



Society for Integrative and Comparative Biology

2015 Annual Meeting

Meeting Abstract

S4.2 Monday, Jan. 5 09:00 **Solving complexes of cryptic species by using detailed analyses on jaw morphology in asexual rotifers** FONTANETO, D.; *National Research Council, Institute of Ecosystem Study, CNR-ISE, Largo Tonolli 50, 28922 Verbania Pallanza ITALY* diego.fontaneto@gmail.com
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Jaws in rotifers, called trophi, are among the most important hard structure used for taxonomy and systematics. Selection on feeding ecology acts on these features and produced a wide array of shapes and adaptations, including filtering, piercing, grasping, pumping, etc. Bdelloid rotifers are completely asexual and morphological diversification in their trophi happened without the potentials offered by sexual recombination. I will review the approaches that have been used to couple studies on molecular evolution, mostly through phylogenetic approaches, and studies on morphological diversification of trophi, mostly through geometric morphometrics. Such studies cover both macroevolutionary scenarios and microevolutionary detailed analyses of differences between cryptic species and comparisons between populations. Evolution in the absence of sexual recombination in animals is an intriguing topic, and I will suggest further ways to use rotifer jaws as an invaluable window to explore evolutionary changes.