

Tourism and Impacts of COVID-19: Perspectives of tourists visiting conservation units in Paraná (Brazil)

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ABSTRACT: The search for natural environments is a valued alternative post-lockdown caused by Covid-19. This trend increases interest in the role of Conservation Units - CUs and the perspective of (re) connecting with nature. Thus, this study aims to understand the effects of the pandemic from the perspective of tourists who visit CUs in the state of Paraná. The research has an exploratory nature, adopting a mixed approach with a web survey and documentary research design. The results show that CUs underwent modifications with the outbreak of the pandemic. The use of technologies played a crucial role in keeping tourists informed, allowing them to explore CUs digitally or make reservations. The closure of CUs at various points during the pandemic was a significant hindrance to visitations, along with the fear of leaving home. Concerns such as changes in occupation/work, income, and difficulties in other routine activities also limited travel. However, the respondents understand that at the end of their visitation to the CUs, they tend to recover their well-being. In conclusion, natural spaces are deemed important for the society's mental health, offering the possibility of (re) connecting individuals with nature, highlighting the significance of CUs for mental well-being.

Keywords: Nature Tourism;
Sanitary Crisis;
Mental Health.

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INTRODUCTION

The pandemic caused by the SARS-CoV-2 virus has drastically affected the tourism sector. At the beginning of the Covid-19 pandemic, it was estimated that the sector would incur billions in losses and that millions of professionals were at risk of unemployment (UNWTO, 2020a, 2020b; Grisi & Santana, 2023). Among the various activities affected, airport closures, the inability to receive guests in hotels, and the postponement or cancellation of events were observed (Coelho & Mayer, 2020; Corbari & Grimm, 2020; Neves, Carvalho, Souza & Filippim, 2021; Grisi & Santana, 2023).

Social isolation was imposed in several countries as a strategy to contain the spread of the virus. Tourism, being an important provider of income and employing about 10% of the global workforce (UNWTO, 2020a; Grisi & Santana, 2023), is also one of the activities that contribute to the transmission of diseases (Bahl, 2004). Therefore, it is understood that reducing contact between people is necessary to slow down contaminations that could potentially overwhelm healthcare systems.

The Ministry of Tourism of Brazil (2021a) points out that the solution lies in mass vaccination of the entire global population. With the end of the pandemic, which concluded in May 2023 (Pan American Health Organization, 2023; World Health Organization, 2023), there is a perspective of prioritizing the tourism sector for economic recovery and suggesting the strengthening of the tourism potential through natural heritage, protected in the form of Conservation Units - CUs (Brasil, 2021). In this perspective, Soares, Gabriel & Romo (2020) argue that the search for open, natural, and cultural places will take a prominent position in the tourist's imagination, as they offer benefits for the elevation, transformation, and restoration of the individual (Bhalla, Chowdhary & Ranjan, 2021; Cooper & Buckley, 2021).

Silva-Melo, Melo & Guedes (2020) consider that CUs will enable a reconnection with nature post-pandemic, addressing the natural and cultural desire to be in natural environments. They can provide a sense of well-being and help alleviate the effects of stress and anxiety due to Covid-19. In a similar study, Moreira (2021) discusses this intrinsic desire, reflecting that these natural spaces are important for the mental health of society, especially during a period of sanitary crisis.

Indeed, during the coronavirus pandemic, people faced challenges related to well-being and sought ways to cope with isolation. It is understood that emotions and feelings are crucial aspects of human life, influencing relationships and social behaviors in various contexts and moments (Furlanetto, 2014).

Therefore, they should be studied to better understand their impact on individuals and society during such critical times.

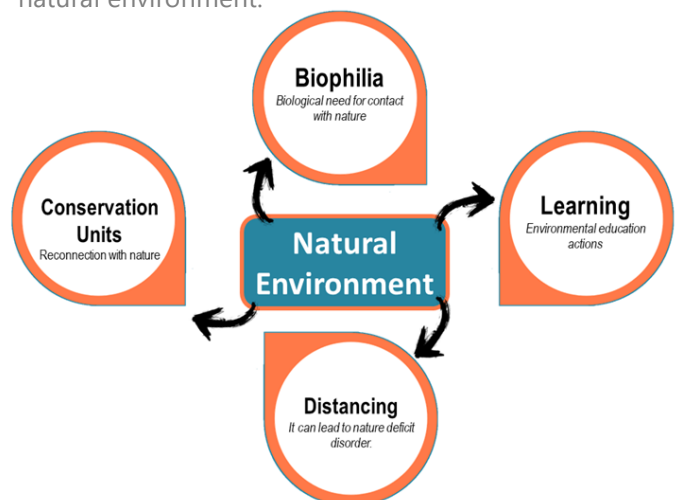
This research aims to understand the effects of the pandemic from the perspective of tourists who visit CUs in the state of Paraná. The research interest is based on the understanding that the Covid-19 pandemic was an unexpected and challenging experience for everyone, revealing various social issues that already existed and affected each person or social group differently (Silva & Marcílio, 2020). This is due to the fact that some professional activities continued, compliance with restrictive measures such as social isolation varied widely, as did the impacts on employment, income, and health.

REVIEW OF LITERATURE

Natural environments are recognized for their ability to attract visually and stimulate the imagination of tourists. According to Vernalha & Neiman (2010, p. 280), the "imagery appeal that attracts visitors reflects the idea of 'paradise' that nature represents, a perfect, idyllic place distant from their reality."

This desire to visit and be in natural environments goes beyond the scenic beauty of these places, as there are biological and cultural characteristics that encourage it. Silva-Melo, Melo & Guedes (2020) systematize (Figure 1) factors that relate the individual as a tourist to natural environments.

Figure 1 - Diagram of the interrelationships with the natural environment.



Source: Adapted from Silva-Melo, Melo & Guedes (2020).

The concept developed by Louv (2016b) of "Nature Deficit Disorder" is related to the negative consequences for health caused by a lack of human contact with natural environments, especially for those living in urban centers. The author argues that the disconnection from nature can have physical, mental, and emo-

tional consequences.

CUs are essential for the conservation and preservation of ecosystems, allowing human interaction with the natural environment. As such, they serve as territorial resources that help minimize the effects of Nature Deficit Disorder, providing opportunities for learning and raising awareness among visitors about the importance of individual and collective sustainable actions.

Among the alternatives to mitigate the effects of social isolation, with reduced physical contact between people, medical and psychological support were recommended. Additionally, entertainment through series, movies, and music became prevalent, demonstrating a certain level of cultural and artistic appreciation. However, there are physical and mental health benefits that are primarily achieved and satisfied in natural environments (Silva-Melo, Melo & Guedes, 2020).

Hinds & Sparks (2008) point out that affective connection is an independent and significant predictor of intentions to engage with the natural environment. According to Brügger, Kaiser & Roczen (2011), the connection with nature is indirectly derived from previous bonds, and evaluative responses reflecting an appreciation of nature arise from activities already undertaken in these environments. Thus, it is possible to affirm that a bond is created between nature and tourists based on values forged since childhood, which foster an appreciation for fauna, flora, and scenic beauty.

Keniger, Gaston, Irvine, and Fuller (2013) investigated the benefits derived from interaction with nature and

identified three typologies: Indirect (experiencing nature without being physically present); incidental (experiencing nature as a byproduct of another activity); and intentional (where the experience occurs intentionally and directly).

