

## WHY PRESERVE A BRAZILIAN STATE PARK? IDEOLOGICAL PLURALISM AND BIODIVERSITY CONSERVATION

Porque preservar um parque estadual no Brasil? Pluralismo ideológico e conservação da biodiversidade

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Artigo recebido em junho/2025 e aceito em agosto/2025

### ABSTRACT

This study aims to present data that corroborate the arguments used in defense of the Serra da Tiririca State Park (PESET). Created in 1991, the park defines the natural boundary between the municipalities of Niterói and Maricá, in the state of Rio de Janeiro, and is considered a foundation for management efforts focused on social inclusion. Data collection was conducted through semi-structured interviews. The documentary *corpus* was subjected to content analysis, totaling 367 collected arguments from various stakeholders about their perceptions of the protected area. In the evaluation, the “History and society” category received the highest percentage of references, at 34.9%, demonstrating the wide diversity of arguments supporting the park. The PESET’s institutionalization process is marked by challenges such as the lack of definition of boundaries and historical ownership conflicts. These factors highlight the socio-environmental nature of the Park knowledge of which is essential to inform management decisions. From a broader perspective, understanding these perceptions is crucial to integrating protected areas to the realities of local communities, preventing them from being seen as alien entities. In this context, ecological and socio-environmental studies achieve equal relevance. PESET, in addition to its ecological value, has immense local value as recreational space, immersed in the region’s deep political and geographical history. However, despite its ecological relevance, popular perception of its potential remains limited. Thus, environmental education emerges as a fundamental basis for the biological conservation of the park, conservation, strengthening its potential for social inclusion.

**Keywords:** Park social insertion; Arguments; Content analysis; Conservation; Socio-environmentalism

### RESUMO

Este estudo tem como objetivo apresentar dados que corroborem os argumentos utilizados na defesa do Parque Estadual da Serra da Tiririca (PESET). Criado em 1991, o parque define o limite natural entre os municípios de Niterói e Maricá, no estado do Rio de Janeiro, e é considerado um alicerce para ações de gestão voltadas à inclusão social. A coleta de dados foi realizada por meio de

entrevistas semiestruturadas. O corpus documental foi submetido à análise de conteúdo, totalizando 367 argumentos coletados de diversos atores sobre suas percepções da área protegida. Na avaliação, a categoria “História e sociedade” recebeu o maior percentual de referências, com 34,9%, demonstrando a ampla diversidade de argumentos que apoiam o parque. O processo de institucionalização do PESET é marcado por desafios como a indefinição de limites e conflitos históricos de propriedade. Esses fatores destacam a natureza socioambiental do Parque, cujo conhecimento é essencial para informar as decisões de gestão. De uma perspectiva mais ampla, compreender essas percepções é crucial para integrar as áreas protegidas às realidades das comunidades locais, impedindo que sejam vistas como entidades estranhas. Nesse contexto, os estudos ecológicos e socioambientais alcançam igual relevância. O PESET, além de seu valor ecológico, tem imenso valor local como espaço de lazer, imerso na profunda história política e geográfica da região. No entanto, apesar de sua relevância ecológica, a percepção popular de seu potencial permanece limitada. Assim, a educação ambiental surge como base fundamental para a conservação biológica do parque, fortalecendo seu potencial de inclusão social.

