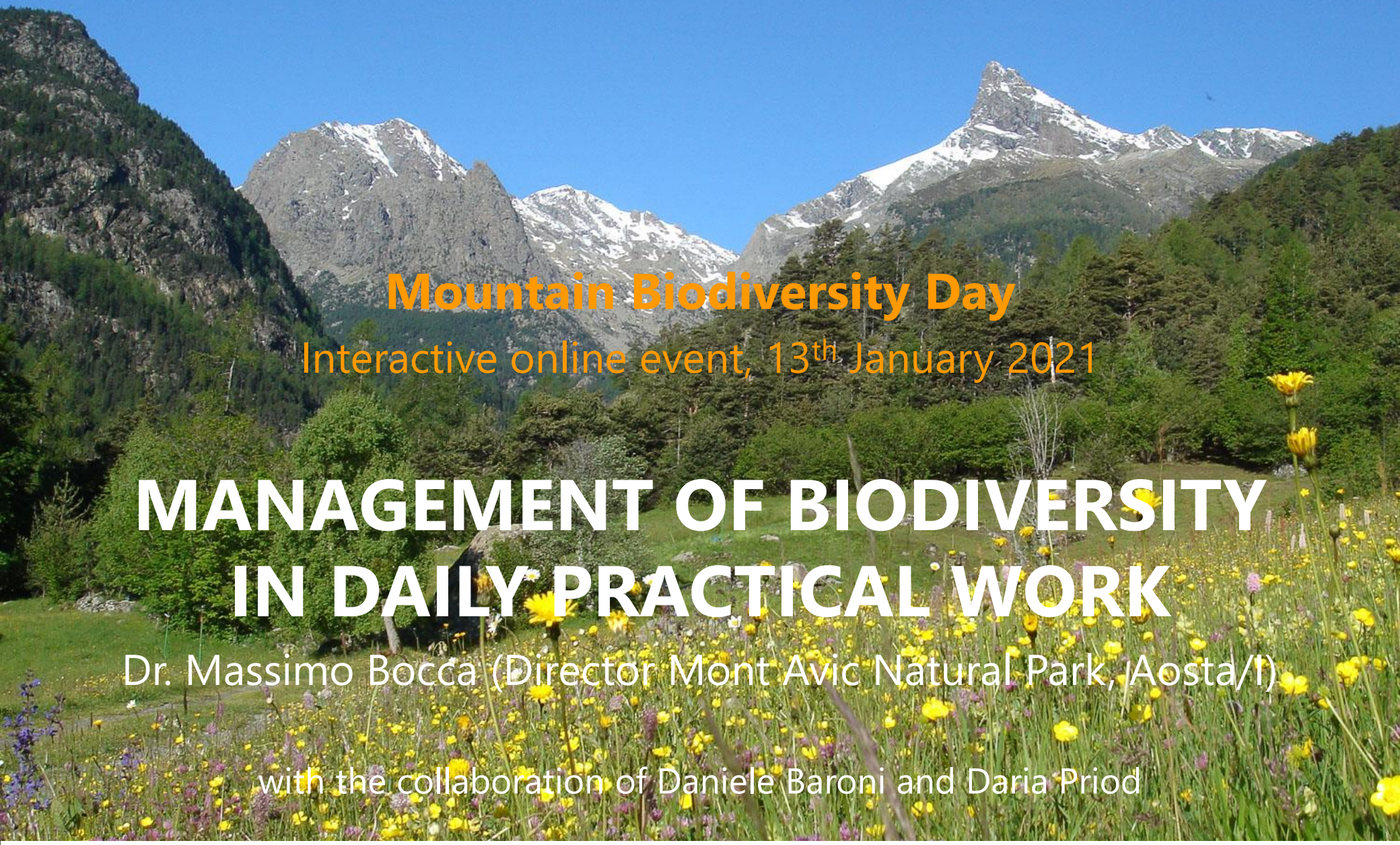


Mountain Biodiversity Day

Interactive online event, 13th January 2021

MANAGEMENT OF BIODIVERSITY IN DAILY PRACTICAL WORK

Dr. Massimo Bocca (Director Mont Avic Natural Park, Aosta/I)

