

Marmota marmota (LINNAEUS, 1758)



Alpine marmot

AL	Marmota	LT	-
BG	Алпийски мармот	LU	Murmeldéier
CZ	Svišť horský	LV	Alpu murkšķis
DE	Alpenmurmeltier	MK	Алпски мрмот
DK	Alpemurmeldyr	MT	Marmotta
EE	Alpi ümiseja	NL	Alpenmarmot
ES	Marmota alpina	NO	Alpemurmeldyr
FI	Alppimurmeli	PL	Świstak
FO	Múrmildýr	PT	Marmota
FR	Marmotte des Alpes	RO	Marmotă-alpină
GR	Μαρμότα	RU	Альпийский сурок
HR	Planinski svizac	SE	Murmeldjur
HU	Európai marmota	SI	Alpski svizec
IR	-	SK	Svišť vrchovský
IS	Múrmeldýr	TR	-
IT	Marmotta alpina	YU	Свизац; Мрмот

Distribution

Endemic to Europe. The present range covers an Alpine core region extending from south-eastern France to Lower Austria. Several marginal isolates exist in the Pyrénées, Massif Central, Jura, Vosges, the Black Forest, the Apennines, Slovenian Alps, High Tatras and Romanian Carpathians. During the Pleistocene, marmots occupied a large area in the plains of Europe, but had to recede to higher altitudes at the end of the glaciation. Autochthonous populations descending from these postglacial colonizers still inhabit the Alpine core region of France, Switzerland, Italy, western Austria, Berchtesgaden in Germany and the High Tatras. The other populations originate from reintroductions (the Carpathians) or introductions.

Geographic variation

Two subspecies are distinguished: the nominate one populates the Alps, while *M. marmota latirostris* Kratochvíl, 1961, is endemic to the High Tatras. A mixed population in the Lower Tatras has resulted from introductions of both subspecies.

Habitat

In the Alps, alpine meadows and open pasture at altitudes from 600 to 3200 m; in the Pyrenean mountains between 1600 and 2400 m above sea level. Forests are generally avoided. Marmots mostly live on middle slopes facing the south, colonies are located on alluvial ground (soft and deep soil) as well as on rocky ground (hard

and thin soil with outcropping rocks or total absence of grass). The preferred region consists of the zone 400–600 m above the local timber line.

Population status

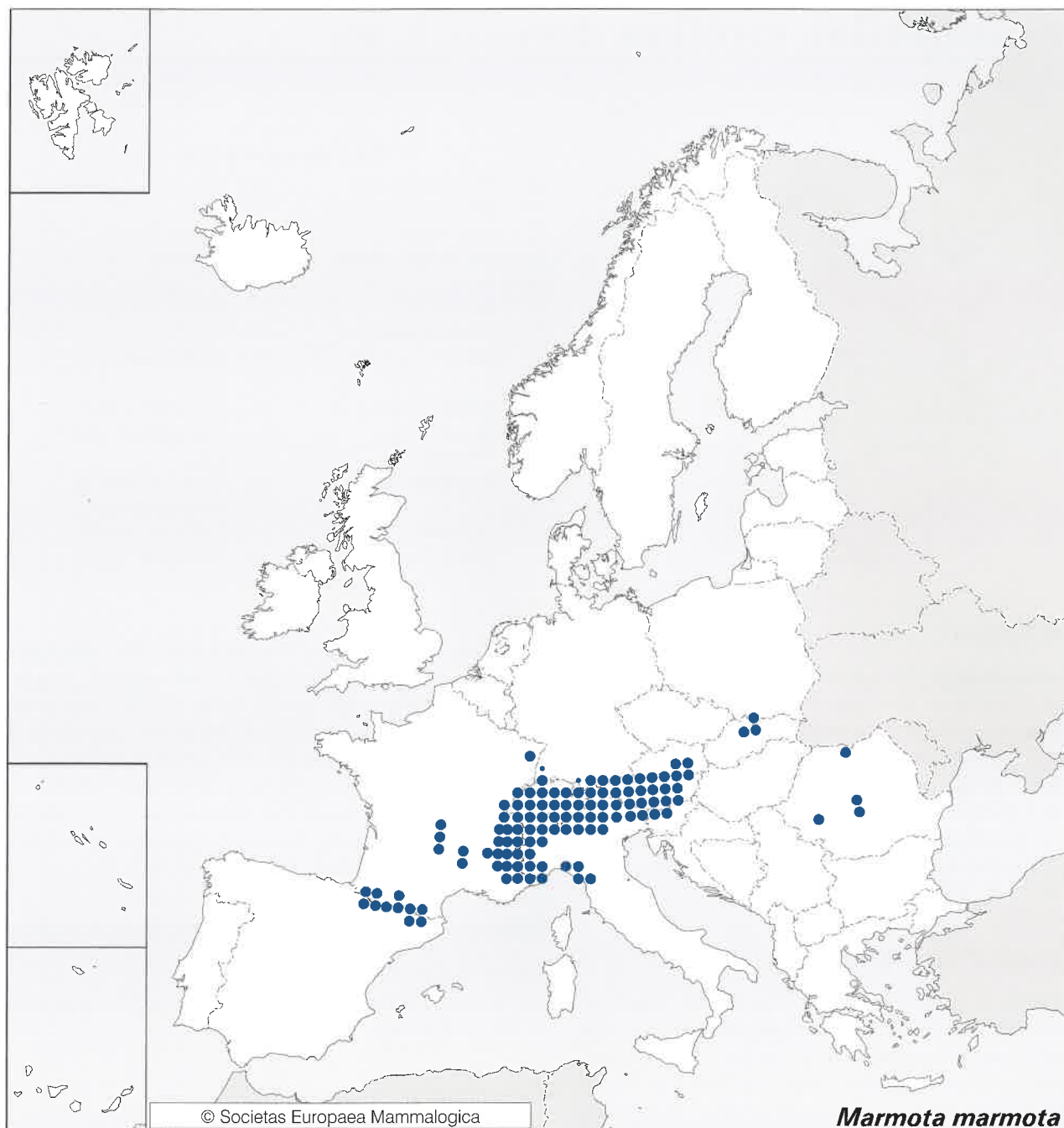
The nominate subspecies, which is abundant in the Alpine core region, has been the source for the majority of introductions. The marginal populations, especially the isolates outside the Alps, may be endangered (e.g., in the case of the introduced populations of the Jura, the risks of extinction were considered to be high; in Germany the alpine marmot is quoted to be potentially threatened).

Genetic investigations revealed reduced levels of protein variation (2 out of 50 loci were found to be polymorphic) in all the populations studied so far in the eastern range of the distribution area; this is ascribed to a severe bottleneck in the eastern populations. The subspecies *M. m. latirostris* is rare and endangered and therefore under strict protection (Slovakia, Poland).

Population densities are reported to range between 23.8 to 36.4 marmots/100 ha (Gran Paradiso) and 40 to 80 marmots/100 ha (Tessin).

International legal & conservation status

Bern Convention, Appendix III.



Other information

Marmots have been exploited for food, fat and fur. The fat is still used as medicine, but nowadays marmots are mainly hunted for trophies. In some regions (e.g., France) the burrows dug by marmots are thought to interfere with agricultural activities (e.g., national park of the Vanoise, France).

Literature

- Arnold (1990)
- Bassano *et al.* (1992)
- Bibikov (1996)
- Krapp (1978a) – review
- Le Berre *et al.* (1996)
- Preleuthner *et al.* (1995)

M. Preleuthner