

# Gaps in the Protected Areas System of Panama MARXAN

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*ANAM-PANAMA*

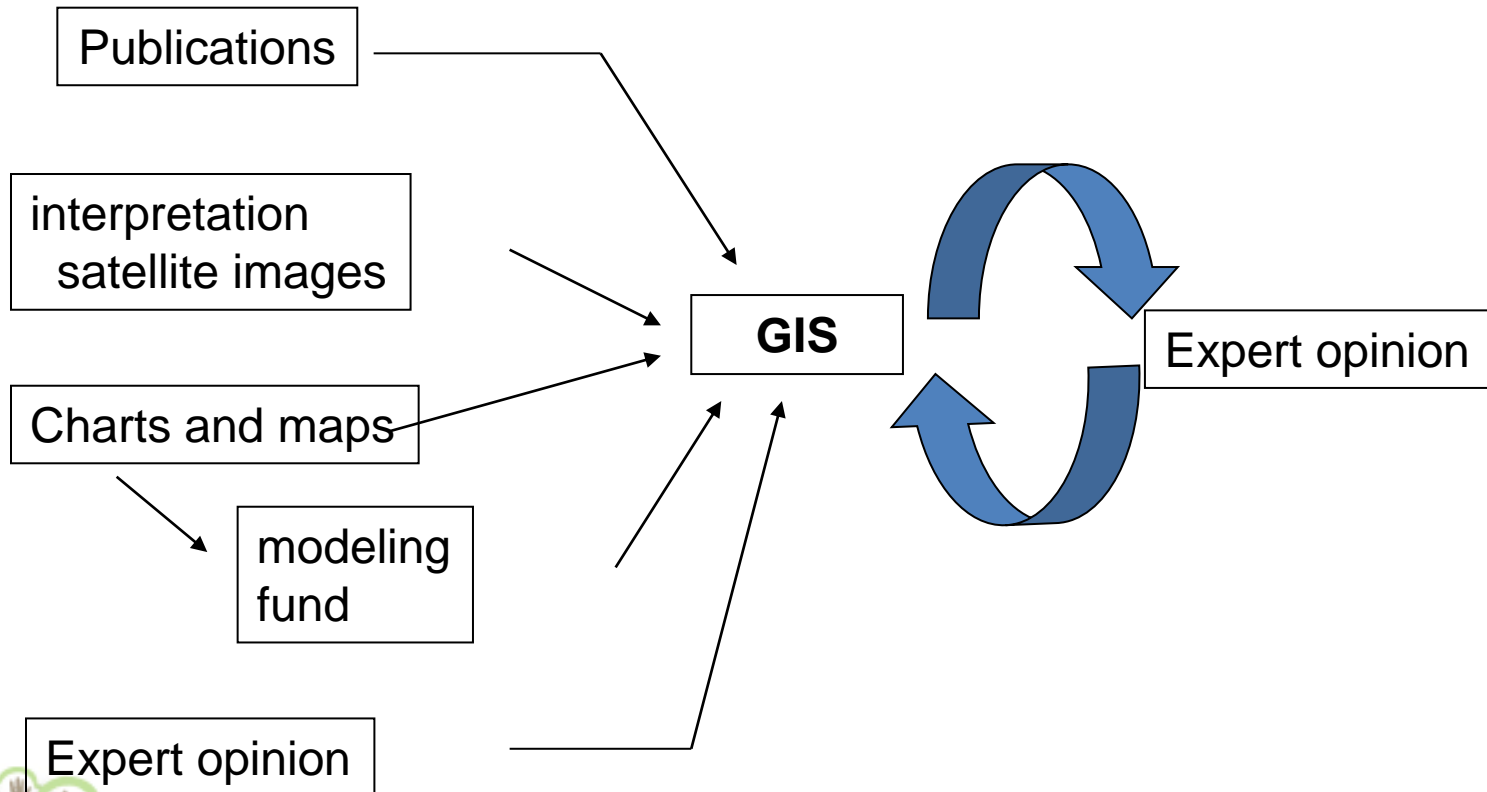


# General Information

- Population: 3.2 million.
- 36% of country is composed of protected areas.
- Tropical climate.
- Two seasons: rainy and dry.
- Area: 75,517 km<sup>2</sup>

