

Building Livelihoods in times of ecological and political crisis

This 90 minute session will help familiarize the international degrowth and ecological economics communities with key themes in ecological law, an emerging field that aims to give coherence to legal concepts that align with degrowth and ecological economics. An international panel will provide insights from their ecological law research and practice (10-15 minutes each), followed by small group discussions on how ecological law can enhance degrowth. The panelists are engaged in research with the Leadership for the Ecozoic (L4E) partnership of McGill University and the University of Vermont (l4ecozoic.org) and the Ecological Law and Governance Association (ELGA) (elgaworld.org). Both L4E and ELGA seek to reorient law and governance toward a mutually enhancing human-Earth relationship, with a more ecocentric orientation and rigorous reliance on science, systems-based approaches, traditional knowledge and connection to place. Building alternative livelihoods in times of political and ecological crisis resonates strongly with their missions. Dr. Geoffrey Garver (McGill University, ELGA steering committee), who coordinates L4E law and governance research, will give an overview of emerging themes and developments in ecological law that resonate with degrowth and the conference theme. Dr. Michelle Maloney (Griffith University and Australia Earth Laws Alliance, ELGA Steering Committee) will talk about "New governance models for a post-growth world" which will examine the types of regulatory tools that can be used to support degrowth, and build bioregional localisation. McGill/L4E PhD candidate Shaun Sellers will talk on the topic "Transforming Global Trade Governance for a Post-Growth World." McGill/L4E PhD candidate Iván Darío Vargas Roncancio will talk about "Indigenous Legal Traditions and Forest Legalities: Linking human and nonhuman modes of legal thought."

Day: 8th Time: 17:15:00 Room: 12

Title: Ecological-economic modeling of pollination complexity and pesticide use in agricultural crops

Session type: Paper

Submitter: Georgios Kleftodimos

ABSTRACT:

Recent years have witnessed a substantial decline of both managed and wild bees in Europe due to the increase of pesticides use. Hence, many European agricultural systems depend on the buy/rental of managed bees in order to maintain sufficient levels of pollination services. However, this substitution of wild bees by managed ones apart from costly may be also ineffective as managed bees are not perfect substitutes for wild ones. In fact, a plethora of ecological studies showed that the presence of both bee species in the field and their complementarity effect generates an enhanced pollination activity which optimizes production. This study tries to evaluate this effect by developing an analytical ecological-economic model displaying farmer's decisions between two agricultural inputs, pollination services and pesticides. Our results highlight that the economic value of this complementarity may offer to farmers an alternative optimum management strategy. This strategy lies on the production range where managed bees are working together with wild ones, offering an enhanced pollination to the crop production. Moreover, we showed that the adoption of a less toxic pesticide or better application methods by the farmers should increase the wild bees' productivity and consequently, the total economic value of pollinators.

Day: 5th Time: 17:15:00 Room: 6