



Environmental perception about Dois Irmãos state park in Recife – Pernambuco (Brazil)

Lucas Antônio Ribeiro Cardoso^{1*}, Áurea Nascimento de Siqueira Mesquita²

¹Graduated in Geography and Licensed in Pedagogy, by UFPE - lucascardoso18@outlook.com

²Master in Environment - PRODEMA by UFPE - aurea.ans@gmail.com

History: Article published in the 4th National Congress of Research and Teaching of Sciences and recommended for publication

ABSTRACT

The Mata do Dois Irmãos is an ecological reserve remaining from the Atlantic Forest initially created as an Ecological Reserve of the Metropolitan Region of Recife, by the Plan of Management, created in 2014. The Dois Irmãos State Park is a conservation unit, that is, they are protected areas that are in urban areas and can be attributed to landscape, geological, educational, recreational, and/or tourist contexts, whose purpose is to protect nature in contact with human beings. For this reason, the work aims to analyze the environmental impacts in the State Park Horto Dois Irmãos, using as main instrument the environmental perception, for the elaboration of projects directed to the conservation of the environment. In short, it is worth noting that the environment is not something dystopian and should be treated in a dichotomous way to us humans, on the contrary, nature can be maintained, cared for, and preserved with the proper management of all individuals who are directly or indirectly linked to it.

Keywords: Perception, Ecological Reserves, Recife.

O homem como parte integrante da natureza: a percepção ambiental sobre o parque estadual de Dois Irmãos em Recife – Pernambuco

RESUMO

A Mata do Dois Irmãos é uma reserva ecológica remanescente da Mata Atlântica criado inicialmente como Reserva Ecológica da Região Metropolitana do Recife, de acordo com o Plano de Manejo Parque Estadual de Dois Irmãos, criado em 2014. O Parque Estadual Dois Irmãos é uma unidade de conservação, ou seja, são áreas de proteção que ficam localizados em zonas urbanas, podendo ser atribuídas a contextos paisagísticos, geológicos, educacionais, recreativos e/ou turístico, cuja finalidade é resguardar a natureza em contato o ser humano. Por essa razão, o objetivo principal do trabalho é analisar os impactos ambientais no Parque estadual Horto Dois Irmãos, utilizando como principal instrumento a percepção ambiental, para elaboração de projetos voltados à conservação do meio ambiente. Em suma, vale salientar, que o meio ambiente não é algo distópico e que deve ser tratado de maneira dicotômica a nós seres humanos, pelo contrário, a natureza pode sim ser mantida, cuidada e preservada com o manejo correto de todos os indivíduos que nela estejam ligados direta ou indiretamente

Palavras-Chaves: Percepção, Reservas Ecológicas, Recife.

Cardoso, L.A.R., Mesquita, A.N.S. (2020). Environmental perception about Dois Irmãos state park in Recife – Pernambuco (Brazil). **Environmental Education (Brazil)**, v.1, n.1, p.02-06.



Direitos do Autor. A Educação Ambiental (Brasil) utiliza a licença *Creative Commons* - Atribuição Não Comercial 4.0 CC-BY-NC.

1. Introduction

Natural areas have been the subject of several debates based on ecosystems' conservation, combined with economic and social development. Initiated mainly in the 1970s when the technical-scientific and informational environment accelerated the capture of natural resources in favor of unbridled development. Questions were raised about the maintenance of biodiversity, initially at the Stockholm Conference in 1972 at the Rio 92, when signing the Kyoto Protocol. According to the Ministry of the Environment, Brazil is home to the most extensive biodiversity on planet Earth, corresponding to more than 20% of the number of species worldwide. Our country is in a position of great importance about the 17 countries, which, according to the MMA, are diverse: countries that possess and Brazil's incredible biodiversity.

