



Conservation science, local community, and a library in Galapagos

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Abstract:

The paper presents the work of the Charles Darwin Foundation's library and archive at the Galapagos Islands (Ecuador), the oldest and only active library in the archipelago. The library holds an important collection of scientific and conservation-related documents. In order to connect people with that particular set of knowledge, the CDF's library and archive are developing a number of activities that are briefly described in these pages.

Keywords: Galapagos, conservation, biodiversity, community, memory.

1. An archipelago in the Southern Seas

The Galapagos Islands or *Archipiélago de Colón* are a group of 19 islands, 42 islets and 26 rocks belonging to Ecuador, located in the Pacific Ocean, 563 miles away from the nearest mainland, the western coast of South America. As the naturalist William Beebe put it in the title of his famous book (1924), they are a sort of "world's end".

A "world's end" nowadays protected by strict laws and rules. For the islands are a National Park, a UNESCO World Heritage and a Biosphere Reserve. Curiously, they are also a place affected by intense tourism and migratory movements, as well as being the focus of academic discussion regarding conservation policies and environmental struggles. It seems that Galapagos is one of those hotspots where natural and human histories collide with each other — with unexpected consequences.

The relationship of humans with the archipelago was never simple. They were named "Enchanted Islands" by early Spanish sailors that, unable to place them in their charts during the 16th century, believed them to be bewitched — being under an evil spell that made them

appear and disappear. Herman Melville, the author of *Moby Dick* (and himself a sailor in one of the many whaler ships that hunted in Galapagos' waters), immortalized the nickname in one of his best literary works, *The Encantadas* (1854). His description of the islands was anything but flattering: he referred to them as "five-and-twenty heaps of cinders" in the middle of the sea. Charles Darwin, which turned Galapagos into the object of desire of the international community of conservationists and evolutionary biologists, was not kinder. In *The Voyage of the Beagle*, he spoke of scorched soils and bad-smelling bushes. Even the Spanish "discoverer" of Galapagos, a Dominic friar named Tomás de Berlanga, who accidentally reached the archipelago in 1535, spoke of the place as somewhere where God had made stones rain.

Galapagos is far from being the stereotypical tropical paradise: it is more of a volcanic outpost, with arid, rocky lowlands and a few misty highlands. Regardless of the harsh landscapes, they still are dream-like pieces of land: there, mangrove forests mix with huge prickly pears bushes, and black-as-coal basaltic flows sink into a sea populated by sharks and coral-reef's colorful fishes... The relative isolation of the islands and their particular location allowed them to become a sort of biological laboratory, inside which a very special flora and fauna survived: from the famous giant tortoises that gave Galapagos their name (from an old Spanish word meaning "turtles") and fed sailors and colonists for centuries, to marine iguanas, flightless cormorants, huge albatrosses and pelicans, forests of "daisy trees", equatorial sea lions and penguins, and much more. So much that they became the main subject of hundreds of field studies and research papers.

It is also a place with a very particular —sometimes even dark and tragic— human history: Incan legendary sailors share the pages of Galapagoan chronicles with Spanish *conquistadores*, pirates and privateers, whalers and seal hunters, prisoners and foremen, Robinsons and castaways... And, almost inevitably, Darwin, the "Beagle", and dozens of other scientific expeditions.

The interaction between that unique natural world and that particular human presence produced a conflictive history that is still unfolding, and lead to the creation of the preserved place the archipelago is today — and to conservation practices that are still being debated and tested.

2. A protected land

The "bewitched" reputation the islands had among the Spaniards during the colonial period in Latin America allowed buccaneers and pirates to make them their safe haven during the 17th and 18th centuries; as a matter of fact, the author of the first map of the archipelago was an English privateer, William A. Cowley (1684). Pirates did not mind the aridness and desolation of the Galapagos. They appreciated the tortoises, though: as an example, Captain

William Dampier —the so-called "Pirate Naturalist"— spent three months there at the end of the 17th century sustaining himself and his crew on the meat of those giant reptiles.

A hundred years later, after the end of the corsairs' era, their place was filled in by whalers and hunters. They used and abused the local natural resources to the level of nearly extinguishing some species. Thirty years after their arrival, when the sperm whales, the sea lions and the tortoises had almost disappeared, and penguins and iguanas were endangered, the hunting ships went away to overexploit other waters. The Galapagos became then a part of the Ecuadorian territory (1832) and, after Darwin's visit in 1835, a place for study and research.

During the last part of the 19th century and the beginning of the 20th, scientific expeditions visited the islands and predated on their fauna and flora to feed the seemingly insatiable hunger for specimens of Western zoos, museums and private natural history collections. At the same time, a good number of Ecuadorian colonists arrived from the mainland to work, under a slave-like regime, for ruthless landowners. This way, by 1930 the degradation of the Galapagoan landscapes was brutal. Besides the damage made by introduced domestic animals (goats, horses, cows), the colonists' overuse of the resources had carried most of the endemic species to the brink of extinction.

