



RELISE

*ENVIRONMENTAL IMPACTS CAUSED BY TOURISM: PERCEPTION OF
TOUR GUIDES IN SERRA CATARINENSE¹*

**IMPACTOS AMBIENTAIS CAUSADOS PELO TURISMO: PERCEPÇÃO DOS
GUIAS DE TURISMO DA SERRA CATARINENSE**

Monica Liberato²

Camila de Matos Vieira³

Rodrigo Augusto Zembrzuski Pelissari⁴

ABSTRACT

The objective of this research was to investigate the perception of tourist guides in the Serra Catarinense region regarding the environmental impacts caused by tourism in the region. The methodology used was mixed, with data collection carried out through a self-administered questionnaire with 25 tourist guides from the Serra. The results indicate that the main areas of activity of the guides are ecotourism, cultural tourism and rural tourism, and that the majority recognize that tourism in the region generates environmental impacts, with excessive waste generation being pointed out as one of the main problems. As for public policies, the majority of the interviewees considered them unsatisfactory for the sustainable management of local tourism.

Keywords: Sustainability, environment, ecotourism, serra catarinense

RESUMO

O objetivo desta pesquisa foi investigar a percepção dos guias de turismo da Serra Catarinense sobre os impactos ambientais provocados pelo turismo na região. A metodologia utilizada foi mista, com a coleta de dados realizada por meio de um questionário auto-administrado com 25 guias de turismo da Serra. Os resultados indicam que as principais áreas de atuação dos guias são o ecoturismo, o turismo cultural e o turismo rural, e que a maioria reconhece que o turismo na região gera impactos ambientais, sendo a geração excessiva de

¹ Received on 15/01/2025. Accepted on 12/02/2025. DOI: doi.org/10.5281/zenodo.19400814

² Universidade Federal de Sergipe. prof.monicaliberato@gmail.com

³ Universidade do Estado de Santa Catarina. matos3627@gmail.com

⁴ Souzapelissari@gmail.com



RELISE

resíduos apontada como um dos principais problemas. Quanto às políticas públicas, a maioria dos entrevistados as considerou pouco satisfatórias para a gestão sustentável do turismo local.

Palavras-chave: sustentabilidade, meio ambiente, ecoturismo, serra catarinense.

INTRODUCTION

Tourism, while promoting economic and social development, can also generate a range of environmental impacts when poorly managed, especially in areas of high ecological and cultural value (Hall; Page, 2014). The Serra Catarinense, known for its natural landscapes and cultural richness, has attracted an increasing number of visitors interested in activities such as ecotourism, rural tourism, and cultural tourism. However, as tourism intensifies, concerns about its negative environmental impacts also grow, including ecosystem degradation, pollution, and the unsustainable use of natural resources (Damas, 2020).

Tour guides, due to their close interaction with both the natural environment and visitors, play a fundamental role in promoting sustainable tourism practices (Sousa; Ribeiro-Novaes, 2024). These professionals act not only as facilitators of tourism experiences but also as educators and promoters of values related to environmental preservation (Rocha; Oliveira, 2022). Therefore, understanding tour guides' perceptions of environmental impacts is essential for developing strategies that minimize these effects and promote more balanced and responsible tourism (Dorsa, 2022).

This study aims to investigate the perceptions of tour guides in the Serra Catarinense regarding the environmental impacts caused by tourism. It is expected, therefore, that the results of this research will contribute to the development of public policies and more effective environmental management practices in tourism.



RELISE

TOURISM AT THE SERRA CATARINENSE

Tourism is an important sector for regional development, especially in rural and mountainous areas such as the Serra Catarinense. According to Beni (2006), tourism can function as a factor of economic diversification, generating new employment opportunities while also enhancing a region's natural and cultural heritage. For Steiner (2024), sustainable tourism can help minimize the negative impacts of tourism activity, while also supporting environmental preservation and fostering the socioeconomic development of local communities.

The Serra Catarinense is recognized for its mountainous geography and for being one of the coldest regions in Brazil (Figure 1), with Urupema known as the National Capital of Cold (Santa Catarina, 2023). Traditional festivals, colonial architecture, and typical gastronomy (such as *pinhão*) are elements that enrich the local tourism offer (Knorst, 2011).

