Release or restore ecosystems?

Thierry Dutoit*†1

¹Institut méditerranéen de biodiversité et d'écologie marine et continentale (IMBE) – Université d'Avignon et des Pays de Vaucluse, Institut de recherche pour le développement [IRD] : UMR237, Aix Marseille Université – IUT d'Avignon, 337 chemin des Meinajariés, Site Agroparc BP 61207, 84911

Avignon, cedex 09, France

Abstract

The strategy adopted by the European Commission in May 2011 aims to restore 15% of degraded ecosystems by 2020! Nevertheless, international recent meta-analyzes have shown that it was not possible to restore the integrality of pre-existing ecosystems although many ecosystem services and biodiversity can be rehabilitated in comparison with degraded states. Facing the existence of ecologically and socio-economically irreversibility thresholds appeared recently the concept of "new-ecosystems" which are degraded ecosystems originated from former agricultural or industrial land uses but whose long-term evolution cannot be predicted because of the lack of historical references and the impacts of global changes. Should we then release nature in these ecosystems in the name of naturalness or rather still restore the former existing "cultural ecosystems" even incomplete in the name of biodiversity and ecosystem services? Before the concept of "new ecosystem" will appear as a new paradigm that can be used as an alibi for the lack of restoration; it is then important to measure in the field their biodiversity, functionality and naturalness. We do that, in the plain of La Crau (Southeastern France) where several large scales restoration ecology projects have been realized in the last decade and allow us to compare the effects of different restoration strategies.

Keywords: restoration ecology

*Speaker

[†]Corresponding author: thierry.dutoit@imbe.fr