Chapter 5.2

The Galapagos Islands, Ecuador

By Carter A. Hunt

he isolation of Galapagos has been broken.... The resident population jumped from 6,200 in 1982 to 9,800 in 1990, and is growing at the unprecedented rate of 6.3 percent per annum.... Recommended quotas on the number of tourists that should be allowed to visit the islands each year, [originally set at] 12,000 in 1973 and 25,000 in 1981, have been repeatedly surpassed.... Tourism ... is the driving force which, directly and indirectly, dictates the pace and types of changes that are occurring in the islands."

These words were written in 1993 by Bruce Epler, a North American scientist who for decades chronicled the Galapagos Islands. At that time, domestic and international visitation to the islands totaled less than fifty thousand per year. Eller's passage illustrates that concerns for the Galapagos' human carrying capacity—or what is today referred to as overtourism—have been raised since organized tourism began to harm the fragile archipelago in the early 1970s.

Located roughly six hundred miles off the coast of Ecuador and declared UNESCO's first World Heritage Site in 1978, visitor arrivals have continued to increase dramatically despite decades of efforts to set annual limits. By 2007, visitor arrivals exceeded 160,000 a year, and

by 2018 arrivals had increased to a whopping 275,000, a twenty-three-fold increase over 1973, when a quota to curb overtourism was first proposed.²

In addition, the local resident population of farmers, fishers, conservationists, and others catering directly and indirectly to tourism in the Galapagos has now grown from around fourteen hundred in the 1950s to more than thirty-five thousand people in 2019. The place described by Charles Darwin as a "little world unto itself" clearly no longer is.

Roots of Overtourism in the Galapagos

The beginning of the contemporary history of Galapagos is often pegged to the building of a US military base, including an airstrip, on Baltra Island during World War II. These facilities were transferred to the Ecuador government in 1946.⁴ Little population growth or demographic change has occurred in the small agricultural communities established by the pioneers who were sent to the islands throughout the mid-twentieth century. In 1959, the Charles Darwin Foundation and the Galapagos National Park—Ecuador's first national park—were established, both headquartered in Puerto Ayora on Santa Cruz Island.

Tourism-related change began a decade later, in 1969, when Metropolitan Touring, an Ecuadorian company headquartered in Quito, initiated the first "floating hotel" in the Galapagos. This innovation grew to be the dominant tourism model in the Galapagos, with some one hundred small boats running weeklong tours of the islands. Visitors ate and slept on the boats as they followed a carefully controlled itinerary accompanied by naturalist guides. The focus on nature-based tourism was intended to keep a conservation ethic squarely at the center of economic development in the islands. Santa Cruz Island became the population and decision-making center and placed the archipelago on a course of economic development and human growth centered around ecotourism that continues to this day. As Epler noted, however, even in these early days of tourism, the islands were already wrestling with the question of how many visitors were too many.

Throughout the subsequent decades, tourism development stimulated population growth as immigrants were lured to the islands by the higher standard of living compared to other provinces in Ecuador. In addition, the 1990s saw a global boom in the lobster and sea cucumber markets (which fetched higher prices than gold), causing an even faster influx of fisherman seeking to exploit the Galapagos' marine reserve. During this decade, concerns about overfishing trumped concerns about overtourism.

In 1998, the Ecuadorian government passed the Special Law for Galapagos in an effort to alleviate rising local conflicts over restrictions on use of marine resources and concerns about the impacts of tourism on the islands' fragile environment. The law set forth new quarantine controls on invasive species, resource management policies, and residency rules to limit immigration. In an effort to ensure more tourism benefits flowed to local communities, the law also specified that 10 percent of park entrance fees went to the Provincial Council of Galapagos and an additional 20 percent to municipalities in the Galapagos. The law also gave preferential treatment to new tourism businesses operated by permanent Galapagos residents.⁷

Because residency restrictions and work permit requirements were loosely enforced, however, migrants seeking opportunities in tourism continued to arrive.⁸ In addition, given the reporting difficulties, the official 2019 estimate of thirty-five thousand local residents is likely conservative.