Figure 1 – Square at the Center of Urupema



Source: <https://g1.globo.com/sc/santa-catarina>. Photo: Eduarda Demeneck/ NSC TV, 2022.

Rural tourism in the region has grown significantly, driven by initiatives that provide a direct experience with life in the countryside (Figure 2), offering accommodation on farms and activities related to agriculture (Leiria; Silva; Ladwig, 2023). In this context, Ruschmann (2016) emphasizes the importance of



RELISE

integrating environmental conservation into tourism activities, ensuring that natural landscapes, such as canyons, waterfalls, and Araucaria forests, are preserved for future generations.

Figure 2 – Rural tourism at Pousada do Sesc Lages



Source: <https://portal-html.sesc-sc.com.br/portal/>, 2024.

The tourism development of the Serra Catarinense region should be guided by strategic planning that considers the ecological, cultural, and economic potential of the region. According to Beni (2019), it is very important to involve the community in participatory tourism management planning. Furthermore, for Cardoso et al. (2024), new technologies and innovation in the tourism sector can be leveraged to enhance ecotourism and attract new audiences, especially by valuing local landscapes and culture.

THE PROFESSIONAL TOUR GUIDE AND THEIR ROLE IN SUSTAINABLE TOURISM

Law No. 8,623 of 1993 is the main legislation governing the profession of tour guide in Brazil. It defines a tour guide as a qualified professional responsible for leading groups of tourists on visits to tourist, cultural, and natural sites, providing information and guidance that enrich visitors' experiences. The law



RELISE

classifies guides into different categories, such as local, regional, and national guides, according to their scope of activity and the complexity of the information they are expected to convey (Brazil, 1993).

Law No. 8,623 also establishes the responsibilities of tour guides, which includes not only the safe conduct of groups but also the interpretation of cultural and natural heritage. Guides are tasked with providing accurate and relevant information, encouraging respect for the environment and for the communities visited. In addition, they must act ethically and professionally, ensuring that the interests of both tourists and host communities are respected (Brazil, 1993).

More recent legislation, Ordinance No. 37 of 2021, which sets out the rules and conditions for the practice of the tour guide profession, recognizes the importance of guides in promoting sustainable development. It encourages practices that minimize the negative impacts of tourism and enhance cultural heritage. Through their work, guides contribute to a form of tourism that respects local characteristics and promotes the conservation of natural resources (Brazil, 2021).

In addition to their educational role, tour guides also act as agents of local development, promoting the sustainable involvement of communities in tourism activities. Beni (2019) states that, by valuing the culture and ways of life of local populations, tour guides help strengthen the local economy through the promotion of handicrafts, gastronomy, and typical services.

Silva et al. (2024) emphasize that guides must be capable of interpreting and communicating the importance of historical sites, traditions, and cultural expressions of the regions visited, thereby valuing local identity. In doing so, they not only help preserve community cultures but also prevent tourism from leading to processes of acculturation or loss of authenticity.

According to the Serra Catarinense Tourism Territorial Development Plan (PDTT/SC), the region has 37 formally registered tour guides, distributed as



follows: 49% in Urubici, 24% in Lages, 11% in São Joaquim, 8% in Rio Rufino, 5.5% in Bom Jardim da Serra, and 2.5% in Bom Retiro (Amures, 2023). These professionals play a fundamental role in the development of sustainable tourism in the Serra Catarinense, promoting environmental preservation and appreciation of local heritage.

METHODOLOGY

This research adopted a mixed-methods approach, integrating quantitative and qualitative methods to explore the perceptions of tour guides in the Serra Catarinense regarding the environmental impacts associated with tourism activities. Data collection was carried out using a structured, self-administered questionnaire containing closed and open-ended questions, divided into three main sections: a. Sociodemographic and Professional Profile; b. Perception of Environmental Impacts; and c. Evaluation of Sustainable Policies and Practices.

The survey was conducted between March and April 2024 with a purposive sample of 25 tour guides registered in the region, representing approximately 68% of the professionals listed in the Serra Catarinense Tourism Territorial Development Plan (PDTT/SC).

Quantitative data were processed using Excel, applying descriptive statistics to identify patterns and trends in the responses. For the qualitative data, the content analysis technique was used, following the model proposed by Bardin (2012). Open-ended responses were categorized and coded into recurring themes, allowing for an in-depth understanding of the guides' perceptions.