**Palavras-chave:** Inserção social do parque; Argumentos; Análise de conteúdo; Conservação; Socioambientalismo.

## 1. INTRODUCTION

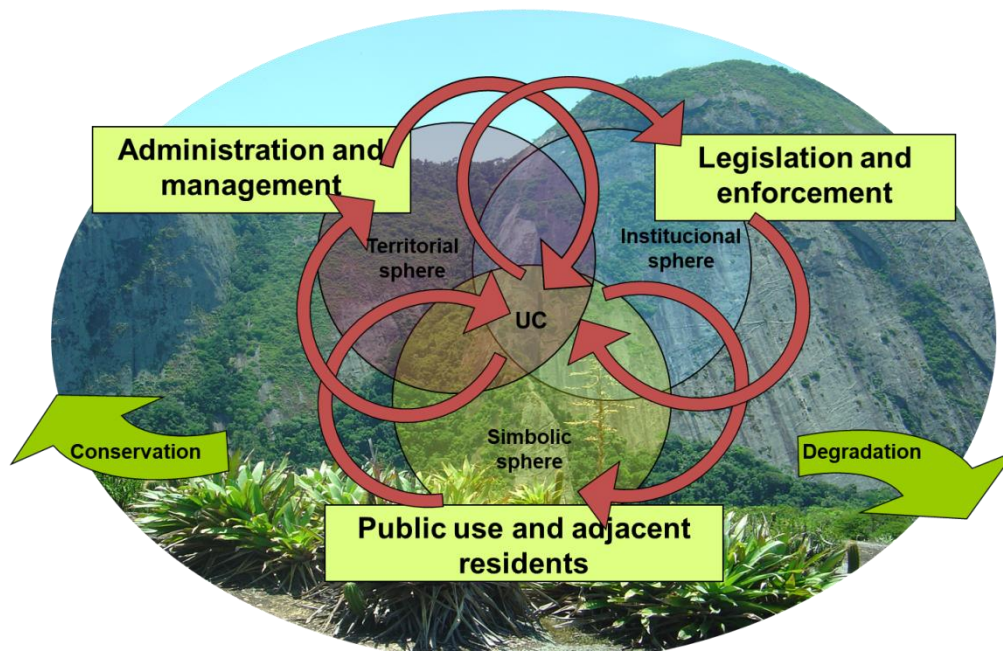
This study acknowledges the fundamental importance of parks to environmental protection and recovery, thereby promoting the idea of biodiversity conservation (Dourojeanni; Pádua, 2007; Terborgh; Van Schaik, 2002). However, legal constraints and management procedures sometimes lead to disputes between Park administration, visitors, and adjacent communities (West; Igoe; Brockington, 2006). For this reason, it is crucial to understand the history of a park's region, its creation, possible relationships, and other social aspects to better preserve the area while also supporting the population. Berkes (2004) highlights the need for new approaches to improve dialogue among researches, stakeholders and managers, suggesting the use of “convincing forms of arguments” (p. 624).

Most biologists and conservationists consider ecological and biological reasons as the primary justification for a park's existence and consequently as the fundamental arguments for convincing the public of its importance. However, what is the public's opinion?

Certainly, other reasons can support a park's existence and its management. Therefore, this perspective should also be considered to strengthen the connection between parks and people.

Pimentel and Magro (2012) reinforce the idea that the process of managing parks should observe the different scales of social and environmental phenomena, the various values attributed to protected natural spaces and the perceptions built individually and socially, exchanged as social representations of reality (Pimentel; Magro; Silva Filho, 2011). According to these same authors, the park is a multidimensional space, whose territorial and symbolic institutionalization (Figure 1) changes over time and can influence management as important as the biological and ecological

aspects of the protected area. Therefore, this process of social insertion is based on subjective recognition and gradually permeates the collective with the importance of the protected area for society (Pimentel; Magro, 2012; Pimentel; Magro; Silva Filho, 2011).



**Figure 1** – Different dimensions of the institutionalization of the geographic space of a park.  
**Fonte:** Pimentel (2008).

Thus, the image of parks and the changes of this social perception over time are an important component of conservation. The perception of the environment is individually structured and carries a strong cultural component. Under the collective, a set of social representations of reality is created in an interactive system of ideas, which result in attitudes regarding environmental issues and are therefore important for environmental management (Pimentel; Magro, 2012).

The Serra da Tiririca State Park (PESET) occupies an elongated crystalline massif shape, oriented SW/NE, almost perpendicular to the coast. The park defines a natural border, whose boundaries are located on its ridge, between Niteroi and Maricá, municipalities of Rio de Janeiro State (Brazil) (Pimentel *et al.*, 2004).

Established in 1991, this park serves as a valuable field laboratory for studying diverse social, historical, and biological phenomena within the context of interdisciplinary conservation.

While it holds it immense biological importance, harboring endemic and representative species, the park serves as a model for social inclusion, which it is considered a foundation for its management efforts. The region has a long history of human occupation and it is noted for its natural and inhabitant richness, even by 19<sup>th</sup>-century naturalists like Charles Darwin.

The park's creation was proposed by civil society entities, non-governmental organizations (NGOs), and neighborhood associations, as well as independent individuals that embraced the conservation ideal (Pimentel; Magro-Lindenkamp, 2023; Pimentel *et al.*, 2004). The two bordering municipalities are at different stages of real estate expansion, with their outskirts constituting unconsolidated urban areas. The buffer zone in Niteroi is already relatively occupied. These areas, as well as park's boundaries, are under pressure from real estate agents. This situation is exacerbated by delay in defining the perimeter and the state's financial problems, which hinder compensation for private landowners within the PESET.

