

Towards large-scale wolf population monitoring

Challenges and perspectives

19 September 2023 - online conference

Quantifying abundance is fundamental for wildlife conservation and management. Indeed, **reliable information** on the **number** of individuals or wildlife population **densities** is **key** to support management decisions, harvest regulations, define conservation status, and further our understanding of ecosystems functioning. Large carnivores, and especially wolves, are highly controversial, and the assessment of their protection status or decisions about their management are often accompanied by intense political and public debate. This intense public scrutiny makes reliable and up-to-date population size estimates highly sought after by various government offices. Population size continues to be **challenging to estimate in nature**, especially when species are elusive, vagile, and distributed over large areas. This is because population sampling is never complete, making it necessary to use appropriate analytical methods that account for imperfect detection when estimating population size. Important advances have been made over the years in understanding imperfect detection in part due to the wealth of capture-mark-recapture data generated by non-invasive genetic sampling methods, whereby individual genotypes are identified from DNA extracted from samples deposited in their natural environment. Here, the strict connection with recent developments in genetic techniques. Despite the recent multidisciplinary approaches and methodological advances mentioned above, estimating the size of wolf populations is currently even more challenging due to the recent spatial and numeric expansion of the species at the European scale. Monitoring large scale wolf populations has become more costly and logistically demanding, as it requires investigations over large areas with multi-political jurisdictions, and the processing of numerous samples with harmonized protocols.

Hence, this conference will focus on **recent progress in estimating large-scale wolf populations in Europe and discuss challenges**, highlighting **experiences** where large wolf populations have been estimated in Europe (morning session) and **future perspective** (afternoon session).

Sign up on the [Registration form](#)

Morning Session (9.00-13.00)



- 9.00-9.30: Introduction and greetings
- 9.30: *Spatial Capture-recapture and the Scandinavian wolf: mapping population density and beyond* **Pierre Dupont** (Norwegian University of Life Sciences)
- 10:00: *A multidisciplinary approach to estimating wolf population size for long-term conservation in the Italian alpine regions with sampling optimization* **Francesca Marucco** (DBIOS-University of Turin) and **Virginia Boiani** (DBIOS-University of Turin, University of Chester)
- 10:30: *Estimating wolf population size in central-southern Italy, using partial sampling and multiple observation processes: opportunities and risks* **Vincenzo Gervasi** (ISPRA-Italian Institute for Environmental Protection and Research)

Coffee break 11.00 -11.30

- 11:30: *Wolf Population status and monitoring perspectives in France* **Christophe Duchamp, Ricardo Simon, Nicolas Jean** (OFB- French Biodiversity Office)
- 12:00: *Wolf monitoring in Germany – Keeping track of a fast growing wolf population* **Iika Reinhardt** (LUPUS - Institute for Wolf Monitoring and Research in Germany)
- 12:30: *Large scale wolf monitoring without snow and genetics, and in a transboundary context. Some insights and challenges from Spain* **José Vicente López-Bao and Juan Carlos Blanco** (Biodiversity Research Institute -CSIC- Oviedo University - Principality of Asturias)

Lunch break 13.00-14.00

Afternoon session - Large carnivores population estimation: advances and perspectives

- 14:00: *Scaling up wildlife monitoring and estimation: reconciling the individual with the population -* **Richard Bischof** (Norwegian University of Life Sciences)
- 14:30: *Opportunities and implications of high-throughput STR genotyping for standardized genetic surveys and monitoring* **Marta DeBarba** (University of Ljubljana)
- 15:00: *The role of litigation in large carnivore conservation: a European perspective* **Guillaume Chapron** (Swedish University of agricultural science- SLU)

15.30-17.00- *Panel discussion: Towards transboundary and large-scale wolf population monitoring in Europe - discussion among invited speakers and conference conclusions*

Partners