According to Moghadam, Singh & Yahya (2015), for many centuries, humans were completely dependent on nature. Industrialization and urbanization have interfered in the human-nature relationship, especially by encouraging distance. In this sense, flexible and reduced working hours are evaluated as stimulators of a reconciliation between human and nature, a reconciliation which can bring psychological well-being for humans in these years of human degradation (Moghadam, Singh & Yahya, 2015, p. 93).

Richard Louv (2016b, 2016a, 2011) asserts that contact with natural environments is an unrestricted treatment, and "Vitamin N for Nature" is a complete prescription to connect with the power and joy of the natural world. Richardson & Sheffield (2017) point out the importance of valuing everyday nature as an initial step towards connection. The analysis methodology developed by the authors is based on the idea that urban individuals are capable of perceiving, at the very least, three positive aspects of nature that can improve their well-being, simply by taking the time to observe the biodiversity present around them.

In analyzing interviews and field diaries of tourists seeking wildlife in Spain and the United States, Curtin (2009) noticed that glimpsing the untouched nature evoked a feeling of admiration in the tourists, creating

Figure 2 - Benefits of Visiting CUs.

<p>Psychological Improvement of self-esteem and self-confidence Enhancement of sense of humor Reduction of daily frustrations Decrease in anxiety Improvement of behavior Promotes a sense of happiness Develops creativity</p>	<p>Physiological Reduction of stress levels Avoids sedentary lifestyle Reduced blood pressure Lowered cortisol levels Alleviation of headaches Reduced mortality rates from circulatory diseases Recovery from addiction Perceived health/well-being Decreased cardiovascular and respiratory diseases, and long-term illnesses Reduction in the occurrence of diseases</p>	<p>Spiritual Increased inspiration Reinforcement of faith Awakens serenity and gratitude Enhanced spiritual well-being</p>
<p>Cognitive Pays attention to specific facts Assists in problem-solving Enhances the ability to perform tasks Reduces mental fatigue Improves academic and professional performance Provides means of learning Develops cognition in children Increases work productivity</p>	<p>Social Facilitated social interaction Enables social empowerment Reduces crime and violence rates Allows for ethnic, social, gender, and age interaction Social cohesion Support for social causes</p>	<p>Tangible Supply of food Capital turnover Entrepreneurship</p> <p>Ecological Stimulates sustainable actions Integration with biodiversity Provides vitamin N from nature Urban and digital detoxification Awakens emotional identity Encourages ecological values Knowledge of fauna and flora Alleviates nature deficit disorders</p>

Source: the authors (2023).

a temporal experience where the focus of emotions concentrated on the transience of the moment. This study suggests that wildlife observation events can promote a profound sense of well-being, leading to spiritual fulfillment.

Silva-Melo, Melo & Guedes (2020) reveal that the benefits provided by contact with nature are effective in alleviating many of the ills that have expanded in recent years. Becker et al. (2019) point out the following issues: (i) disconnection from nature; (ii) reduction of natural areas; (iii) environmental pollution; and (iv) lack of safety and quality in outdoor public spaces, leading adults, youth, and children to spend most of their time indoors and isolated.

In this sense, the theory points to the beneficial relationship between humans and nature, a relationship that can easily be transposed to the relationship between tourists and natural attractions, seeking well-being in CUs and associating tourism activities as a means of escape from daily life. Figure 2 provides a summary table containing the benefits of visiting CUs. Tourism in natural areas, beyond generating income and employment for local communities, encouraging biodiversity conservation, and promoting environmental education for visitors, understands that for tourism to be beneficial not only for tourists but also for CUs and their surroundings, it is necessary to plan and monitor the activity, ensuring that negative impacts are minimized and that natural resources are used responsibly and in a balanced manner.

METHODOLOGY

This research is classified as an exploratory descriptive study, in which data and information of specific research interest were collected and sought, delimiting a field of work (Severino, 2017; Veal, 2011). The chosen approach is mixed, considering intrinsic factors for conducting the research, combining qualitative and quantitative methods (Flick, 2013; Veal, 2011).

The research design was conducted through a web survey and documentary research. Through the web survey, primary data and information were obtained. The web survey involves collecting data using a questionnaire made available to respondents through the Internet, allowing them to directly fill out the form and send it to the researcher, thus making the tabulation process more efficient (Joncew, Cendon & Ameno, 2014; Medaglia & Silveira, 2010).

The secondary data and information for the documentary research were obtained from news articles published between 2020 and 2021 that were directly related to the closure and reopening of CUs. Regarding the management of state-level CUs, the website of the Institute of Water and Land - IAT, an agency linked to the Secretariat of Sustainable Development and Tourism of

Paraná, was accessed. For federal CUs, the website of the Chico Mendes Institute for Biodiversity Conservation [ICMBio] was accessed.

The questionnaire was digitally administered through the Google Forms platform, with dissemination to contacts via email, Facebook, and Instagram, especially in groups that potentially fit the research's target audience (visitors to CUs in Paraná). The web survey structure consisted of 6 sections, comprising 40 objective questions, multiple-choice, and/or open-ended, with a field available for respondents to provide additional contributions.

The limitations of the research are aspects that can impact the validity and generalizability of the obtained results. One possible limitation is the selection bias in the sample, considering that it was obtained through random and convenience methods. This bias may occur because the research was disseminated through social media and emails, which could attract a specific profile of participants and exclude other groups that might have different views on the study's subject.

The web survey was conducted from October 5th to October 25th, 2021. The obtained sample includes tourists who visited the CUs in Paraná, comprising both residents of the state and visitors from other places. Data and information processing were carried out using Microsoft Excel 2021 software to create tables, charts, and graphs, and the software Wordle was used to create the word cloud.

This research aims to contribute to knowledge by collecting comprehensive data, identifying trends and patterns through a mixed approach, and utilizing the facilitated and agile use of a web survey with digital means and online platforms. However, it also presents some limitations that can be improved in future research. One of these challenges is the selection bias in the sample, as mentioned earlier, which may occur due to the dissemination of the survey on specific networks, limiting the representativeness of the participants.

RESULTS AND DISCUSSIONS

Documentary research

According to the Chico Mendes Institute for Biodiversity Conservation (ICMBio, 2021), federal CUs throughout Brazil registered over 8 million visits in 2020, with 750,000 of those visits occurring in the state of Paraná. It is important to note that these numbers only encompass 8 out of the 12 federal CUs that allow visitation with certain controls. Among these units, Iguazu National Park stands out as the most visited in Paraná and also has strict control measures for visitors.

During the pandemic period in 2020, federal CUs became safe leisure options. After the reopening of national parks in mid-June, the number of visitors steadily grew until the end of the year, showing a different

Chart 1: Summary of state (IAT) and federal (ICMBio) management actions of CUs during the pandemic.