As a result of these factors, the park size was reduced to approximately 5,132 acres, a decrease from the 5,930.53 acres it encompassed in 1993, which included an adjacent forest fragment. Amidst this clash between public and private interest, a series of legal actions were taken to compel the State of Rio de Janeiro State to effectively resolve the dispute and conserve the area (Pimentel; Magro-Lindenkamp, 2023).

On September 3, 2007, favorable administrative and political conditions lead to the final approval of PESET's definitive perimeter. However, conservation efforts continue to suffer from administrative power conflicts, intense and poorly planned recreational use, absence of a management plan, and a weakly consolidated management council. Consequently, the park's initial promising social integration has evolved into a conflicted relationship with the community (Pimentel; Magro-Lindenkamp, 2023; Simon 2001).

Thus, considering the process of social insertion of parks and the history of Serra da Tiririca State Park, this study aims to present the arguments used in defense of this Protected Area.

## 2. MATERIALS AND METHODS

Data were collected through semi-structured interviews. The questions were designed to identify arguments to justifying the existence of the PESET. A total of 26 individuals (actors) were chosen for their strong connection to the park, including environmentalists, park staff and former managers, ecotourism and real-estate agents, nearby residents, as well as frequent visitors. Interviewees were initially selected from relevant websites and Park's documents, and then, asked to refer other potential participants. The interviews were digitally recorded and transcribed. The resulting texts formed the documentary corpus, which was subsequently used for content analysis, as proposed by Bardin (1977). All actors' names were changed to protect their identity.

The initial step in processing of the documental *corpus* was to establish codifying parameters, organized into categories and sub categories. This process involved counting and organizing "dialogues" and phrases within the categories. The arguments were sorted into 35 categories, which

were then divided into six groups based on specific argument types. The phrases were identified in the texts, classified by category, and counted. Individual tables were used for each actor, following Bardin's (1977) methodology.

Actors were divided in two groups: those with a past or current administrative association with the PESET were labeled as the "inside-looking-out view" (9 actors), while a second group of non-administrative actors was labeled "outside-looking-in view" (17 actors). These two groups were analyzed separately using the same described procedures.

### 3. RESULTS

Table 1 shows the values of 367 collected arguments from all actors regarding their perception of the protected area. These arguments were grouped into six categories, along with their total percentage. The "History and society" category obtained the highest percentage of references, at 34.9%. The views that PESET represents a metropolitan differential (9.3%), social and/or historic account (7.4%), and social benefit (6.5%) stood out.

The arguments for microclimate maintenance (6.3%), water resources (6.0%), and the park as a leisure area (7.6%), were also significant. The most prominent were within the categories "Local environmental services", "Microclimate maintenance" and "Water resources" (37.1% and 35.5% respectively). In the "Generalizations" category, the argument for environmental preservation stood out with 25%. Additionally, biodiversity maintenance (26%) from the "Biology and conservation" category could also be associated. Within the most referred category, "History and society", the key reasons were: metropolitan differential (26.6%), its role as a social and/or historic asset (21.1%), and its social benefit (18.8%). Regarding the "Indirect use" category, PESET was mostly frequently seen as a leisure area (43.1%), half of the references in the "Threats" category were related to negative consequences.

For administrative actors, the most common reasons cited were from the "History and society" category, which constituted 38.0% of all references. Within this category, all reasons were generally referenced, with one exception: environmental education, which was cited only 2.9% of all references. In other categories, key reasons included water resources (8.8%), biodiversity maintenance (7%), potential financial benefit (7%), and the park as a leisure area (7%).

Among the non-administrative actors, the "History and society" category was the most prominent, with 32.1% of the references. Within this category, the key reasons cited were the park as a metropolitan differential (12.2%) and its role as a social and/or historic asset (7.1%). Other significant categories included "Microclimate maintenance" (7.7%), "Leisure area" (8.2%) and



“Generalizations” 14.3%. These percentages were higher compared to the responses from the administrative actors, highlighting a different set of priorities.

