



23rd MEETING OF THE ALPINE IBEX EUROPEAN SPECIALIST GROUP (GSE-AIESG)

KALS AM GROSSGLOCKNER (A) 29 - 31 October



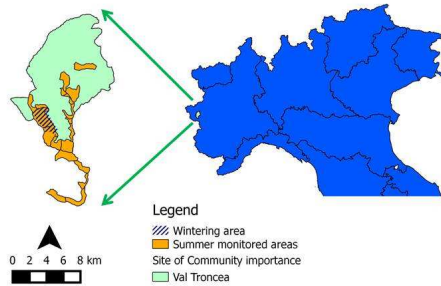
Ente di gestione delle aree protette delle Alpi Cozie

Alpine ibex *Capra ibex* survey and Maximum Entropy Modeling application in Western Cotian Alps (Piedmont, Italy)

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Reintroductions carried out between 1987 and 1988 in the Val Troncea Regional Park, nowadays part of the "Ente di gestione delle aree protette delle Alpi Cozie", have allowed the return of the Alpine ibex in the upper Chisone Valley and the following expansion of this population in the adjacent Germanasca and Argentera Valleys.



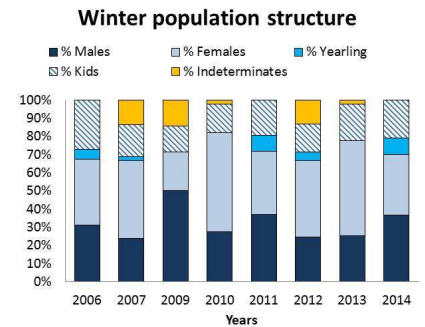
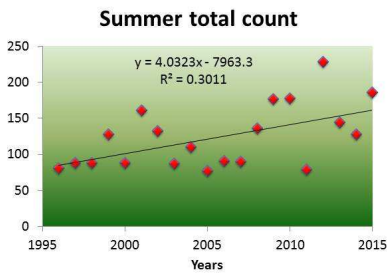
In order to monitor the distribution and the abundance of this species in this Protected Area and in the neighboring mountains, the Val Troncea Regional Park staff carried out **standardized counts during summer** (since 1996) and **winter** (since 2006) seasons. This surveys allowed to detect the population size (MNA minimum number alive) and structure, estimate the related demographic parameters and the geographical expansion of the original colony.

Summer population parameters				
	Min.	Max.	Mean	St. dev.
Sex ratio (males/females)	0,39	4,42	1,57	1,11
Kids/total population	0,01	0,35	0,22	0,08
Kids/females	0,08	1,93	0,84	0,37

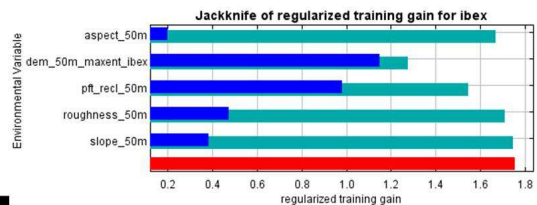
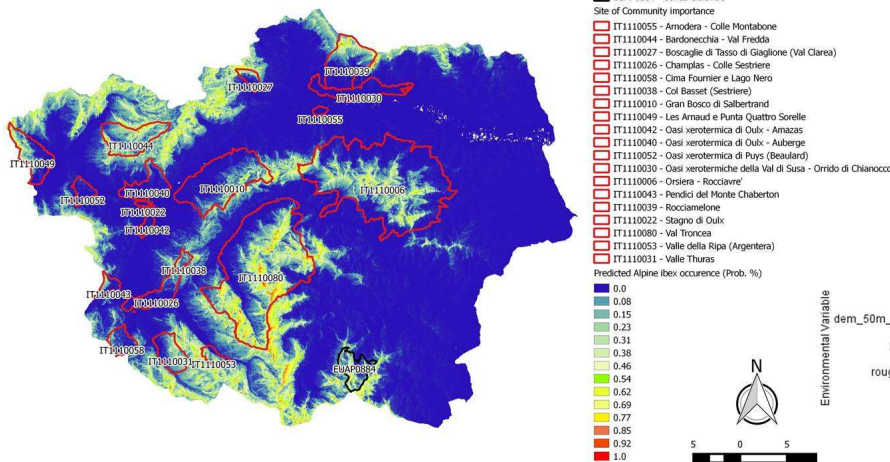
Winter population parameters				
	Min.	Max.	Mean	St. dev.
Sex ratio (males/females)	0,48	2,33	0,93	0,62
Kids/total population	0,14	0,27	0,19	0,04
Kids/females	0,29	0,75	0,51	0,17
Density (heads/100 ha)	5,77	11,34	8,81	1,84

We submit here the results of the first ever use of **MaxEnt (Maximum Entropy Modeling)**, a program for modelling species distributions from presence-only species records, to predict the potential distribution in the west Cotian Alps, (Germanasca, Susa and Chisone Valley, NO 313664 - 5010625, SE 364622 – 4966910, UTM 32 N, WGS 84).

The goal of this work is to use the presence data derived from the surveys and a series of geomorphological parameters (elevation, slope, aspect, roughness) and land cover (Piani Forestali Territoriali) to verify if the Rete Natura 2000 of the Piedmont Region meets the requirements of the alpine ibex ecological niche in this area (19 Site of Community Importance and 1 Provincial Park).



The Maxent analysis demonstrates the great value of the Site of Community Importance Val Troncea, that can be considered the most important potential habitat for alpine ibex within all the west Cotian Alps.



Acknowledgements

Thanks are due to the Cotian Alps Protected Areas staff and to all participants in the field operations.

References:

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