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Abstract Title:

Decline of freshwater trigger species in the Mediterranean Biodiversity Hotspot

Abstract:

The identification of key biodiversity areas (KBA) was initiated by the International Union for Conservation of Nature in 2004 to overcome taxonomic biases in the selection of important areas for conservation. Since then, several KBAs have been identified mainly based on the presence of trigger species (i.e., species that trigger either the vulnerability and or the irreplaceability criterion and thus identify a site as a KBA). However, to our knowledge, many of these KBAs have not been validated. Therefore, classical surveys of the taxa used to identify freshwater KBAs (fishes, molluscs, odonates, and aquatic plants) were conducted in Douro (Iberian Peninsula) and Sebou (Morocco) River basins in the Mediterranean Biodiversity Hotspot. Environmental DNA analyses were undertaken in the Moroccan KBAs. There was a mismatch between the supposed and actual presence of trigger species. None of the trigger species were found in 43% and 50% of all KBAs in the Douro and Sebou basins, respectively. Shortcomings of freshwater KBA identification relate to flawed or lack of distribution data for trigger species. This situation results from a misleading initial identification of KBAs based on inaccurate ecological information or due to increased human disturbance between initial KBA identification and the present. To improve identification of future freshwater KBAs, we suggest selecting trigger species with more conservative approaches; use of local knowledge and digital data (to assess habitat quality, species distribution, and potential threats); consideration of the subcatchment when delineating KBAs boundaries; consideration of terrestrial special areas for conservation limits; and periodic field validation.

Type of presentation:

Oral presentation

Secondary Presentation Choice:

Speed Presentation

Approved Symposium:

No

Conservation Science:

Biodiversity inventory, monitoring and mapping

Drivers of Biodiversity Loss and Ecosystem Degradation and Fragmentations:

Overexploitation of natural resources

Conservation Management and Policy / Solutions:

Conservation prioritization (e.g. spatial conservation planning, project prioritization protocol)

Are you a PhD candidate or a student in pursuit of a Masters degree who would like to be considered for the Student Awards Competition?:

No

Author Registration Deadline:

Yes, I am aware and I accept.

Attendance Support:

Yes

Attendance Support:

Yes

Presentation Poster:

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