



## Report on the participation to the COP-15: Conference of the Parties to the Convention on Biological Diversity (United Nations Environment Programme, UNEP) held at Montreal (Canada), 6-19 December 2022

By Cristiano Vernesi

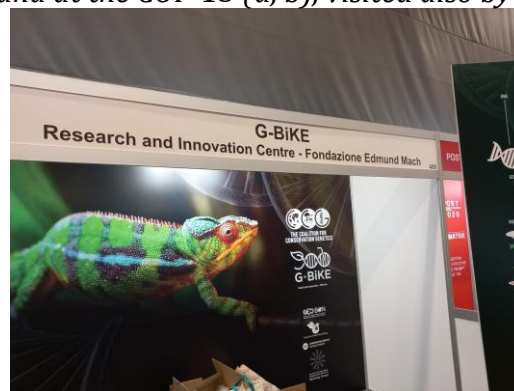


Linda Laikre, Jess da Silva, Maggie Hunter, Alicia Mastretta, Ivan Paz-Vinas, Sean Hoban, and Cristiano Vernesi attended the COP-15 representing G-BIKE and [The Coalition for Conservation Genetics](#). During the two weeks of the COP-15, hundreds of persons visited our stand (Figures 1a and 1b) to learn about genetic diversity conservation. Our delegation had the chance to talk to policy makers (e.g., the Minister of Environment from Botswana, Figure 1c), NGOs, representatives of indigenous groups and researchers from Canada, Switzerland, USA, Italy, the EU, Norway, Costa Rica, Guatemala, Mexico, South Africa, Dominican Republic, Argentina, Botswana, and other countries. The main objective was to ensure that parties will adopt strong wording, Goals, Targets and Indicators related to genetic diversity in the final version of the post-2020 Global Biodiversity Framework.

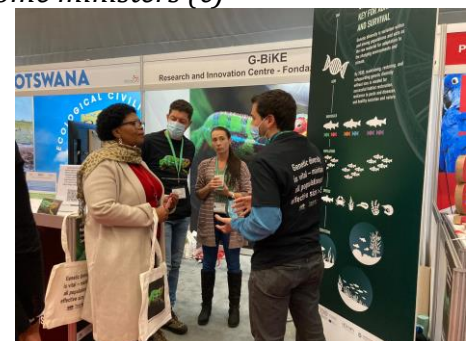
Figure 1. The stand at the COP-15 (a, b), visited also by some ministers (c)



a



b



c

Beside this daily activity, the delegation held a specific side event on December 10<sup>th</sup>, 2022 (Figure 2). About 115 people attended in person and 100+ people attended online, with translations in French, Spanish, Arabic, and Mandarin. The presentations given in the side event provided advice

on how the genetic wording of CBD commitments can be scientifically accurate and measurable, with simple and affordable indicators developed by Hoban et al. (2020, [Biol Cons](#)). These indicators are meant to reflect genetic diversity change; one of their main features is that they can be calculated even in absence of DNA-based data by using some approximation offered by the census size of a population.

Figure 2. Conclusion of the side event held on December 10<sup>th</sup>, 2022



Through the different actions the delegation conducted during the COP15, we provided support to the CBD parties during the negotiations (e.g., informing delegates about the importance of suggesting strong genetic diversity-related wording, or explaining the feasibility of the proposed genetic indicators), hence helping delegates to adopt ambitious Goals, Targets, and Indicators for the new Global Biodiversity Framework that explicitly account for genetic diversity. The results of our efforts are astonishingly reflected in the final inclusion of the following items in the approved final document, officially known as the Kunming-Montreal Global Biodiversity Framework:

**GOAL A [...]** *The genetic diversity within populations of wild and domesticated species, is maintained, safeguarding their adaptive potential.*

**Target 4:** *Ensure urgent management actions, for the recovery and conservation of species, in particular threatened species, as well as to maintain and restore the genetic diversity within and between populations of native, wild and domesticated species to maintain their adaptive potential, including through in situ and ex situ conservation and sustainable management practices, and effectively manage human-wildlife interactions to minimize human-wildlife conflict for coexistence.*

**Headline indicator A.5 for Goal A and Target 4:** *The proportion of populations within species with an effective population size > 500*

It is worth noting that before this GBF no explicit mention of genetic diversity of wild species was present, and no indicator was available for measuring genetic diversity change. In 2023, G-BiKE's team will continue to work on deploying the headline indicator and other simple indicators and metrics for the conservation of populations and their adaptive potential, which do

not require DNA data, in countries around the world, and supporting the Kunming-Montreal GBF conservation commitments through webinars, training, and publications.

Figure 3. Celebrating the success with Swedish sweet wine



Figure 4. From The Guardian daily diary on COP-15

● Outside the main talks are plenty of pavilions. It's a bit like walking around a careers fair. One pavilion is looking at the importance of preserving genetic diversity. Christiano Vernesi is telling people that when we lose biodiversity, the first thing we lose is genetic diversity. Smaller, less genetically diverse populations are weaker and less likely to be able to adapt to planetary changes.

Figure 5. The first winner of our gorgeous chameleon t-shirt





*Figure 6. The final plenary where on December 19<sup>th</sup>, 2022 at 4.30 am the Kunming-Montreal GBF was officially approved*



*Figure 7. Our Swedish super-woman, prof. Linda Laikre*



*Figure 8. Assisting the CBD delegates during the negotiations*

