

Pre-pandemic profiles and the image constructs of tourists on the island of Santa Cruz, The Galapagos

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Abstract: The Galapagos Islands, a UNESCO World Heritage Site, are celebrated for their unique biodiversity and for the vital role they play in the local economy of the various islands, through tourism. Initially, ecotourists, drawn by a deep interest in nature, were the main visitors. However, the rise of mass tourism has shifted the visitor profile over time. We surveyed pre-COVID-19 visitors to the island of Santa Cruz to explore how ecotourism has evolved since its origins in the 1960-70s. Our objectives were to (1) examine the profile, image constructs and kinds of experiences of the visitors and (2) analyse these in the context of early ecotourism. We identified three visitor profiles—high, moderate, and low—in terms of environmental awareness and interest. Our findings highlight that the current tourism on offer caters mainly to those with less interest in nature. These insights are valuable for decision-makers, tour operators and academics aiming to improve management strategies and visitor flows, especially near the urban areas of Santa Cruz.

Keywords: Ecuador; Modes of experience; Ecotourism; Visitors; Survey.

Perfiles previos a la pandemia y la imagen construida de los turistas en la isla de Santa Cruz, Galápagos

Resumen: Las Islas Galápagos, declaradas Patrimonio Natural de la Humanidad por la UNESCO, son celebradas por su biodiversidad única y su papel fundamental en la economía local a través del turismo. En un principio, los principales visitantes eran ecoturistas con un profundo interés en la naturaleza. Sin embargo, con el paso del tiempo, el crecimiento del turismo masivo ha cambiado el perfil de los visitantes. Encuestamos a visitantes de la isla Santa Cruz antes de la pandemia del COVID-19 para explorar cómo ha evolucionado el ecoturismo desde sus orígenes en las décadas de los 60s y 70s. Nuestros objetivos fueron: (1) examinar el perfil, los imaginarios y las formas de experiencia de los visitantes y (2) analizar estos perfiles en el contexto de los primeros ecoturistas. Identificamos tres perfiles de visitantes—alto, moderado y bajo—basados en conciencia e interés ambiental. Nuestros hallazgos destacan que el turismo actual está dirigido principalmente a quienes muestran menor interés por la naturaleza. Estas observaciones son valiosas para los responsables de la toma de decisiones, operadores turísticos y académicos, con el fin de mejorar estrategias de manejo y el flujo de visitantes, especialmente en las zonas urbanas de Santa Cruz.

Palabras Clave: Ecuador; Modos de experiencia; Ecoturismo; Visitantes; Encuesta.

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1. Introduction

The Galapagos Islands belong to Ecuador and are located 972 km off the coast in the Pacific Ocean. They were among the first 12 Natural World Heritage Sites listed by the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 1978. Since then, the islands have received several national and international recognitions, including Biosphere Reserve in 1984, Marine Reserve in 2001, and Hermandad Marine Reserve in 2022 (Palacios & Cantor, 2023). The extraordinary evolution of wildlife in the archipelago due to the confluence of various marine currents, seismic events, volcanic processes, and extreme isolation (UNESCO, n.d.) has inspired many scientists, with Charles Darwin being the foremost figure (Durham, 2021). He developed his groundbreaking theory of evolution in this unique natural laboratory, elevating Galapagos to a pivotal site for scientific inquiry, environmental research, education, and the exploration of Darwin's enduring legacy (Hennessy & McCleary, 2011; Quiroga, 2009; Quiroga & Sevilla, 2017).

In addition to their scientific significance, the Galapagos became an iconic ecotourism destination (Fennell, 2020; Honey, 2008) and a top-rated location for tourism development, similar to many other island ecosystems (Adrianto et al., 2021; Burbano et al., 2022; Fernandez-Abila et al., 2024; Figueroa & Rotarou, 2021; Grilli et al., 2021; Honey, 2008; Leka et al., 2022; Robinson et al., 2019). Unfortunately, island destinations are inherently fragile; they tend to endure severe consequences from tourism, as they can face high numbers of visitors, extensive tourism infrastructure development, overcrowding, natural and cultural resource degradation, and increased pollution, among other challenges (Adrianto et al., 2021; Chaney & Séraphin, 2023; Gössling et al., 2020; Leka et al., 2022; Mihalic, 2020). In recent decades, the Galapagos have experienced some of these challenges, particularly the steady increase in visitors. In 1990, for instance, the islands welcomed approximately 41,000 tourists. A decade later, the number rose to 68,000, and by the end of 2010, the islands reported a remarkable influx of 173,000 inbound tourists—more than doubling the figure from the previous decade. By 2018, pre-COVID-19, more than 280,000 tourists visited the islands—an increase of 14% from the prior year (DPNG, 2020).¹

Most of this surge in the number of visitors to the islands is linked to the development of lodging on land. To understand this trend, reviewing the two periods in the history of ecotourism in the Galapagos is noteworthy. Both periods are associated with a particular way of travel or tourism modality: the first period (from the 1960-70s to the 1990-2000s) started with organized ecotourism, characterized by mainland investors introducing boats offering extended stays and minimal amenities, known as cruise-based tourism modality (Hunt, 2021; Epler, 2007; Honey, 2008). The second period (from the 1990-2000s to the present) has seen a surge of ecotourism in the inhabited islands, known as land-based tourism modality (Hunt 2021; Muñoz-Barriga, 2017; Pecot & Ricaurte-Quijano, 2019).

Using Santa Cruz Island as a case study, our research aimed to understand how ecotourism trends have evolved from their origins in the 60s-70s. Our objectives were to (1) examine the profile, imaginaries, and mode of experiences of the pre-COVID-19 visitors and (2) discuss how the profile of these recent visitors differs from those who traveled during the first decades of ecotourism and the potential implications. Our research would provide critical information to park managers, tour operators, guides, and local stakeholders that will contribute to understanding current trends to personalize further management strategies, target offerings, and marketing efforts to specific segments.

