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Esperienze e approcci innovativi per la conoscenza e la salvaguardia degli
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SESSIONE SPECIALE – Multidisciplinary and trans-ecodomain vision for the management and control of invasive alien species - Visione multidisciplinare e trans-ecodominio per la gestione e il controllo delle specie aliene invasive – Chair: Angela Boggero, Agnese Marchini

Potential impact of dreissenids species in relation to the first report of quagga mussel (*Dreissena bugensis*) at the end of winter 2022 in Lake Garda (Northern Italy).

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Along with *Dreissena polymorpha* (zebra mussel), *Dreissena bugensis* (quagga mussel) is considered one of the most widespread and successful invasive species in Europe, Russia, and North America. The quagga mussel is a bivalve mollusc of the dreissenids family originating from the estuarine region of the rivers Dnieper and Southern Bug (Black Sea). The spread in Europe began after the 1940s and was associated with construction of canal-river systems. *D. polymorpha* was observed in Lake Garda since the end of the 1960s. In the last years, *D. bugensis* was found in the northern perialpine region and in late winter 2022 it was identified along the eastern shores of Lake Garda. Both species are defined as ecosystems engineers because they can strongly change the substrate structure, causing great economic damage in water pipes, potable water treatment plants, and port constructions. Moreover, they can affect resource availability for the other species. A few significant ecological differences between the two species suggest that the impact of quagga mussel could be even larger compared to that caused by zebra mussel. In this poster we will discuss the main expected ecological impacts following the introduction of quagga mussel into new aquatic habitats.

Invasive hell: potential distributions of invasive gammarids overlap in central Europe but not in South European coastal regions

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Freshwaters are mainly invaded by a non-random selection of taxa, among which Crustacean stand out with numerous successful examples. The amphipods *Dikerogammarus villosus* and *Dikerogammarus haemobaphes*, are emblematic examples of successful Ponto-Caspian invaders. However, the range of their potential ecological niche has not been explored yet. To fill this gap, we studied the current and future potential distributions in European Western Palearctic, considering two emission scenario magnitudes and