Publication of the news	Management of the Chico Mendes Institute for Biodiversity Conservation (ICMBio)
26/02/2020	The visitation to CUs has been growing every year in Brazil, and currently surpasses the 12.5 million recorded in 2018, generating significant contributions to regional and national socio-economic development.
17/03/2020 e 18/03/2020	The president of the Chico Mendes Institute for Biodiversity Conservation (ICMBio), Homero Cerqueira, has ordered the suspension of public visitation to Federal CUs indefinitely, through an official decree.
25/03/2020	Parks can be accessed online. A partnership between ICMBio and Google Street View provides various 360º photos, allowing for virtual visitation.
09/06/2020	ICMBio - published in the Official Gazette a decree establishing the reopening of Iguazu National Park (Paraná), Aparados da Serra National Park, and Serra Geral National Park (both in Rio Grande do Sul). The units were gradually reopened, following the rules of each state and municipality, with careful planning and adherence to all safety guidelines to prevent the spread of Covid-19 (safety rules to avoid gatherings were established, as well as the provision of hand sanitizers or hygiene products, and the mandatory use of facial masks for protection). The number of visitors to the CUs was reduced to a limit of 40% of their public capacity, ensuring visitation occurs with a minimum spacing of 2 meters between individuals (online ticket sales, services, or appointments were prioritized to avoid queues, and floor markings with a 2-meter distance were implemented from the counter and between customers).
18/06/2020	More CUs reopened. Gradually, all federal CUs were reopened following specific guidelines in the publication of June 09, 2020.
01/07/2020	Communication about the temporary closure of CUs in Paraná as regional restrictive measures to combat Covid-19.
26/08/2020 atualizado em 23/10/2020	Gradual and monitored reopening, complying with all sanitary safety criteria established by each state and municipality where the UC is located. ICMBio informed weekly, through its communication channels, which CUs would be reopened and under what conditions.
16/09/2021	An online tool allows access to a single database for various CUs and other services provided by ICMBio.
Publication of the news	Management of the Water and Land Institute (IAT), an autarchy linked to the Secretariat of Sustainable Development.
17/03/2020	The CUs remained closed to contain the coronavirus, understanding that even though they are open spaces, the parks have collective use facilities that could facilitate the spread of the virus.
18/03/2020	All CUs that had visitation control remained closed indefinitely (press advertising and scientific research work would require prior scheduling).
07/04/2020	Emphasizing that state parks remained closed to public visitation. IAT advises the population not to visit CUs during this period of prevention of the new coronavirus.
11/08/2020	Eighteen State CUs could be reopened on the 15th, but with reduced capacity, mandatory use of masks, hand sanitizer, and temperature checks. Camping and campfires are prohibited.
02/09/2020	Vila Velha Park reopens with new attractions for visitors, with a limited public capacity of 50%, along with other coronavirus prevention measures.
28/12/2020	The resolution establishes rules for visitation to Ilha do Mel as a preventive measure to control the transmission of the coronavirus.
08/01/2021	Reopening of Serra da Baitaca, Pico Paraná, and Pico do Marumbi parks, however, with reduced capacity, mandatory registration, entry through official entrances, and the use of masks and hand sanitizer.
22/01/2021	IAT provides guidance to the public regarding entry into state parks with the restrictive measures imposed in the 21 parks.
01/03/2021	IAT Announcement - Closure of Parks - a restrictive measure in compliance with State Decree No. 6,983/2021, to contain the spread of Coronavirus.
09/03/2021	Parks reopen with restrictions - entry is allowed only through official entrances, with registration and mask usage. The maximum public capacity has been reduced by 50%.
19/03/2021	Closure on weekends and reduced hours during the week were some of the measures adopted, following the guidelines of state and municipal governments.

To be continued....

Continuation.

01/04/2021	State Parks maintained operational restrictions.
07/07/2021	State parks reopen on Sundays and holidays. The maximum capacity for visitation remains at 50%.
03/09/2021	Paraná state parks remain open during the extended holiday period. On Tuesdays, state parks usually close for maintenance, but they operated normally to accommodate the desire of tourists seeking leisure in nature. CUs continue with public restrictions and mandatory health measures for Covid-19 prevention.
08/10/2021	Authorizes the reopening of CUs that remained with restrictions.

Source: The authors (2023) based on consultations to the ICMBio and IAT websites.

behavior compared to previous years, which used to experience fluctuations throughout the year (Ministério do Turismo do Brasil, 2021b; ICMBio, 2021). This result reflects the interest and demand of tourists for these natural spaces, which offer leisure, culture, and environmental education.

According to ICMBio (2021), since 2016, the number of visits to the parks has shown a significant increase. However, in the first quarter of 2020, there was a gradual decline in the number of visitors, which became more pronounced in April with the closure of federal parks. Only in June 2020, a gradual reopening of the parks occurred, following specific health authorities' protocols and guidelines, as well as federal, state, and municipal legislations. The decisions considered the existence of distinct infection peaks in each region, taking into account the parameters established by local and/or state executive authorities. This information is summarized in Table 01, presenting a timeline of the operation of CUs between 2020 and 2021.

The pandemic demonstrated the possibilities, strategies, and adaptive capabilities that humans have in thinking, reflecting, and acting according to imposed needs. The use of technology in CUs management was crucial for keeping tourists informed, providing digital knowledge about the CUs, or scheduling visits. Technology is perceived as a potential that should be further explored in these areas. Neves, Souza, and Carvalho (2020) argue that tourism activities in natural areas are a means for sustainable development, and within this tourism segment, the use of mobile technologies is included as a tool to motivate the public.

The actions taken and visualized in Chart 01 suggest that the resumption of visitation to CUs preceded other tourist attractions or events, considering that it takes place in open areas, which facilitated the adoption of preventive measures, such as social distancing and reduced capacity. According to Vilani, Pena & Simões (2020), some basic guidelines for strengthening ecotourism post-pandemic are: a) ensuring sanitary safety in CUs and their surroundings; b) producing and disseminating scientific evidence on local ecotourism initiatives, public use, and sanitation in CUs; c) contributing to the development of public policies (environmental, social, and sanitation-related); d) developing ecotourism in urban parks; e) reducing social inequalities through ecotourism; f) stimulating critical reflection on

the potential of ecotourism as an economic alternative for communities in situations of social and environmental vulnerability.

Given this, it can be observed that the openings/closures of state and federal CUs in Paraná directly and indirectly impacted tourist visitation. Therefore, we move on to the results of the research conducted through the digital form.

Websurvey

Initially, the first section of the websurvey was designed to describe the study to the respondents. By agreeing to participate, the respondents authorized the use of the provided data for anonymous analysis solely for academic purposes.

After accepting the terms, the respondents were directed to the second section, where the sociodemographic profile of the 121 participants was established. It was observed that the most significant age group is between 25 and 34 years old, and when extending the age range to include 18 to 34 years, it accounts for 76% of the participants. Regarding gender, 42% identified as male, while 56% identified as female, and 2% chose not to define themselves within the binary logic. Considering the marital status of the respondents, single individuals stand out significantly, representing 65%, followed by married and/or in a stable relationship (30%), and divorced and widowed (5%). Regarding education, 64% had completed or were currently pursuing higher education; 16% had completed or were in high school; 11% had completed or were in a master's degree program; 8% had completed or were in a doctoral program, and 1% had completed or were in elementary education.

Regarding the occupation of the respondents, three groups appeared with significant percentages: students, interns, and/or scholarship holders accounted for 21%; employees or service providers totaled 17%, and public servants represented 16%. In addition to these, 54% were grouped under the category "other," including professionals, freelancers, entrepreneurs, retirees, among other occupations.