According to the Atlantic Forest Yearbook (2014), the main threats to biodiversity conservation are degradation and habitat loss. The Atlantic Forest has been suffering from these devastations, which corroborates reducing the diversity of species belonging to fauna and flora. Deforestation compromises ecological services such as water production and maintenance. However, the mitigation of deforestation is one of the primary measures to safeguard the environment and ecosystem services offered by the Atlantic Forest.

The Mata do Dois Irmãos is an ecological reserve remaining from the Atlantic Forest initially created as an Ecological Reserve of the Metropolitan Region of Recife, according to the Plan of Management of the Dois Irmãos State Park, created in 2014. The Dois Irmãos State Park is a conservation unit. They are protected areas located in urban areas. They can be attributed to landscape, geological, educational, recreational, and tourist contexts, whose purpose is to protect nature in contact with human beings. For this reason, the main objective of the work is to analyze the environmental impacts in the State Park Horto Dois Irmãos, using as the main instrument the environmental perception for the elaboration of projects directed to the conversation of the environment.

In the face of this, environmental impacts caused by anthropic action are increasingly intensified in urban areas. Our research is then justified in the need and interest to awaken practices for analysis and understanding to mitigate these impacts aimed at environmental conservation a study tool.

Due to constant transformations in urban areas, it is causing environmental impacts, intensified by various sectors (deforestation, soil degradation, acid rain, and others) that affect both the quality of life of society and other living beings. According to Tabarelli and Gascon (2005), AEM (2005), the degradation of natural vegetation and even the entrance of some species in the process of extinction happened by the advance of urban verticalism, causing loss of habitats and triggering the sudden change in some landscapes. Cerqueira (et al., 2005) states that this loss in the ecological system damages the population, considering that nature offers several beneficial paths to us human beings.

2. Material & Methods

The research resulted from an uneasiness, resulting from the studies on landscape and environmental conservation as students of the Geography course, so then, through a bibliographic survey, we understand a little about the environmental perception linked to care for the environment. As a method, the explanatory research (Gil, 2007) we try to explain, through studies and conceptions in loco, which factors cause the environmental degradation and which actions can do for the use and conservation of nature.

We search based on the main themes that guide the research, such as environmental impacts, environmental conservation, environmental perception, heat islands, and pollutants. For the delimitation of the study areas, the Dois Irmãos State Park was selected, also popularly known as Dois Irmãos Forest Garden, was founded in 1916 in the Dois Irmãos Mill, which belonged to Brothers Antônio and Tomás Lins Caldas. (Pernambuco State Government, 2016).

The Park is in the Metropolitan Region of Recife, State of Pernambuco, between Dois Irmãos, Apipucos, Sítio dos Pintos, Macaxeira and Córrego do Jenipapo. Delimited by coordinates 7°59'30" and 8°01'00 "S and 34°56'30" and 34°57'30 "W, with an area of 384.42 hectares of Atlantic Forest.

3. Development

The people are continually working with the environment, whether directly or indirectly. We human beings are integral parts of nature; we are also, although not known to most, living beings as well as others who inhabit all our biodiversity. Furthermore, it is essential to bring up the question of building a concept of care with the environment and the landscape.

According to Fonseca (2002), man is, by nature, a curious animal. Since he was born, he interacts with nature and the objects around him, interpreting the universe from the social and cultural references of the environment in which he lives. He appropriates knowledge through the sensations that beings transmit to him. From these sensations, he elaborates representations. It is important to emphasize that man is not apart from nature. The conservation of it takes place when he interacts, as an instrument of management, adequate, but that he extracts from its mechanisms that help him in his experience. The myth that nature must be "untouched" is already obsolete. According to Diegues (2008) the "preservation of nature" reproduces this myth, previously cited as something modern of nature that cannot be used. Therefore, man/nature's dualism evokes a supposed conflict between the peoples of tradition and the protection of biodiversity.