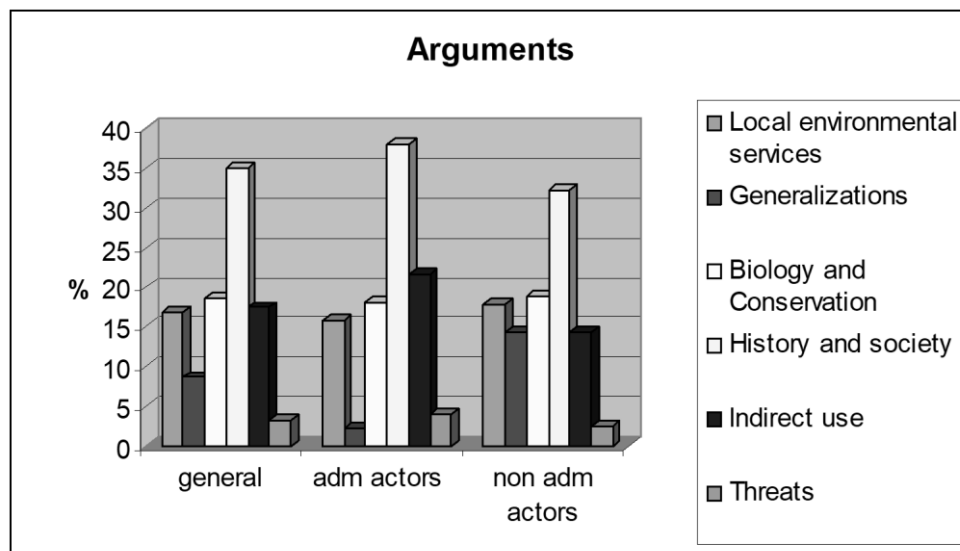
**Table 1:** Arguments that justify PESET’s existence.

Argument	All actors			Administrative actors			Non-administrative actors		
	Tot.	% Tot.	% Cat.	Tot.	% Tot.	% Cat.	Tot.	% Tot.	% Cat.
<b>Local environmental services</b>									
Environmental services	4	1.1	6.5	2	1.2	7.4	2	1.0	5.7
Microclimate	23	6.3	37.1	8	4.7	29.6	15	7.7	42.9
Water resources	22	6.0	35.5	15	8.8	55.6	7	3.6	20.0
River obstruction prevention	1	0.3	1.6	0	0.0	0.0	1	0.5	2.9
Soil protection	8	2.2	12.9	0	0.0	0.0	8	4.1	22.9
Quietude, beauty, safeness	4	1.1	6.5	2	1.2	7.4	2	1.0	5.7
Total	62	16.9	100	27	15.8	100	35	17.9	100
<b>Generalizations</b>									
Ozone layer protection	1	0.3	3.1	1	0.6	25.0	0	0.0	0.0
Global warming prevention	5	1.4	15.6	1	0.6	25.0	4	2.0	14.3
Planet health, Ecological equilibrium	4	1.1	12.5	0	0.0	0.0	4	2.0	14.3
Future generation consciousness	5	1.4	15.6	0	0.0	0.0	5	2.6	17.9
Environmental protection	4	1.1	12.5	1	0.6	25.0	3	1.5	10.7
Prevent Human sp from disappearing	3	0.8	9.4	1	0.6	25.0	2	1.0	7.1
Environment preservation. Respect for nature	8	2.2	25.0	0	0.0	0.0	8	4.1	28.6
Park is heritage for humanity	2	0.5	6.3	0	0.0	0.0	2	1.0	7.1
Total	32	8.7	100	4	2.3	100	28	14.3	100
<b>Biology and conservation</b>									
Ecological web	3	0.8	4.4	0	0.0	0.0	3	1.5	8.1
Biodiversity	18	4.9	26.5	12	7.0	38.7	6	3.1	16.2
Flora and fauna refuge	14	3.8	20.6	3	1.8	9.7	11	5.6	29.7
Pollination	2	0.5	2.9	0	0.0	0.0	2	1.0	5.4
Atlantic Rain Forest fragmentation	19	5.2	27.9	9	5.3	29.0	10	5.1	27.0
Local relevance	12	3.3	17.6	7	4.1	22.6	5	2.6	13.5
Total	68	18.5	100	31	18.1	100	37	18.9	100
<b>History and society</b>									
Metropolitan differential	34	9.3	26.6	10	5.8	15.4	24	12.2	38.1
Cultural conservation	13	3.5	10.2	11	6.4	16.9	2	1.0	3.2
Social and/or historic account	27	7.4	21.1	13	7.6	20.0	14	7.1	22.2
Social benefit and social role	24	6.5	18.8	14	8.2	21.5	10	5.1	15.9
Environmental education	16	4.4	12.5	5	2.9	7.7	11	5.6	17.5
Quality of life	14	3.8	10.9	12	7.0	18.5	2	1.0	3.2
Total	128	34.9	100	65	38.0	100	63	32.1	100
<b>Indirect use</b>									
Resource source for future	4	1.1	6.2	0	0.0	0.0	4	2.0	14.3
Financial benefits	13	3.5	20.2	12	7.0	32.4	1	0.5	3.6
Tourist attraction	6	1.6	9.2	3	1.8	8.1	3	1.5	10.7
Leisure area	28	7.6	43.1	12	7.0	32.4	16	8.2	57.1