1.1. Literature review

Tourism is a major economic driver for many regions worldwide. Economically, it plays an important role in islands and archipelagos as an inevitable form of development (Figueroa & Rotarou, 2021; Grilli et al., 2021; Muñoz-Barriga, 2017; Robinson et al., 2019; Viteri-Mejía & Brandt, 2015). However, several factors constrain island tourism development, including limited territory and resources, transportation, coastline, and biodiversity sensitivity (Bardolet & Sheldon, 2008; Grilli et al., 2021; Leka et al., 2022; Watkins & Cruz, 2007).

With the current acceleration and growth of tourism supply and demand, many of these islands' ecosystems tend to become mass tourism destinations or even have the first symptoms of overtourism, where a deterioration in visitor-resident relationships occurs as a consequence of too many visitors (Chaney & Séraphin, 2023). Mass and overtourism have led to the degradation of tourism destinations' natural ecological goods, the alteration of their cultural attractions, and negative impacts on their social and economic environment, including the displacement of local communities of residential areas (Mihalic, 2020). Therefore, tourism must always be developed under the umbrella of sustainability.

According to the United Nations Environment Programme (UNEP) and the United Nations World Tourism Organization (UNWTO), “sustainable tourism takes full account of its current and future

economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment, and host communities" (UNEP & UNWTO, 2005, pp. 12). In the case of fragile ecosystems like the Galapagos, maintaining a sustainable approach with effective monitoring and preventive and corrective measures is essential (Hunt, 2021; Viteri-Mejía & Brandt, 2015), especially considering that 97% of the archipelago is protected (DPNG, 2014).

The practical implementation of sustainable tourism strategies and policies is generally complicated but especially challenging for insular landscapes. These destinations face more difficulties dealing with pollution and solid waste management, habitat degradation, transportation of goods, social equity, and sharing tourism benefits. Similarly, managing visitors at tourist sites, addressing overcrowding, and developing tools and indicators for carrying capacity are challenging tasks (Adrianto et al., 2021; Fernandez-Abila et al., 2024; Figueroa & Rotarou, 2021; Leka et al., 2022). However, for many islands, tourism is still fundamental to maintaining biodiversity (Grilli et al., 2021; Hall, 2010; Leka et al., 2022; Robinson et al., 2019; Taylor et al., 2008; Viteri-Mejía & Brandt, 2015), offering activities based on nature that motivates conservation efforts by attracting visitors interested in the environment—the core of ecotourism (Ardoín et al., 2016; Holden, 2008; Honey, 2008; Powell & Ham, 2018).

The International Ecotourism Society (TIES, n.d.) defines ecotourism as “responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education.” In general, ecotourists travel in small groups, take longer trips, demand fewer services, and seek in-depth information and education from their destinations (Stronza et al., 2019). In the Galapagos, ecotourism is vital; thus, more than anywhere else, it should be limited, closely monitored, and of high quality (Honey, 2008).

The cruise tourism modality in the Galapagos was dominant from the 1960-70s to the 1990s-2000s (Epler, 2007; Durham, 2008; Honey, 2008; Hunt 2021; Muñoz-Barriga, 2017; Pecot & Ricaurte-Quijano, 2019) and involves tourists lodging on small and medium-sized boats (the maximum capacity allowed is 100 passengers, with around 70% of the fleet having a capacity of 16 passengers) with visits to the islands exclusively for ecotourism activities such as hiking and guided tours to remote sites in the protected area.² This type of tourism primarily targets the foreign market given its high purchasing power (Honey, 2008; Hunt, 2021). On the other hand, the land-based tourism modality became more prominent starting in the 1990s and 2000s. It involves tourists who stay in inland hotels, visit nearby beaches and bays in the protected area, rent electric scooters or bikes to go around towns, and enjoy inland amenities in urban and rural areas (Hunt, 2021). This type of tourism targets visitors with limited purchasing power (mainly Ecuadorians), and it is promoted as a “beach holiday” for family and relaxation rather than an ecotourism experience (Pecot & Ricaurte-Quijano, 2019).

The development of land-based tourism began to consolidate as the Ecuadorian policies leaned toward large-scale developments, expansions in visitation, uncontrolled immigration, and commercial fishing (Epler, 2007; Honey, 2008). This growth attracted tourists who demanded short, cheaper tours and more recreational amenities, mainly in the populated centers (Burbano & Meredith, 2021; Hunt, 2021; Viteri-Mejía & Brandt, 2015). This led to the opening of more hotels in the 2000s, and by 2011, the number of overnight tourists surpassed that of cruise ship visitors for the first time (Carrión, 2013; OTG, 2011).

As expected, the current shift from ecotourism could negatively impact the conservation of natural resources and, in the long term, the economic well-being of local communities (Taylor et al., 2008). For instance, a high touristic demand leads to the introduction of non-native species and diseases, habitat fragmentation from service infrastructure, freshwater demand from hotels, and habitat changes to meet food requirements for visitors (Burbano et al., 2022; Burbano & Meredith, 2021; Burke, 2021; Hall, 2010; Muñoz-Barriga & Maldonado-Pérez, 2020). Moreover, from the social perspective, the shift could lead to the loss of food sovereignty, inequality of the benefits from tourism, conflict (residents-tourists) for shared recreational spaces, and the disruption of the sense of community. However, it is important to note that since the development of land-based tourism in the populated centers, there has been economic growth that has benefited the well-being of local communities (Moya Mosquera & Muñoz-Barriga, 2022; Pecot & Ricaurte-Quijano, 2019; Ruiz-Ballesteros, 2017; Taylor et al. 2008) but not without shaping visitors demands.

The two tourism modalities attract visitors with different profiles. Tourist profiles are structured representations of travelers based on socio-demographic characteristics, behavioral patterns, and travel motivations or the needs influencing a person to engage in tourism activities (Carvache-Franco et al., 2017, 2019; Guerard et al., 2024). Two primary dimensions define a visitor profile: a static-demographic profile and a behavioral profile based on past travel experiences. The static profile includes factors such as age, gender, income level, education, and place of residence. In contrast, the behavioral profile considers travel frequency, preferred destinations, types of activities involved, and travel motivations (Eke et al.,

2019). A visitor with an ecotourist profile views nature as the primary motive for a trip. Unfortunately, today, most visitors to the Galapagos identify as ecotourists but do not adhere to ecotourism principles (e.g., greenwashing) (Rozzi et al., 2010; Self et al., 2010). As a result, the Galapagos could risk becoming a mass ecotourism destination (Arnegger et al., 2024).