According to Cavalcante (2001), the relevance of a conservation unit's control must be great inalterability between the surrounding community and the place to be conserved. The management of these sites depends very much on society's actions towards the conservation unit in search of a harmonious relationship that does not impact nature. For Fearnside (2003), the increase in deforestation and destruction has been causing environmental trembling. Therefore, man is the principal-agent in conserving these areas, contributing to the balance of the living beings that inhabit this region.

According to the Government of the State of Pernambuco (2016), the Horto dos Irmãos State Park reserve is considered one of the largest Brazilian reserves, possessing about six hundred native animals. Currently, the management of the zoo is by the State Secretary of Environment and Sustainability. The reserve of Horto Dois Irmãos is a Protected Unit of Recife that, according to the Master Plan of Recife (Municipal Law nº 17.511/2008), classifies those that present water body, forests, mangroves, that possess preservation of forest areas and conditions of coexistence with nature.

According to social justice, economic growth, and environmental balance, the Master Plan covers guidelines that allow public management to promote sustainable areas' development society's better living conditions. Currently, the Secretary of Environment and Sustainability of the State of Pernambuco is managing Park.

The reserve of Horto Dois Irmãos is one of the Protected Units (Municipal Law nº 17.511/2008) classifies those that present water bodies, forests, and mangroves that possess conservation of forest areas and conditions of coexistence with nature. In Brazil, Environmental Conservation Units are fundamental tools by which biodiversity becomes protected. However, they suffer constant changes due to anthropic action. According to the National System of Conservation Units instituted by Law nº 9.985/2000, it details Conservation Units such as:

Espaços territoriais e seus recursos ambientais, incluindo as águas jurisdicionais, com características naturais relevantes, legalmente instituído pelo Poder Público, com objetivos de conservação e limites definidos, sob regime especial de administração, ao qual se aplicam garantias adequadas de proteção; conservação da natureza: o manejo do uso humano da natureza, compreendendo a preservação, a manutenção, a utilização sustentável, a restauração e a recuperação do ambiente natural, para que possa produzir o maior benefício, em bases sustentáveis, às atuais gerações, mantendo seu

potencial de satisfazer as necessidades e aspirações das gerações futuras, e garantindo a sobrevivência dos seres vivos em geral. (BRASIL, 2000, p. 9)

Kinker (2002) stresses that the benefits and involvement of state parks for society and biodiversity conservation, environmental education (EA), leisure, ecotourism, and research are essential for the custody of cultural values, historically located in this conservation unit. The environmental perception is fundamental to understand the interrelation of man and the environment. The human being understands and executes nature according to his needs and interests, which composes his cultural and historical heredity. Environmental perception is understood as the awareness of man's environment, in which he is introduced; that is, he will care for and protect the environment. Each human being perceives and reacts oppositely in front of actions on the environment in which they live (FERNANDES et al., 2016).

In this way, the environmental perception will establish the relationship between man and the environment, establishing cognitive processes, judgment, and expectation of each human being. According to Rio e Oliveira (1996), environmental perception theories are related to structuralist and phenomenological. The structuralist currently understands reality, being possible to understand the relations of cause and effect. In phenomenology, it understands the complexity of phenomena but not having the cause-effect relationship and being understood in its fullness. However, the study of Environmental Perception is of utmost importance to understand the inter-relationships of the social being with the environment, showing their expectations, desires, satisfaction, and dissatisfaction (FERNANDES et al., 2016).

4. Final considerations

Man becomes an integral part of the environment in which he lives, and a culture of care and preservation with nature must take place so that it is known that we can take certain things from it that help us in our life. Like the famous and already known medicinal plants, this is a practical and routine example to all of us. The perception of the landscape allows us to see how extensive the biodiversity is in our country and, through a critical and grounded analysis, look for ways to help us protect this wealth.

