Nocek łydkowłosy Myotis dasycneme w polskiej części Karpat

The pond bat *Myotis dasycneme* in the Polish part of the Carpathians

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W pracy przedstawiono nowe dane na temat rozmieszczenia nocka łydkowłosego *Myotis da-sycneme* (Boie, 1825) w polskiej części Karpat. W trakcie badań prowadzonych w latach 2005–2011 w okresie rojenia przy otworach sześciu jaskiń odłowiono 16 osobników tego gatunku (2 samice, 14 samców). Dokonano krytycznego przeglądu danych historycznych o tym taksonie, podsumowano dotychczasowy stan wiedzy na temat jego rozmieszczenia w polskiej części Karpat oraz przedyskutowano status tego gatunku w Karpatach.

SUMMARY

During the research carried out between 2005 and 2011 in the Polish part of the Carpathians, the pond bat *Myotis dasycneme* (Boie, 1825) was caught in the following localities:

1. Oblica Cave (alt. 600 m) situated in the Beskid Żywiecki Mts. A male was caught on 15 October 2006.

2. Mylna Cave (alt. 1098 m) situated in the Raptawicka Crag in the Tatra Mountains. An adult male was caught on 15 July 2010.

3. Czarna Cave (alt. 1326 m., alt. 1294 m, and alt. 1404 m) situated in the Organy Massif, in the Tatra Mountains. Single males near the entrance at altitude of 1294 were caught on 28 August 2006 and 29 July 2009.

4. Pod Wantą Cave (alt. 1793 m) situated in the Czerwone Wierchy Massif in the Tatra Mts. An adult male was caught on 27 August 2006.

5. Kiczorska Cave (alt. 1180 m) situated in the Gorce Mts. A male was caught on 2 October 2010.

6. Zbójecka Cave in Łopień (alt. 880 m) situated in the Beskid Wyspowy Mts. In total 7 males and 2 females were caught between 2005 and 2011.

7. Niedźwiedzia Cave (alt. 985 m) situated in the Beskid Sądecki Mts. An adult male was caught on 19 August 2006.

All bats were caught during the swarming activity. The most interesting record of this species is Pod Wantą Cave (1794 m a.s.l.). It is the highest situated site of the pond bat, not only in Poland and in the Tatra Mountains but also in Europe. Up till now, Magurska Cave was the highest situated site of this bat species (1460 m a.s.l.), where the species was observed during hibernation (Nowak *et al.* 2001).

Also a critical analysis of the literature data on this species' occurrence was conducted. It seems that the challenge undertaken by some authors (Kowalski 1955, Sachanowicz *et al.* 2005, Ciechanowski *et al.* 2007) regarding Sitowski's claim (1948) on the occurrence of the Pond Bat in Pieniny is somewhat precipitate. The analysis of the literature data confirms that the author not only observe this bat species, but also capture it.

From the data presented, it is difficult to decipher the species' status in the Carpathians. Does it form breeding colonies and local populations here? Can it find suitable feeding areas? On the one hand, the very rare occurrence of this species in the swarming period at cave entrances in the Carpathians seems to confirm the suggestion of Ciechanowski *et al.* (2007) that the species does not find suitable feeding areas, and uses the Carpathian caves as hibernation sites (and as confirmed by the data here, also as a swarming site). The pond bat is an average-distance migrant, which is able to cover distances of 150–300 km (max 350 km) (Roer 2001, Dietz *et al.* 2009). The bats captured in the Carpathians may therefore be individuals which had come from other areas in search of hibernation or swarming sites, or penetrated new areas. On the other hand, however, the recording of an adult female and young male in the early swarming season – too early for the seasonal migration period – may indicate that the species can also find suitable feeding areas. These feeding areas may be reservoirs and large Carpathian rivers, for instance. Observations from the foothills of the Slovakian Tatras (the Popradzka Valley) indicate that dammed reservoirs in mountainous areas can be feeding areas for the pond bat (Matis *et al.* 2000, Pjenčák *et al.* 2003). Therefore one cannot exclude the possibility that we may be dealing with a similar situation in the Polish Carpathians. To solve this issue, further research is required.