



# 2022 Ecuador SCAGI Report

To the Standing Committee on Antarctic  
Geographic Information of SCAR

Online Zoom Meeting

Date:

2022-10-26



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## 1. Presentation

On behalf of the Coordination of Antarctic Affairs of the Ecuador's Navy Oceanographic and Antarctic Institute, I would like to thank the SCAGI's members for their gentle invitation.

The objective of this document is to present which were the activities related to the geographical area that have been developed at our Coordination, being some of them already finished and other ones are at current development

## 2. Ecuador SCAR Members

- **Eng. Ashley Casierra**  
Environmental Ocean Engineer, ESPOL.  
Scientific Analyst at the Antarctic Affairs Coordination, INOCAR.
- **Oce. Mónica Riofrío Briceño**  
Scientific Analyst at the Antarctic Affairs Coordination, INOCAR.

## 3. Overview

From the meeting is concerned, in the period February – October 2022 the following actions have been developed:

- Ecuador's Antarctic Spatial Data Infrastructure.
- Ecuador's Antarctic Projects Catalog
- RAPAL's 33<sup>rd</sup> meeting.

## 4. Activities details

### Ecuador's Antarctic Spatial Data Infrastructure

It involves developing and implementing an Ecuadorian Antarctic Spatial Data Infrastructure through online GIS applications to integrate and manage the scientific spatial information obtained from the different research projects carried out during the Ecuadorian Antarctic Expeditions, facilitating the knowledge transfer, Antarctic scientific research development and environment protection.

As part of the Ecuadorian Antarctic SDI implementation, there are objectives related to the objects catalog creation to guarantee the interoperability of its geodatabases into ArcGIS server environment, a geoportal design that allows the spatial data visualization and querying, as well as establish online tools for the spatial data and services storage and download.

The geoportal hosted on the Navy Oceanographic and Antarctic Institute's ArcGIS server, located at the link: <https://coordinacionasuntosantarticos-inocar.hub.arcgis.com/> consists of components such as:

- Homepage.



Figure 1. Ecuadorian's Antarctic Geoportal homepage

- Electronic Nautical Charts section of Fort William beak.
- Base Cartography section generated.
- Object Catalog Section, in current development.
- Projects section, in current development.

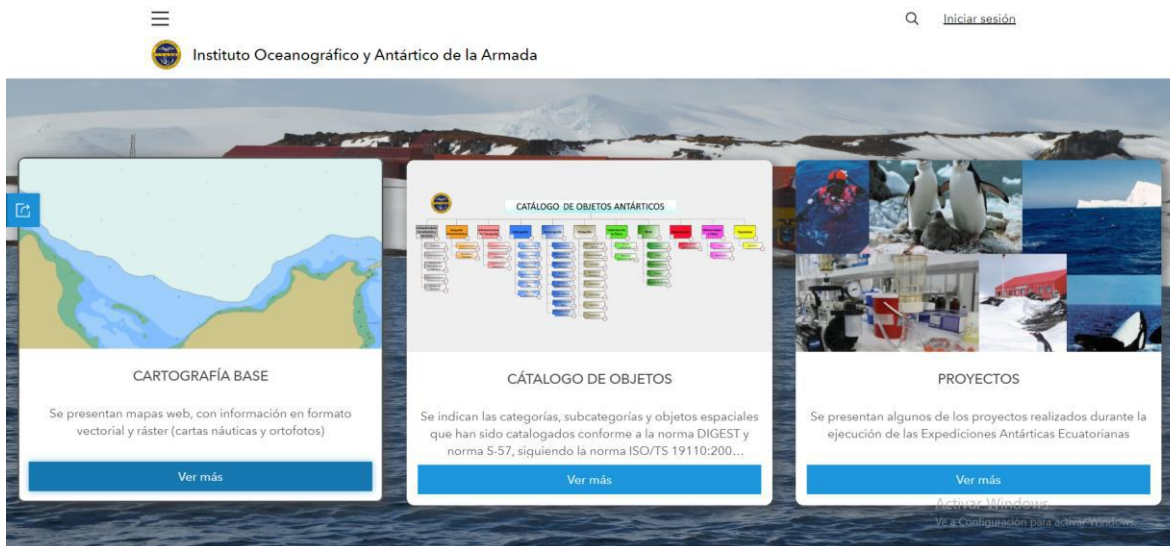


Figure 2. Ecuadorian's Antarctic Geoportal Sections

Internal activities are currently being developed to obtain and/or create spatial objects of the scientific projects given during previous Antarctic expeditions, with the objective of feeding the geoportal's project section.



Figure 3. Ecuadorian's Antarctic Geoportal project geoviewer



## Ecuador's Antarctic Projects Catalog

In order to maintain open data access, a section has been designed at the site of Ecuador in Antarctica destined for the Antarctic projects publication into a catalog mode ([http://ecuadorenlaantartida.mil.ec/?page\\_id=11311](http://ecuadorenlaantartida.mil.ec/?page_id=11311)), where information collected from each work carried out during the expeditions is stored.