# METHODOLOGY

- DATA COLLECTION WITH GIS

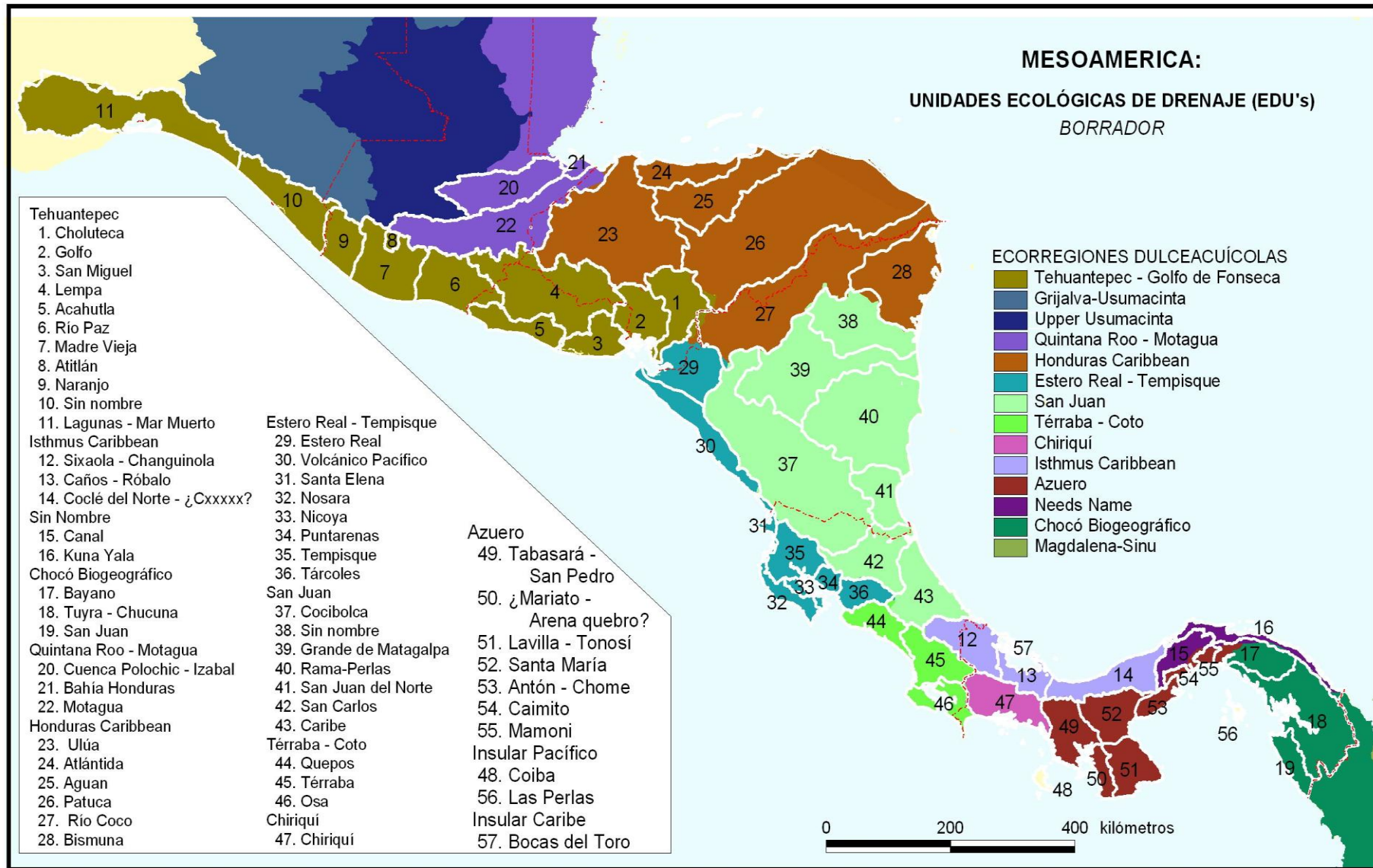


# *ENDEMIC SPECIES MAP*

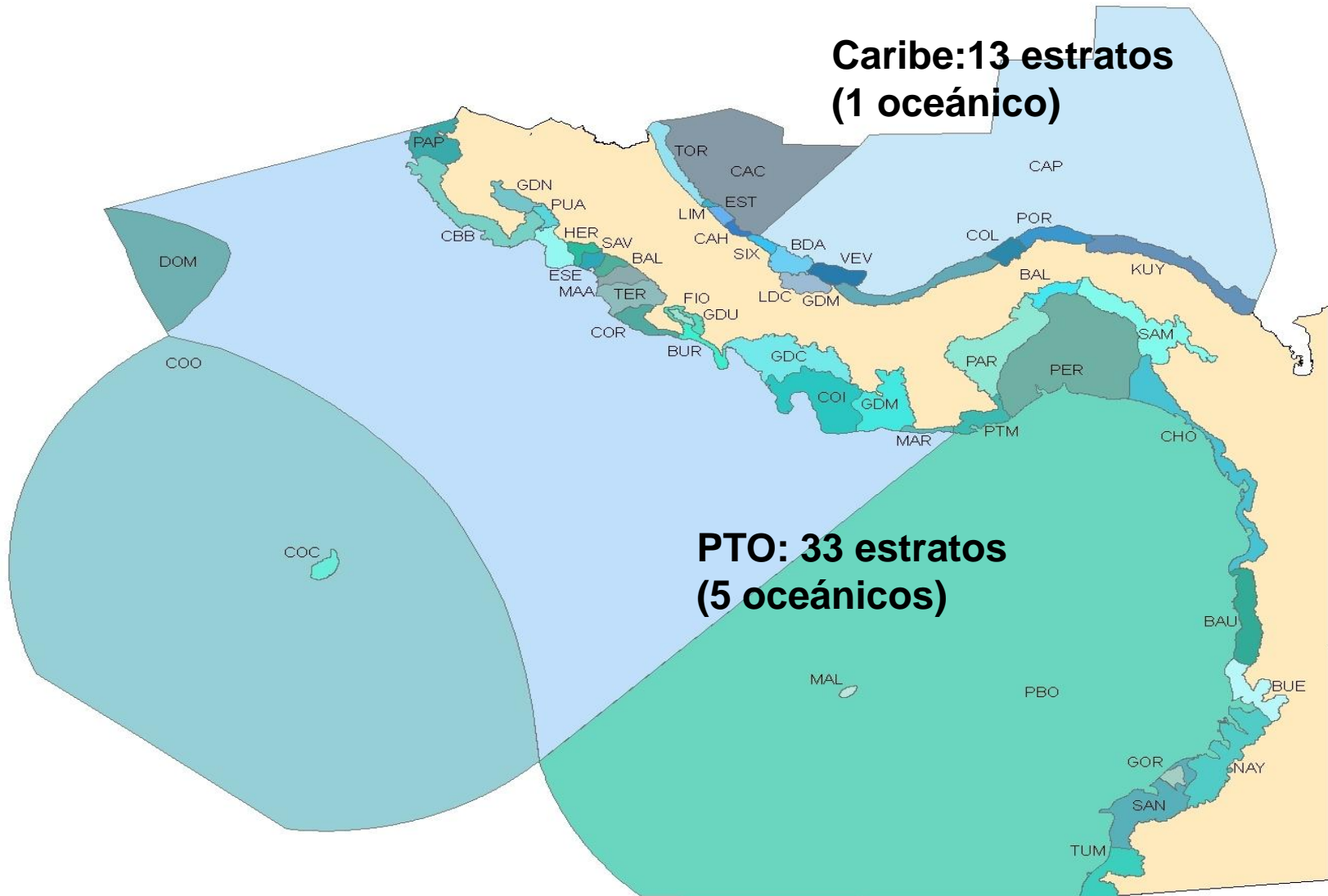