The visitors' expectations are at the heart of the Galapagos' ecotourism crisis. Therefore, it is critical to understand the visitors' profile and behavior, defined by their imaginaries, values, and modes of experience. The imaginaries are a socially shared moral conception whose exact nature and limits are intangible and difficult to specify (Lindón, 2008; Salazar & Graburn, 2014; Taylor, 2004). Tourism imaginaries refer to the influential capacity of certain ideas to envision a location as a tourist destination and emerge from social practices that depict desirable places we recognize as credible destinations. They play a crucial role in travel planning, enabling prospective travelers to explore different facets of their desired tourist destination (Amirou, 1995; Gravari-Barbas, 2016; Salazar & Graburn, 2014). On the other hand, the perceived values refer to the values associated with the destination during and after the visit (e.g., safety and responsibility) that guide the visitor's attitude and conduct (Knight & Gutzwiller, 1995; Münch, 2015; Ordáz, 2017).

The imaginaries and values comprise the ideas the visitors already had before arriving at the destination, and they are necessary to define the profiles through the schemes provided by the modes of experience. The modes of experience denote how tourists experience and interact with the destination environment, with the environment adopting different forms. Certain behaviors accompany this interaction and go from little to much greater interest and attachment to the environment. Tourist attitudes toward the environment are likely reflected in their behavior; therefore, tourists tend to choose destinations that match the type of experience they seek. According to Holden (2008), there are four main modes of experience:

- The environment as a setting for action, in which the search to satisfy the needs of recreation and enjoyment is far above the appreciation of nature.
- The environment as a social system, in which nature is seen primarily as a place to interact with friends and family.
- The environment as an emotional territory, in which nature is associated with emotions and feelings, creating a sense of well-being.

The environment as self, in which nature ceases to be external and instead merges with the person.

The tourists' profiles come from their motivations and imaginaries about the reality of the nature of the destination, and they can be explained through the modes of experience (Osorio et al., 2017). Identifying the visitors' profile has the power to shape a tourist destination, transforming its services and products to adapt to the profile of those who visit it (Ardoïn et al., 2016; Hiernaux-Nicolas et al., 2002; Quiroga, 2009; West & Carrier, 2004). In other words, by understanding the profile and socio-demographic characteristics of the visitors, it is possible to orient the offerings and personalize marketing efforts to segments of interest (Carvache-Franco et al., 2021a and b; Cevallos & Paguay, 2013; Pérez & Lois, 2016; Viteri-Mejía & Brandt, 2015; Wade & Eagles, 2003).

2. Methodology

2.1. Study site

The Galapagos archipelago comprises 19 islands, 64 islets, 136 rocks of volcanic origin, and the surrounding marine reserve 972 km off the Ecuadorian coast. The islands' population is around 28,500, all concentrated in 4 islands. Santa Cruz is home to more than 60% of the total population, followed by San Cristobal, which holds nearly one-third. Isabela and Floreana together account for around 11% (INEC, 2024.; Ruiz-Ballesteros & del Campo Tejedor, 2020; Muñoz-Barriga, 2014).

Given Santa Cruz Island's (Puerto Ayora) large population and prominence in tourism activities, especially land-based tourism, we chose it as our case study (DPNG & OTG, 2018). Because the islands are closely interrelated and share similar characteristics, such as their tourism offerings, history of human intervention, and tourism development model, we believe Santa Cruz represents a general tourism trend in the Galapagos with the exception of Floreana Island, which we address in the discussion.

2.2. Surveys

We conducted surveys between January and February during the 2019 tourist season. Visitors were randomly recruited on their way in and out of touristic sites, mainly located on Charles Darwin

Avenue in Puerto Ayora, Santa Cruz. The surveys were mobile and self-administered, with pollsters accompanying visitors along the route, ensuring greater reliability and better control. The English and Spanish questionnaires consisted of 25 questions divided into four sections: 1) socio-demographic profile, 2) organization and social life during the trip, 3) motivational profile, and 4) perceptions about the destination (Table 1). They included multiple-choice, open-ended, and closed questions.

The sample size was determined based on the total number of visitors arriving in the Galapagos in 2018 (more than 270,000, DPNG & OTG, 2018). We conducted 384 surveys after participants visited the Charles Darwin Station (a must for every tourist), ensuring simple random sampling and numerical saturation with a 5% margin of error and a 95% confidence interval.

Table 1: Areas addressed in the survey to Puerto Ayora visitors.

Socio-demographic profile	Organization and social life	Motivational profile	Perceptions about the destination
Age	Travel modality	Main motivation	Perceived values
Gender	Travel group	Expectations about the destination	The most significant part of the trip
Country of origin	Length of stay		Activities carried out
Educational level	Number of visits		
Budget			

The visitors' level of education included secondary (middle and high school), undergraduate, and postgraduate. Source: own elaboration

To determine the travel modality used by the visitors, they were given a choice to select among land-based tourism (if they visited one or more islands with overnight stays always on land), cruise tourism (if they spent all the stay on a boat), and mix tourism (if they combined staying on a boat with staying on land).

To determine the main motivation for visiting the Galapagos, we used an open-ended question (What was the main reason for your visit?) and clustered the responses into four categories to better differentiate the visitor's profiles: (1) nature and animals included answers mentioning wildlife and activities related to contemplating nature; (2) travel and tourism included those indicating interest in vacations and traveling for social reasons; (3) personal experience included personal activities such as attending weddings, birthdays and special occasions; and, (4) scientific and educational interest included answers related to learning science and history of the destination.

To evaluate the expectations about the destination, we asked: "What are you looking for in Galapagos as a destination?". The responses were grouped into three categories: (1) social life, the degree of interest in socializing and meeting people; (2) environmental education, how it is intended to learn about nature at the site; and, (3) beach services, the type of services that the visitor expects to find at the Galapagos beaches. Also, the participants were shown a series of images depicting a range of scenarios related to Holden's modes of experience. For each category, visitors choose one of three images, ranging from positive to negative.