RESULTS

The sample is predominantly composed of men (64%), with a significant difference compared to the number of women (36%). This reveals a certain male



RELISE

predominance in the tourism guide sector in the region, which may indicate the need to encourage greater female participation in this activity.

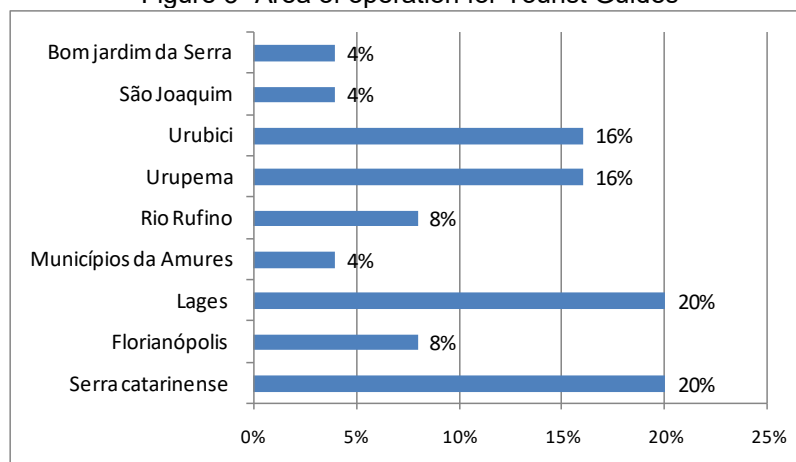
The age distribution of the participants is well balanced, with 32% of the members in the 26 to 40 age range, another 32% between 41 and 55 years old, and 36% between 56 and 70 years old.

This suggests that the profession of guide is practiced by both young adults and more experienced people, which can add a diversity of perspectives and approaches to the work.

Regarding the level of education, 84% of the guides have higher education, which reflects a significant qualification of professionals in the area. Only 16% have secondary education, showing a tendency to seek academic training to work in the tourism sector.

The guides operate in different locations (Figure 3) of the Serra Catarinense region, with a focus on Urubici (16%), Lages (20%), and the Serra Catarinense as a whole (20%). However, there is a smaller presence in cities such as São Joaquim and Bom Jardim da Serra (4% each). This suggests that there is a greater concentration of guides in certain areas, probably due to higher tourist traffic or more developed infrastructure.

Figure 3- Area of operation for Tourist Guides

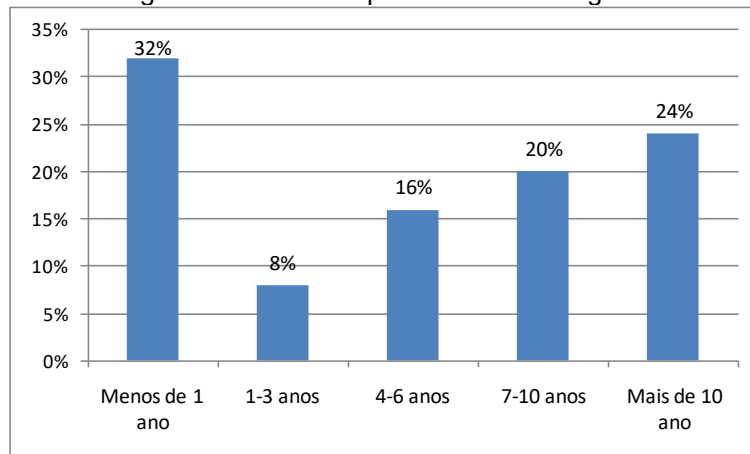


Source: Authors, 2024.



Regarding the length of time working as a tour guide (Figure 4), 32% of respondents have less than 1 year of experience, while 24% have more than 10 years. This variation may indicate a recent influx of new professionals into the market, while at the same time there is a consolidated group with extensive experience. This can create an interesting dynamic of learning and knowledge exchange between newer and more experienced guides.

