Swiss Coordination Center for Bat Conservation

Species fact sheet

Rhinolophus ferrumequinum

Greater horseshoe bat
Grand rhinolophe
Grosse Hufeisennase
Rinolofo maggiore
Rinolof grond

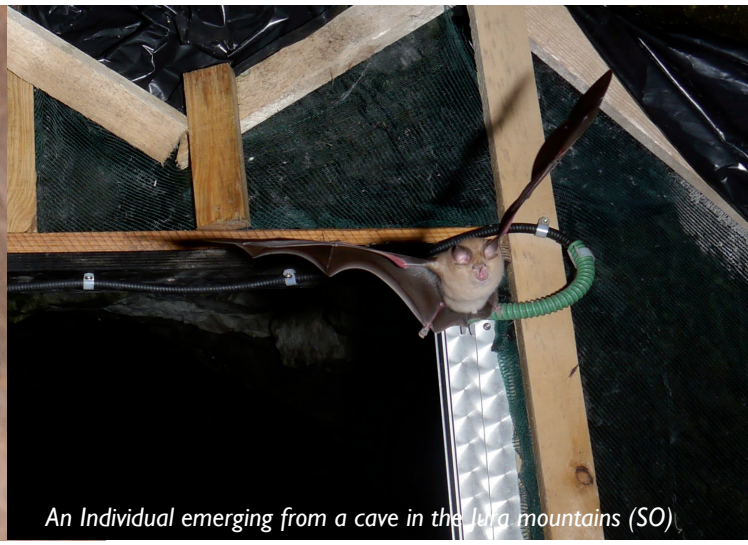
Characteristics

Wingspan:	33-40 cm
Weight:	13-34 g
Max. age:	30 years
Offspring/year:	0-1

Status

Protection:	protected by NCHA
Red List:	CR (Critically Endangered)
National Priority	1 (very high)
Other:	Forest target species, Target species sparse forest

Synergies: Greater mouse-eared bat, Brown long-eared bat, Grey long-eared bat, Alpine long-eared bat, Lesser horseshoe bat, Geoffroy's bat



An Individual emerging from a cave in the Jura mountains (SO)

Habitat use

Roosts

Uses attics and other parts of buildings during the day in summer, where the females raise their young in colonies of a few to several hundred animals. Males can be found in the same roosts. They only live in rooms that are accessible in flight. Non-reproductive animals can also be found all year round in underground roosts such as rock caves. Hibernate mainly in caves and tunnels.

Foraging grounds

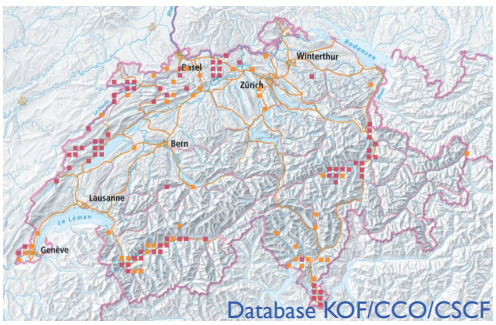
Foraging mainly in sparse forests and other semi-open, structurally rich landscapes. Often also on pastures. Size of foraging grounds: 10-50 ha. Mainly eats large beetles and moths. Foraging grounds are usually less than 5 km from the roost.

Flight corridors

Strongly structure-bound species, especially in areas with light pollution. Transit flights mostly along forest edges, hedges, bodies of water or structured dark corridors in settlement areas. Distances between summer and winter roosts can be several dozen kilometers.

Distribution

Suffered massive population collapses in the middle of the 20th century. Currently only 4 nursery colonies (GR, VS, AG) in warm regions with a total of just over 250 females. Recent records of individual animals from the Jura from Aargau to Geneva and from Ticino. In recent years, there have been increasing numbers of records in caves, especially in the Jura.



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 birds of prey/owls and martens into roosts
- 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, clearing of the
- landscape, noise pollution and infrastructure construction in foraging areas
- Lack of large insects due to overintensification of agriculture.

Mitigation measures

Conservation and propagation measures necessary. Highly conservation dependent. Continuation and expansion of the National Conservation and Monitoring Program for the Greater Horseshoe Bat. Elaboration of cantonal action plans and closing of local knowledge gaps, particularly with regard to flight corridors. 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 monitoring by the Regional Coordination Center for Bat Conservation. Inclusion of the wider vicinity of the roost and the connection to the forest in conservation concepts, especially with regard to light pollution. Avoidance of façade lighting on roost buildings in the summer months. Protection of known winter roosts in caves by restriction of access. Targeted search for underground roosts. Provision of suitable building roosts in the peripheral areas of the current distribution.

Foraging grounds

Propagation of large insects (especially beetles and moths). Avoidance of insecticide use in forestry and agriculture. Propagation of extensive livestock grazing. Avoidance of light pollution outside settlement areas. Increase of structural diversity in open areas.

Flight corridors

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

Sagogn GR: Largest maternity colony in Central Europe

Preferred prey: large beetles

Literature

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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/EUROBATS, Bonn.

Links

fledermausschutz.ch

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

pipistrelliticino.ch

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