# Freshwater Ecosystems



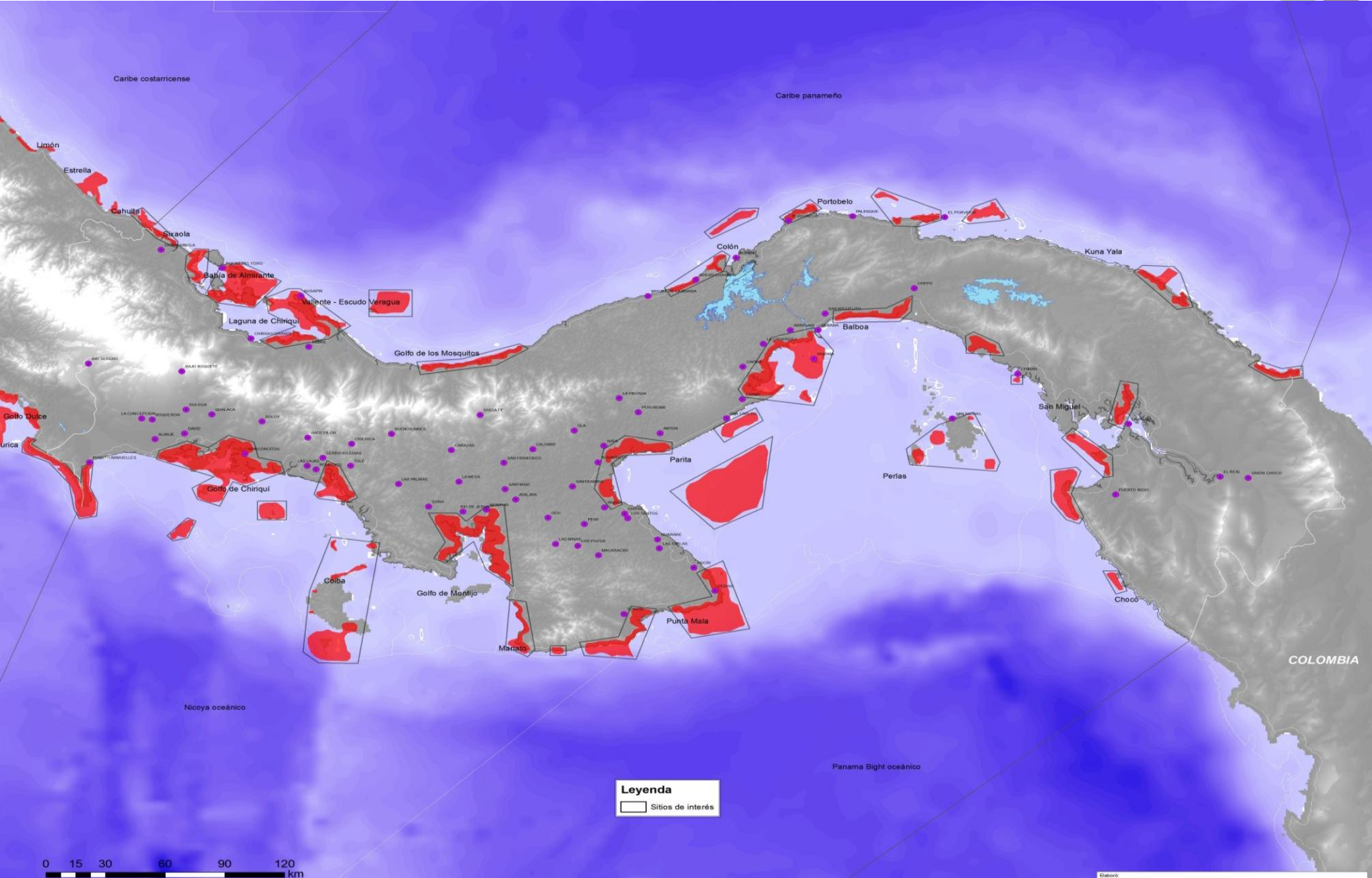
# Stratification



**Caribe: 13 estratos  
(1 oceánico)**

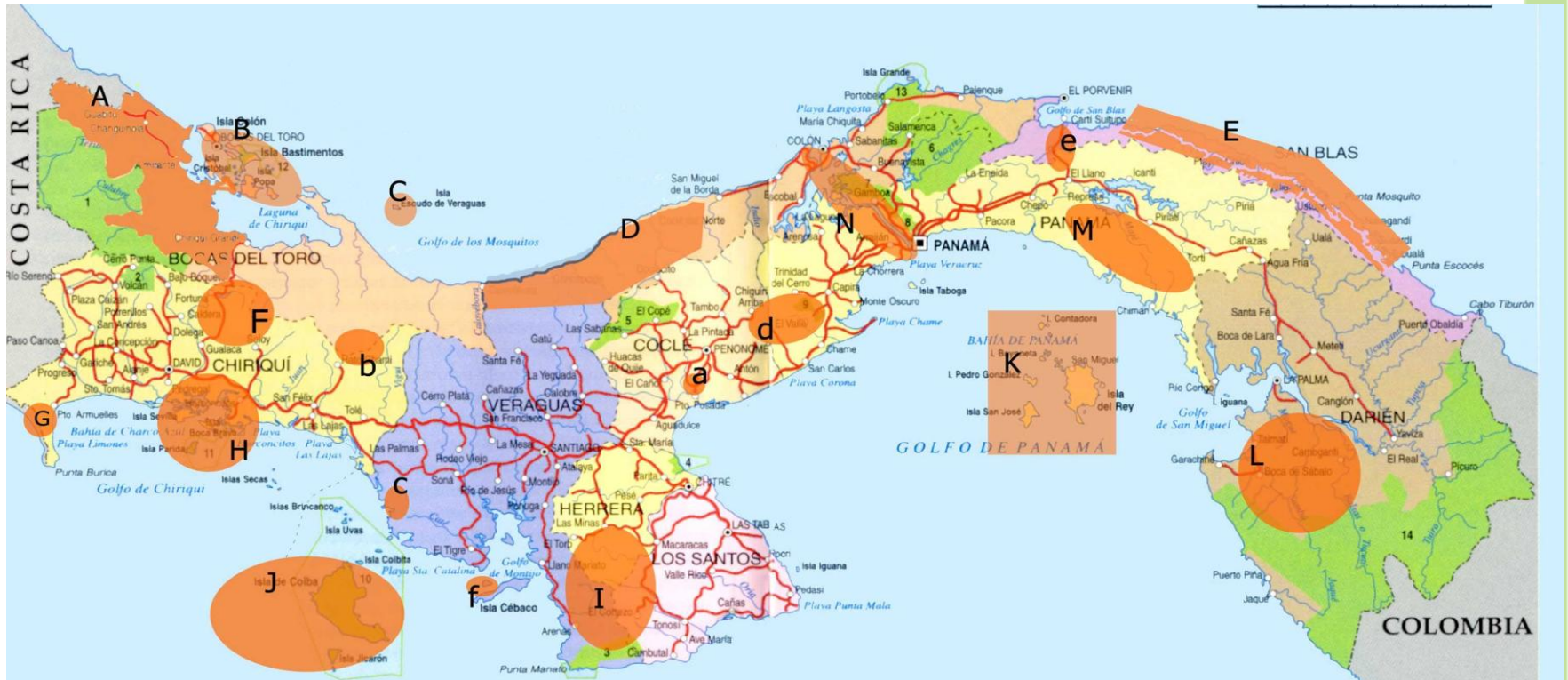
**PTO: 33 estratos  
(5 oceánicos)**

# Proposed coastal landmarks





# WORKSHOPS WITH SPECIALISTS (SCIENTIFIC COMMUNITY) FOR PRIORITY CONSERVATION AREAS.



Áreas Prioritarias para Conservación en la República de Panamá  
Una propuesta del Instituto Smithsonian de Investigaciones Tropicales