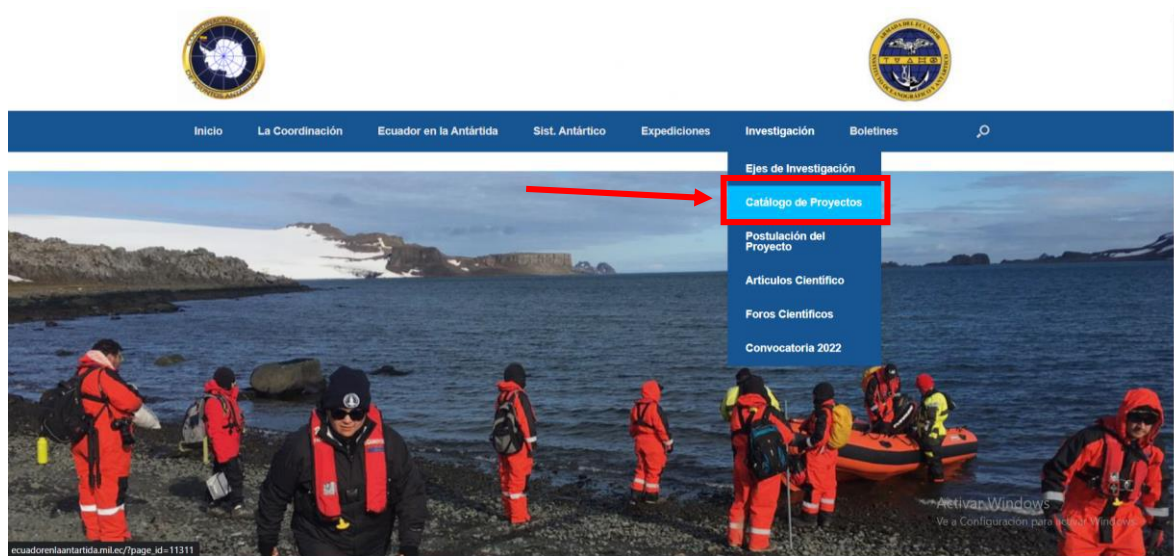


Figure 4. Site of Ecuador in Antarctica (<http://ecuadorenlaantartida.mil.ec>)



Figure 5. Site of Project's Catalog ([http://ecuadorenlaantartida.mil.ec/?page\\_id=11311](http://ecuadorenlaantartida.mil.ec/?page_id=11311))

In relation to this, the projects have coded identifiers, which represent the six lines of research actually in force, accompanied by the year of development, and the number of Antarctic expeditions carried out for the project.

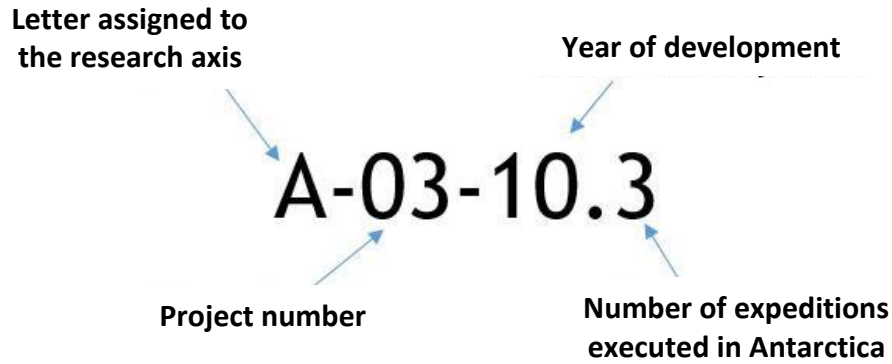


Figure 6. Project codified identifier

The current six research axes are related to: The Antarctic Environment (A), Climate Change (C), Ecuador – Antarctica Interaction (I), Technologies applied to the Antarctica (T), Human dimensions associated with Antarctica (H), Maritime Security (S).

LETRA ASIGNADA	OBSERVACIÓN
A: Ambiente Antártico	Investigaciones científicas incorporadas en el eje “Ecosistemas y servicios ecosistémicos en la Antártida”
C: Cambio Climático	Investigaciones científicas incorporadas en el eje “Tendencias y escenarios de cambio climático en la Antártida”
I: Interacción Ecuador - Antártida	Investigaciones científicas incorporadas en el eje “Teleconexiones entre Ecuador y la Antártida”
T: Tecnologías aplicada a la Antártida	Investigaciones científicas incorporadas en el eje “Tecnología de la información y comunicación e innovación tecnológica aplicada a la Antártida”
H: Dimensiones humanas asociadas a la Antártida.	Nuevo eje de investigación incorporado en el 2022
S: Seguridad Marítima	Nuevo eje de investigación incorporado en el 2022

Figure 7. Current six research axes

In this section, there are three ways to access Project information:

- General list.



Figure 8. Projects by general list

- By expedition.

