

## Anna Bocci

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### CV

Graduated in Natural Sciences (110/110 *cum laudem*) at the University of Siena with a dissertation on feeding activity, feeding sites and home range of Alpine chamois, she obtained the PhD degree in Evolutionary Biology in 2007, discussing a thesis on spatial behaviour, seasonal movements and dispersion of red deer.

She has been post doc at the Dept. of Environmental Sciences (Univ. of Siena) with a project on monitoring of italic roe deer in the National Park of Gargano. She is co-author of 9 scientific papers and 13 communications at international congress. She has been a member of the Scientific Secretariat of 2 international congress (*Ist International Conference on Geunus Cervus*, Fiera di Primiero, Sept.14-17, 2007; *V European Congress of Mammalogy*, Siena, Sept. 21-26, 2007) and one national conference (*Il Capriolo del Mediterraneo*, Loc. Bosco Quarto, Monte Sant'Angelo – FG, May 25, 2007). She is a member of the *Deer Specialist Group* – IUCN. She has been supervisor of several experimental degree thesis.

Her research activities include wildlife monitoring, study of spatial behaviour and habitat selection. She has experience of radiotelemetry techniques and GIS applications (“Geographic Information Systems and Thematic Cartography”, Univ. of Siena, a.a. 2001-2002: expert, European level 4).

She has been involved in research activities on behaviour as a biomarker for the effects of estrogenic pollutants on higher vertebrates (Prof. F. Farabollini, Univ. of Siena) and in the *Deer Research Project* (Prof. T.H. Clutton-Brock, Univ. of Cambridge, U.K. – Rum Isle, Scotland), for calving fieldwork as a volunteer. Presently, she is involved in national (**University of Siena**: Reintroduction of chamois *Rupicapra pyrenaica* in the National Park of Monti Sibillini – LIFE+ COORNATA; **University of Florence**: Red deer management in the Acquerino Park) and international (University of Siena: Distribution, management and conservation of large mammals on the Central Karakoram National Park, Northern Areas, Pakistan) projects. She works also with the **Grosseto Province** (ungulate management, their capture and their translocation) and **Ev-K2-CNR Committee** (Scientific Advisor for the SEED project - <http://projectseed.net/index.php>).

### Large mammals conservation and management in CKNP

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An understanding of ecological and conservational principles, as well as reliable ecological data, are fundamental requirements for successful conservation and management actions, especially in protected areas. Information on population size and distribution of a species is important to assess its status, *i.e.* declining, or stable, or increasing. Furthermore, data on abundance could provide a measure of the relative density of herbivores, which may be used to compare the status of subpopulations from different areas and, in future, that of each area in different years. A questionnaire relevant to flag/umbrella species in each valley of the CKNP was prepared, distributed and filled in with the help of the local communities and the support of the Snow Leopard Foundation. All information collected were used to draft the maps of large mammal distribution in CKNP and to give their minimum numbers for all the main valleys of this protected area. As to numbers, some surveys were also carried to cross-check data as well as to train CKNP personnel/communities.

In one selected valley (Hushey) data on carnivores (wolf and snow leopard) were collected from April 2011 to March 2013. Preliminary results show a greater impact on livestock by wolf than by snow leopard. As to snow leopard in particular, ibex is the staple all year long, mostly during summer, when it builds up the greater part of its diet, decreasing in autumn and then winter, when livestock becomes dominant. Climate change could affect large mammals distribution, because of relevant habitat changes (eg elevating the upper forest limit).

**Keywords**

large mammals, CKNP, numbers, distribution, carnivores