- A. Corredor San San Pond Sak – Parque Internacional La Amistad
- B. Archipiélago de Bocas del Toro
- C. Isla del Escudo de Veraguas
- D. Bosques del Golfo de los Mosquitos.
- E. Archipiélago de San Blas
- F. Área de la Reserva Hidrológica Fortuna
- G. El Chorogo - Palo blanco
- H. Manglares de David
- I. Corredor Parque Cerro Hoya - Macaracas - Cerro Canajagua - Ocú
- J. Banco Hanibal en cercanías del Parque Nacional Coiba
- K. Archipiélago de las Perlas
- L. Serranía del Bagre
- M. Área de la Serranía del Majé
- N. Zona del Canal en su conjunto, en especial la ribera oeste del canal.

## Otros sitios potenciales:

- a. Cerro Serrezuela
- b. Cerro Santiago (Chiriquí)
- c. Cerro Batista (Veraguas)
- d. Corredor Cerro Gaital – Altos de Campana, (Coclé – Panamá Oeste)
- e. Corredor El Llano – Carti (Comarca de San Blas – Panamá Este)
- f. Cerro Chichica (Isla Cebaco).

# *Focus: Coarse / Fine Filters*

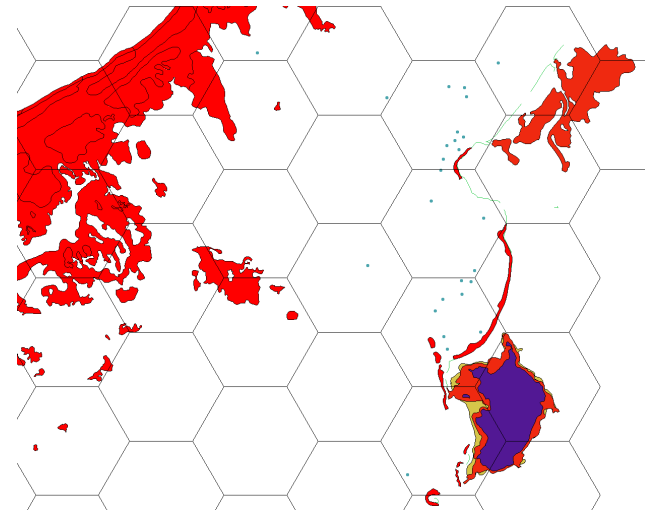
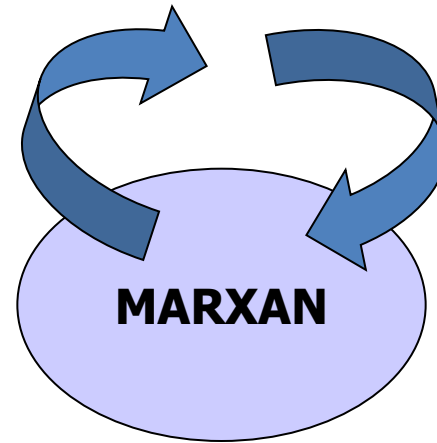
- *Filter Thickness: Based on protecting large tracts of land or more types of inland waters, marine and coastal environments (ecosystems and their components, communities)*
- *Fine filter targets: species of particular interest, endemic or threatened, to be held at viable levels.*

# Obtaining preliminary portfolio

Conservation targets  
Polygons, lines, points

Conservation goals

Added costs of threats



# *RESULTS*

- Two ministerial officials were trained to use the data and produce analysis at the nat. level
- In each ecosystem type (freshwater, marine and terrestrial) at least 5 conservation elements (species or habitats) were selected
- Measurable goals were set and accepted by the Ministry and were written in a report about conservation goals.