In the Galapagos today, the influx of diverse groups from Europe, mainland Ecuador, and elsewhere has led to clashes that have influenced decision-making and governance of the islands. 9 Bitter environmental conflicts erupted during the lobster and sea cucumber fishing booms of the 1990s, culminating in physical violence as bands of resident and recent immigrant fishermen burned the national park headquarters, took staff hostage, and hung several giant tortoises in the street to protest newly imposed fishing restrictions. 10 These conflicts, which were rooted in incompatible cultural worldviews, led to complex coalitions of residents whose actions failed, at times, to recognize and respect long-standing conservation values in the Galapagos. They included the careful use of natural resources, appropriate forms of economic development, and the need to protect endemic species and the islands' fragile ecosystems. 11 These differences helped precipitate a revolving door of leadership at key institutions like the national park, the Charles Darwin Foundation, and local government offices. Taken together, the

divisions have also hindered broader collective action built upon shared conservation values, including the need for policies to effectively address overtourism in the archipelago.

The rise in local conflicts led UNESCO to put the Galapagos on the World Heritage in Danger List between 2007 and 2010. ¹² As UNESCO officials stated:

The principal factor leading to the inscription of the property [as a] World Heritage in Danger arises from the breakdown of its ecological isolation due to the increasing movement of people and goods between the islands and the continent, facilitating the introduction of alien species which threaten species native to the Galápagos. This is fueled by poor governance leading to inadequate regional planning and unsustainable tourism development. Illegal and excessive fishing pressures in the Galápagos Marine Reserve (GMR) were another factor contributing to the Danger listing.¹³

In response, the government improved its regional planning and expanded local participation in fishery management, while the Ministry of Environment placed tighter controls on migration and the introduction of invasive species. ¹⁴ Visitation to the islands continued to grow, however, even though UNESCO listed "unsustainable tourism" as one of the reasons for putting the Galapagos on the World Heritage in Danger list.

Accelerating Overtourism

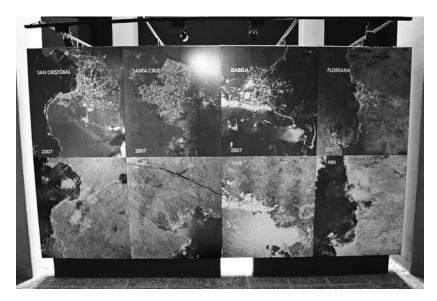
The floating hotel tourism model that dominated in the Galapagos from the early 1970s until the early 2000s is widely cited as an ecotourism success story that kept environmental impacts to a minimum while providing visitors with high-quality nature experiences. Tourists were required to travel in the company of guides at all times, their activities were restricted to designated areas, and quotas for visitation to different park sites were carefully managed by the national park, both to control for ecological impacts and to preserve the visitors' immersive and uncrowded nature experience.

Under this model, however, there were considerable leakages of

tourism earnings and jobs from the islands. Most of the boats were owned by non-Galapagos companies, most supplies and equipment were imported, and many of the top guides were not locals. Eventually, the leakages from the floating hotel model began to generate resentment. With the backing of the 1998 Special Law for Galapagos, local community leaders and nongovernmental organizations began to advocate for "a new model of ecotourism" that placed the priority on the maximization of economic benefits for local communities, not just for the external tour operators in charge of the floating hotels. ¹⁵ By 2010, the tourism industry was undergoing several dynamic shifts. These changes are increasing the magnitude of tourism-related impacts on local residents, on the visitor experience, and on the islands' unique ecosystems. In particular, three key trends are exacerbating concern about overtourism.

The Changing Model of Island Visitation

Although the long-established model of small cruise visitation on a preset itinerary of islands within the Galapagos National Park continues to grow in popularity, the historic model has been overtaken by a model of island-based visitation. By 2011, more visitors were staying in hotels on the islands than aboard cruise boats.¹⁶ Airlines operating flights from the mainland began making visitation more affordable for both international and national visitors, and park entrance fees of \$100 for foreign tourists and \$6 for Ecuadorian nationals have, incredibly, not been raised since 1993. 17 Rather than a slow-paced week-long tour aboard luxury boats, the majority of visitors now stay in more modest land-based accommodations and do shorter island-hopping excursions to local park sites. This increase in on-island tourism has led to extensive construction of new infrastructure, including accommodations, dining and drinking establishments, and improved airports on Santa Cruz and San Cristobal Islands. Shipments of food and supplies from the mainland that used to arrive every couple of weeks now arrive daily to support this new model of tourism. The growth of on-island tourism puts further stress on the sources of finite freshwater, requires additional energy resources, and generates a massive amount of new waste and trash.18



The last fifty years of development in the Galapagos Islands. Source: Carter Hunt.