The income information provided by the respondents may lead to a bias in the results, considering that the most mentioned occupation is "students, interns, and/or scholarship holders," who generally have lower in-

come (or no income). The results revealed that 5% did not have any income; 14% had an income up to one thousand reais; 24% had an income between R\$ 1,001.00 and R\$ 2,000.00; and 18% had an income between R\$ 2,001.00 and R\$ 3,000.00.

When considering the issue of student income, it is valid to mention that some master's and doctoral students receive scholarships as incentives, which may be in the range of R\$ 1,500.00 and R\$ 2,200.00, respectively. Therefore, these students could indeed be included in the income groups mentioned earlier.

Respondents with income between R\$ 3,001.00 and R\$ 10,000.00 make up 23%, above this amount, from R\$ 10,001.00 onwards, 06% are visitors to PAs; 10% of respondents chose not to mention their salary income. The vast majority of respondents lived in Paraná, 85%.

The collected data shows similarities with the findings reported by the Ministry of Tourism and the Brazilian Association of Ecotourism and Adventure Tourism Companies (MTUR & ABETA, 2010), indicating a profile of individuals aged between 18 and 39 years, predominantly single, and with education at or completed the higher education level.

Section 3, titled "Emergence," is based on Almeida et al.'s statement (2020, pp. 2-3) that Covid-19 has generated "consequences in society, with direct effects on work and family income, and implications for the physical and mental health of individuals." Therefore, in the first question, we sought to find out if any family member, close friend, or colleague had a severe infection or had died from the disease, to which 65% of the participants responded affirmatively, while 35% reported not falling into this category. The high rate of severe infection/death may have resulted in increased exposure to the risk of contracting the virus and, consequently, higher levels of stress and/or sadness, which could be mitigated by attributing a therapeutic or regenerative nature to visiting CUs.

When asked if respondents maintained social isolation during the pandemic, with restrictions on contact with other people, 45% reported taking precautions, partially reducing contact, avoiding meeting elderly individuals, but continuing to work and go out for other errands. Meanwhile, 50% were more restrictive in their contact and movements, only going out when absolutely necessary. Only 4% did not comply with the World Health Organization's (WHO) recommendations. According to Szwarcwald et al. (2020), a large portion of the Brazilian population adhered to measures of physical distancing, which possibly contributed to reducing the spread of Covid-19.

When asked about how the pandemic affected their occupation or work, the results showed that 31% continued to work in person and 30% worked remotely through telecommuting (home office), while the remaining respondents experienced other types of impacts. A national survey conducted between April and

May 2020 by the Institute of Communication and Information in Health at the Oswaldo Cruz Foundation (2020) demonstrated that those most affected by the pandemic were self-employed individuals, with many being unable to work and depending on government assistance. It is evident that there were diverse impacts on occupations and work due to the sanitary crisis.

When questioned if they were engaged in any essential activity (e.g., healthcare, security, transportation, banking, grocery stores, gas stations, or other essential services), 63% responded negatively, while 37% answered affirmatively. The positive responses indicate a higher level of exposure to risk and, consequently, potentially higher levels of stress.

Considering the changes in their work during the pandemic, 23% of respondents reported working much more than usual, feeling overwhelmed in 26% of cases. On the other hand, 20% worked less than usual, while 31% said they worked the same as before the pandemic and/or did not notice any differences. Enumo, Weide, Vicentini, Araújo & Machado (2020) clarify that the pandemic has been and continues to be a major stressor, as it reveals that emotional and behavioral self-regulation is altered when facing threat and/or challenge, leading to changes in the three basic psychological needs: competence, relatedness, and autonomy. These needs are interconnected with emotional well-being and can be modified due to changes in the forms and amount of domestic work.

When asked about how the pandemic affected their income, 54% of the respondents stated that it remained the same, for 26% there was a decrease in income, to the point that 7% claimed to have lost their income. On the other hand, 12% reported an increase in income, and 2% experienced a considerable increase. Vieira et al. (2021a, 2021b) demonstrate that the sense of well-being diminishes for individuals who experienced a loss of income since the pandemic. The authors also point out that individuals with greater losses in well-being are those who lack employment stability, have dependents, lower incomes, and no financial reserves. From the authors' perspective, this constitutes a public health issue as it involves overall well-being levels, happiness, satisfaction, social relationships, and quality of life, which may be associated with increased anxiety and depression.

Inquired about changes in the quantity and type of household work, 42% of respondents said it remained the same, while 52% reported an increase in domestic chores. Only 5% mentioned a reduction in this activity. As a hypothesis, it is worth considering that those who worked from home had to take on cleaning and maintenance tasks of their work environment, which are usually performed by a specific team in organizations.

Considering the period of the pandemic, respondents were asked to measure the intensity of difficulty in per-

forming their routine activities. 37% considered it a moderate difficulty, 33% indicated a high difficulty in performing their daily tasks, while those with low (18%) or no (12%) difficulty were in the minority. The sum of those who indicated high or very high difficulty is considerably significant, as each household is composed of unique characteristics and various individual activities and actions not investigated in this study.

Regarding work tasks, 38% of the participants indicated a moderate difficulty in performing their duties, while 32% reported having significant difficulties in execution. Only 12% mentioned little or no difficulty (17%). Almeida et al. (2020, p. 11) when discussing the challenges during this period, understand that:

"The performance of work activities also underwent changes; a quarter of workers started carrying out their tasks remotely. Consequently, work began to occupy and share space with other routine and domestic activities, and the time dedicated to rest was not always sufficient for physical and mental recovery."

When asked about their physical and mental health, respondents generally classified it as follows: 40% moderate, 50% good, or excellent, while 09% rated it as poor or very poor. Going deeper into this question, considering only mental health, 67% reported negative changes (deterioration) in their mental health; 26% said there were no aggravating factors, and 07% mentioned positive changes. In a national context, concerning self-assessment of health, Almeida et al. (2020, p. 11) mention that "biological factors, such as the presence of Covid-19 symptoms and mood disorders, along with the context of socioeconomic losses, have affected the health status of the Brazilian population."

When asked if the pandemic affected their sleep quality, 47% did not mention any changes and continued to sleep well; 25% reported having developed sleep problems; 14% continued to have the same sleep problems; 12% stated that they already had sleep problems that worsened due to the pandemic, and 2% noticed a decrease in sleep problems. Regarding the frequency of feeling isolated from family or close friends, 50% indicated that it was very frequent or always; 30% felt moderately isolated; those who rarely felt isolated (14%) or never (7%) were less significant.

Relating loneliness to other disorders, an investigation was conducted regarding depression and anxiety. 40% of the participants felt depressed always or very frequently; at times, 31%; while 22% reported feeling depressed rarely, and 7% completed the sample by stating that they never experienced such feelings. Regarding anxiety, 48% said the feeling was constant or very frequent, 28% indicated a moderate frequency, 18% rare, and 7% never felt anxious. Almeida et al., (2020, p. 11) pointed out that in Brazil:

"[...] large proportions of individuals reported feeling frequently isolated, sad or depressed, and anxious or nervous, as well as experiencing sleep problems.