In 1958, the strong concern raised among the international scientific community about Galapagos' environments and their exploitation led to the creation of the Galapagos National Park by the Ecuadorian Government. The Park was officially inaugurated on July 20th, 1959, covering the 97% of the archipelago's land surface. Three days later, the Charles Darwin Foundation for the Galapagos Isles (CDF) was created in Brussels, backed by UNESCO and the IUCN, to support the international conservation efforts. In 1960, and under harsh conditions, the CDF started building a Research Station near Puerto Ayora, in Santa Cruz Island. Inaugurated on January 20th, 1964, the Charles Darwin Research Station (CDRS) became an international basis for scientists willing to carry out their studies on the islands, and a place for information to be collected on how to better protect the archipelago and all its inhabitants

Such a space needed a library. And, although it had existed unofficially since at least 1971, the "G. T. Corley Smith" library opened its doors in 1979.

3. A library in Galapagos

The "G. T. Corley Smith" library is the CDF's official information repository. It houses both bibliographical collections (books, journals, reference texts, articles, theses, etc.) and the archive; this way, while illustrating the path walked by the CDF in its six decades of existence, it also encourages the discovery and exploration of new trails.

Located at the heart of the CDRS, the library —the first permanent one in the archipelago, for a long time the only one, and currently the most important in terms of collections and activity— keeps and manages the most complete corpus of knowledge in the world about Galapagos and the scientific work developed in the islands up to the present.

The bibliographic collection is composed of a general collection, consisting mainly on textbooks on exact and natural sciences —with a particular emphasis on ecology, environmental conservation and biology—, a small journal collection, a reference section, the "Darwin" collection (texts by and about the famous British scientist), and two special collections: "Galapagos" and "Charles Darwin Foundation". Those two hold an important amount of the scientific knowledge produced about the islands, alongside many of the CDF's internal reports and guidelines.

The archive contains hundreds of valuable documents that make up the CDF's social memory and allow building the history of the institution and, at the same time, to produce an account of the scientific activity on the archipelago (a history, the one of science in Galapagos, still to be written). The archive collection is divided into two sections: textual and audiovisual. The former includes an old journal collection (1930-2000), architecture plans, historical and educational documents, administrative files, and manuscript notes produced by some of the many researchers who have worked at the Station. The latter holds, as implied by its name, photographs and slides, films, sound recordings, illustrations, posters, brochures, maps, diskettes, CDs and DVDs documenting the academic and research activities in Galapagos in general and at the Station in particular.

Due to the prevailing environmental conditions in the archipelago and the proximity of the sea, all collections are currently protected in controlled temperature and humidity environments.

The library provides specialized search, loan and reference services to resident and visiting scientists, volunteers, grantees and researchers. Likewise, it opens its doors to naturalist guides, National Park rangers, visitors, teachers, students of all levels, members of the local community and, in short, anyone who wishes to explore a unique set of knowledge.

Although the library operated at least since 1971 —the date of the earliest conserved inventory book—, it was officially inaugurated on October 28, 1979, in one of the first structures built at the Station. It was named after the British diplomat Gerard Thomas Corley Smith (1909-1997), who, upon retiring from his political activities, joined the CDF Board of Directors in 1969. Corley Smith left, as part of his legacy, the seed of the library that today bears his name.

The collections and their managers have changed over time, following the many socio-economic and historical ups and downs that affected both the CDF and the Galapagos

Islands. But the library's mission has always been aligned with the institutional one: "to provide knowledge and assistance through scientific research and complementary action to ensure the conservation of the environment and biodiversity in the Galapagos Archipelago" (CDF, 2018).

The library has played and intends to keep playing an essential role in the development of environmental conservation activities in the archipelago, in the management and dissemination of scientific information, in the divulgation of strategic knowledge, and in the support to education and outreach programs.

4. Present work

Nowadays, the library functions as the CDF's main space for knowledge management and dissemination. As expressed in the *Strategic Plan for the Library 2018-2019* (unpublished):

The mission of the CDF Library is to manage knowledge to support Galapagos conservation and the well-being of the archipelago's inhabitants. Its vision focuses on becoming an information unit that builds open, sustainable and plural spaces where knowledge nurtures reflection, commitment and action. Its central value is to serve as a connection channel with knowledge.

Taking into account its vision, the "G. T. Corley Smith" library aims at becoming a meeting place between the scientific knowledge produced by the CDF's professionals, and the Galapagos society. At the same time, it intends to support reading skills among the younger Galapagoan generations, to encourage knowledge and multimedia production, and to include innovative approaches to the work done by scientists (e.g. citizen science, digital humanities, etc.).