Real estate property value	9	2.5	13.8	7	4.1	18.9	2	1.0	7.1
Natural and scenery heritage	5	1.4	8.5	3	1.8	5.1	2	1.0	3.4
Total	64	17.7	100	37	21.6	97	28	14.3	96
<b>Threats</b>									
Last representative of green area	1	0.3	8.3	0	0.0	0.0	1	0.5	20.0
Negative consequences	6	1.6	50.0	2	1.2	28.6	4	2.0	80.0
Comparison with other degraded area	5	1.4	41.7	5	2.9	71.4	0	0.0	0.0
Total	12	3.3	100	7	4.1	100	5	2.6	100
Grand Totals	367	100		171	100		196	100	

#### 4. DISCUSSION

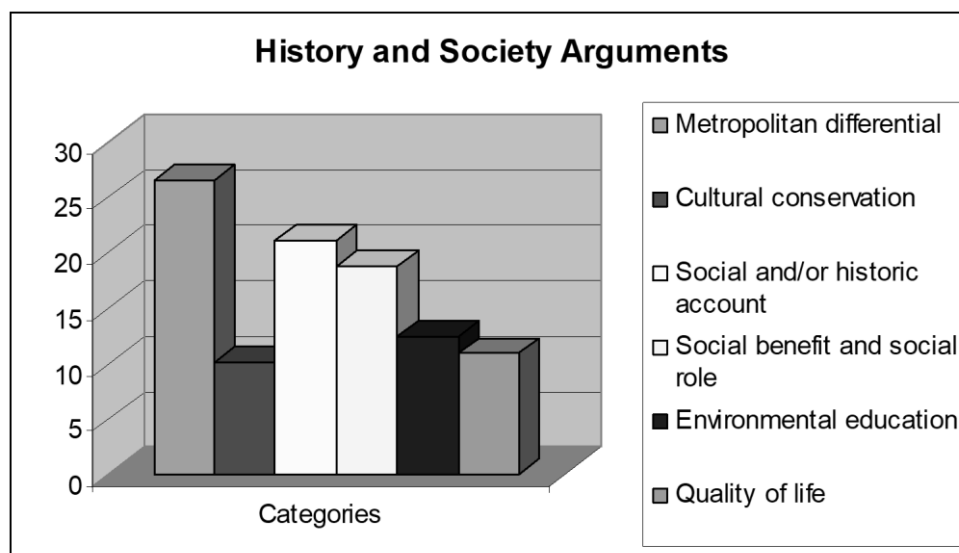
The basic premise for all parks is conservation of biodiversity at the genetic, population, and ecosystem levels (Brasil, 2000). In fact, this is the main argument used to support conservation through protected areas. Therefore, one would expect the reasons for conserving PESET to be ecologically based. However, this was not the main argument observed in this study. Strictly biological/ecological arguments, within the “Biology and conservation” category, totaled only 18.5%. The most relevant arguments were those related to biodiversity protection (26.5% of its category), the park being seen as a species refuge (20.6%), and the fact that conservation is considered essential since PESET represents an important fragment of the Atlantic Rainforest (27.9%) (Figure 2).



**Figure 2** – Arguments for PESET conservation in percentage and grouped by categories.

The arguments within the “History and society” category received almost 35% of all references, making it the most relevant category (Figure 3). The most significant reason within this category was the perception that the park acts as a metropolitan differentiator, representing 9.3% of all references and 26.6% of its group. These dialogues were primarily related to the view that the

park prevents the expansion slum and informal housing into the forest. Furthermore, PESET was also seen as a social and/or historic asset, a reason constituted 7.4% of all references and 21.1% of its category. This definition was also used by Selles and Abreu (2002) to raise environmental awareness to schoolteachers in nearby schools.



**Figure 3** – Graphic representation of arguments grouped into the “History and society” category. The categories were organized as percentages inside this category.

There is a demand for research on integrated management perspectives, but the additional human variable in this equation remains a challenge (Heinen, 1996). From a broader perspective, these data also symbolize how different actors perceive the park and maintain various relationships with it. This perspective could significantly influence the park’s management, as demonstrated by the theoretical evolution of social inclusion in conservation efforts.