with the collaboration of Daniele Baroni and Daria Priod

MONT AVIC PARCO NATURALE PARC NATUREL

VIVA Valle d'Aosta unica per natura

EMAS GESTIONE AMBIENTALE VERIFICATA IT-000150

The Mont Avic Natural Park is a relatively small protected area where, starting from the second half of the XX century, a re-naturalising process is ongoing thanks to the abandonment of the mines and the reduced forest management and grazing intensity

After the establishment of the Natural Park in 1989, biodiversity and environmental data have been collected to better address conservation goals and objectives, both carrying out specific surveys and thanks to the yearly monitoring carried out by the staff

Research subjects

* Fungi
* Lichen
* Bryoflora
* Vascular flora
* Lepidoptera
* Coleoptera
* Arachnids
* Avifauna
* Small mammals
* Geology and geomorphology
* Woodland and forest use of the past
* Agricultural-pastoring system
* Vegetation in damp areas
* Vegetation in high altitude ophiolitic sites
* Biodiversity of waterbodies
* Features of the mountain pine population

After the establishment of the Natural Park in 1989, biodiversity and environmental data have been collected to better address conservation goals and objectives, both carrying out specific surveys and thanks to the yearly monitoring carried out by the staff

Thanks to these activities, we highlighted the geomorphological, biological and cultural importance of the area, and also revealed which habitat and species are more threatened

Therefore, this previously unknown environment is now one of the best studied areas of the western Alps in Italy