To find out the kind of experience and the image transmitted *in situ*, we included a list of 12 values associated with the destination (and a blank box) and asked visitors to select a maximum of three. The values were solidarity, safety, responsibility, humbleness, innovation, honesty, freedom, creativity, professionalism, trust, tolerance, and cooperation.

To determine what visitors found most significant up to that point in their trip, we provided 7 options (and a blank box) and asked visitors to select a maximum of three. The options were place visited (the Galapagos), experiences, knowledge obtained, emotions experienced, activities, the people they travel with, and local people.

2.3. Statistical analyses

We based our statistical analysis on previous studies on tourism segmentation and motivation (Dolnicar, 2002; Carvache-Franco et al., 2019), modes of experience (Holden, 2008), values, and imaginaries (Osorio et al., 2017).

We used Cronbach's alpha index for all variables in the data set to determine the internal consistency of the data. The index indicates the reliability, or internal consistency, of the scale of measurement

(Cronbach, 1951). The data were organized, tabulated, and analyzed statistically using the R 4.3.2 (2023) program for Windows.

We used a hierarchical cluster analysis to divide the ecotourist types into groups. This method creates groups where the items within each group are similar but distinct from those in other groups (Peay, 1975).

3. Results

The Cronbach's alpha coefficient was 0.83, suggesting that the items consistently measure the same construct. The section "Reliability if an item is dropped" showed that the reliability (Cronbach's alpha) remains relatively stable (in the range of 0.82 to 0.84 for raw_alpha and similar for standard_alpha) even if any specific item was dropped from the analysis, suggesting that there were no individual items significantly affecting internal consistency. Given that the alpha value was high (greater than 0.7), we concluded that the test had good reliability and was adequate to measure the intended construct.

3.1. Socio-demographic profile

Table 2 summarizes the socio-demographic descriptive statistics of the visitors. The majority of the respondents were visiting the islands for the first time (86%), traveling with other people (82%), and staying for more than 7 days (53%).

Table 2: Socio-demographic profile of the Puerto Ayora visitors.

Category		Frequency	Percentage (%)
Gender	Men	196	51
	Women	188	49
Age	18-25	51	13
	26-35	128	33
	36-45	72	19
	46-55	57	15
	56-65	56	15
	Over 65	20	5
	Foreigners	293	76
Origin	Nationals	91	24
	Elementary	1	0.3
	Secondary	31	8
	Undergraduate	239	62
Level of education	Postgraduate degree	112	29

Source: Own elaboration

3.2. Organization and social life

Table 3 summarizes the travel modality according to country of origin and age. Overall, most visitors preferred land-based tourism. Travel modality differed between national and foreign visitors and was directly related to cost; specifically, foreign visitors (a group with higher purchasing power) would opt for the more expensive cruise and mix travel modalities more than nationals. However, there was interest in visiting more than one island regardless of origin, a model frequently observed in the archipelago.

Concerning age, people under fifty-five preferred to stay in land-based accommodations, whether to stay only on one island or visit more than one. Conversely, foreigners older than fifty-five showed a greater preference for cruises, given the greater acquisitive power of this group and the availability of certain comfort accommodations.

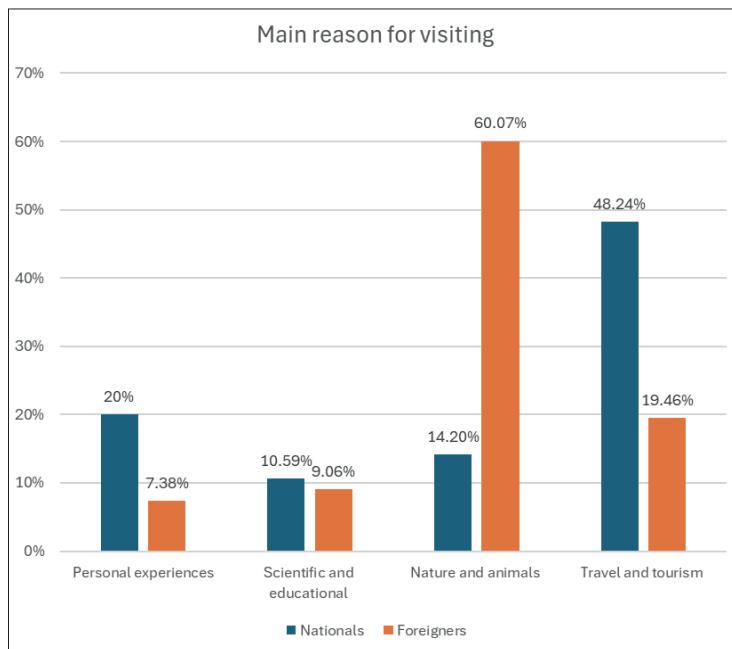
Table 3: Visitors' travel modality by origin and age

Visitors Category		Travel Modality (%)		
		Land-based	Cruise	Mix
Origin	Foreigners	84	11	5
	Nationals	98	1	0
Age	18-25	100	0	0
	26-35	93	3	3
	36-45	88	8	4
	46-55	93	5	2
	56-65	61	27	13
	Over 65	75	25	0

Source: Own elaboration

3.3. Motivational profile

When comparing the main reasons for visiting the Galapagos, foreigners showed greater interest than nationals in the nature and scientific and educational interest categories. Foreigners scored low in the other categories, and nationals showed more interest in travel and tourism and personal experiences. (Figure 1).