Parks could be understood through the lens of landscape environmental history, an approach also proposed by Berkes (2004). Here it is proposed the term institutional history to better understand the socio-environmental relations. While content analysis has been used to explore public perceptions of protected areas, it is was also notable that the type of actor and their connections to specific locations can influence these perceptions (Bezerra; Feliciano; Alves, 2008; Melo; Saito 2000; Silva; Gomes; Santos, 2005).

Evidence conveyed through social representations was used by Melo e Saito (2000) to evaluate public integration and understanding of management processes at Chapada dos Veadeiros National Park (PNCV), located in Goiás State. Their analysis, based on park-related documents and the content analysis approach revealed a high level of sensitivity in the methodology, which enabled the detection of conflict between nearby communities and park administration. This finding coincided with park’s closure in 1991. Additionally, the authors raised concerns about relationship



between social inclusion debates and community participation promoted by park management, which influenced the redefinition of the park's boundaries in relation to adjacent communities.

This initiative also incorporates the cultural aspects of different communities, particularly concerning their relationship with the environment. As Infield (2001) notes, people depend on subjective and changeable values to interpret this relationship, and therefore, these values should be considered to effectively support protected area management. Berkes (2004) argues that focusing on community is too restrictive, given that the socio-environmental complex is characterized by nonlinearity, uncertainty, and problems of community scale and organization. This author considers that conservation is becoming increasingly participatory as a natural evolution of societies, a trend that will dominate management concerns.

Understanding integrated social-ecological systems requires three fundamental conceptual shifts: from reductionism thinking to a system perspective; from expert-driven approach to participatory models of conservation and management; and from viewing humans as external to ecosystems to recognizing them as integral components. This paper proposes that effective protected area management must incorporate these dimensions to foster more inclusive and adaptive government frameworks.

Moreover, considering the PESET case study, its institutional history began with a positive base, where "...to tell the park's history is to tell Serra da Tiririca's community history" (Renam – member of the indigenous people's association). "PESET's history started with an environmentalist movement, by people that care about conservation..." (Paula – professor and environmental activist). "... [It was] a group ahead of its time... asking for an institutionalization of the space, which to that point had been viewed just as a mountain, a hill... [However], as a park, it began following a distinct path, facing [challenges] in a different manner (Andreia – administrative member) (Pimentel, 2008).

These perspectives reflect the historical trajectory of PESET prior to its formal establishment to a distinct physical and conceptual entity. This historical account is intertwined with the region's patterns of occupation, shaped by various social groups that simultaneously contributed to preservation efforts and facilitated park degradation, despite shaping the institutionalization process of the park's space.

PESET's significance as a historical, social, and cultural reference also embodies conservation efforts and reflects current administrative practices. Consequently, there is a perception that the establishment of the park hindered real estate development in the surrounding hills "...real estate prospects found it difficult to ascend the hills. We could say that the park's

presence created obstacles. It stopped [real estate growth] for nearly 20 years...” (Flávio – ex-administration member) (Pimentel, 2008).

Consequently, not counting generalizations (8.7%) or local environmental services (16.9%), all other arguments reflect some kind of social interaction between the protected area and adjacent neighborhood inter-relations or its recreational use. Concerning these two categories, the reasons for environmental preservation (25%), microclimate (37.1%), and water resources (35%) should be associated. The first categories could denote lack of knowledge about PESET, as these arguments are unspecific thus weak to stimulate fundamental debate. Besides this, the importance given to local environmental services might represent an utilitarian perspective of nature. This idea that nature exists solely to fulfill human necessities was also observed by Bezerra, Feliciano & Alves (2008), and Silva, Gomes & Santos (2005). This remains a concern because it would limit perceptions from a wide range of social relations with protected areas. The argument category linked to indirect use represents approximately 18% of all dialogues. In this category, it can be primarily associated with the park viewed as a leisure area (43.1%). Considering the arguments relating to PESET as a touristic attraction (9.2%), more than half of the dialogues in this group were associated with aspects of the park’s visitation. An utilitarian view was also detected in this category, represented by the notion that the protected area could bring financial benefit (20%) to the local community and could increase real estate property value (13.8%).

Figure 2 and 3 shows that, for administrative actors, the historical and social importance of the park comprises of approximately 40% of the dialogues. Within this group, the perception that the park has a cultural conservation importance (16.9%) and contributes to quality of life (18.5%) also increased. Considering indirect use (21.6%), arguments that PESET brings financial benefits and serves as a significant leisure area to local communities also increased (32.4% for both). But reasons related to metropolitan differential (15.4%) decreased.