α biodiversity on 7000 ha

more than 3500 taxa

125 first reporting for the region

11 first reporting for Italy

100 ectosymbiont fungi on mountain pine

185 lichens

210 bryophytes

1177 lepidoptera

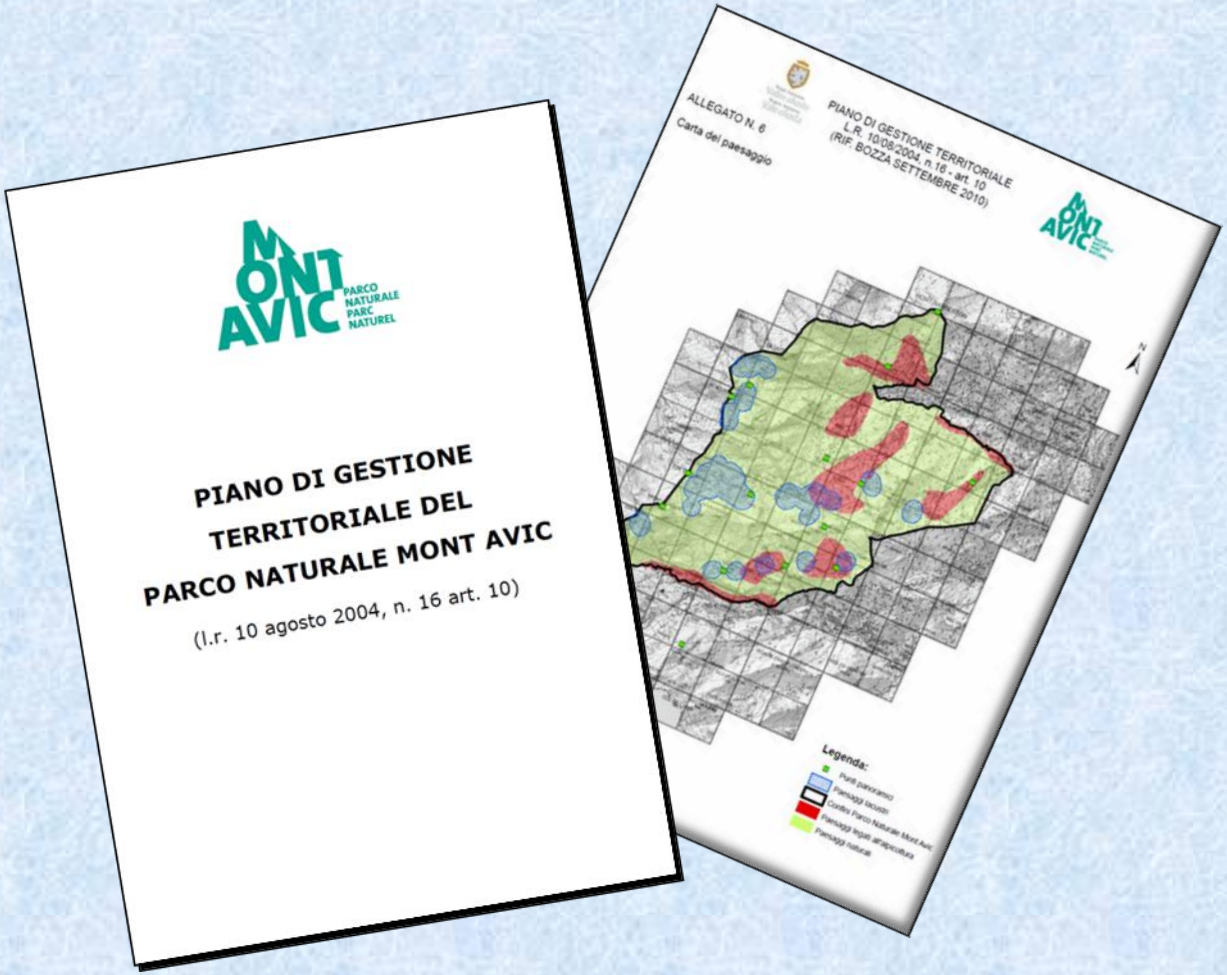
903 vascular plants

19 bumblebees

264 hemiptera

93 breeding birds (13 included in Directive 2009/147/EC, annex I)

Every anthropic activity in the Natural Park it is strictly ruled by a document, called “Piano di Gestione Territoriale”, directly implemented by the institution putting together all the data and management experience acquired over time



The most updated regulation has been approved by the “Regione Autonoma Valle d’Aosta” in 2018. Biodiversity conservation is a priority in this document, which also includes the Environmental Management System (EU EMAS scheme), and the Management Plan of a Natura2000 site (IT1202000) which overlap to the Natural Park

Natural parks play an important role in putting conservation science into practice. Knowledge acquisition processes are fundamental, as many widely-accepted ecological concepts are simplified assumptions about complex situations, and they need to be tested at site level

As typical in the Alps, even in this relatively small area high biodiversity level are found, as a consequence of the spatial heterogeneity in soil composition, morphology, habitat and the climate. Alfa biodiversity of plants in wet environments and of Lepidoptera have been proven to be high

Moreover, we focused on some forest species which play a key role as indicators for different purposes:

✓ the **nutcracker** has been studied to survey their exploitation of food resources that are scattered in the landscape and highly fluctuating in time

Moreover, we focused on some forest species which play a key role as indicators for different purposes:

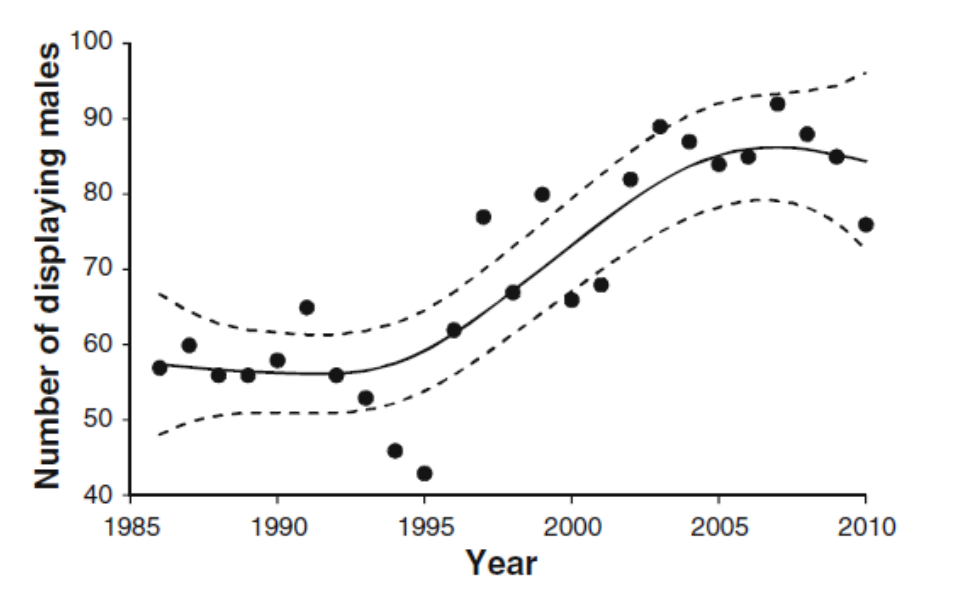
✓ habitat use and home range size variations have been studied in the **black woodpecker**, questioning its potential as an ecological indicator of forest condition

Moreover, we focused on some forest species which play a key role as indicators for different purposes:

✓ we are also studying the **pygmy owl**, a potential old-growth forest specialist

Moreover, we focused on some forest species which play a key role as indicators for different purposes:

✓ long-term data on the population dynamics of the **black grouse** have been collected, and simultaneously its male mating tactics and winter roosting and diet analyzed



We therefore highlight the role of the natural parks as suitable sites to carry out long-term surveys, thanks to the permanent staff work activities and that the study area remains undisturbed thanks to the rules

All the original data collected in the Mont Avic Natural Park have been finally used to inform, educate, raise awareness of biodiversity-related topics

In particular, true and interesting examples about the area have been used to avoid errors, due to applying wide general concepts, in all our communication activities

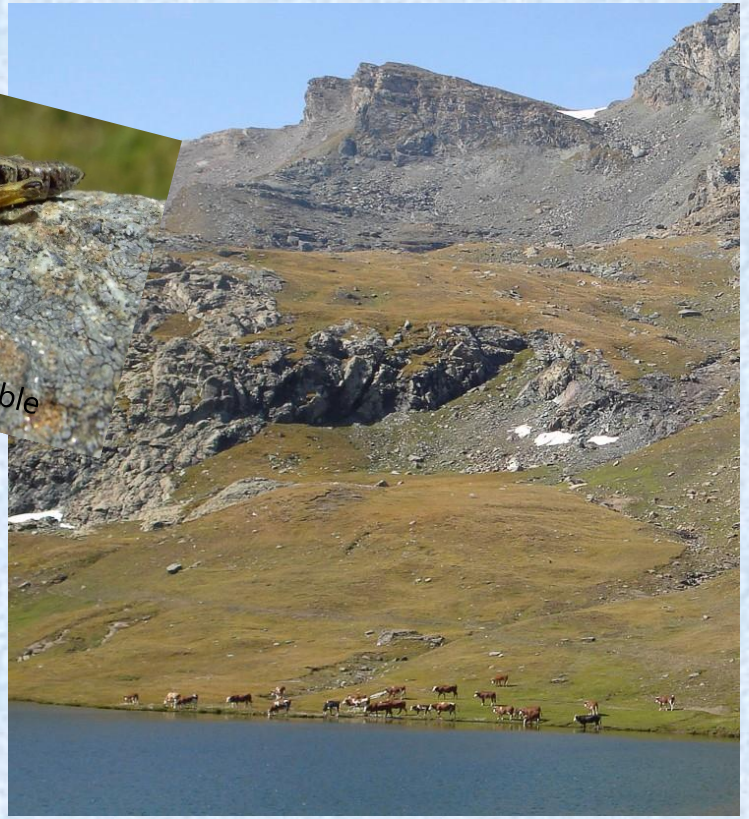
✓ the permanent exhibition space at the visitors' centers

