

International Association of Astacology Symposium 24



BOOK OF ABSTRACTS

September 16 – 20, 2024, Zagreb, Croatia

There can be only one: the two-year spread of *Procambarus clarkii* in a *Faxonius limosus* infested small perialpine lake in Trentino (Northeast Italy)

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A containment campaign to prevent the spread of *Faxonius limosus* was conducted in June, July and September 2023 and repeated in 2024, in Costa Lake, a Special Area of Conservation of about 1 hectare surface area, where this IAS was first recorded in spring 2021. Unexpectedly, in June 2023 we trapped 38 adult *Procambarus clarkii* in the NW part of the lake, suggesting a recent point of introduction. *Procambarus clarkii* showed a high invasive potential, spreading quickly in 2023 to the whole lake perimeter and its emissary canal; its body size was much larger than that of *F. limosus*, with two main size classes, one (50-60 mm cephalothorax length) corresponding to the individuals introduced most likely in the fall 2022 (2-years old), and a second class (40-50 mm) representing the new generation born in the lake. In July 2024, we recorded three main size classes: about half of the *P. clarkii* population belonged to the 50-60 mm size class (2-years old), while the remaining was evenly distributed between the size classes of 40-50 mm (new generation) and 60-70 mm, i.e., older individuals (4-years old). *F. limosus* did not show significant shifts in size: in both years the majority of the individuals belonged to the 30-40 mm size class. The much larger size of *P. clarkii*, longer time span, fast dispersion ability, suggest a future dominance of *P. clarkii* and possible disappearance of *F. limosus*, with relevant risk of spread of this new, more invasive species to the upstream, hydrologically connected, water bodies.

Keywords: management of autochthonous species, invasive alien species, spiny-cheek crayfish, Louisiana crayfish, faunistic monitoring