Among those with a previous diagnosis of depression, these effects were more intense. Such findings are in line with results from international studies that assessed individuals' mental health during the pandemic."

The participants were asked if they considered natural environments to have a therapeutic nature that positively contributes to physical and, especially, mental health. Thus, 71% fully agreed with the idea, 18% agreed to some extent, 08% were neutral, and 03% disagreed with the idea. The results confirm that the majority understands and attributes therapeutic and/or regenerative characteristics to visiting natural environments. According to Moreira (2021), this reflects that natural spaces are essential for the mental health of society, especially during a period of health crisis, highlighting the crucial role that CUs play in reconnecting society with nature. Nevertheless, the study by Silva-Melo, Melo & Guedes (2021, p. 356) reveals that:

"Due to the existing benefits in Conservation Units, it was found that these areas are significantly important for human well-being and provide opportunities for people to reconnect with nature, especially during the COVID-19 pandemic. The various benefits highlighted by worldwide literature on the theme of contact with nature underscore the restorative effects of CUs as spaces that can alleviate the anxiety and stress caused by the pandemic."

The fourth section of the websurvey aimed to analyze visits to CUs in Paraná. The first question investigated how respondents would classify the level of interference of Covid-19 in their visits to CUs. For 52% of the respondents, the level of interference was relatively high or very high, for 26% it was at an intermediate level, and 23% reported low or no interference. According to Neves et al. (2021), more than 60% of domestic tourists were impacted and experienced interference in their planned trips at the beginning of the pandemic, resulting mainly in the postponement of travel plans. Despite the fact that the scheduled visits were not carried out, it is understood that social isolation measures were necessary and were complied with by the majority of respondents in both surveys.

The second multiple-choice question inquired about the management sphere (federal, state, municipal, and private) of the visited CUs. The results showed that more than 39% of the participants opted to visit state-managed CUs, which are administered, conserved, and preserved by the Water and Land Institute (IAT). CUs managed by city governments or municipal institutes accounted for 33% of the visits. Federal CUs, under the management of the Chico Mendes Institute for Biodiversity Conservation (ICMBio), were visited by 17% of the respondents. Private CUs of the Private Natural Heritage Reserves (RPPN) type were less frequented, with only 12% of the participants selecting them as their destinations. It is reaffirmed that all CUs have

their unique attractions and exclusive scenic beauties, fulfilling their roles not only in conservation and preservation but also in presenting themselves as:

"concrete alternative to escape from routine, monotony, and stress. Whether engaging in activities or leisure (or a combination of both), contact with nature is an excellent route to return to being a child, to feel free and unburdened. It is the possibility of giving meaning to life, of becoming more human" (MTUR & ABETA, 2010).

The average visitation to CUs per year shows that tourists visit these places, in larger numbers, around 3 to 5 times a year, a result consistent with the demand information provided by MTUR and ABETA (2010), where the national average was 5 times a year.

Certainly, factors such as financial conditions, travel companions, availability, and preference for exploring different destinations directly influence decision-making. The financial aspect is directly related to transportation, meals, accommodation, and entrance fees for visiting the CUs. Regarding travel companions, there is the possibility of making a collective decision about the chosen location. The issue of availability is understood because tours usually occur in greater numbers on weekends, or even during vacation periods or long vacations and it may be that the management plans of the CUs have daily admission limits. Finally, the preference given to the CUs is addressed, since the result of 1 (one) visit per year is relevant and may be related to the fact that the CUs are not the only alternatives for tourism and travel.

Regarding the means of transportation used for travel, the road transport mode stands out (92%), with the automobile being the most frequently used, followed by buses, motorcycles, bicycles, and motorhomes. Among other modes, air travel accounts for 2%, while the nautical mode represents 6%. As hypotheses for these data, it is considered that the distance between the visitor's residence and the CUs does not require very long trips, so air travel may not be as relevant. Additionally, in certain regions of the state, travel by river can be done with smaller boats or vessels. It is also worth noting that access to Ilha do Mel (one of the main destinations in the state) is exclusively by maritime means.

According to MTUR and ABETA (2010, p. 47), adventure tourists and ecotourists have cars as "the most commonly used means of transportation for trips in Brazil (61%), followed by airplanes and buses, tied. The higher the economic class, the more frequent the use of airplanes." Another point is that "car trips [...], besides being more affordable from a financial standpoint, provide the feeling of not being bound by schedules" (p. 86).

The present research identified that tourists usually visit CUs with friends and/or colleagues (40%) and family members (21%), those who combine both groups of

interpersonal relationships amount to 31%, only 7% prefer to do it in a more introspective way, that is, alone. According to MTUR and ABETA (2010), the travel companions to CUs change over the course of life: in childhood, it is determined by parents; in youth and adulthood, there is a desire to explore and travel alone or engage in various activities with friends and/or colleagues; when married or in a committed relationship, the spouse becomes the travel companion.

The data from this research points to a close relationship between lodging and transportation of the visitors, as it was identified that 61% do not stay overnight in the cities or CUs, and that 62% live within a distance of less than 100 km, which suggests that the proximity of the visitor's home to the CUs leads them to choose to return to their own residence. The data also shows that 15% camp in these natural areas when provided by the CUs, another 18% stay in hotels, guesthouses, or rental houses, and 06% opt for staying at the homes of friends and/or family members. Thus, 24% of the participants live between 101km and 500km from the PAs, while another 12% live more than 501km away. As there is largely no need to stay in a destination that is up to 100km from their residence, the almost excursionist character of the visits is understandable.

The findings shed light on aspects such as the characteristic of short-distance travel observed in the average distance covered, highlighting the growth of short-term tourism due to the industrial development of cities. With the increase in work and the established routine, there is an increasing need for leisure on weekends, especially in natural environments (Almeida, 2019). In this perspective, Philippi Junior & Ruschmann (2010) assert that contemporary tourism is an eager consumer of nature, and its evolution in recent decades has been a consequence of the search for "vitamin N" of nature and the temporary distancing from urban crowds by people trying to restore their psychophysical balance through contact with natural environments during their leisure time (Machado, 2019, p. 14–15).

When asked whether they considered CUs as places to (re)connect with nature, only 01% disagreed with this hypothesis, 05% showed indifference, while the agreements were significant, with 20% strongly agreeing and 74% fully agreeing, which is in line with MTUR and ABETA, as they point out that:

"Travel, especially adventure and ecotourism trips, provide the cathartic pleasure of regression. Those who are adventurous play and, at times, desire leisure. Those who are not, remain only in leisure. Travel gives a sense of freedom: to be free is not to need to decide." (MTUR & ABETA, 2010, p. 86).

This understanding of being and feeling nature is related to individual or collective perspectives on how they return to their homes. Thus, when asked to describe their emotions or feelings about how they generally

Table 1 - CUs and the benefits of visitation.

