

# Distribution of *Miniopterus schreibersii* in Romania

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## Background

The distribution studies concerning *Miniopterus schreibersii* are dating back to the XIX. century and are far more detailed than those of other Romanian species. The holotype of the species came from Romania. In spite of many researchers in the past paid differentiate attention on this species there are gaps in data in the period of 1970-1995. The species was described from 35 underground habitats with 60 literature references.

## Goal

Our goal was to combine the literature data (between 1958-1986) and field researches between 1996-2005 in order to find the actual distribution and situation of the *Miniopterus schreibersii*.

## Materials and methods

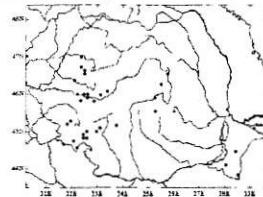
- researched area: 50 caves in the Eastern Carpathians, Western Carpathians, Dobrogea (South-Eastern Romania) and Southern Carpathians
- research period: 1996-2005
- survey methods: checking in caves, mist-netting and ultrasound detectors
- actual data comparison with literature data (34 papers)

## Results

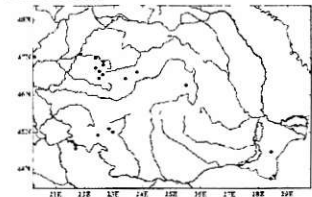
Total checked caves	Literature data (1958-1986)	Re-checked caves in which the species was found again	New data (1996-2005)	New data in which the species was found
72 caves	35 caves	9 caves	50 caves	24 caves

The biggest hibernation colony was found in 2001 February with 36000 specimens in Huda lui Papara Cave. Also the colony size was big in 2000 (33000 specimens) and in 2003 (30000 specimens)

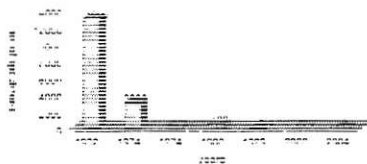
Literature data



Recent data



Colony sizes of *Miniopterus schreibersii* in Cămin Dobrogea Cave

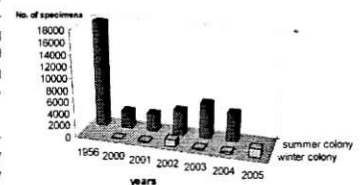


Major nursery colonies were found in Pestera Lileciilor de la Gura Dobrogea Cave in 1962 but no one in 2004.

In 1958 in Pestera de la Limanu Cave a colony of *M. schreibersii* was found which cave was re-checked in 1999 and 2004 winter without founding the colony. In 1952 a major colony with 10000 specimens was recorded in Pestera Manastirea Bistrita Cave which presence wasn't recorded during our field trip by 2000.

In Meziad Cave in 60s a colony of 18000 specimens was described by Dumitrescu, the colony size nowadays is lesser. (4800 specimens by 2004).

Colony sizes of *Miniopterus schreibersii* in Meziad Cave



## Conclusion

More intensive fieldwork and mistnetting in Romania during the last 9 years provided new data on the distribution of *M. schreibersii* in the country.

The number of the caves with *M. schreibersii* presence is smaller in 2005 than in the period of 1956-1986. A decline in colony size can be seen in the case of Gura Dobrogei, Manastirea Bistrita, Meziad, Limanu, La Adam Caves. The population trend from the Huda lui Papara Cave and Meziad Cave can be estimated only after a longer monitoring period.

Important roosts of the species require legal protection in the future. The species was introduced in the National Bat Monitoring Programme. Further research on the species in Romania should be focused on the long term monitoring that will enable us to assess its population trends.

## Acknowledgments

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