

## Climate change: Genetic engineering accelerating the extinction of species?

International conference to discuss nature conservation and Synthetic Biology

1 September 2021 / Prior to an upcoming conference being held by the International Union for Conservation of Nature (IUCN), Testbiotech is warning of the environmental risks of genetically engineering populations of natural species. Against the backdrop of climate change, the release of genetically engineered bees, corals or trees may appear to provide easy short-term solutions. However, in the long-term, these technical interventions may make species and ecosystems even more vulnerable to diseases and environmental stress. A Testbiotech report published today on the findings of an IUCN study lends support to these concerns.

Even if a genetically engineered trait did provide a short-term advantage for one species, this does not imply that the stability of the ecosystem networks will benefit in the longer term. Under changing environmental conditions, those traits which initially appear to be beneficial can quickly become harmful.

It has been shown, for example, that bees and pollinated plants can evolve together in order to adapt to changing environmental conditions. Similar effects have been reported for corals and the microorganisms they live with in symbiosis. On the other hand, genetically engineered organisms may promote evolutionary mismatch-effects within such complex interactions, which may, in turn, disturb and destabilize ecosystems.

Within this context, potential releases of genetically engineered organisms to combat or mitigate climate change appear to be driven by particular interests, and are not suitable for providing adequate solutions. Testbiotech is warning against allowing ourselves to be lulled by a false sense of security: if we do not stop climate change, no technology will ever be able to prevent the extinction of thousands of species.

Testbiotech is also, in particular, warning against the release genetically engineered organisms that can persist, propagate or spread in the environment as it is the case with gene drive organisms. If there are no effective measures available to stop releases in an emergency situation, then the risks would be incalculable and the releases irresponsible.

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**Further information:** [The Testbiotech report](#) [3]

[The IUCN conference](#) [4]

[The IUCN report](#) [5]

[A recent report about gene drives](#) [6]

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[5] <http://www.iucn.org/synbio>

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