

Cooperation and adaptation to climate change: the case of sea turtles from a transcale perspective

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ABSTRACT: The rate of biodiversity loss (terrestrial and marine) is among the nine critical environmental thresholds associated with subsystems or biophysical systems of the planet, beyond which the Earth system would undergo unsustainable, abrupt and irreversible environmental changes. This factor is profoundly influenced by climate change and anthropic practices, elements that are leading to the reduction and fragmentation of habitats and the development of a series of important physiological repercussions within the species most affected by these phenomena. Among these, the so-called keystone species and umbrella species are certainly of great interest, i.e. those species that are fundamental for the balance and survival of the ecosystems that host them, and can therefore, by their presence or absence, act as indicators of the wellbeing of these biomes. In this context, the policies implemented on a national and international scale by political actors and the presence of centres specialised in the protection and care of these wild species are fundamental. Therefore, taking these considerations as a starting point, this research, through the observation and mapping of the phenomena that are affecting sea turtles, aims to emphasise how top-down policies mixed with bottom-up actions - with a view to safeguarding them by mitigating the impacts of anthropogenic practices and thus compensating for the impacts of modernity - can be considered not only as actions to mitigate the impacts of the anthropocene, but also as a first step towards a return to cooperation between humans and other animals as a method of adaptation, resilience and resistance of the Earth's inhabitants to climate change.

KEYWORDS: cooperation, animal geography, political ecology, climate change, biodiversity

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