To this end, the library has embarked on a series of projects to be developed in the short and medium term, building a two-fold line of work: "History" and "Outreach".

The "History" part of the library work focuses specifically on the content of the CDF's archive. The documents that make up that collection are being inventoried, cataloged, classified, indexed, processed, repaired whenever necessary, and slowly digitized. The result of the digitization project will be a virtual collection that, when completed, will include hundreds of elements such as field notes, reports, posters, photographs, slides, etc., narrating the history of CDF and the science in Galapagos — as well as picturing the social memory of the local community. This digital collection will be connected with other CDF's databases in a unique online platform, called *Galapagueana*, which will also include the complete "Bibliography of Galápagos" and the outcomes of the Oral History and Documentary Film projects, both aimed at gathering information and knowledge never registered before on physical media.

The projects that make up the "Outreach" part address the very important and long neglected social side of biodiversity conservation and environmental protection. The strongest component of any conservation project lies in the transfer of knowledge and information to the local community, as well as in environmental education (see e.g. Goldman, 1998, and Brechin et al., 2003); libraries and the knowledge they manage are essential pieces in both processes (see IFLA, 2018). Accordingly, the "G. T. Corley Smith" library intends to establish solid links with the local society in all the populated islands of the archipelago, to support education and citizen science, to promote training (e.g. for naturalist guides and National Park rangers), and to raise awareness about conservation among the general public, including tourists.

To achieve this goal, a number of projects are being carried out. Probably the most important one at the moment is the "Traveling libraries" initiative, first of its kind in Ecuador and Galapagos: collection of carefully selected documents are being sent to different places in the islands inside suitcases, to be used and even become the seeds for future libraries (there is a practically absolute absence of libraries in the archipelago). Each collection includes up-to-date scientific papers, guides, textbooks and digital documents, but also Latin American literature, multimedia and school books. As basic as it sounds, it is an innovative way to address a huge problem in Galapagos —lack of libraries and distribution channels for updated information—, and it is being very well received by the final users. Thanks to this action, the role of CDF as a center for knowledge production and dissemination is being strengthened, as well as the relationship between the institution and the society at large: trust bonds are being built, and new projects are being designed in a collaborative way.

Other projects include the reproduction of discontinued CDF's documents for their free distribution; collaboration with primary schools in the islands to support access to information, reading / writing / research skills, and environmental education; support to emerging citizen science activities; production of handmade cardboard books (*libros cartoneros*); and a long and exciting "etcetera" that foster interactions between the "G. T. Corley Smith" library and the Galapagoan society, and help the library staff to identify information-related problems and expectations.

5. Paths to the future

Even if the activities presented here are nothing new on an international context, they actually are when considering the local context of isolation and oblivion, lack of resources and social issues. Working in a place as protected as Galapagos (a National Park, a UNESCO World Heritage and a Biosphere Reserve) is challenging as well, with so many actors participating in the political arena, and so many conflicting interests. What for other libraries may represent a small, easy step, in the archipelago becomes a huge, time-consuming one, and many barriers need to be overcome in order to facilitate dialogue, including the one

separating scientists, conservationists and environmental activists from the local population — two human groups with different (sometimes even opposed) interests, thoughts and perspectives. As stated above, the human history in Galapagos has always been a difficult one, a real rollercoaster of events, struggles and diverging opinions and actions.

What may be seen as a handful of problems can also be understood as a window of opportunity and as a field laboratory for Library and Information Sciences to be applied, explored and tested. Hot topics like the interaction between sustainability, information and society, or the role of knowledge in conservation programs, or even categories like social justice, degrowth, human rights and equity, can be researched here. The construction of social memory and local identities, and the political role of libraries as institutional repositories, are also subjects that can be investigated.

The "G. T. Corley Smith" library will continue to explore ways to disseminate knowledge — as innovative as possible. The traditional collection of documents (books, journals, etc.) is being progressively linked to the CDF's collections of biological specimens, in order to add an extra value to both of them and to help people make sense of the meaning of scientific activity and understand the environmental reality they live in. At the same time, as already mentioned, the library collection is being linked to the audiovisual and historical archive, which allow the scientific work to be put in context, and to be approached in a more graphic way. An Oral History project is planned to add more context and information to the entire ensemble by collecting the experiences of the local society about conservation in the Galapagos. And the results of the interaction of all these pieces is planned to be delivered to the resident community through a number of well-designed services, including blog posts and use of social media, reading promotion, radio shows, and other outreach activities.

Looking for innovative ways to provide services to its users —but without losing its scientific identity— the "G. T. Corley Smith" library will strive to add links to its official four-decade history, and steps to those already given by all those who, in a way or another, put their grain of sand to build and organize the current collection and services. All in pursuit of the conservation of a unique natural space, with a history full of transformations, lights and shades, and a future yet to be defined.

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