Benefits of CUs for people	Completely disagree (x1)	Disagree/greater degree (x2)	Indifferent (x3)	Agree/ greater degree (x4)	Agree totally (x5)	Notation
<i>Physical and emotional well-being</i>	4%	7%	2%	17%	70%	4,413
<i>Eases the stress of everyday life</i>	5%	4%	7%	13%	71%	4,388
<i>Provides happiness</i>	4%	8%	2%	17%	69%	4,372
<i>Encourages sustainable attitudes</i>	5%	6%	5%	18%	66%	4,347
<i>Integration/interaction between people and biodiversity</i>	5%	6%	6%	19%	64%	4,322
<i>Awakens serenity</i>	4%	7%	9%	18%	62%	4,281
<i>Awakens emotional identity with biodiversity</i>	5%	7%	7%	26%	55%	4,174
<i>Antidote against digital intoxication</i>	7%	6%	10%	20%	58%	4,165
<i>Multiple learning</i>	5%	6%	8%	31%	50%	4,149
<i>Encourages Vitamin N of Nature</i>	7%	8%	8%	17%	60%	4,124
<i>Reinforces spirituality</i>	5%	7%	14%	18%	56%	4,140
<i>Functions as a medicine without contraindication</i>	7%	7%	7%	21%	57%	4,116
<i>Enhances cognitive development</i>	3%	7%	12%	34%	45%	4,099
<i>Alleviates nature deficit disorders</i>	6%	5%	16%	21%	53%	4,099
<i>Improves the senses</i>	3%	7%	13%	33%	44%	4,074
<i>Foster creativity and self-confidence</i>	2%	9%	16%	26%	47%	4,058
<i>Strengthens family and/or friendship ties</i>	4%	7%	15%	26%	48%	4,058
<i>Improves social relationships</i>	3%	7%	17%	30%	43%	4,025
<i>Encourages problem solving skills</i>	5%	7%	19%	22%	47%	4,000
<i>Encourages values-based behavior</i>	4%	8%	21%	21%	45%	3,959
<i>Improves motor coordination</i>	7%	6%	20%	22%	45%	3,942
<i>Promotes creative idleness and mitigates aliena</i>	7%	7%	19%	31%	36%	3,826

Source: Research data, elaborated by the authors (2023).

respondents agree to a greater extent or fully with the proposed benefits of CUs for people as presented in the websurvey. This is evident as more than two-thirds of the measures obtained a notation higher than 4, indicating high agreement, which reaffirms that CUs "are key areas for wildlife contemplation, leisure, and recreation in contact with nature, as well as spaces for Environmental Education activities that bring people closer to nature" (Silva-Melo, Melo & Guedes, 2020, p. 353).

Finally, it was considered pertinent to leave an open space for comments, without the obligation to respond, where the respondent could share, if desired, a testimony or any experience they have witnessed or have knowledge about regarding the relationship between Covid-19 and tourism, as well as their perspectives regarding the future of travel and tourism after the pandemic. Chart 2 presents some fragments of respondents' testimonials.

A total of 24 comments were collected, and the excluded ones reflected generic information, were intended

only for compliments on the research, or were not directly related to the proposed objective and presented in the introduction of this study. However, the comments presented in Table 2 and other result tables of the research show that there were diverse, collective, and individual effects of the Covid-19 pandemic on the visitation and/or interest in visiting Protected Areas (CUs) by the respondents.

The perspective of tourists regarding the desire to be in natural environments is evident from the presented results that there is an understanding or attribution of a therapeutic or regenerative character to natural environments. With the routine of urban work life, various individual and collective obligations and duties, the individual specificities, the respondents' homes and families, and the aggravations of the pandemic, it becomes evident that distancing oneself, disconnecting, even for brief moments, from "reality," life can be better enjoyed, whether by practicing leisure, recreation, or other activities in nature.

Chart 2 - General comments on the survey.

I experienced a significant change in my lifestyle and life direction, which makes it very difficult to compare the pre-pandemic and post-pandemic periods, as everything changed along with the pandemic. My city, education, marital status, work, and leisure activities were all affected.
I believe that the perception of leisure and tourism will take on greater significance in people's daily lives, and travel will
The presence of Covid-19 made tourism challenging, but at the same time, it sparked interest in many people.
Many people experienced anxiety and depression due to social isolation, and the search for travel will be a way to escape
It is already a reality that the new trend in tourism is towards domestic destinations, with tourists using their own cars, seeking nature experiences, and following various new health protocols that should have been in place all along. There are also new technologies that provide greater comfort, such as mobile check-ins at airports and accessing menus through QR codes, among others.
I go to the coast almost every weekend, but I canceled a trip to the Amazon. I didn't feel safe. Being locked in a plane for hours with dozens of people is out of the question. The same goes for vans, even if it's with acquaintances. I believe it will take a few years for people to feel safe again.
Returning to the embrace of Nature without fear of contamination and without a mask, to be able to feel the scents of
The mountains are crowded with people, and this causes degradation to natural environments. There is no monitoring of the number of visitors exceeding the carrying capacity of the CUs. Not even guidance for those who have now discovered the mountains as a refuge but behave as if they were in the city. Loud noise, littering, etc., not to mention the costs of rescues for both firefighters, helicopters, etc., and society.
In the previous question, I selected several options in the "indifferent" category not because of my own behavior as a tourist in CUs, but mainly due to my observation of how other people behave in these environments. Many tourists adopt urban behavior in these CUs. It's as if they are extending urban life to a natural environment. They experience the visit as a kind of outing to an urban park.
I believe that the interest in Ecotourism is already significant. In fact, I started to go on hikes and have more contact with nature during the pandemic.
The pandemic made us see ourselves, our weaknesses, and deficiencies, and it sparked the desire to break free from these feelings and especially from the place where we are. It has driven us to return to places we already know and explore new ones. However, caution is necessary because we need to feel safe to truly enjoy the place, the company, and the energy.
I think we will still have a period of economic recovery ahead of us. It's evident that cities that implemented more lockdowns are facing even greater economic challenges, and small businesses are suffering a lot. But there is indeed a trend towards recovery, and the economy is showing positive signs. We just need to trust and move forward.
The pandemic has had a huge impact on tourism. Personally, I used to travel to various waterfalls here in the state of Paraná, but during the pandemic, it was not possible due to increased caution to avoid social contact. For many people, besides this factor, there's also the financial aspect, which negatively affected tourism. I believe that after the pandemic, those who are financially stable will resume traveling, and maybe value life more. However, many will take longer to stabilize, considering the economic situation of countries. This will make them prioritize essentials. Moreover, many will take time to gather the courage to socialize again. I imagine that a "new normal" is being established.

Source: Survey data (2023).

FINAL CONSIDERATIONS

The effects of the Covid-19 pandemic on the perspective of tourists who visit CUs in Paraná were diverse. The fact that the CUs were closed at various times during the pandemic was not the only impact of the health crisis on tourist visitation, but it was a major impediment. The fear of leaving home, even when following health guidelines and even to be in open and natural environments, undoubtedly discouraged tourists from traveling. It is also understood that concerns such as changes in occupation/work, income, and difficulties in

other routine activities, limited travel, as the priority for much of society was to stay alive with their families, and thus, maintaining income and work were decisive factors.

In light of the developments of the pandemic with new variants, it is considered pertinent (always) to continue scientific work in the natural and social human sciences, producing knowledge about the situation that the country and the world are facing, prioritizing life and common well-being. There is a need to expand and continuously encourage the development of the Brazilian scientific field.

Given that the study described here is not probabilistic,

it is recommended to expand the research to include investigations using probabilistic strategies. Simultaneously, it is important to consider collaborating with theorists from other fields of knowledge such as psychology and geography, with a focus on the area of emotions.

