



## **Drivers of Pontocaspian Biodiversity Rise and Demise**

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In the past two million years, the region of the Black Sea Basin, Caspian Basin and adjacent Anatolia and the Balkans were the stage of the evolution of a unique brackish water fauna, the so-called Pontocaspian fauna. The fauna is the result of assembly of genera with a Paratethyan origin and Anatolian origins during the Early Pleistocene.

The rapid diversification of the Pontocaspian fauna is the result of the very dynamic nature of the lakes (the Caspian Sea is technically a lake) and seas in the region in the past two million years. In most times the various lake basins were isolated (like today), but in other episodes connections existed. Regional and global climate as well as the regional tectonic regimes were main drivers of lake basin evolution.

Over the past 80 years a major biodiversity crisis is hitting the Pontocaspian faunas due to environmental degradation, pollution and invasive species. In the new EU-ETN PRIDE (Drivers of Pontocaspian Biodiversity Rise and Demise) we will be documenting the geological context of past diversifications and turnover events. We present examples of rapid turnover (biodiversity crises) in the Quaternary, assess driving forces and draw implications for the nature of the current human-mediated biodiversity crisis in the region.