Figure 1: Main reason for visiting according to foreigners and nationals

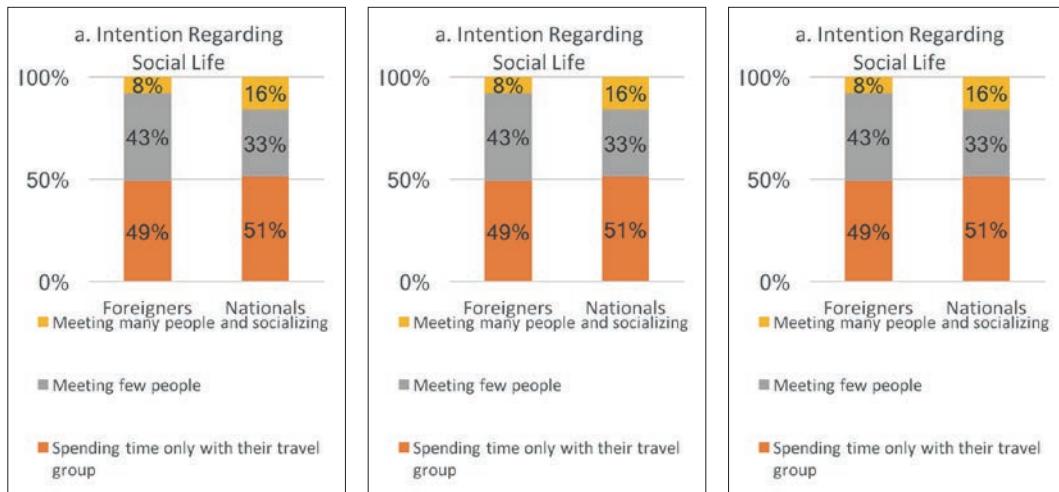
Source: Own elaboration

Foreigners and nationals preferred to stay within their travel group. However, more nationals chose to meet and socialize with many people compared to foreigners (Figure 2a).

Regarding learning about nature, most foreigners favored to explore on their own without a tour guide. However, they also expressed more interest in gaining deeper knowledge about nature with a tour guide and other resources than nationals (Figure 2b).

As for beach services, primarily nationals showed interest in full-service beaches (Figure 2c), which is not permitted in this protected area due to Special Law regulations and other norms.

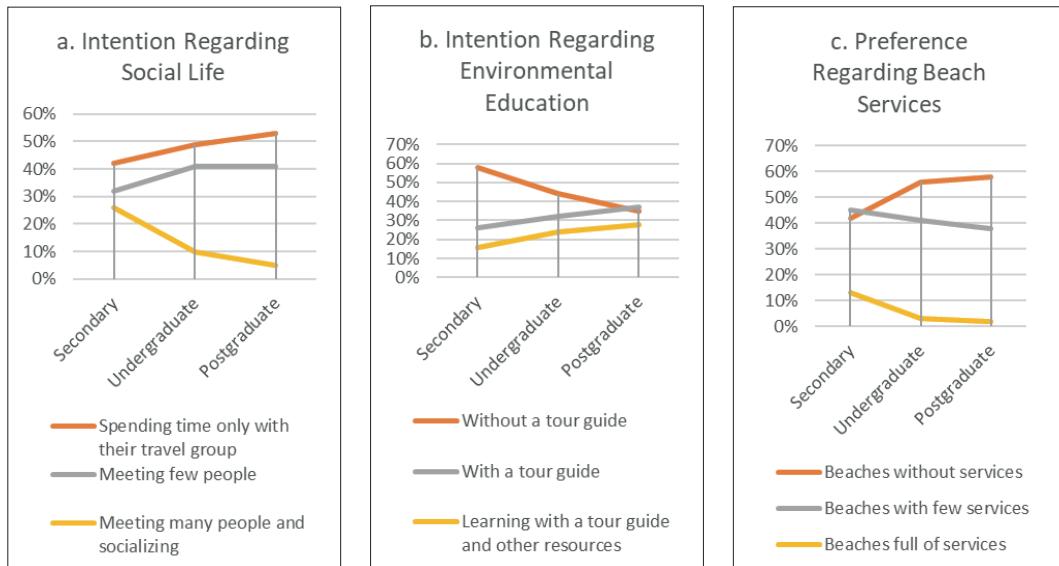
Figure 2: Expectations about the destination by origin



Source: Own elaboration

Education was significantly associated with age and what visitors look for in the Galapagos. Also, visitors with a higher education level preferred spending time with their travel group, meeting fewer people (Figure 3a), and exploring the island with a tour guide and other resources (Figure 3b). When asked about beach services at the destination, the number of visitors who preferred a beach without services increased with their level of education (Figure 3c).

Figure 3: Expectations by level of education

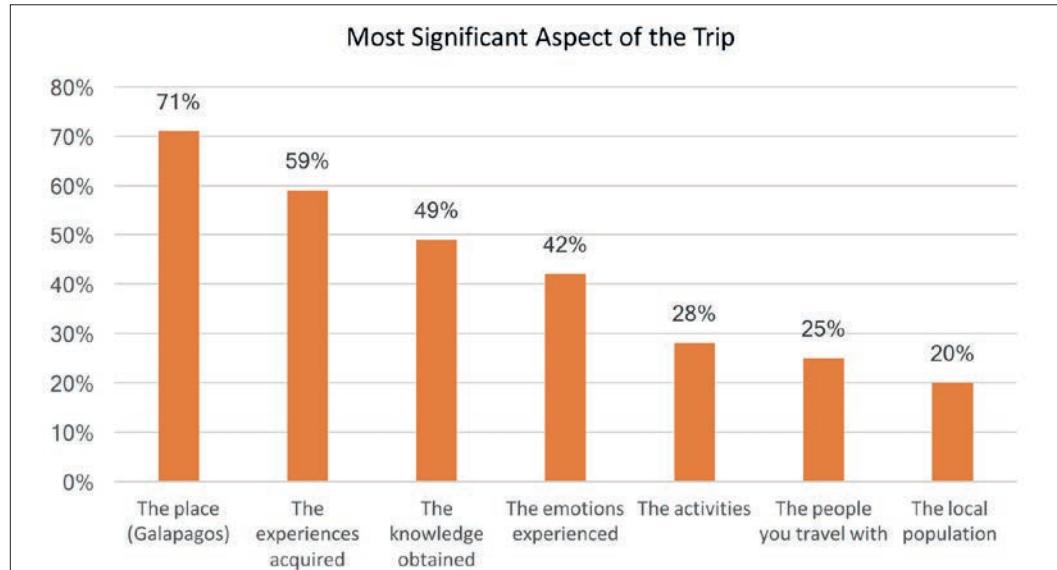


Source: Own elaboration

3.4. Perceptions about the destination

Ninety-seven percent of participants selected the suggested maximum of three values (out of 12), the most frequent being safety, responsibility, and freedom. Similarly, most visitors (96%) selected three options (out of 7) when asked what they found more significant up to that point in their trip. The majority (71%) answered that the place visited was the most significant aspect of the trip, followed by experiences (59%) and knowledge (49%) (Figure 4).

