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Distribution and current status of Hermit Beetle populations in Natura 2000 protected areas in Bulgaria

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Osmoderma barnabita Motschulsky, 1845, commonly known as the Hermit Beetle, belongs to a species-complex of saproxylic beetles listed in the IUCN Red List of Threatened Species as a priority species of community interest. The species-complex is protected by the Bern Convention, listed as a high priority species in the European Union's Habitats Directive, and red listed in most countries that are in its habitat range. Hermit Beetles depend on the presence of cavities in old deciduous trees, where they develop in wood mould. Due to their low dispersal ability, they are very susceptible to habitat loss and fragmentation. The Hermit Beetle was also considered an umbrella species useful to protect many other saproxylic organisms living in the same habitat.

The first information about this species in Bulgaria was reported by Yoakimov, Markovic and Nedelkov between 1904 and 1909. Since then, data about *O. barnabita* from Bulgaria was only published in four papers between 1960 and 2005. In general, about 20 localities were known for this species, mainly in the South-western and South-eastern parts of Bulgaria. In the last five years, as a result of projects funded by the European Union (through Directive EU 92/43), aimed at species mapping and monitoring (2012-2017), *O. barnabita* was observed in additional localities and the conservation status of the species in Bulgaria was determined. The results indicated that the beetle's status is 'Unfavorable'. This is mainly due to habitat loss since hollow trees are not, as of yet, protected in Bulgaria.

This communication provides an overview of the problems related to the proper taxonomical status, new distribution information, habitat modelling, monitoring and appropriate measures for protection and conservation of *O. barnabita*.

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