Figure 4- Years of experience as a tour guide



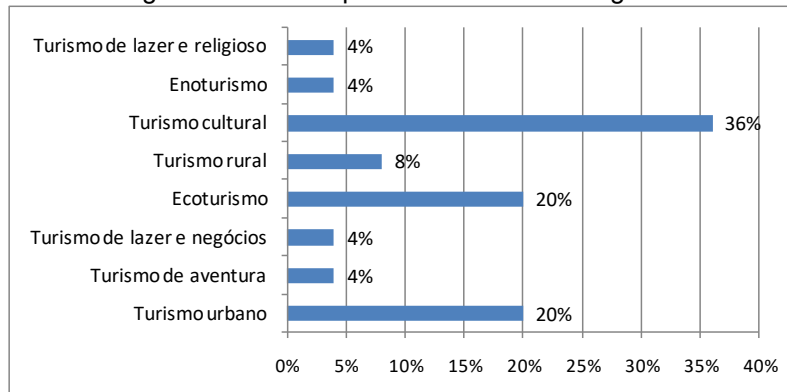
Source: Authors, 2024.

The main areas of activity for guides (Figure 5) are ecotourism (20%), cultural tourism (36%), and rural tourism (8%). These numbers reveal a strong emphasis on nature and cultural tourism, which is consistent with the characteristics of the Serra Catarinense region, which is recognized for its natural landscapes and cultural heritage.



RELISE

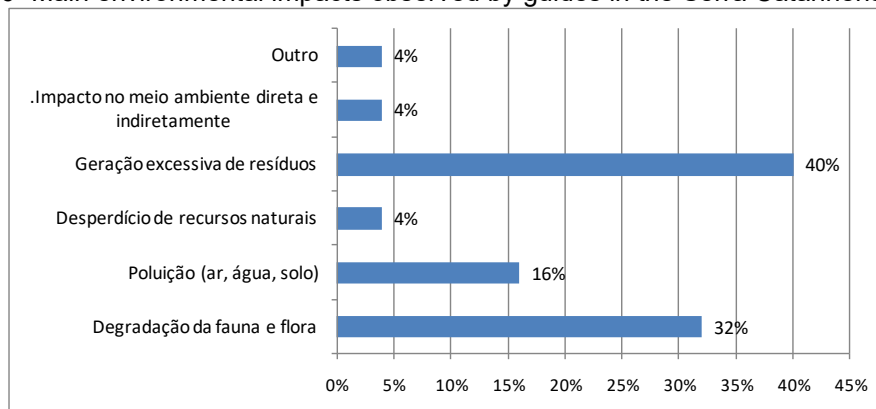
Figure 5- Area of operation for Serra tour guides



Source: Authors, 2024.

Regarding environmental impacts (Figure 6), 36% of respondents believe that tourism in the region generates environmental impacts, and 40% indicate excessive waste generation as the main problem. This points to a growing concern with sustainability, highlighting the need to implement policies and practices that minimize these impacts, especially in sensitive natural areas.

Figure 6- Main environmental impacts observed by guides in the Serra Catarinense region



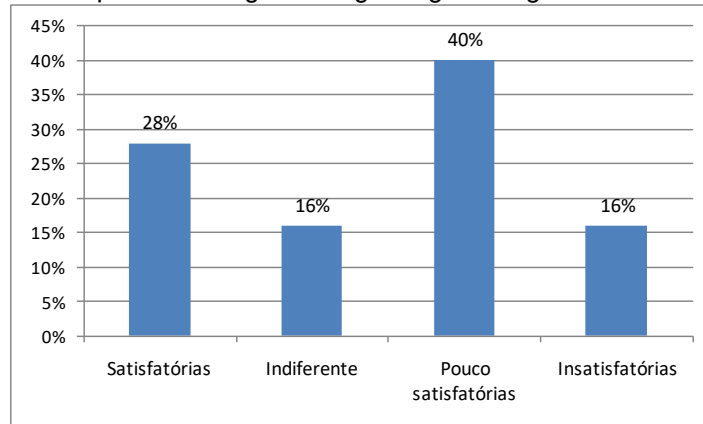
Source: Authors, 2024.

Regarding environmental policies (Figure 7), 40% of guides consider the policies unsatisfactory, while 28% rate them as satisfactory. This data indicates room for improvement in government actions and environmental awareness among stakeholders involved in tourism in the region.