Figure 4: Most significant aspect of the trip



Source: Own elaboration

Fewer foreign visitors associated the Galapagos with safety compared to national visitors, suggesting that foreigners come from countries with different safety realities. The opposite was observed with responsibility, which was linked to nature awareness (Figure 5). When analyzing what was most significant about visiting the archipelago, foreign visitors selected the place, suggesting they shared the romantic idea of the Galapagos as a unique destination.

3.5. Profiles and modes of experience with nature

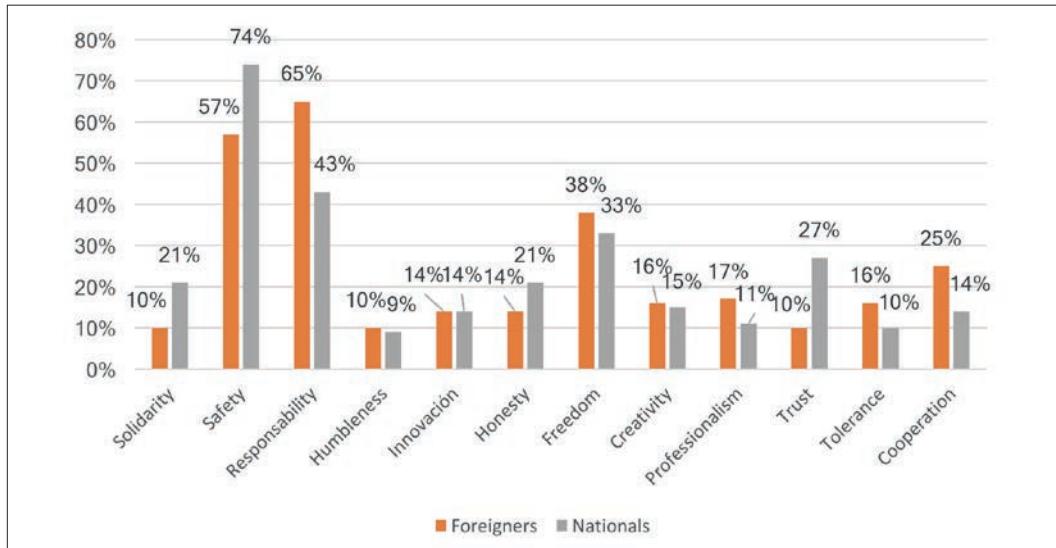
Based on the cluster analysis and the mode of experience, motivations, and socio-demographic characteristics, we defined three profiles of visitors with solid, mild, and little interest in nature. The variables of motivation and expectations were used to differentiate these profiles. The profiles were flexible since the same individual could undergo more than one mode of experience when visiting a destination (Holden, 2008). Most foreign visitors showed a solid and mild interest in nature, unlike national visitors with little interest in nature profiles. Table 4 summarizes the clusters' characteristics and the implications of solid, mild, and little interest profiles based on how visitors experienced nature (Holden, 2008). Twenty-five percent of respondents chose the Galapagos as a setting for action, which implies knowing the destination, vacationing, or engaging in various activities but showing little interest in ecotourism practices—the non-ecotourists. This mild profile was more dominant among nationals, who rarely cited environmental curiosity as a reason for their visit. However, 40% of visitors (mostly foreigners) intended to visit without a tour guide for environmental education, indicating either a mild interest in nature or a lack of understanding of the archipelago.

Both foreigners and nationals sought beach services, with 40% of foreigners and 60% of nationals doing so, suggesting relaxation and recreation needs often outweighed the interest in the Galapagos'.

unique characteristics. This attitude sometimes leads to adverse environmental impacts, such as littering and disturbing wildlife.

Most foreigners did not prioritize socialization, which was the primary motivation for 25% of national visitors. Respondents generally anticipated socializing with known people and a few outside their travel group. Mild interest in nature was more common among young people.

Figure 5: Perceived values by origin



Source: Own elaboration

Choosing the environment as an emotional territory indicated a desire to learn about the place's natural history. This desire was the primary motivation for foreigners and the second for nationals. Foreigners showed a clear and significant interest in nature, while nationals had more general reasons for visiting, though 9% showed a deep connection to the Galapagos. Foreign visitors had greater environmental sensitivity, using several resources to learn about the archipelago and preferring service-free beaches. This solid interest in nature also correlated with higher education levels.

4. Discussion and conclusions

Our research showed three types of visitors to the Galapagos Islands before the COVID-19 pandemic: those with solid, mild, or little interest in nature. The first group (mostly foreigners, primarily from North America and Europe) was motivated by the archipelago's environmental value and usually used cruise-based tourism. The second and third groups, mostly nationals, had more general travel motivations and tended to stay in the populated centers. North American and European visitors showed higher purchasing power and an apparent higher environmental appreciation than Latin American, Ecuadorian, and other low-budget visitors.

We believe that there has been a significant shift in the visitor profiles since the first days of ecotourism, with the earlier visitors fitting the genuine ecotourist profile and most current visitors falling under the category of greenwashing or mass ecotourism, driven by opportunism marketing (Arnegger et al., 2024; Fennell, 2020; Rozzi et al. 2010). We adopted the terms genuine and pseudo-ecotourist based on the definition of genuine ecotourism, which usually operates on a small scale and involves personal interaction with the environment (Donohoe & Neeham, 2006; Rozzi et al., 2010; Perkins & Brown, 2012). In this sense, genuine ecotourists are visitors who appreciate nature, seek learning opportunities, and are committed to protecting natural and cultural environments.