The Changing Nature of Tourists to the Galapagos

Tourism in the Galapagos has long been dominated by US visitors, although since 2017, Ecuador itself accounts for the largest contingent (31 percent) of annual visitors. US visitors now comprise 29 percent of total arrivals, and no other country provides more than 5 percent of the total. With the boat tour model of visitation dominated by international visitors, the growth of the Ecuadorian market that dominates the on-island model represents the bulk of all new growth in visitation in recent years. Although international visitation to the islands will remain extremely important, especially given the higher per capita revenue it generates, foreign visitors are far more likely to spend their time on boats and to have more limited interactions with the local population. In contrast, growth of the Ecuadorian market corresponds to a further intensification of the on-island model of tourism.

For some, the growth of the national market represents a positive trend toward "democratization" of tourism to Galapagos, with more Ecuadorians visiting their own natural heritage than ever before. The visitor experience of land-based tourism, however, is now less explicitly linked to nature-based activities and the conservation of the islands' unique habitat that has been the hallmark of the boat-based model. National park site quotas to visit specific islands are filled by the long-standing agreements with the operators of larger, forty- to one-hundred-passenger boats, leaving little opportunity for shorter-term, on-island visitors to tour the farther reaches of the park. As a result, on-island visitation is becoming more akin to coastal mass tourism, characterized by beach visits, surf and scuba lessons, upscale cafés selling coffee grown on the islands, rented electric scooters zipping up and down the streets of Puerto Ayora, and numerous craft breweries. This erosion of the nature-based visitor experience and the decoupling land-based tourism from the conservation ethic embodied in small cruise tourism are undermining the fundamental character of the Galapagos, a concern central to all discussions of overtourism.

The Changing Nature of the Resident Population

The Galapagos Islands had no native human population. After serving as a penal colony in the nineteenth century, subsequent waves of immigrants were drawn by the archipelago's economic opportunities, first in agriculture, then fishing followed by conservation, then floating hotel tourism, and, most recently, on-island tourism.²¹

Under the 1998 Special Law, local residents who had lived in the islands for more than five years were declared "permanent residents." The law also granted residence rights to all future descendants of Galapagos residents, whether or not they had ever lived in the archipelago, thereby opening a large pool of potential immigrants.²² In addition, the absence of effective controls on migration as well as various loopholes in temporary work-permitting policies, has almost certainly led to underreporting of the resident population. Indeed, despite the Special Law's stated attempt to control immigration, in-migration has dwarfed endogenous population growth.²³ As of 2015, just 36 percent of the 35,000+local residents were born in the islands.²⁴ Tourism continues to grow and foment both formal and informal migration to the Galapagos, furthering overdevelopment and other undesirable outcomes.

Solutions to Overtourism

There is an urgent need to address these issues to preserve the Galapagos, one of the natural scientific community's most iconic sites. The following recommendations include better tourism management and improved, and more cooperative, research.

Controlling Visitor Numbers, Raising Entrance Fees

One obvious measure that the Ecuador government could take to address overtourism is to place restrictions on the number of visitors that can enter the Galapagos. Doing so would have to proceed by simultaneously revisiting the Galapagos National Park entrance fee structure, which has remained unchanged since 1993. An international adult visitor to Galapagos pays \$100 for up to sixty days in the islands; in comparison, an international visitor pays \$95 daily to visit Tanzania's Serengeti National Park, also a World Heritage Site. There is an urgent need for research that provides simulations of how changes to this fee structure might influence overall visitor numbers, as well as overall revenue for the Galapagos National Park, the Galapagos Marine Reserve, and the local provincial and municipal governments.

Research Focused on Human-Environment Relations

Historically, research in the Galapagos has focused on its unique natural history, which has created an incredible repository of scientific knowledge about the islands' ecological systems and processes. Essential to implementing policies that effectively address long-standing overtourism concerns is a better understanding of the dynamic milieu of cultural worldviews among the islands' population and the ways that these differing attitudes influence conservation, development governance, and decision-making.

The 2016 renewal of cooperative agreements between the Charles Darwin Foundation and the Ecuadorian Government call for human-environment relations to be a specific research focus of the foundation going forward. Although little such research has yet gotten underway, promising lines of investigation involve better understanding of tourism activities and other human drivers of invasive species introduction,

facilitation of more inclusive management of fisheries and other natural resources, efforts to promote and reward organic agriculture, deeper exploration of the persistent influence of imported cultural worldviews on local natural resource decision-making, and more sustainable management of tourists and the tourist experience.

