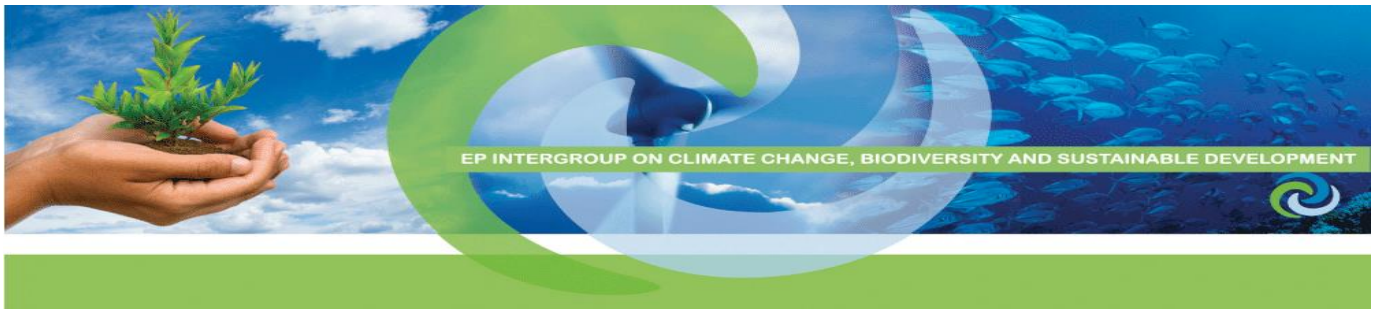


Research and Innovation for biodiversity: what role for gene drive research?

29 October 2020, 15:00 - 17:00 CET
Online event

Chaired by MEP Maria da Graça Carvalho

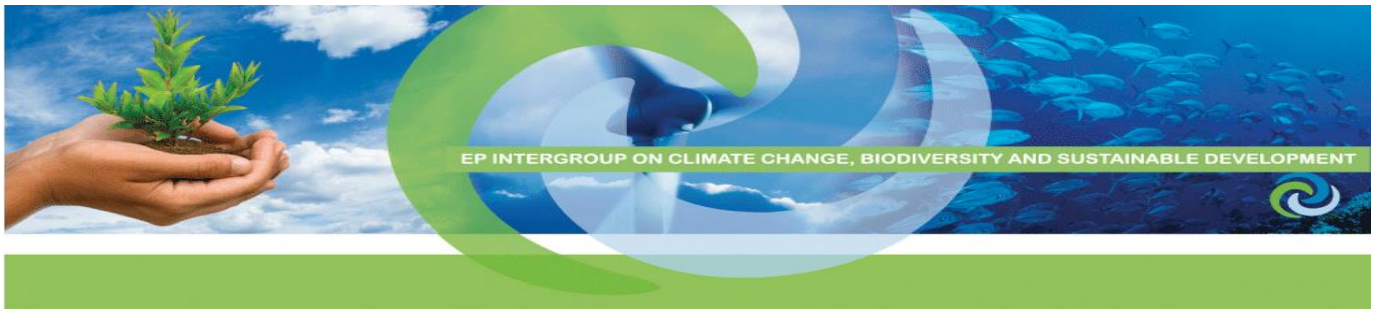
Vice-Chair of the Intergroup on "Climate Change, Biodiversity and Sustainable Development"

Recent reports such as the 5th Global Biodiversity Outlook and the 2019 IPBES Global Assessment Report on Biodiversity and Ecosystem Services confirm that the deterioration of ecosystems is accelerating. Without fundamental change, we are expected to lose a million species to extinction and risk severe damage to economies, livelihoods, food security, health and quality of life worldwide. There is a need for transformative approaches to conserve biodiversity and to investigate the strategies and tools available to us, which could hold hope and promise for a sustainable future. Genetic approaches have been identified by the scientific community as a cluster of transformative tools that can be harnessed to limit the harmful impacts of our rapidly changing world.

Gene drive is a genetic phenomenon that occurs in nature and causes a selected genetic trait to spread into a species over several generations at a rate higher than 50%. Researchers have long sought to harness the phenomena of gene drive to provide nature-based innovative solutions to major conservation and public health issues, such as invasive alien species, malaria and other vector-borne diseases. Recent progress in gene drive research towards effective gene drive technologies has created growing interest by civil society and policymakers in the potential uses of these technologies, which have become a topic of discussion at the European Union and at the international level under the Convention on Biological Diversity (CBD).

To ensure that the debate on gene drive research and its possible uses is informed and evidence-based, there is an urgent need to inform the EU institutions and stakeholders on the state of research, existing oversight as well as benefits and risks of possible gene drive technologies. This will support internal EU discussions on the new EU Biodiversity Strategy for 2030 and help define the European Union's position for the next Conference of Parties of the CBD.

This webinar will therefore provide an overview of how gene drive works and the problems it seeks to solve, introduce the most advanced research projects on gene drive in the sector of public health and conservation and present the work that international and European bodies such as WHO, IUCN and EFSA are carrying out on gene drive. It will also be an opportunity to address any questions participants may have with regards to gene drive and stimulate an open debate on the safe and responsible development of the research in this field.



AGENDA

15:00 – 15:10 Welcome remarks by **MEP Maria da Graça Carvalho**

15:10 – 15:30 Introduction to Gene Drive:

- *What is Gene Drive and how does it work?*
  Dr. Austin Burt, Professor of Evolutionary Genetics at Imperial College London and principal investigator of the Target Malaria consortium
- *Possible applications of gene drive research for public health and conservation*
  Dr. Luke Alphey, Professor in the emerging field of genetic pest management at The Pirbright Institute

15:30 – 16:00 Research oversight and guidance:

- *Overview of regulatory frameworks in use (CBD and national level)*
  Camilla Beech, Regulatory expert specializing in novel biotechnology products, Cambea Consulting Ltd
- *Ethical aspects of gene drive*
  Prof. Claudia Emerson, founding Director, Institute on Ethics & Policy for Innovation at McMaster University, and Associate Professor of Philosophy
- *Informing regulatory developments and decision making*
  Dr. Patrick Rüdelsheim, Partner and General Manager, PERSEUS

16:00 – 16:20 International activities around gene drive:

- *IUCN assessment of synthetic biology and biodiversity conservation*
  Kent Redford, Chair of IUCN Task Force on Synthetic Biology
- *WHO Guidelines and review process*
  Dr. John Reeder, Director, Special Programme for Research and Training in Tropical Diseases (TDR) & Director, Department of Research for Health, World Health Organization

16:20 – 16:30 Reaction by **MEP María Soraya Rodríguez Ramos**

16:30 – 16:55 Q&As session

16:55 – 17:00 Closing remarks by **MEP Maria da Graça Carvalho**