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| MARIA TERESA SPENA1, ROSARIO GRASSO1, ALESSIA BIONDI1, VEZIO COTTARELLI2, MARIA CRISTINA BRUNO3 1 Dipartimento di Scienze Biologiche, Geologiche e Ambientali, Sez. Biologia Animale, Università degli Studi di Catania, Via Androne 81, Catania, I-95124 Italy.2 Dipartimento per l’Innovazione dei Sistemi Biologici, Agroalimentari e Forestali, Università degli Studi della Tuscia, Largo dell’Università snc, Viterbo, I-01100 Italy.3 Fondazione Edmund Mach, Centro Ricerca e Innovazione, Via E. Mach 1, S. Michele all’Adige (TN), I-38010 Italy.**THE EPIKARST OF SOME SICILIAN CAVES: AN ”*ULTIMA* THULE” FOR CRUSTACEAN MEIOFAUNA?**Pollution and global change are strongly affecting groundwater habitats of several Italian regions, with impacts on their biotic communities and strong decrease of their biodiversity. Starting in 2009, our research group has been investigating the crustacean meiofauna collected from the epikarst of four caves in Sicily, (Conza, di Entella, della Molara (PA) and del Cavallo caves (AG)), representing the first research in this habitat for Sicily, and one in Calabria (Vucco Ucciardo Cave, CS). We focused our research on harpacticoid copepods, mainly of the family Parastenocarididae, a characteristic and highly specialized component of groundwater fauna worldwide. The results of our research, when compared with older records, highlight the conservation value of the epikarstic habitats and their taxocoenosys: a) *Stammericaris trinacriae* (Galassi, Pesce, Cottarelli 1989) was collected only in 1987 from two wells in Trapani Province which have now been filled up. A new, very abundant population was collected from the epikarstic drip and rimstone pools of di Entella Cave throughout a 2-year sampling campaign conducted monthly in 2012-2014. This is the first record of a Parastenocarididae from an evaporitic cave. b) *Nitocrella stammeri* Chappuis, 1938 a representative of the family Ameiridae with perimediterranean geonemy, was extinct in one of the 19 recorded Sicilian populations (Stoch, 2003-2004): the well of Porto Palo (SR) (monitored in 2005), where it was originally collected in 1978. A new populations of this species was collected in 2014 from a typical carbonatic karstic fissured acquifer, in the rimestone pools of del Cavallo Cave. c) A new species of *Cottarellicaris*, presently under study, was collected in 2013 and 2015 from rimestone pools in Vucco Ucciardo Cave.d) *Stammericaris diversitatis* (Cottarelli and Bruno 2013) was collected in several occasions from 2009 to 2014 from the rimstone pools and epikarstic drip of Conza Cave, where it is endemic.All the caves where these species were collected are dry caves, exclusively recharged by percolating rainfall. Hence, the rainfall-fed epikarst underlying unfarmed soil could represent a refuge for sensitive taxa, when compared with other more easily polluted habitats (e.g., the hyporheic zone of streams and rivers), and should be carefully protected since it could harbor endangered, endemic or rare species. STOCH F. 2003-2004. Checklist of the species of the Italian fauna. http://checklist.faunaitalia.it |

**Comunicazione orale**

1. □ Simposio 1 - **Strategie riproduttive: aspetti comportamentali, morfo-funzionali ed evolutivi**
2. □ Simposio 2 **- Aspetti fisiologici e difese interne: adattamenti evolutivi e applicazioni in biotecnologie**
3. □ Simposio 3 **-** **La sistematica moderna tra morfologia strutturale ed approcci molecolari**

**Poster**

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5. □ Partecipazione alla IX Edizione Premio UZI