In short, it is worth noting that the environment is not something dystopian and that it must be treated in a dichotomous manner to us human beings. On the contrary, nature can be maintained, cared for, and preserved with the correct management of all individuals directly or indirectly linked to it. Because many today may think that biodiversity, for example, is something distant, especially people who live in large urban centers, but, as said earlier, the presence of this biodiversity is also present in these places, and the idea of preserving and conserving this environment should be of all because we all are and are part of nature that surrounds us.

5. References

ANUÁRIO MATA ATLÂNTICA 2014. **A Mata Atlântica e as metas nacionais de biodiversidade para 2020**. Disponível em: <http://www.rbma.org.br> Acesso em: 22 de março de 2019.

BRASIL, 2004. **Sistema Nacional de Unidades de Conservação da Natureza - SNUC, lei nº 9.985, de 18 de jul. de 2000; decreto nº 4.340, de 22 de ago. de 2002**. 5.ed.aum. Brasília: MMA/SBF, 56p.

Cavalcanti, H, C. A., 2001. **Experiência do PROARCO. In: Causas e Dinâmica do Desmatamento na Amazônia. Ministério do Meio Ambiente**. Brasília: MMA.

Cerqueira, R, et, al. Glossário. In: Rambaldini, D. M.; Oliveira, D.A. S. 2005. **Fragmentação de ecossistemas:**

causas, efeitos sobre a biodiversidade e recomendações de políticas públicas. Brasília: MMA/SBF, 2ª ed.

Diegues, A. C. S. 2004. **Comunidades tradicionais e manejo dos recursos naturais na Mata Atlântica.** São Paulo: Hucitec.

Fearnside, P. M. 2003. **A Floresta Amazônica nas Mudanças Globais.** Manaus, AM, INPA. p.99-102.

Fernandes, R, S, et al. 2019. **Uso da percepção ambiental como instrumento de gestão em aplicações ligadas às áreas educacional, social e ambiental.** Disponível em <[http://www.redeceas.esalq.usp.br / Percepção_Ambiental.pdf](http://www.redeceas.esalq.usp.br/Percepção_Ambiental.pdf)> Acesso em 18 maio.2019.

Fonseca, J. J. S. 2002. **Metodologia da pesquisa científica.** Fortaleza: UEC, Apostila.

Gil, A. C. 2007. **Como elaborar projetos de pesquisa.** 4. ed. São Paulo: Atlas.

Kinker, Sonia. 2002. **Ecoturismo e Conservação da Natureza em Parques Nacionais.** Campinas, SP, Papirus, 224p.

MCT, **Ministério de Ciência, Tecnologia e Inovação. Protocolo de Kyoto.** Disponível em: <http://www.mct.gov.br/upd_blob/0012/12425.pdf> Acesso em: 20 fev. 2019.

MMA, **Ministério do Meio Ambiente. Declaração da Conferência de ONU no Ambiente Humano, Estocolmo, 5-16 de junho de 1972.** Disponível em: <www.mma.gov.br/estrutura/agenda21/_arquivos/estocolmo.doc> Acesso em: 20 fev. 2019.

PERNAMBUCO. **Histórico do Horto Florestal de Dois Irmãos.** Disponível em:<www.parquedoisirmaos.pe.gov.br/> avesso em: 20 jan.2019.

RECIFE, Leis Municipais. **Plano Diretor de Recife – PE.** Disponível em: <<https://leismunicipais.com.br/plano-diretor-recife-pe>> Acesso em: 15 mar.2019.

Rio, V. D. & Oliveira, L. (Orgs.). 1996. **Percepção ambiental: a experiência brasileira.** São Carlos: Editora da UfScar/Studio Nobel.

Santos, M. 2006. **A Natureza do Espaço.** São Paulo: Editora da Universidade de São Paulo, 2006.

Tabarelli, M.; Gascon, C. 2005. Lições da pesquisa sobre fragmentação: aperfeiçoando políticas e diretrizes de manejo para a conservação da biodiversidade. **Megadiversidade.** n.1 (1), p.181-188.