Typically, they are more educated, have higher incomes, and spend more per trip than general tourists. According to this definition, they are the type of visitors that characterized the first period of ecotourism in the Galapagos.

Table 4: Visitors' profile grouped using hierarchical clustering analysis and imaginaries.

Category	Cluster 1	Cluster 2	Cluster 3
Male	59%	47%	Equal number
Age	56 to 65 years old (42%)	26 to 35 years old (45%)	26 to 35 (32%), 46 to 55 (23%), and 36 to 45 (22%)
Education	Postgraduate (59 %)	Undergraduate (73%)	Undergraduate (70%)
Travel modality	Cruise-based (47%)	Land-based (98%)	Land-based (100%)
Company	Couple (41%)	Couple (32%)	Family (53%)
	Family (40%)	Alone (31%)	Couple (26%)
	Friends (10%)	Friends (24%).	Friends (13%)
Nationality	North Americans (48%)	Europeans (53%)	Ecuadorians (68%)
	English (14%)	Latin Americans (24%) (mostly Argentinians and Chileans)	
Motivation	Nature and animals (66%)	Nature and animals (71%)	Travel and tourism (52%)
	Scientific and educational (19%)	Travel and tourism (17%)	Nature and animals (21%)
	Place they visited (64%)	Place they visited (88%)	Personal experiences (18%)
Significant experience	Experiences acquired (28%)		Place they visited (51%)
	Emotional territory	Setting for action	People they traveled with (25%)
Mode of experience	Solid interest	Setting for action	Social system
		Social system	
	Mild interest	Little interest	
Profiles	Nature is valued emotionally, fostering contemplation and learning about wildlife and the history of the place. Environmental sensitivity is present, often leading to concern and involvement.	Nature plays a key role within the trip, shaping experiences from relaxation to physical or social activities. Environmental sensitivity is diversified with varying levels of awareness.	Nature plays a minor role, serving as a backdrop for experiences, with a focus on personal experiences and social interactions.

Source: Own elaboration based on Osorio et al., 2017 and cluster analysis

Our findings concur with previous studies suggesting that not all visitors recognize the interconnectivity between tourism, conservation efforts, and the development of the populated islands of the Galapagos (Hunt, 2021; Mathis & Rose, 2016; Pecot & Ricaurte-Quijano, 2019; Viteri-Mejía & Brandt, 2015). Therefore, evaluating the tourist profile contributes to understanding the trends and shifts in the type of visitors and ecotourism developing in the islands. We used surveys, a widely used tool in the field of tourism (Arizón et al., 2012; Carvache-Franco et al., 2017; Carvache-Franco et al., 2021b; Constantin et al., 2021; López et al., 2014; Osorio et al., 2017), to document visitors' impressions before and after their visit since the generated and perceived values establish the norms and guide individual and collective acts (Sandoval, 2007).

Currently, the tourism model in the Galapagos includes two broad categories of visits: cruise-based and land-based tourism. We found that visitors with higher purchasing power (foreigners, mainly North Americans and Europeans) showed interest in cruise tourism. Still, most visitors preferred land-based tourism—a modality catered to the low-budget traveler. Since the mid-1990s and early 2000s, land-based tourism has grown more than cruise tourism (Epler, 2007; Hunt, 2021; Muñoz-Barriga, 2017), with record growth in the hotel sector of 210% between 2007 and 2014 and a 70% increase of tourists spending

the night in populated centers by 2015 (Izurieta, 2017). Similarly, the number of incoming flights and cheap tour sales have increased, leading to overcrowding of some nearby sites in the urban areas (e.g., beaches). The land-based tourism modality has been especially prevalent in Puerto Ayora, leading to strain on resources such as sewage, sanitation, freshwater supply, and natural assets (Grenier, 2007; Hunt, 2021; Muñoz-Barriga & Maldonado-Pérez, 2020; Pecot & Ricaurte-Quijano, 2019).

However, it is essential to note that land-based tourism has surged as a means of democratizing access to the archipelago for Ecuadorian tourists, who previously found it unaffordable (Pecot & Ricaurte-Quijano, 2019). The availability of low-budget accommodations and independent travel options has allowed more national tourists to explore the islands beyond traditional high-cost tours and has contributed to the well-being of local communities in the Galapagos, which is also one of the principles of sustainable tourism and ecotourism (Fennell, 2020; Honey, 2008; UNEP & WTO, 2005; Pecot & Ricaurte-Quijano, 2019). In recent years (2017-2024), the domestic to international tourist arrivals ratio has narrowed. Even during the pandemic, the domestic market was a key support for the economic recovery, with a 60:40 arrivals ratio. Currently, the ratio is almost equal (45:55) between national and international tourists (OTG, 2025).

The social-demographic profile of our respondents reflects the Galapagos annual report (DPNG, 2020), where most visitors were foreigners and had an undergraduate education. Many visitors (43%) said they preferred to explore the island's fauna and flora without needing a tour guide. However, because visitor sites in the Galapagos are run based on a trail system, tour guides, and defined itineraries (MacFarland, 2001), they restrict those who intend to appreciate the archipelago's nature independently. Also, it appears that most foreign visitors were motivated by the archipelago's environmental value. In contrast, many land-based tourists cite general motivations such as travel, tourism, and personal experiences when visiting the archipelago. These motivations are concerning given the environmental crisis and the need to maintain ecotourism practices, especially in today's supply and demand market where it is no longer uncommon the offer of short trips (with the promise of sun and sand) to attract low-budget tourists with little environmental awareness (Pecot & Ricaurte-Quijano, 2019).

The shift of pre-COVID-19 pandemic visitors' profile from those who visited the islands during the first decades of ecotourism (60s and 70s) is imminent. However, the idea of the Galapagos as a special place is still present, with the higher-educated visitors (generally with higher purchasing power) appearing to be closer to the profile of the genuine ecotourist who loves nature and is highly sensitive to mass ecotourism using mostly vessels to visit the archipelago (Ardoín et al., 2016; Honey, 2008; Hunt, 2021; Powell & Ham, 2008; Watkins & Cruz, 2007).

