



GESTÃO DE BENS COMUNS

E DESENVOLVIMENTO REGIONAL SUSTENTÁVEL

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VÁRIOS EN

PRESIDENTE: Manuel Coelho

THE CONTRIBUTION OF ENDEMIC PLANT SPECIES WITH ECONOMICAL VALUE TO THE SUSTAINABLE DEVELOPMENT OF AZORES REGION: THE CASE OF AZOREAN BLUEBERRY.

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The creation of germplasm banks and the global efforts to maintain natural ecosystems have as ultimate purpose to preserve alternative genomes with potential economic value. The islands as natural hotspots of biodiversity possesses a great number of endemic species many of them with potential economic interest, nevertheless, this richness is seldom used to their sustainable development. At Azores, the endemic species distributions continue to be drastically reduced by Human activities and/or by invasive exotic species both in humanized and environmental protected areas. This situation puts at risk a valuable economic resource that must be protected to allow its sustainable utilization by the local populations. *Vaccinium cylindraceum* Smith (*Ericaceae*) is a shrub endemic to the northern Atlantic Azores archipelago. The fruits of this species were consumed since the arrival of the first settlers (XV century), these blueberries are still used to produce jams and in the local popular medicine. At the moment a cooperation protocol between the Azores University and a local enterprise allowed the in vitro propagation of in situ selected *V. cylindraceum* shrubs and seedlings in order to establish new cultivars for fruit production, new ornamental cultivars, and also to produce plants for habitat restoration using techniques that preserve their genetic biodiversity.

EVOLUTIONARY HISTORY OF THE IBERIAN HONEY BEE (*APIS MELLIFERA IBERIENSIS*): A GENOME-WIDE APPROACH

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The Iberian Peninsula has been recognized as a hot spot of diversity and endemisms for numerous plant and animal species, and the honeybee is no exception. Honey bees occur naturally in Europe, Africa and the Middle East. In this vast range of habitats, adaptation to the diverse ecological conditions has led to evolution of over 29 subspecies, which have been grouped into five lineages. The Iberian Peninsula harbours two of such lineages (A and M) and the greatest genetic diversity and complexity across Europe. Unraveling the evolutionary forces underlying such complex patterns of diversity has been a major goal of numerous studies and an increasingly important undertaking given the escalating threats to the honey bee populations (e.g. diseases, parasites, pesticides, colony collapse disorder, genetic pollution). Herein we will present an ongoing research project which is using cutting edge molecular and analytical tools to disentangle the evolutionary forces shaping the Iberian honey bee diversity. The genome scan approach that will be used in this study will enable dissection of genome-wide (expansions, contractions, admixture) from genome-specific forces (selection). Furthermore, the honey bee genomic resources will enable exploration of the molecular basis of adaptation. We anticipate that this study will provide unprecedented insights into the history and adaptive divergence of honey bees and the findings can be applied for designing conservation programs to protect locally adapted ecotypes.

GUIMARÃES RESIDENTS' PERCEPTIONS TOWARDS TOURISM IMPACTS: A CLUSTER ANALYSIS

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The present study was designed to assess and segment local residents with respect to their perceived impacts of Guimarães tourism development. The residents of this municipality (located in the northern part of Portugal) are quite strong in their support to tourism. However, they do not keep a homogeneous perception of tourism impacts. A clusters analysis using data from a survey of 400 Guimarães residents' has revealed the existence of three clusters, according the different degrees of perceived tourism impacts: the *Skeptics* - moderate in relation to the benefits (averages range from 2.89-3.74) and the ones more concerned with its costs (averages range from 2.86-3.74); the *Moderately optimistic* - very optimistic about the benefits of tourism (averages range from 3.74-4.51) and conscious of the costs (averages range from 2.71-3.49); the *Enthusiasts* - very optimistic about tourism benefits (averages range from 2.92-4.52) and little worried about its costs (averages range from 1.78-3.26). Following the data from the survey, the findings are discussed and a few conclusions are extracted.

THE COMMON PROPERTY PROBLEM REVISITED: THE LEGACY OF JENS WARMING

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Since the 50s, the central idea in the Fisheries Economics is that, in conditions of free access and competition, the market will lead to market equilibrium solutions that imply the overexploitation of the resources. So, there is nothing like an "invisible hand" and it is the common property nature of the resources and the presence of externalities in the process of capture that are in the root causes of the mismanagement of the resources and the so-called "Tragedy of the Commons". This fundamental result is due to Scott Gordon in his seminal article of 1954, in the Journal of Political Economy. But, in fact, there is another, more antique, article that put the problem and suggested this approach to its understanding. In a simple paper, in 1911 (exactly 100 years ago), a Danish economist, Jens Warming, put this issue and made a very similar analysis for the fisheries sector. The purpose of this research is to make a reflection on that paper and highlight the explanation proposed for the common property problem and, also, to study the legacy of this interesting fisheries economist to the History of Political Economy.

SOLVING THE "COMMONS TRAGEDIES" WITH RIGHTS BASED MANAGEMENT. THE REFORM OF THE COMMON FISHERIES POLICY

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Recently, the Pew Environment Group released a study that finds that E. U. fisheries have failed to reduce fleet capacity thus exerting fishing pressure on stocks at two time sustainable levels. Overcapacity and overcapitalisation was identified as the principal failure of the Common Fisheries Policy. The study highlights that member-states failed to take *environmental* and *social* concerns into consideration when allocating public funding. This conclusion may be important in the CFP reform (2012) and put the discussion about the tools to get sustainable management. The idea of creating markets for fishing rights as a means of internalising the externalities derived from the common property nature of fisheries have received considerable attention by the founding fathers of Law and Economics and Fisheries Economics. The solution is to create a market of individual transferable quotas (ITQs) and confide in the self-regulation of such a system to conduct fisheries to economic efficiency and promote inter-temporal sustainable use. Rights Based Management schemes have already been experimented in specific fisheries and localizations. These experiences have teaching results about good practices of sustainable management and the limitations of these tools. The conclusions are fundamental to explore the feasibility of these tools as instruments of conservation in the CFP. The purpose of this communication is to enter this debate.