



1st G-BIKE Training School:

'Genomic tools for conservation: a practitioner's guide'

La Valletta (Malta) January, 20-22, 2020

Programme Overview

This Training School will be mainly, but not exclusively oriented towards practitioners, with the aim of presenting, in the simplest and yet most comprehensive manner, the contribution that can be provided by genetics and genomics for effectively tackling practical conservation and management problems. The underlying rationale for the School is to create a bidirectional information flow between scientists and practitioners to explore and clarify where and when genomics can make a difference in every day conservation within an EU policy and legislative framework, but with global application. To this end, trainees will be asked to offer at the beginning a short presentation about the main conservation challenges of their current jobs where they think genetic tools might help. At the end of the School, we will revisit these presentations, discussing the options and potential strategies that can be applied using the genomic and analytical tools described during the School. We hope to enable those involved to go back to their respective positions armed with a plan that they can then put into practice! This School may also be relevant to graduate students about to embark on conservation genomics projects to help them develop workplans, and just as important, to allow them to make their work policy and management oriented from the outset.

January, 20th

8:30-9:30	<p><i>School introduction:</i></p> <p>Cristiano Vernesi, Adriana Vella and all trainers</p>
9:30-10:30	<p><i>State-of-the-art of conservation genetics and genomics at the local, national and EU scale:</i></p> <p>The development of genetics in conservation, with special emphasis on Europe Mike Bruford</p>
10:30-11:00	<p><i>Coffee break</i></p>
11:00-13:00	<p><i>Trainees' case studies</i></p>
13:00-14:00	<p><i>Lunch</i></p>
14:00-16:00	<p><i>Conservation Genetics and Policy, the EU interplay perspective:</i></p> <p>Genetics and assessment of Favourable Conservation Status of two large carnivore species in Sweden. Per Sjogren-Gulve,</p> <p>Conservation Policy in the EU: Red Lists, Directive Reports and other questions where genetics might fit in Margarida Fernandes</p>
16:00-16:30	<p><i>Coffee break</i></p>
16:30-18:00	<p>Where genetics can make a difference:</p> <p>Microsatellites: what are they and what can we use them for? Josie Jackson</p> <p>How genomic technologies can be applied to conservation Paul Hohenlohe</p>

8:30-10:30	<p><i>Where genetics can make a difference:</i></p> <p>Genetic and genomic marker studies in natural populations of forest trees Myriam Heuertz,</p> <p>DNA Barcoding – Species identification for Conservation Adriana Vella</p> <p>Genetics and Genomics for fisheries management and Conservation Noel Vella</p>
10:30-11:00	<p><i>Coffee break</i></p>
11:00-13:00	<p>eDNA, its role in conservation biology Cristiano Vernesi</p>
13:00-14:00	<p><i>Lunch</i></p>
14:00-16:00	<p><i>Where genetics can make a difference: connectivity (marine and terrestrial), admixture, invasive species management, population demography:</i></p> <p>The effective population size – potentials and concerns for genetic conservation and monitoring. Linda Laikre</p> <p>Hybridization, introgression and admixture: from genetics to genomics. Mike Bruford</p>
16:00-16:30	<p><i>Coffee break</i></p>
16:30-18:00	<p><i>Social event: Valletta tour and open air discussion</i></p>
20:00-22:00	<p>Social dinner including project discussions with trainers</p>

January, 22nd

8:30-10:00	New genomic tools and biotechnological advances for conservation Gernot Segelbacher
10:00-10:30	<i>Coffee break</i>
10:30-12:30	Conservation Genetics and Policy: a global perspective: Conservation genetic policy and action for widespread species and for rare species, focusing on plants. Sean Hoban Genetics and policy for the conservation and management of animal species Paul Hoehnlohe
12:30-13:30	<i>Lunch including project discussions with trainers</i>
13:30-16:00	Presentation preparation by trainees with help of all trainers
16:00-16:30	<i>Coffee break</i>
16:30-18:30	Trainees' presentations: can any of the presented genetic/genomic tool and methodology be successfully applied to my activity?

End of the School and Presentation of Certificates of Participation to Trainees.