The limits, specificities, and challenges that are common to conducting tourism research in Brazil were further complicated in the case of this investigation due to the specific circumstances of collecting information during the pandemic. This required the adoption of different protocols to ensure safety and compliance with health guidelines. Despite the fact that the relationship between tourism and epidemics has been extensively explored in the specialized literature for a long time, it is essential to acknowledge that the dimension of the health crisis triggered by Covid-19 had unprecedented effects that have not yet been fully understood or interpreted. Therefore, it is pertinent to conduct new studies that offer interdisciplinary perspectives to achieve a more accurate and refined understanding of the subject.

Although acknowledging these limitations, it is understood that the results of this research effort contribute to the advancement of science, as it sought to shed light on the interface between Covid-19 and the therapeutic nature attributed to visiting CUs. This specific focus has not yet been sufficiently addressed by investigations in the field, which is believed to have granted the study a status of distinctiveness.

In conclusion, it is evident that natural spaces are essential for the mental well-being of society, providing an opportunity for individuals to (re) connect with nature. However, one should not disregard the fact that periods following major epidemics have been marked by crises and conflicts of enormous proportions, which weakens the naive belief that painful experiences will automatically lead to ethical improvement of humanity. Nevertheless, there remains a glimmer of hope for the future, as the contact with nature through tourism and visiting CUs may make its practitioners more sensitive, at least when it comes to caring for the natural environment.

REFERENCES

- Almeida, A. L. M. M. (2019). Percepção do Ecoturismo: o caso dos estudantes de Turismo do IPP. (Master Thesis in Gestão do Turismo, Instituto Politecnico do Porto, Portugal). <http://hdl.handle.net/10400.22/15072>
- Almeida, W. D. S. D., Szwarcwald, C. L., Malta, D. C., Barros, M. B. D. A., Souza Júnior, P. R. B. D., Azevedo, L. O., ... & Silva, D. R. P. D. (2020). Mudanças nas condições socioeconômicas e de saúde dos brasileiros durante a pandemia de COVID-19. *Revista Brasileira de Epidemiologia*, 23: E200105. <https://doi.org/10.1590/1980-549720200105>
- Bahl, M. (2004). Pandemias e Turismo. In M. Bahl (Ed.), *Fatores ponderáveis no turismo: sociais, culturais e políticos* (pp. 17–20). Quatro Barras: Protexto.
- Becker, D., Solé, D., Ting, E., Eisenstein, E., Martins Filho, J., Fleury, L., ... & Weffort, V. R. S. (2019). Benefícios da Natureza no Desenvolvimento de Crianças e Adolescentes. *Manual de Orientação*. Grupo de Trabalho em Saúde e Natureza, Criança e Natureza. Rio de Janeiro: SBP - Sociedade Brasileira de Pediatria.
- Bhalla, R., Chowdhary, N., & Ranjan, A. (2021). Spiritual tourism for psychotherapeutic healing post COVID-19. *Journal of Travel & Tourism Marketing*, 38(8), 769-781. <https://doi.org/10.1080/10548408.2021.1930630>
- Brügger, A., Kaiser, F. G., & Roczen, N. (2011). One for All? Connectedness to Nature, Inclusion of Nature, Environmental Identity, and Implicit Association with Nature. *European Psychologist*, 16(4), 324–333. <https://doi.org/10.1027/1016-9040/A000032>
- Coelho, M. F., & Mayer, V. F. (2020). Gestão de serviços pós-covid: O que se pode aprender com o setor de turismo e viagens? *Gestão e Sociedade*, 14(39), 3698–3706. <https://doi.org/10.21171/ges.v14i39.3306>
- Cooper, M. A., & Buckley, R. (2021). Tourist Mental Health Drives Destination Choice, Marketing, and Matching. *Journal of Travel Research*, 61(4), 786–799. <https://doi.org/10.1177/00472875211011548>
- Corbari, S. D., & Grimm, I. J. (2020). A pandemia de covid-19 e os impactos no setor do turismo em Curitiba (PR): uma análise preliminar. *Ateliê do Turismo*, 4(2), 1-26. <https://periodicos.ufms.br/index.php/adturismo/article/view/11284>
- Curtin, S. (2009). Wildlife tourism: The intangible, psychological benefits of human-wildlife encounters. *Current Issues in Tourism*, 12(5–6), 451–474. <https://doi.org/10.1080/13683500903042857>
- Enumo, S. R. F., Weide, J. N., Vicentini, E. C. C., Araujo, M. F. D., & Machado, W. D. L. (2020). Enfrentando o estresse em tempos de pandemia: proposição de uma cartilha. *Estudos de Psicologia (Campinas)*, 37, e200065. <https://doi.org/10.1590/1982-0275202037E200065>
- Flick, U. (2013). *Introdução à metodologia de pesquisa: um guia para iniciantes*. Porto Alegre: Penso Editora.
- Furlanetto, B. H. (2014). Geografia e emoções. Pessoas e lugares: sentidos, sentimentos e emoções. *Revista Geografar*, 9(1), 200-218. <https://doi.org/10.5380/geografar.v9i1.36829>
- Grisi, B. S. D. S., & Santana, C. S. C. M. (2023). Effects of the covid-19 pandemic on the mental health of hotel housekeeping staff. *Applied Tourism*, 8(1), 53–62. <https://doi.org/10.14210/at.v8i1.18895>
- Hinds, J., & Sparks, P. (2008). Engaging with the natural environment: The role of affective connection and identity. *Journal of Environmental Psychology*, 28(2), 109–120. <https://doi.org/10.1016/j.jenvp.2007.11.001>
- Instituto de Comunicação e Informação Científica e Tecnológica em Saúde da Fundação Oswaldo Cruz. (2020). *ConVid Pes-*