The administrators of PESET appear to be under-utilizing the ecological and biological arguments for its conservation. This is particularly notable given that these arguments were central to the environmental movement’s legal battles to block real estate developments within the park’s boundaries (Pimentel; Magro-Lindenkamp, 2023). This situation may be related to discontinuity of financial investment and administrative needs, making relationships between park administration, surrounding communities, and visitors superficial and solely monetary. In addition, there is an ongoing lack of financial support for ecological and biological research. The park still lacks a management plan, and there appears to be little interest from the current INEA (Environment State Institute) in creating a database to centralize information about the park and its administration.

Consequently, research remains reliant on fragile partnerships with universities and other research institutions. This setup requires professionals to seek authorization from administrative officials to collect specimens of fauna and flora, although the research itself is typically funded by other sources. This process frequently raises questions about ownership of the collected data.

Another perspective suggests that INEA should introduce self-financing infrastructure for the park. This approach relies on initiatives aimed at collecting entrance fees to generate financial benefit and increase property value, thus justifying the existence of PESET.

Considering non-administrative actors, the dialogues concerning microclimate maintenance (42.9%) and the park's role as a metropolitan differential (38.1%), increased primarily in connection with preventing the expansion of slums. The perspective that the park represents an important leisure area was reinforced by 57.1% of this group. Arguments classified in the "Generalizations" category also increased, with association to environmental preservation (28.6%). This indicates a lack of specific knowledge about park's attributes, as its importance is defined superficially and tautologically. Consequently, the park is often viewed as a backyard, lacking defined rules and with little appreciation for its biological richness.

These observations may indicate that environmental arguments alone are too fragile to convince the public of the need for the park's conservation. This could be due to several factors. For instance, some actors expressed doubts about the park's long term capacity to maintain its ecological and biological attributes, possibly stemming from a lack of awareness due to insufficient research investments. Additionally, there may be difficulties in disseminating research findings to the public. Another hypothesis could be related to divergent nature perceptions. It seems that the utilitarian vision was the most expressed. Thus, actors may think that these reasons convince others more effectively.

All arguments are valid in conservation efforts, but weaknesses remain amongst the biological arguments. Given that biodiversity conservation is the primary objective of the category of parks, environmental education should be a central focus to enhance local knowledge about the park's biological peculiarities, as well to successfully link this protected area to other forest fragments. Unfortunately, this perspective does not appear to be recognized by PESET administrators, as environmental education was cited in only 2.9% of all reasons. This observation aligns with findings from Bezerra, Feliciano & Alves (2008) and Silva, Gomes e Santos (2005), who also noted a lack of public information regarding nearby protected areas. All these authors underscore the importance of environmental education in these distinct contexts.

## 5. CONCLUSIONS

The institutionalization of PESET is closely linked to undefined territorial boundaries and longstanding conflicts over land ownership. Thus, this Park is shaped by a socio-environmental process that should be known for subsidizing management choices. From a broader perspective, this understanding is essential, as protected areas must be aligned with local perceptions rather than perceived as external or imposed entities. In this context, ecological and socio-environmental studies hold equal relevance and Content analysis emerges as a valuable methodological tool for accessing the diverse social representations associated with the park.

Moreover, biologists often assume that biological arguments are the most important to convince people of conservation importance. In contrast, socio-environmentalists emphasize the relevance of social dimension in this discourse. This paper demonstrates that a wide range of arguments supports the existence and significance of the park. Each perspective is valid and reflects the diverse ways in which individuals interpret and rationalize this conservation instrument. PESET holds substantial local value as a site for leisure, embedded within a broader political and geographical history in the region. However, despite its ecological importance, its full potential remains under-recognized by the public. Thus, environmental education serves as a critical foundation for advancing biological conservation while enhancing park's social insertion potential.

