

Bat population status survey in the Ukrainian Carpathians Mts. (Ukraine)

Interim report

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Hibernation Field Survey Results 2006

Winter period 2006 was a very successful for the bat Status Survey in the Eastern Carpathian Mts. We would like to thank Rufford SG which has support this important investigations that enable us to survey for determination the population status and distribution of bats in the Eastern Carpathians.

Visual inspections of underground shelters, other parts of buildings were the main methods of the bat field investigations during the winter period.

Besides our team member (6 pers.), the investigations were carried out together with the scientists of the Carpathian Biosphere Reserve and speleologists of the adventure club "Lynx" (city of Uzhgorod) on the south-western macroslope and with scientists of the Carpathian and Galytsky National Parks and "Skolivski Beskydy" Nature Reserve on the north-eastern macroslope.

Results

Twenty three bat species occur in the territory of the Ukrainian Carpathians. During this winter period 13 species of bats were noted (see column 1 of Table).

According to the field work plan we monitored hibernation sites around the Eastern Carpathians during the winter. So far this winter season we have received bat counts from 54 sites, both natural (such as caves and grottoes) and artificial (mines, tunnels etc.); the bats are noted in 38 of them. 16 undergrounds were inspected in the first time and 7 after 15-20-years interval. The natural cave "Druzhba" which is situated in the Uholsky massive (southern part of the Eastern Carpathians) was a most rich for the bat number consisting more as 1020 individuals of 6 species.

Based on data received so far the Mouse-eared bats *Myotis Myotis/blythii*-complex were the most numerous bat species, which reached about 1450 inds. (73,4 % of all noted specimens). The Lesser Horseshoe bat *Rhinolophus hipposideros* was a most abundant bat species; it was found at 25 sites (46,3% of sites surveyed). The Greater Horseshoe bat *Rhinolophus ferrumequinum* was recorded at 18 sites (33,3% of sites surveyed), Barbastelle *Barbastella barbastellus* at 17 sites (33,3%), Common long-eared bat *Pecotus auritus* at 13 (27,1%), Daubenton's bat *Myotis daubentonii* at 8 sites (14,8%) and Bechstein's bat *Myotis bechsteinii* at 6 sites (11.1%) (see Table).

Database concerning the bat distribution and roosts localisation in the Ukrainian Carpathians Mts. is under preparation on the base of our winter investigation results and literature data.

Four new important for bats and not yet protected places (complexes of caves and grottoes) were discovered. The preparation for their legal protection by law (joining to the neighboring National Parks and Nature Reserves) is going on.

One more new group of the natural undergrounds is noted in the south-eastern part of the Eastern Carpathians Mts. However we could not inspected during this winter season for the reason of too late receiving of information about it. We plan to do it in December 2006.

Table. Species composition and abundance noted in the undergrounds of the Eastern Carpathian Mts. during the winter season of 2005-2006.

Species	Total number of ind.	Portion, %	Portion of undergrounds, %*	Ukrainian Red Data Book (1994)	IUCN, 2004	European Red Data List (1991)
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<i>Myotis myotis/blythii</i>	1448	74,3	35,2 (19)	-	LR: nt	K
<i>Rhinolophus hipposideros</i>	245	12,6	46,3(25)	2	-	
<i>Rhinolophus ferrumequinum</i>	93	4,8	33,3 (18)	2	LR: cd	
<i>Barbastella barbastellus</i>	73	3,8	31,5 (17)	3	VU	
<i>Myotis daubentonii</i>	37	1,9	14,8 (8)	-	-	
<i>Plecotus auritus</i>	26	1,3	27,1 (13)	-	-	I
<i>Myotis emarginatus</i>	8	0,4	5,6 (3)	3	VU	
<i>Myotis bechsteinii</i>	7	0,4	11,1 (6)	3	VU	
<i>Eptesicus serotinus</i>	4	0,2	7,4 (4)	-		
<i>Myotis nattereri</i>	3	0,3	3,7 (2)	3	-	I
<i>Plecotus austriacus</i>	3	0,3	5,6 (3)	-	-	
<i>Myotis mystacinus</i>	2	0,1	3,7 (2)	-	-	
Total:	1949	100	100	5	5	3

* - quantity of undergrounds, which consisted the bat individuals or colonies.