RELISE

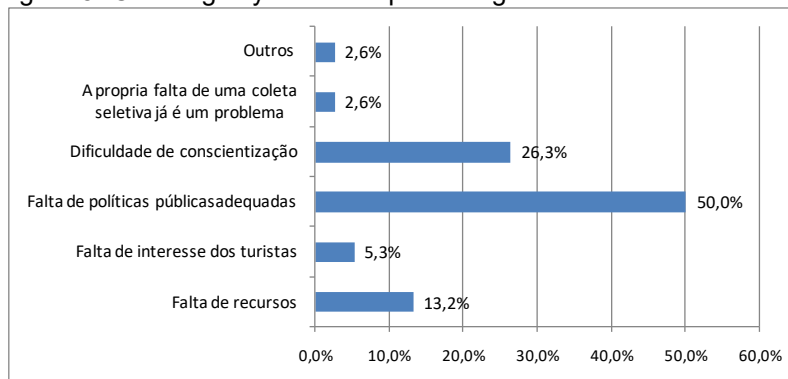
Figure 7- Perception of tour guides regarding existing environmental policies



Source: Authors, 2024.

The biggest challenges to promoting sustainable tourism (Figure 8) include a lack of adequate public policies (50%) and difficulty in raising awareness (26%). This suggests that, in addition to strengthening environmental policies, it is important to invest in education and awareness campaigns for tourists and industry professionals.

Figure 8- Challenges you face in promoting more sustainable tourism



Source: Authors, 2024.

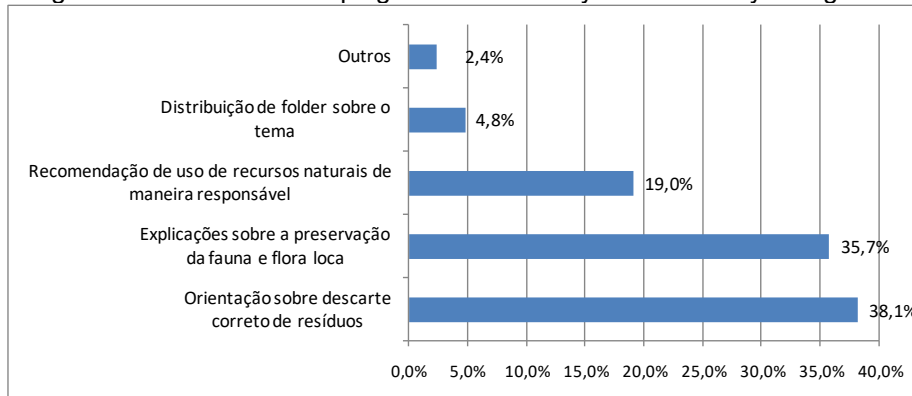
Of the guides interviewed, 80% said they participate in actions that promote environmental awareness among tourists. The main actions (Figure 9) include guidance on the correct disposal of waste (38.1%) and explanations about the preservation of local fauna and flora (35.7%). These initiatives are



RELISE

fundamental for the development of more responsible tourism aligned with the environmental needs of the region.

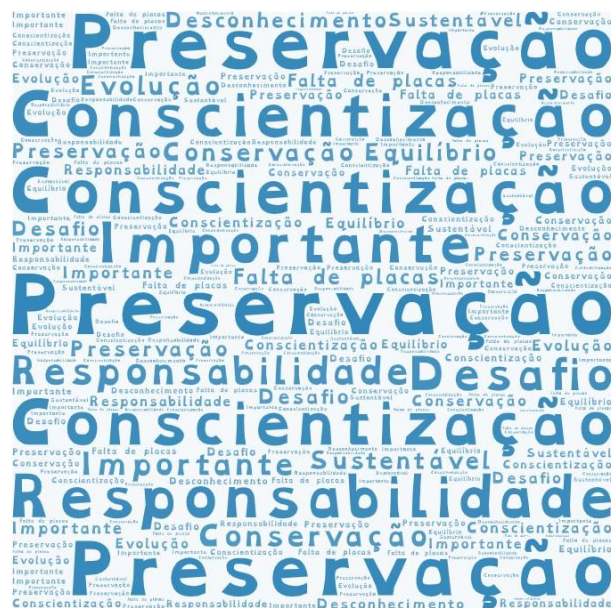
Figure 9 - Awareness campaigns are commonly carried out by tour guides



Source: Authors, 2024.