Research Partnerships

In undertaking overtourism-related research, institutional partnerships remain crucial. The Charles Darwin Foundation has a history of collaboration dating back to its cocreation with the Galapagos National Park in 1959. In addition, the Universidad San Francisco de Quito and its partner, the University of North Carolina at Chapel Hill, have greatly expanded their joint tourism-related social science research, especially through their comanaged Galapagos Science Center on San Cristobal island.

These partnerships often encounter challenges, including a sense of "territoriality" among competing research institutions that must be overcome. As with all major conservation and development challenges, greater cooperation among academic and research institutions, nongovernmental organizations, civic organizations, and government institutions will be essential for addressing the long-expressed concern for overtourism in the Galapagos.

Conclusion

Today, tourism is recognized as one of the primary global drivers of human-caused socioeconomic and environmental disturbances, and in few places is this truer than in the Galapagos. Indeed, the archipelago has a lengthy history of unheeded warnings about too much tourism, including, most notably, UNESCO's declaration of the Galapagos as a World Heritage Site in Danger between 2007 and 2010. It remains unclear at what point the institutional and political forces will act to set limits on tourism visitation, reform the Galapagos National Park entrance fees, place effective restrictions on in-migration, and enact other measures to offset the overtourism pressures on the islands. Despite the well-documented disruptions overtourism creates in local

communities and environments, however, well-managed tourism remains a powerful tool for conservation and socioeconomic well-being, given the scale of threats to the marine and terrestrial ecosystems of the Galapagos. From shark finning to the influx of invasive species and from overfishing of lobster and sea cucumber fisheries to the impacts of global climate change, tourism, responsibly done, is likely to remain the best hope for both conservation and local communities in UNESCO's first World Heritage Site, the Galapagos Islands.

Notes

- I. Bruce Epler. (1993). An Economic and Social Analysis of Tourism in the Galapagos Islands. Kingston: Coastal Resources Center, University of Rhode Island.
- 2. Bruce Epler. (2007). Tourism, the Economy, Population Growth, and Conservation in Galapagos. Puerto Ayora, Ecuador: Charles Darwin Foundation; Graham Watkins and Felipe Cruz. (2007). Galapagos at Risk: A Socioeconomic Analysis of the Situation in the Archipelago. Puerto Ayora, Ecuador: Charles Darwin Foundation; Observatorio de Turismo. (2018). Informe Annual de Visitantes a la Areas Protegidas de Galapagos 2018. Puerto Ayora, Ecuador: Observatorio de Turismo.
- 3. Carlos Carrion. (2007). "Migración y crecimiento poblacional en las islas Galapagos." Eds. Pablo Ospina and Cecilia Falconí. *Galápagos: Migraciones, economía, cultura, conflictos y acuerdos*. Quito: Corporación Editora Nacional. pp. 93–113; Carlos Mena. (June 25, 2019). *El suministro de alimentos en galápagos: enlazando agricultura, importaciones y turismo para crear escenarios futuros*. Presentation, Puerto Ayora, Ecuador: Galapagos National Park and the Charles Darwin Foundation.
- 4. Pablo Ospina. (2001). *Migraciones, actores e identidades en Galápagos*. Quito: Consejo Latinoamericano de Ciencias Sociales.
- 5. Bruce Epler. (1993). An Economic and Social Analysis of Tourism in the Galapagos Islands. Kingston: Coastal Resources Center, University of Rhode Island; Bruce Epler. (2007). Tourism, the Economy, Population Growth, and Conservation in Galapagos. Puerto Ayora, Ecuador: Charles Darwin Foundation.
- 6. Bruce Epler. (1993). An Economic And Social Analysis of Tourism in the Galapagos Islands. Kingston: Coastal Resources Center, University of Rhode Island.
- 7. William Durham. (2008). "Fishing for Solutions: Ecotourism and Conservation in Galapagos National Park." Eds. Amanda Stronza and William Durham. *Ecotourism and Conservation in the Americas*. Wallingford: CABI. pp. 66–89.
- 8. Byron Villacis and Daniela Carrillo. (2012). "The Socioeconomic Paradox of Galapagos." Eds. Stephen Walsh and Carlos Mena. Science and Conservation in the Galapagos Islands: Frameworks and Perspectives. New York: Springer. pp. 69–85.
- 9. Christophe Grenier. (2007). Conservación contra natura. Las islas Galápagos. Quito: Editorial Abya Yala.
- 10. Flora Lu, Gabriela Valdivia, and Wendy Wolford. (2013). "Social Dimensions of 'Nature at Risk' in the Galápagos Islands, Ecuador." *Conservation and Society.* 11(1): 83; William Durham. (2008). "Fishing for Solutions: Ecotourism and Conservation in