The visitors' imaginaries, modes of experience, and personal values likely reflect their environmental behavior and explain visitor profiles (Holden, 2008), serving as a key tool for effective marketing strategies and destination management. The profiles of the visitors described in this work—solid, mild, and little interest profiles—reflect their imaginaries and fit what Donohoe and Neeham (2006) and Fennell (2020) stated as genuine and pseudo-ecotourism. Those with solid interest profiles visit the Galapagos motivated by the observation of nature and by learning about its natural history, leading (in some cases) to practice conservation actions and show the desire to be back to nature. Those with mild interest view nature as the background for the experience, giving the environment mainly an instrumental value. Finally, those with little interest see social interaction as more important than the environment, with distorted images about the destination (i.e., beach holidays). Foreigners, generally, tend to align more with the solid interest profile, while nationals showed a closer alignment with the little interest profile. This difference may be explained by the quality of services each group can afford and their purchasing power, which sometimes could be seen as a form of exclusive tourism designed for tourists from North America and, in general, the affluent Global North.

Perceptions about the destination are important because they reveal the image the Galapagos leaves on those who have already visited. They also influence the expectations and motivations of other people because they are socialized opinions (Osorio et al., 2017). Consequently, they can determine which visitors are more attracted to the archipelago, and that demand can shape the nature of the destination (West & Carrier, 2004).

Understanding visitor motivations is crucial for market segmentation, meeting tourist needs, and ensuring satisfaction levels (Carvache-Franco et al., 2021a and b; Cevallos & Paguay, 2013; Pérez & Lois, 2016; Viteri-Mejía & Brandt, 2015; Wade & Eagles, 2003). Carvache-Franco et al. (2019) emphasized the importance of the segmentation of ecotourism visitors based on motivations for understanding visitors touring protected areas. In the Galapagos, understanding the different motivations and profiles of tourists interested in nature is essential for developing effective strategies for tourism promotion and environmental conservation. Additionally, preserving the natural resources that are part of the

tourist experience is crucial for conserving the Galapagos, maintaining tourism-derived revenues, and long-term sustainability (Taylor et al., 2008; Viteri-Mejía & Brandt, 2015).

Visitors with little interest in nature dominated tourist numbers, especially in land-based tourism, leading to the issues already discussed. This surge in touristic activities has accelerated changes in the archipelago's economy and social (e.g., food insecurity for the residents), ecological (e.g., the collision of sea turtles with boats), and cultural factors (Burke, 2021; Denkinger et al., 2013; Hunt, 2021; Watkins & Cruz, 2007). A problem already addressed in 2007 by the inclusion of the archipelago in the UNESCO list of World Heritage Sites in Danger and a call to the Ecuadorian government to better manage tourism in the Galapagos (Watkins & Cruz, 2007). Currently, the situation persists and is arguably even more severe (Hunt, 2021), raising concerns and questioning the extent to which the Galapagos can cope with the fast increase of tourists.

The Galapagos Islands are governed by special laws, notably the Special Law of 1998, which aims to balance conservation with development. This law regulates migration, labor markets, fishing, tourism, and education. Various institutions are responsible for its implementation, such as the Galapagos National Park Directorate, which manages protected areas, local governments and other institutions (e.g. Tourism Directorate), which oversee the populated islands. Local governments are required to develop Land Use and Tourism Plans aligned with strategic and management frameworks to ensure sustainable development and regulated tourism. Our findings could provide valuable insights to local governments and other institutions to develop effective site management strategies and reduce crowding and congestion, particularly near urban areas. To address these challenges, an in-depth understanding of land-based tourists' practices and behaviors from both quantitative and qualitative perspectives is essential. This knowledge could help identify gaps and incentivize action among key stakeholders, such as launching information campaigns before travel to the Galapagos and implementing permanent monitoring of congested sites. Access to these insights could also help reshape management strategies, fostering more positive perceptions of the destination. Marketing campaigns could educate tourists about the importance of conservation and encourage collaboration among tourism operators, local authorities, academia, NGOs, and residents to promote responsible tourism that supports the local economy while meeting tourists' expectations.

Despite the shared characteristics, each island has its unique dynamics, with Santa Cruz being the most developed in tourism. Floreana, the smallest in population, has developed a form of collective alternative tourism—community-based tourism—to counter the tourism boom experienced primarily in Santa Cruz (Ruiz-Ballesteros & del Campo Tejedor, 2020; Ruiz-Ballesteros, 2017). Our study, while representative of trends in the inhabited islands, focused on one of the four populated centers. Future studies that include all four inhabited islands and more in-depth interviews may reveal tourist dynamics not observed here. Longitudinal research is also needed to evaluate visitor profiles, social and psychographic carrying capacities, and the collaboration among key stakeholders in tourism. Such studies could help strengthen the Galapagos Tourism Observatory and support continued monitoring of tourism metrics in populated areas.

The intersection of overtourism, the COVID-19 pandemic, and economic reactivation has highlighted the need for resilience, adaptability, and sustainable tourism practices. Our pre-pandemic research offers a critical baseline to understand shifts in ecotourism practices and inform future studies on the Galapagos tourism trends. Especially given that the trends in the number of visitors observed pre-pandemic were repeated in 2023. Embracing innovative tourism management and fostering stakeholder collaboration can lead to a more equitable and environmentally sustainable tourism sector through training and education at all levels (tourists, guides, tour operators, public sector, local community), adjusting and strengthening the regulatory framework (evaluation, control, and monitoring) and fostering open science and data to promote an informed decision-making process by the authorities.

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Notes

¹ It is important to mention that the annual tourist entry numbers surpassed pre-COVID tourism rates in 2023 with more than 300,000 tourists (DPNG, 2024)

² All passengers traveling to the Galapagos must follow several regulations, whether they take a cruise ship or a land-based tour. Unlike what usually happens with large cruise ships in other destinations where passengers board the boat directly, in the Galapagos it is necessary to first arrive by plane from mainland airports (Quito or Guayaquil) to implement immigration and biosecurity controls and to pay the entrance fee to the Galapagos National Park.

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