When questioned about the importance of sustainable tourism, 84% of the guides considered this issue very important. The words preservation and awareness (Figure 10) were the most frequently mentioned when asked which word referred to sustainable tourism in the Serra region, reflecting an environmental awareness among the respondents.

Figure 10 – Cloud of most frequently mentioned words



Spource: Created by authors in <https://wordart.com/create>, 2024.



RELISE

DISCUSSION OF RESULTS

The results obtained provide important insights into how these professionals perceive and deal with environmental issues in their daily work.

First, it is observed that most guides recognize that tourism in the Serra Catarinense has generated environmental impacts. Approximately 36% of respondents stated that tourism is causing effects on the environment, and the main concerns include excessive waste generation, degradation of fauna and flora, and pollution of air, water, and soil. This finding reveals a significant level of environmental awareness among the guides, who identify the need for more careful management of natural resources to minimize the negative effects of tourism activities.

In addition, when evaluating the region's environmental policies, the guides expressed a predominantly negative perception. For most respondents, existing policies are considered unsatisfactory. This indicates that, despite their awareness of environmental impacts, there is dissatisfaction with governmental and regulatory initiatives aimed at promoting sustainable tourism practices. The lack of adequate public policies was identified as the main challenge to promoting more responsible tourism, followed by the difficulty of raising awareness among tourists.

On the other hand, the fact that guides participate in environmental awareness actions, such as providing guidance on proper waste disposal and the preservation of local fauna and flora, demonstrates their commitment to minimizing environmental impacts. These initiatives reflect a growing concern among guides to act as agents of change within the sector, promoting sustainable practices and educating tourists on the responsible use of natural resources.

The guides also demonstrated a clear understanding of the importance of sustainable tourism, classifying it as very important. When asked to associate a word with sustainable tourism, terms such as "preservation," "responsibility,"



RELISE

and “conservation” frequently emerged, reinforcing the perception that environmental preservation is central to tourism activity in the Serra Catarinense.

Therefore, the research results show that, despite the challenges, tour guides in the Serra Catarinense have a strong awareness of the environmental impacts caused by tourism and recognize the importance of sustainable tourism. However, there is an urgent need for more effective public policies and greater efforts in awareness-raising by both public and private stakeholders to support and enhance these actions.

FINAL CONSIDERATIONS

As the Serra Catarinense attracts an increasing number of visitors seeking ecotourism, rural tourism, and cultural tourism, the environmental impacts associated with these activities become increasingly evident. Tour guides, who are in direct contact with both tourists and the natural environment, are essential for understanding and mitigating these impacts.

The results point to a growing awareness among tour guides regarding environmental impacts in the region and a strong perception of the importance of sustainable tourism. This environmental awareness is encouraging, as it indicates that guides not only recognize the damage but also feel responsible for acting as agents of change. They actively participate in awareness-raising actions, guiding tourists on proper waste disposal practices and the preservation of local fauna and flora. This willingness to educate and engage visitors is essential for promoting more responsible tourism.

Therefore, the results of this research reinforce the urgent need for an integrated approach that involves all stakeholders in building a sustainable tourism model. The implementation of effective public policies that take into account the voices and experiences of tour guides is essential to ensure that the benefits of tourism do not compromise the rich biodiversity and culture of the



RELISE

Serra Catarinense. In this way, it will be possible to create a future in which tourism not only boosts the local economy but also preserves and enhances the region's natural and cultural heritage for future generations.

It is also important that future research be conducted on the perceptions of tourists and managers, so that data from both groups can be cross-analyzed to provide a more comprehensive understanding of the topic, thereby contributing to the implementation of more effective public policies.

REFERENCES

Associação dos Municípios da Região Serrana - Amures. Plano de Desenvolvimento Territorial do Turismo da Serra Catarinense, 2023. https://amures.org.br/wp-content/uploads/2023/03/2152822_PPT_SerraC_SINTESE_26mai21.pdf
Acesso: 22/09/2024.

BENI, M. C. **Análise Estrutural do Turismo**, 2006. São Paulo: SENAC.

BENI, M. C. **Planejamento e Gestão do Turismo no Brasil**, 2019. São Paulo: Editora Manole.