- Galapagos National Park." Eds. Amanda Stronza and William Durham. *Ecotourism and Conservation in the Americas*. Wallingford: CABI, pps. 66-89.
- 11. Pablo Ospina. (2001). *Migraciones, actores e identidades en Galápagos*. Quito: Consejo Latinoamericano de Ciencias Sociales; Christophe Grenier. (2007). *Conservación contra natura. Las islas Galápagos*. Quito: Editorial Abya Yala.
- 12. UNESCO. (2010). State of Conservation of Properties Inscribed on the List of World Heritage in Danger: Reactive Monitoring Mission Report Galapagos Islands. Brasilia: UNESCO World Heritage Committee; Martha Honey. (2008). Ecotourism and Sustainable Development: Who Owns Paradise? Washington, DC: Island Press.
- 13. Wendy Strahm and Marc Patry. (June 17, 2010). Reactive Monitoring Mission Report, Galapagos Islands 27 April—6 May 2010. Paris: World Heritage Center UNESCO.
- 14. Rory Carroll. (July 29, 2010). "UN Withdraws Galápagos from World Heritage Danger List." *The Guardian*. https://www.theguardian.com/world/2010/jul/29/galapagos-withdrawn-heritage-danger-list.
- 15. Juan Carlos García, Daniel Orellana, and Eddy Araujo. (2013). The New Model of Tourism: Definition and Implementation of the Principles of Ecotourism in Galapagos. *Galápagos Report 2011–2012*. Puerto Ayora, Ecuador: Galapagos National Park, Governing Council of Galapagos, Charles Darwin Foundation, and Galapagos Conservancy. pp. 95–99.
- 16. Observatorio de Turismo. (2011). Boletín No. 1 Edición Trimestral Junio-Septiembre 2011. Puerto Ayora, Ecuador: Observatorio de Turismo.
- 17. Bruce Epler. (2007). *Tourism, the Economy, Population Growth, and Conservation in Galapagos*. Puerto Ayora, Ecuador: Charles Darwin Foundation; Parque Nacional Galapagos. (2020). *Tribute of Entry Fee for Galapagos National Park*. http://www.galapagos.gob.ec/en/tribute-of-entry/.
- 18. Stephen Walsh, Amy McCleary, Benjamin Heumann, Laura Brewington, Evan Raczkowski, and Carlos Mena. (2010). "Community Expansion and Infrastructure Development: Implications for Human Health and Environmental Quality in the Galápagos Islands of Ecuador." *Journal of Latin American Geography*. pp. 137–59; Kerstin Zander, Angelica Saeteros, Daniel Orellana, Veronica Toral Granda, Aggie Wegner, Arturo Izurietah, and Stephen Garnett. (2016). "Determinants of Tourist Satisfaction with National Park Guides and Facilities in the Galápagos." *International Journal of Tourism Sciences*, 16(2): 60–82.
- 19. Observatorio de Turismo (2017). Estadística Turismo Galapagos 2017. Puerto Ayora, Ecuador: Observatorio de Turismo.
 - 20. Ibid.
- 21. Kerstin Zander, Angelica Saeteros, Daniel Orellana, Veronica Toral Granda, Aggie Wegner, Arturo Izurietah, and Stephen Garnett. (2016). "Determinants of Tourist Satisfaction with National Park Guides and Facilities in the Galápagos." *International Journal of Tourism Sciences*, 16(2). pp. 60–82.
- 22. Martha Honey. (2008). Ecotourism and Sustainable Development: Who Owns Paradise? Washington, DC: Island Press.
- 23. Byron Villacis and Daniela Carrillo. (2012). "The Socioeconomic Paradox of Galapagos." Eds. Stephen Walsh and Carlos Mena. *Science and Conservation in the Galapagos Islands: Frameworks and Perspectives*. New York: Springer. pp. 69–85.
- 24. Instituto Nacional de Estadística y Censos. (2015). Análisis de resultados definitivos Censo de Población y Vivienda: Galápagos 2015. https://www.ecuadorencifras

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 $. gob.ec/documentos/web-inec/Poblacion_y_Demografia/CPV_Galapagos_2015/Analisis_Galapagos\%202015.pdf.$

25. Amanda Stronza, Carter Hunt, and Lee Fitzgerald. (2019). "Ecotourism for Conservation?" *Annual Review of Environment and Resources*. https://doi.org/10.1146/annurev-environ-101718-033046.