

>> SYNTHESIZE MOUNTAINS OF KNOWLEDGE <<

Submitted Abstract

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Abstract

Protected areas (PAs) are more than hotspots for biodiversity conservation, in fact, they have long been the cornerstones for preserving biodiversity, ecosystem services, and other global environmental benefits (Chape et al., 2005). It's undeniable that preserving an ecosystem can provide continuous natural, cultural and social capital resources with advantages for human populations, in sum, the underlying ideas behind ecosystem services (ES). Despite the increase in numbers and coverage of PAs, the world's biodiversity and other ecosystem services continue to decline, also within park boundaries (MacKinnon et al., 2015; Pressey et al., 2015).

The world population is now 7,5 billions, unevenly distributed, and increasingly exerting pressure on natural resources. Anthropogenic pressures are known to influence natural ecosystems worldwide, land use, soil erosion, water pollution, exotic species, and climate change are some of the most studied impacts. Though we rely on PAs to achieve sustainability, many of the world's PAs offer weak protection against human activities (Leverington et al., 2010; Watson et al., 2014).

However, human activity shouldn't be treated as a hangman for biodiversity, without a preceding evaluation. Human activity can play a positive role in the conservation of wildlife, when the needs of human populations and wildlife collide, we may look for a situation where both sides benefit (Coad et al., 2015). Ecosystem services are the benefits humans obtain from ecosystems, by this way the notion includes and connects the ideals of conservation and development. The concept was highlighted during the 1990s, in a response to the expansion of human activity and its impacts, by the Millennium Ecosystem Assessment (MA). The ecosystem services are divided into four groups: provisioning, regulating, cultural, and supporting (MA, 2005).

The current paper studies Serras D'Aire e Candeeiros Natural Park within the Montejunto-Estrela mountain range that naturally separates the northern Portuguese highlands territory from the southern lowlands. The combination of a karstic mountain landscape with shallow soils and limited agricultural potential forces a sustainable human occupation where for centuries people adapted to this harsh environment. The ingenuity of the solutions that enabled development simultaneously provides higher ecosystem services, thus promoting biodiversity and nature conservation.

The parallel between Serras D'Aire e Candeeiros and many other mountain regions may be established, notwithstanding the particularities of this region which are simply bewildering.