BRASIL. Lei no 8.623, de 28 de janeiro de 1993. (1993). Dispõe sobre a profissão de Guia de Turismo e dá outras providências. Brasília, DF, Brasil. Disponível em: http://www.planalto.gov.br/ccivil_03/leis/L8623.htm. Acesso: 18/09/2024.

BRASIL. Portaria 37 de 11 de novembro de 2021. Ministério do Turismo. Disponível em: <https://www.legisweb.com.br/legislacao/?id=422775> . Acesso: 18/09/2024.

Bardin, L.(2011). **Análise de conteúdo**. São Paulo: Edições 70.

CARDOSO, Rafaela et al. Inovação em Serviços de Turismo na perspectiva do Consumidor Turístico. **Revista Eletrônica de Administração e Turismo-ReAT**, v. 18, n. 1, p. 72-93, 2024.

DAMAS, Marcos Tonet. Turismo sustentável: reflexões, avanços e perspectivas. **Revista Brasileira de Ecoturismo (RBEcotur)**, v. 13, n. 2, 2020.



RELISE

DORSA, Arlinda Cantero. Turismo e desenvolvimento sustentável: janelas para o presente eo futuro. **Interações** (Campo Grande), v. 23, n. 3, p. 263-266, 2022.

FEDERAÇÃO DO COMÉRCIO DE BENS SERVIÇOS E TURISMO DE SANTA CATARINA (Santa Catarina). Pesquisa Fecomércio de Turismo: Inverno na Serra Catarinense 2023. 2023. Disponível em: https://www.fecomercio-sc.com.br/wpcontent/uploads/2023/09/Relatorio_Inverno_2023.pdf. Acesso em: 20/09/2024.

HALL, C. Michael; PAGE, Stephen J. **The geography of tourism and recreation: Environment, place and space**. Routledge, 2014.

KNORST, Patricia Andréa Rauber. Repensando alguns traços históricos de Santa Catarina. **Unoesc & Ciência-ACHS**, v. 2, n. 2, p. 198-205, 2011.

LEIRIA, Bianca Bez Batti; DA SILVA, José Gustavo Santos; LADWIG, Nilzo Ivo. Turismo rural comunitário no município de lauro müller, santa catarina: potencialidade para cicloturismo. **Geoconexões**, v. 3, n. 17, p. 97-119, 2023.

ROCHA, M. H. M.; OLIVEIRA, N. S. M.. Desafios do Turismo pedagógico no Parque Nacional do Vale do Catimbau (PE). **Revista Brasileira de Ecoturismo** (RBEcotur), v. 15, n. 1, 2022.

RUSCHMANN, Doris. **Turismo e planejamento sustentável: a proteção do meio ambiente**. Papirus editora, 2016. Disponível em: https://books.google.com.br/books?hl=pt-BR&lr=&id=bHiADwAAQBAJ&oi=fnd&pg=PT5&dq=Ruschmann,+D.+Turismo+e+Planejamento+Sustent%C3%A1vel:+A+Prote%C3%A7%C3%A3o+do+Meio+Ambiente.+Campinas:+Papirus,+2007.&ots=gxd3l_8mjC&sig=JgXXP8CJGWNRXI6m7kulkDuj8x0#v=onepage&q&f=false. Acesso: 19/09/2024.

SALAMON, M. L. et al. Perfil do visitante no atrativo turístico mirante da Pedra Furada no Parque Nacional de São Joaquim, Santa Catarina, Brasil. **Desenvolvimento Socioeconômico em Debate**, v. 9, n. 2, p. 107-119, 2023.

SILVA, Ricardo Pedro et al. Ecoturismo e sensibilização ambiental: a percepção dos guias ecológicos do Parque Nacional do Vale do Catimbau-Pernambuco. **Caderno Pedagógico**, v. 21, n. 4, p. e3860-e3860, 2024.

SOUSA, Lucas Nunes; RIBEIRO-NOVAES, Éville Karina Maciel Delgado. Percepção de trabalhadores do turismo sobre o Parque Nacional dos Lençóis Maranhenses. **Revista Brasileira de Ecoturismo** (RBEcotur), v. 17, n. 2, 2024.



RELISE

139

STEINER, Vera Lúcia. A Environmental, Social and Governance (ESG): as boas práticas para impulsionar o turismo sustentável. **Caderno Pedagógico**, v. 21, n. 7, p. e6181-e6181, 2024.