✓ secondary school trainee student activities

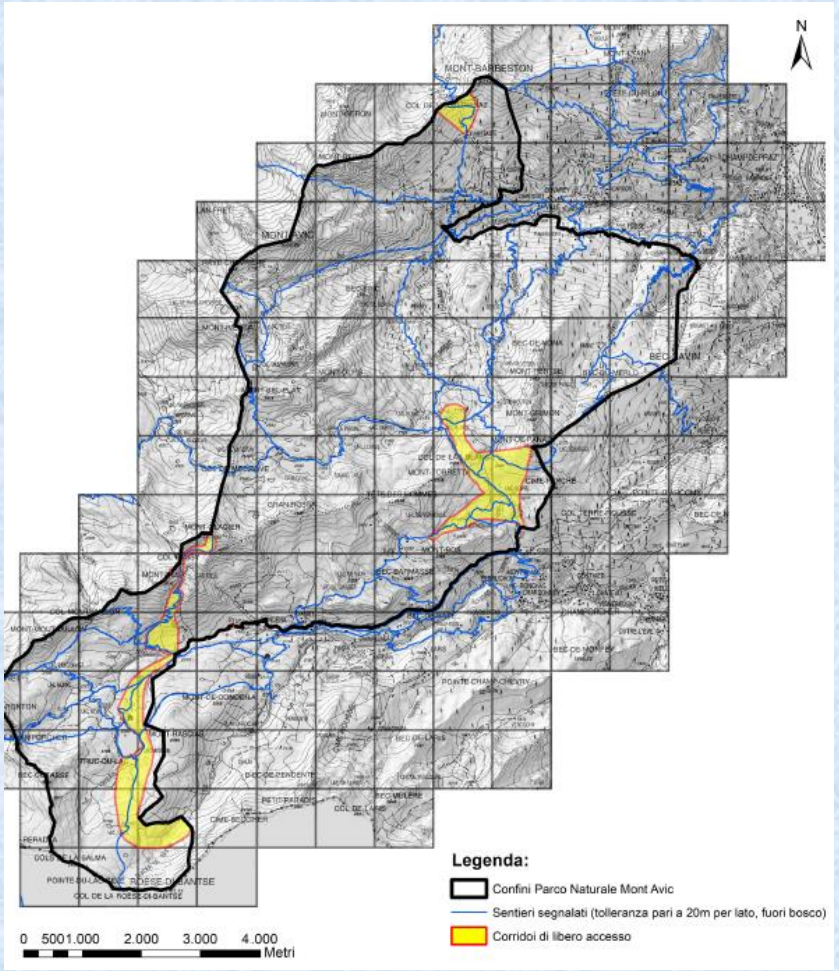
✓ the educational trips for schools

Raising awareness of biodiversity conservation importance is crucial in the Alps, where disturbance due to tourism is increasing, and other anthropogenic pressures may locally negatively impact the biodiversity (e.g. livestock grazing activities on high elevation slopes, different hydrological uses)

Stenobothrus ursulae
IUCN Red list category: vulnerable



However, communication is effective only if knowledge is based on the true local context



A small protected area, as the Mont Avic Natural Park, is therefore now able to successfully protect its biodiversity, and to represent a management example for bigger areas, thanks to cooperation projects and knowledge exchange working groups promoted by the network of protected areas (Alparc, Federparchi, Rete SAPA) and to the funding from EU programs

alparc
Together for the Alps

alcotra

Federparchi
FEDERAZIONE ITALIANA PARCHI E RISERVE NATURALI
EUROPARC SEZIONE ITALIANA

Life

ReteSAPA

Photo: R. Andrighetto, G. Baldizzone, D. Baroni, M. Bocca, M. Bovio, M. Broglio, A. Calegari, M. Campora, M. Dellanoce, R. Facchini, S. Koliopoulos, F. Pensati, D. Priod, L. Ramires, E. Romanzi, A. Tilly