- quisa de Comportamentos. <https://doi.org/DOI: 10.7303/syn22250673.1>
- Instituto Chico Mendes de Conservação da Biodiversidade (2021, July 13). ICMBio contabiliza mais de 8 milhões de visitas às unidades de conservação em 2020 — Instituto Chico Mendes de Conservação da Biodiversidade. ICMBio. Retrieved from <https://www.gov.br/icmbio/pt-br/assuntos/noticias/ultimas-noticias/icmbio-contabiliza-mais-de-8-milhoes-de-visitas-as-unidades-de-conservacao-em-2020>
- Joncow, C. C., Cendon, B. V., & Ameno, N. (2014). Websurveys como método de pesquisa. *Informação & Informação*, 19(3), 192-218. <https://doi.org/10.5433/1981-8920.2014v19n3p192>
- Keniger, L. E., Gaston, K. J., Irvine, K. N., & Fuller, R. A. (2013). What are the Benefits of Interacting with Nature? *International Journal of Environmental Research Public Health*, 10(3), 913–935. <https://doi.org/10.3390/ijerph10030913>
- Louv, R. (2016a). *A última criança na natureza: resgatando nossas crianças do transtorno do déficit de natureza*. São Paulo: Aquariana.
- Louv, R. (2016b). *Vitamin N: the essential guide to a nature-rich life*. Bloomsbury: Atlantic Books.
- Louv, R. (2011). *The nature principle: human restoration and the end of nature-deficit disorder*. Bloomsbury: Algonquin Books.
- Machado, F. (2019). Proposição de práticas sustentáveis para turismo no contexto da agricultura familiar. (Graduate in Tecnologia em Gestão Ambiental, Instituto Federal de Santa Catarina, Brazil). <https://repositorio.ifsc.edu.br/handle/123456789/1824>
- Machado Vilani, R., Pena, R. C., & Simões, T. B. F. (2020). Ecoturismo no Pós-COVID-19 no Parque Nacional da Tijuca e Parque Estadual da Pedra Branca. *Revista Brasileira de Ecoturismo (RBEcotur)*, 13(4), 671–688. <https://doi.org/10.34024/rbecotur.2020.v13.10840>
- Mayer, V. F., & Coelho, M. de F. (2021). Sonhos interrompidos. *Revista Brasileira de Pesquisa Em Turismo*, 15(1), 2192. <https://doi.org/10.7784/rbtur.v15i1.2192>
- Medaglia, J., & Silveira, C. (2010). Reflexões sobre a atuação profissional dos turismólogos e o planejamento do turismo: pesquisa com os egressos dos Cursos de Turismo de Curitiba, Paraná, Brasil. *Turismo e Sociedade*, 3(2), 123–146. <http://dx.doi.org/10.5380/tes.v3i2.19634>
- Ministério do Turismo do Brasil. (2021a). O impacto da pandemia de COVID-19 nos setores de Turismo e Cultura do Brasil. *Revista Dados & Informações do Turismo no Brasil*, 2, 1–115. Retrieved from <http://dadosefatos.turismo.gov.br/revista.html>
- Ministério do Turismo do Brasil. (2021b, October 29). Turismo nos parques nacionais pode gerar até 1 milhão de empregos. Retrieved from <https://www.gov.br/turismo/pt-br/assuntos/noticias/turismo-nos-parques-nacionais-pode-gerar-ate-1-milhao-de-empregos>
- Ministério do Turismo do Brasil, & Associação Brasileira das Empresas de Ecoturismo e Turismo de Aventura. (2010). Perfil do turista de aventura e do ecoturista no Brasil. Retrieved from <https://abeta.tur.br/download/perfil-do-turista-de-aventura/>
- Moghadam, D. M., Singh, H. J., & Yahya, W. R. W. (2015). A brief discussion on human/nature relationship. *International Journal of Humanities and Social Science*, 5(6), 90-93.
- Moreira, R. J. D. D. C. (2021). O uso público do Parque Estadual Turístico do Alto Ribeira (SP) durante a pandemia: relatos de experiências de (re) conexão sociedade-natureza. (Graduate in Tourism, Universidade Federal de Ouro Preto, Brazil).
- Neves, C. S. B., Carvalho, I. S., Souza, W. F. L., & Filippim, M. L. (2021). Os impactos da COVID-19 nas viagens de turistas brasileiros: conjuntura e perspectivas na eclosão e na expansão da pandemia no Brasil. *Turismo: Visão e Ação*, 23(1), 2-25. <https://doi.org/10.14210/rtva.v23n1.p2-25>
- Neves, C. S. B., Souza, W. F. L., & Carvalho, I. S. (2020). Tecnologia e espaços turísticos: aplicativos de turismo em áreas naturais no Brasil. *Geografia: Publicações Avulsas*, 2(1), 331-352.
- Pan American Health Organization (2023, May 5). OMS declara fim da Emergência de Saúde Pública de Importância Internacional referente à COVID-19. Retrieved from www.paho.org/pt/noticias/5-5-2023-oms-declara-fim-da-emergencia-saude-publica-importancia-internacional-referente
- Philippi Junior, A., & Ruschmann, D. V. D. M. (2010). Gestão ambiental e sustentabilidade no turismo. Barueri: Manole.
- Richardson, M., & Sheffield, D. (2017). Three good things in nature: noticing nearby nature brings sustained increases in connection with nature/Tres cosas buenas de la naturaleza: prestar atención a la naturaleza cercana produce incrementos prolongados en conexión con la naturaleza. *Psychology*, 8(1), 1–32. <https://doi.org/10.1080/21711976.2016.1267136>
- Severino, A. J. (2017). *Metodologia do trabalho científico*. São Paulo: Cortez.
- Silva, M. A. S., & Marcílio, B. M. S. (2020). Espaços e Emoções: reflexões para entender a experiência do isolamento social na pandemia da COVID-19. *Revista Ensaios de Geografia*, 5(10), 68-74. <https://doi.org/10.22409/eg.v5i10.42564>
- Silva-Melo, M. R., Melo, G. A. P., & Guedes, N. M. R. (2020). Unidades de Conservação: uma reconexão com a natureza, pós COVID-19. *Revista Brasileira de Educação Ambiental (RevBEA)*, 15(4), 347–360. <https://doi.org/10.34024/revbea.2020.v15.10859>
- Soares, J. R. R., Gabriel, L. P. M. C., & Romo, R. S. (2020). Impacto do COVID-19 no comportamento do turista brasileiro [recurso eletrônico]. Fortaleza: EdUECE.
- Szwarcwald, C. L., Souza Júnior, P. R. B. de, Malta, D. C., Barros, M. B. de A., Magalhães, M. de A. F. M., Xavier, D. R., Saldanha, R. de F., ... & Pina, M. de F. de. (2020). Adesão às medidas de restrição de contato físico e disseminação da COVID-19 no Brasil. *Epidemiologia e Serviços de Saúde*, 29(5), e2020432. <https://doi.org/10.1590/s1679-49742020000500018>



- World Tourism Organization. (2020a). UNWTO World Tourism Barometer and Statistical Annex, January 2020. UNWTO World Tourism Barometer, 18(1), 1–48. <https://doi.org/10.18111/WTOBAROMETERENG.2020.18.1.1>
- World Tourism Organization. (2020b). UNWTO World Tourism Barometer May 2020 Special Focus on the Impact of COVID-19 (Summary). <https://doi.org/10.18111/9789284421817>
- Veal, A. J. (2011). Metodologia de Pesquisa em Lazer e Turismo (1st ed., Vol. 1). Aleph.
- Vernalha, M. C. R., & Neiman, Z. (2010). Potencial Turístico do Brasil. In Z. Neiman & A. Rabinovici (Eds.), Turismo e Meio Ambiente no Brasil. Barueri: Manole.
- Vieira, K., Klein, L. L., Bressan, A. A., Pereira, B. A. D., Marzzoni, D. N. S., & Guasch, F. S. B. R. (2021). Perda de Bem-Estar Financeiro na Pandemia Covid-19: evidências preliminares de um websurvey. *Saúde e Pesquisa*, 14(4), 787-796. <https://doi.org/10.17765/2176-9206.2021v14n4e9020>
- Vieira, K. M., Potrich, A. C. G., Bressan, A. A., & Klein, L. L. (2021). Loss of financial well-being in the COVID-19 pandemic: Does job stability make a difference? *Journal of Behavioral and Experimental Finance*, 31, 100554. <https://doi.org/10.1016/j.jbef.2021.100554>
- World Health Organization (2023, May 5). WHO Director-General's opening remarks at the media briefing. Retrieved from <https://www.who.int/news-room/speeches/item/who-director-general-s-opening-remarks-at-the-media-briefing--5-may-2023>