## REFERENCES

- BARDIN, L. **Análise de conteúdo**. Lisboa: Edições 70, 1977. 141p.
- BERKES, F. Rethinking community-based conservation. **Conservation Biology**, Washington, v. 18, n. 3, p. 621-630, 2004.
- BEZERRA, T.; FELICIANO A. L.; ALVES, A. Percepção ambiental de alunos e professores do entorno da Estação Ecológica de Caetés – Região metropolitana do Recife, PE. **Biotemas**, v. 21, n. 1, p. 147-160. 2008.
- BRASIL. **Lei nº 9.985, de 18 de julho de 2000**. Institui o Sistema Nacional de Unidades de Conservação da Natureza SNUC. Brasília: IBAMA, Diretoria de Ecossistemas. 2002. 35p.
- DOUROJEANNI, M. J.; PÁDUA, M. T. J. **Biodiversidade: a hora decisiva**. Curitiba: Ed. UFPR, 2007. 284p.
- HEINEN, J. T. Human behavior, incentives and protected area management. **Conservation Biology**, Washington, v. 10, n. 2, p. 681-684, 1996.
- INFIELD, M. Cultural values: a forgotten strategy for building community support for protected areas in Africa. **Conservation Biology**, Washington, v. 15, n. 3, p. 800-802, 2001.

MELO, M. M.; SAITO C. H. A relação entre unidade de conservação e comunidade do entorno. Estudo de caso: Parque Nacional da Chapada dos Veadeiros – GO. In: CONGRESSO BRASILEIRO DE UNIDADES DE CONSERVAÇÃO 2., 2000, Campo Grande. **Anais...** Campo Grande: 2000. p.137–146.

PIMENTEL, D. S. **Os "parques de papel" e o papel social dos parques**. 2008. 251 f. Tese (Doutorado em Recursos Florestais) - Escola Superior de Agricultura Luiz de Queiroz, Universidade de São Paulo, Piracicaba, 2008.

PIMENTEL, D. S.; BARROS, A. A. M.; MOTTA, E. S.; SILVA, L. M. P.; ORMOND, L. S.; LEDA L. R. Society and Conservation Units: the challenge of Serra da Tiririca State Park, Niterói/Maricá, RJ, Brazil. In: LEAL FILHO W.; LITTLEDYKE M. (ed.). **International Perspectives in Environmental Education**. Frankfurt: Peter Lang Ed., 2004. p.119-128.

PIMENTEL, D. S.; MAGRO, T. C. The Symbolic Sphere and Social Representations of Serra da Tiririca State Park, Rio de Janeiro, Brazil. **Sociiedade & Natureza**, Uberlândia, v. 23 n. 2, p. 275-283, 2011.

PIMENTEL, D. S.; MAGRO, T. C. Múltiplos olhares, muitas imagens: o manejo de parques com base na complexidade social. **GEOgraphia**, v. 13, n. 26, p. 92-113, 2012.

PIMENTEL, D. S.; MAGRO, T. C. Indicadores para a gestão da inserção social dos parques. **OLAM – Ciência & Tecnologia**, v. 12, n. 2, 254-277, 2012.

PIMENTEL, D. S.; MAGRO LINDENKAMP, T.C. História do Parque Estadual da Serra da Tiririca (RJ) e das percepções sobre o seu processo de institucionalização. **Estudos Históricos**, Rio de Janeiro, v. 36, n. 80, p. 456-475, 2023.

PIMENTEL, D. S.; MAGRO, T. C.; SILVA FILHO, D. F. Imagens da Conservação: Em busca do apoio público para a gestão de Unidades de Conservação. **Teoria e Sociedade**, v. 19, p. 144-168, 2011.

SELLES, S. E.; ABREU, M. Darwin na Serra da Tiririca. Caminhos entrecruzados entre a biologia e a história. **Revista Brasileira de Educação**, Belo Horizonte, v. 20, p. 5-22, 2002.

SILVA, L. M. A.; GOMES, E. T. A.; SANTOS, M. F. S. Diferentes olhares sobre a natureza – representação social como instrumento para educação ambiental. **Estudos de Psicologia**, v. 10, n. 1, p 41-51, 2005.

SIMON, A. V. S. Aspectos socioambientais e jurídicos do Parque Estadual da Serra da Tiririca. **Plúrima: Revista da Faculdade de Direito da Universidade Federal Fluminense**, Niterói, v. 24, n. 5, p. 9-52, 2001.

TERBORGH, J.; VAN SCHAIK, C. Por que o mundo necessita de parques? In: TERBORGH, J.; VAN SCHAIK, C.; DAVENPORT. L.; RAO, M. (Org.). **Tornando os parques eficientes: estratégias para a conservação da natureza nos trópicos**. Curitiba: Universidade Federal do Paraná. 2002. p. 25-36.

WEST, P.; IGOE, J.; BROCKINGTON, D. Parks and people: the social impact of protected areas. **Annual Review of anthropology**, Palo Alto, v. 35, p. 251-277, 2006.