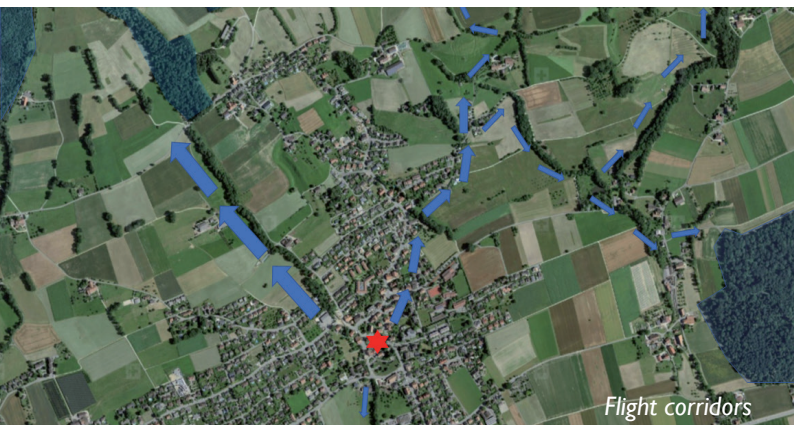
Strengthening of the protection of existing nursery roosts (inclusion in regional planning acts). Continuation of roost management by volunteers. Inclusion of the further roost surroundings in conservation actions, especially with regard to light pollution. No façade lighting on roost buildings in the summer months. Protection of known hibernacula in caves by restricting access. in the winter months.

### Foraging grounds

Protection and propagation of hall-like forests with free ground access: where sufficient, by conserving the corresponding tree stands, otherwise through targeted management interventions (mechanical/manual removal of shrub layer and brambles, impact grazing, etc.). In the medium term, more extensive forest management in target areas, increase of the rotation period and protection the thickest trees.

### 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 the lighting regime and the structural corridors near the roost. Synergies with other target species to establish an ecological infrastructure through the settlement area (especially dark corridors).



Flight corridors



Foraging habitat: Single-layered forest with access to forest floor

## Literature

Bohnenstengel et al. (2014). [Rote Liste Fledermäuse, Stand 2011](#). Umwelt-Vollzug 1412.

Dietz et al. (2018). *Bats of Britain and Europe*. Bloomsbury Academic, London.

Krättli et al. (2012). [Konzept Artenförderung Fledermäuse 2013-2020](#). Schweizerische Koordinationsstelle für Fledermausschutz.

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

Voigt et al. (2019). [Guidelines for consideration of bats in lighting projects](#). UNEP/EURO-BATS, Bonn.

The Swiss Coordination Center for Bat Conservation is supported by the Federal Office of the Environment

## Links

[fledermausschutz.ch](http://fledermausschutz.ch)

[institutions.ville-geneve.ch/fr/cco/](http://institutions.ville-geneve.ch/fr/cco/)

[pipistrelliticino.ch](http://pipistrelliticino.ch)