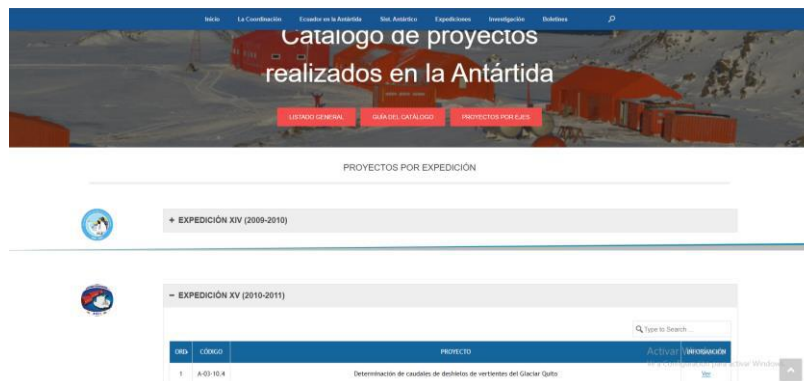


Figure 9. Projects by expedition list

- By research axis

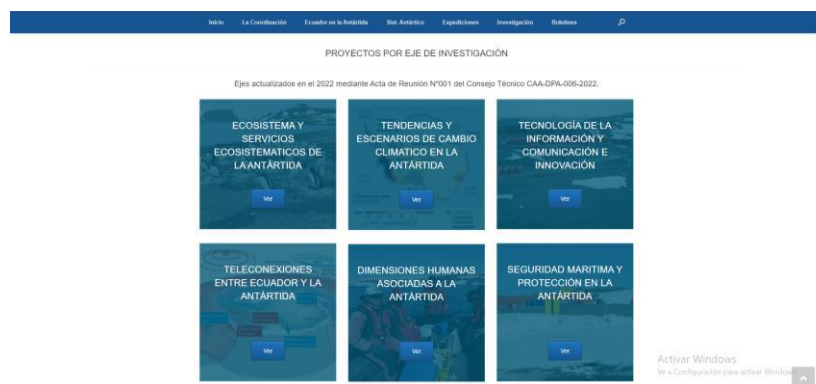


Figure 10. Projects by research axis



However, all the lists redirect to each project's entry, where synthesized information is available, such as title, field images, summary, documentations as field reports and scientific articles, and data referring to the years of development, scientific leader's name and contacts, etc.



Inicio La Coordinación Ecuador en la Antártida Sist. Antártico Expediciones Investigación Biblioteca

PROYECTO A-05-10.2

### Estudio preliminar de los mamíferos marinos en la zona antártica de influencia ecuatoriana



**OBJETIVO GENERAL**  
Implementar un estudio de línea base que determine la diversidad y caracterice la fauna de mamíferos marinos (cetáceos y pinnípedos) presente en el área de injerencia ecuatoriana en el continente antártico, cuyos resultados sirvan de aporte al conocimiento científico de estas especies y establezcan las bases para futuros proyectos.

**INFORMACIÓN GENERAL**  
Institución ejecutora: FMC  
Dirección del proyecto: Diego Tinira PhD(c)  
Contacto (mail, teléfono, etc): [diego\\_tinira@yahoo.com](mailto:diego_tinira@yahoo.com)  
Periodo de Ejecución propuesta: 2 años  
Expediciones ejecutadas: XV (2010-2011)- XIV (2009-2010)

**EJE DE INVESTIGACIÓN**  
ECOSISTEMAS Y SERVICIOS ECOSISTÉMICOS EN LA ANÁRTIDA

**PRODUCTOS DE LA INVESTIGACIÓN**

- Publicaciones: [Diego Tinira.pdf \(13 descargar\)](#)
- [Carpasulopopona 2011.pdf \(7 descargar\)](#)
- [Informe-Fove\\_2011.pdf \(9 descargar\)](#)

Figure 11. Model of project's entry

### RAPAL's 33<sup>rd</sup> meeting

Held in Quito (Ecuador) between August 23 and 26, it brought together a series of delegate personnel, both naval and technical, from the Latin American Antarctic programs: Argentina, Brazil, Chile, Ecuador, Peru, and Uruguay as members, as well as Colombia, Venezuela, and Costa Rica as observers.

The meeting agenda included activities related to the review of the reports and aspects dealt with in previous meetings from RAPAL, RCTA, CPA, SCAR, and COMNAP, held between 2021-2022; plus the Logistics and Operational Affairs Commissions (CAOL in Spanish) presentations through informative and work documents.



Figure 12. XIII meeting of Latin American Antarctic programs administrator's banner

Into the framework of the CAOL presentation, Ecuador as the event's host presented a total of four informative documents, listed below:

- DI10: Implementation of an AIS coast station in PEVIMA.
- DI14: Proposal for Antarctic operational products.
- DI25: Planning of the XXVI Ecuadorian Antarctic Expedition (2022-2023).
- DI38: Methodological scheme for risk analysis in Greenwich Island.

Guayaquil, October 24, 2022

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