# GAPS IN THE NATIONAL PROTECTED SYSTEM

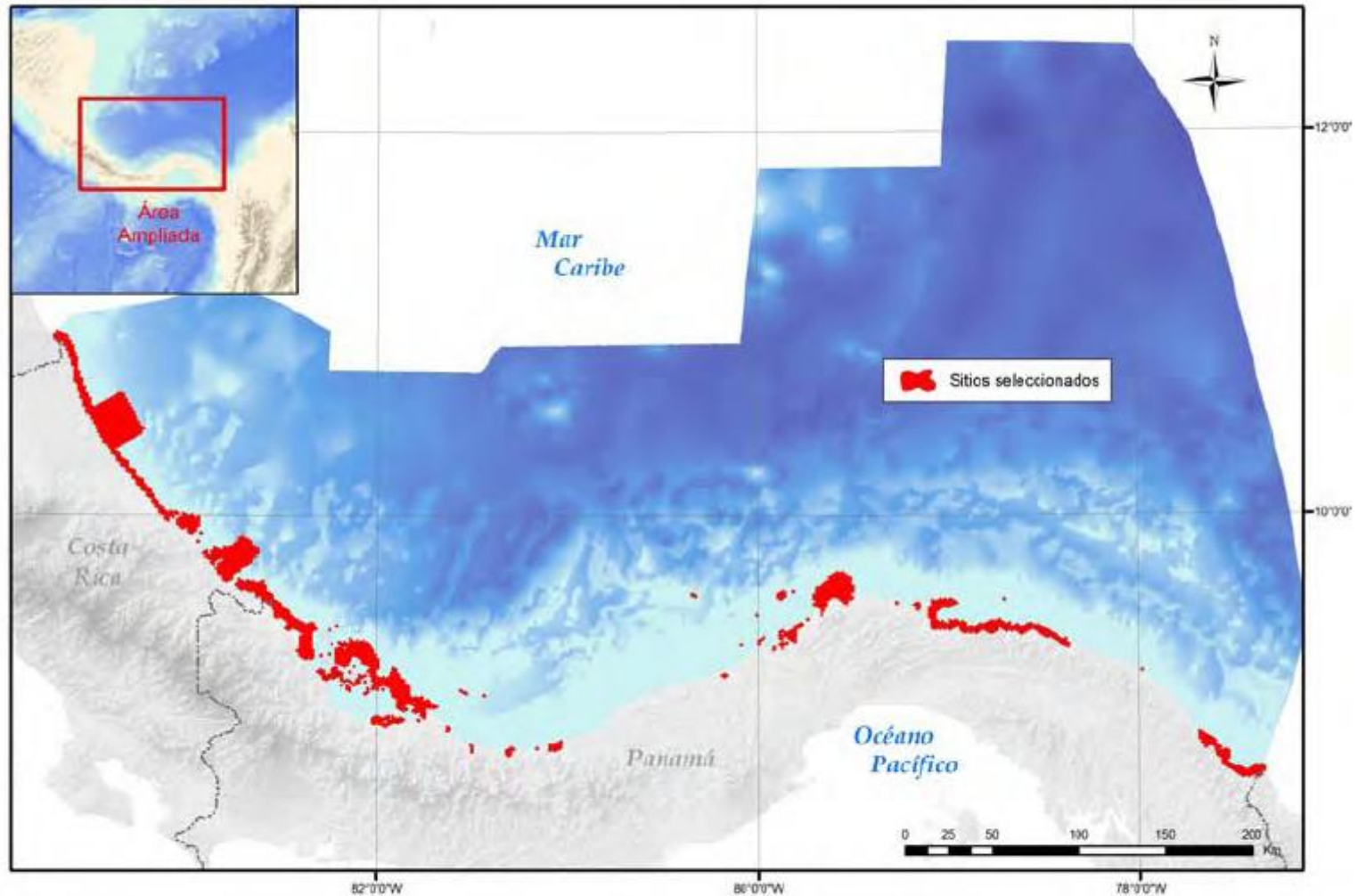
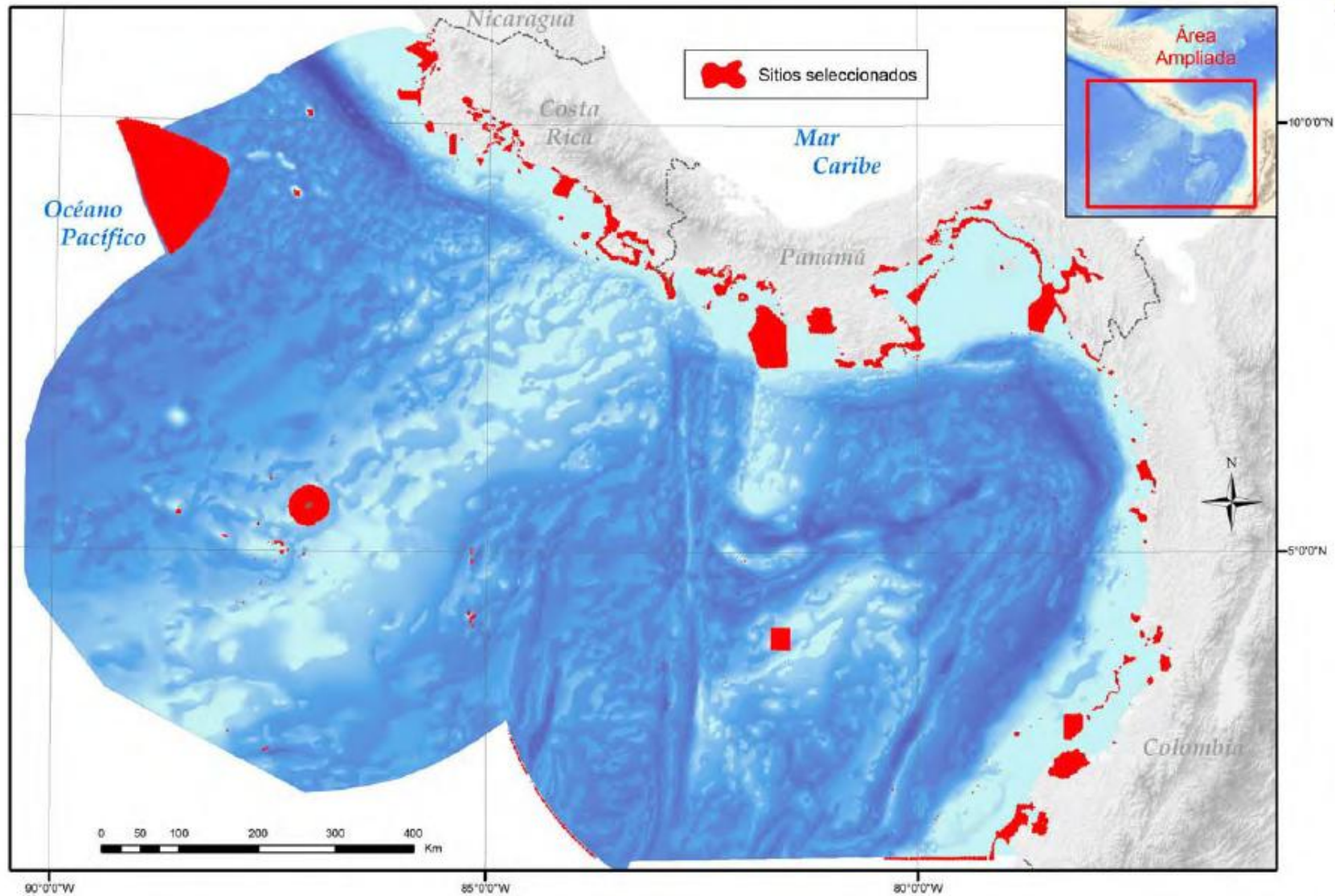


Figura 30. Portafolio preliminar de sitios obtenido de la ejecución del algoritmo MARXAN.

# GAPS IN THE NATIONAL PROTECTED SYSTEM

Figura 17. Portafolio preliminar de sitios obtenido de la ejecución del algoritmo MARXAN (Possingham et al. 2000).



# NEXT STEPS

- Appoint new protected areas and improve existing ones
- Include these new areas in the system, considering new ecosystem considerations

*THANKS FOR YOUR  
ATTENTION*