



Convegno Limnologico 2017

Venerdì 26 maggio, ore 11:00

Consiglio Nazionale delle Ricerche
Istituto per lo Studio degli Ecosistemi
In co-organizzazione con l'Ordine degli Ingegneri della Provincia del V.C.O.
AULA TONOLLI Largo Tonolli 50, Verbania Pallanza

The interplay between biodiversity and pollution

ALESSANDRA LORIA

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<http://biology.mcgill.ca/faculty/cristescu/alessandraloria.html>



L'evento avrà durata di un'ora e agli ingegneri che parteciperanno verrà riconosciuto n° 1CFP

Humans are considered as the world's greatest evolutionary force, and one of the most pressing questions in evolutionary ecology is whether and how natural populations evolve in response to pollution. Genetic adaptation to pollution has been studied since the first observations of heavy metal tolerance in plants and is now represented by an extensive literature. For her PhD thesis Alessandra Loria reviewed this literature in order to synthesize the evidence for micro-evolutionary responses to pollution across multiple levels (genetic, phenotypic and population level), taxonomic groups, and pollutants. The most compelling pieces of evidence for adaptation come from studies focused on phenotypic variation while, together with her group, she found few studies on the likelihood of persistence through adaptation at the population level and none on evolutionary rescue. Evolutionary rescue is the recovery from demographic effects that occurs through genetic adaptation. In her thesis A. Loria performed an evolutionary rescue experiment with *Daphnia pulex* testing whether initial standing genetic diversity influenced persistence in natural populations. She will discuss the outcomes of this experiment and she will also talk about the several biases that are affecting the literature and that are perhaps leading to an over-estimation of the ability of organisms to survive in polluted environments.

Per ulteriori informazioni:
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Il Direttore
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