



UNIVERSIDAD NACIONAL MAYOR DE SAN MARCOS

Master's Program in Biodiversity and Ecosystem Management



Project:

Spatial distribution of the American oystercatcher (*Haematopus palliatus*) and conservation status of foraging and nesting areas in an area impacted by an oil spill on the central coast of Peru.

Emil Rivas Mogollón

October, 2025

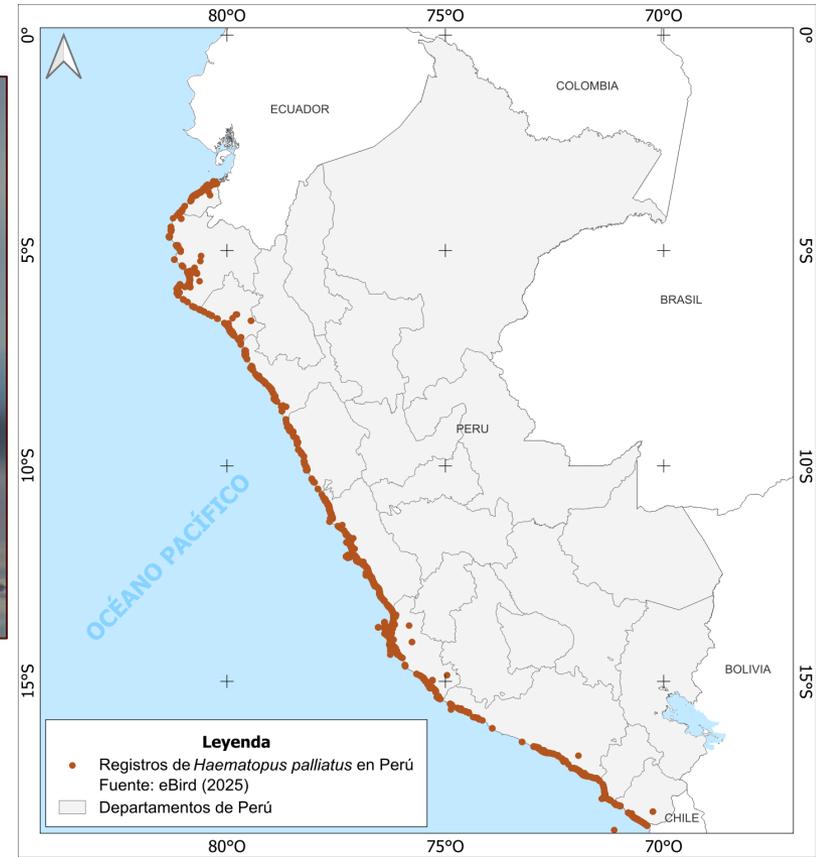


Haematopus palliatus “american oystercatcher”



© Michael Stubblefield

Excellent bioindicator of the health of marine-coastal ecosystems due to its close dependence on the coastal environment and its specialized diet.



Situation in Pantanos de Villa, south of Lima:



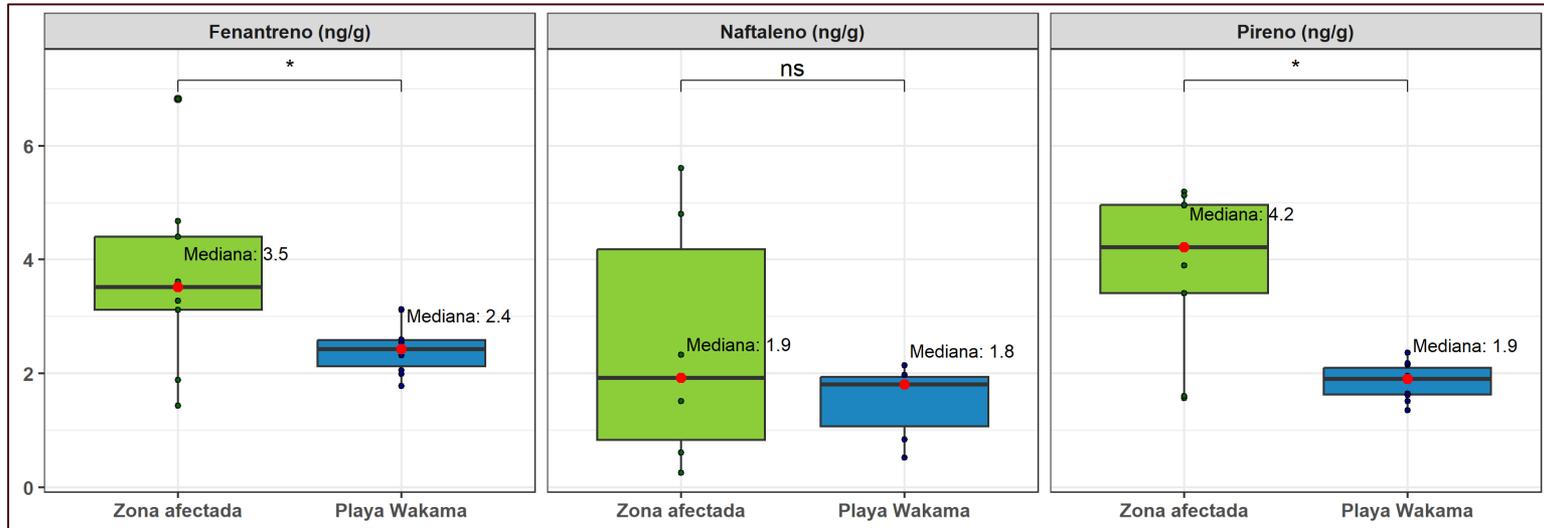
Photographs: Lisset Carito Gómez

Situation in the north of Lima:

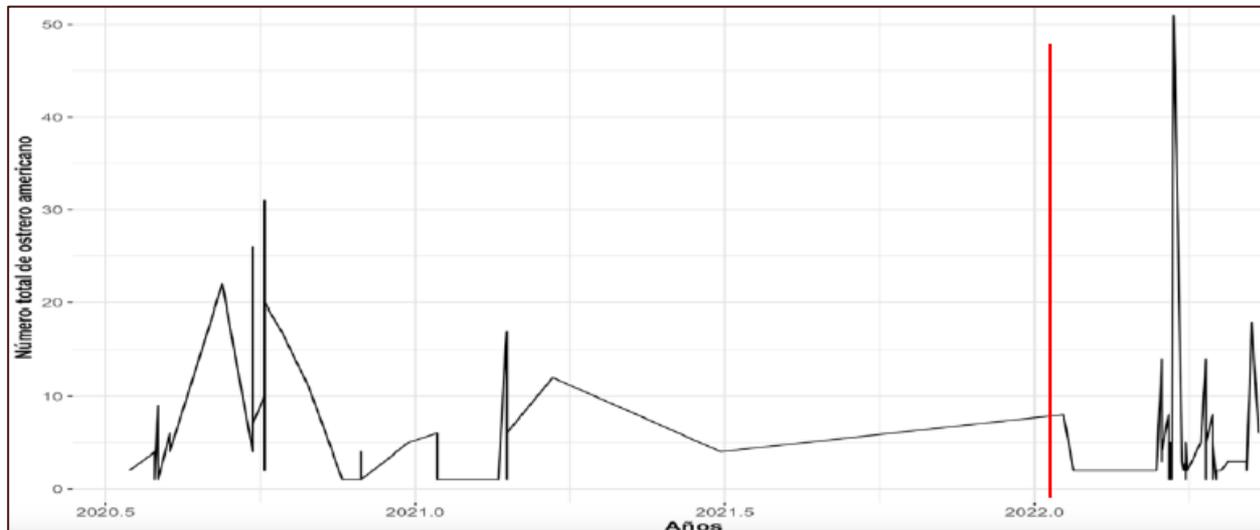


Report N° 00024-2022-OEFA/DEAM-STE

Environmental assessment to determine polycyclic aromatic hydrocarbons (PAHs), blood chemistry, and hematological profile of the Guanay cormorant "*Phalacrocorax bougainvillii*" and the American oystercatcher "*Haematopus palliatus*" from areas affected by the marine oil spills that occurred in January 2022.



Polycyclic aromatic hydrocarbons (PAHs) in blood plasma of the American oystercatcher *Haematopus palliatus*



Variation in the number of American oystercatchers "*Haematopus palliatus*" in the Ancon Reserved Zone 2020-2022



AIMS

To determine the abundance and spatial distribution of the American oystercatcher (*Haematopus palliatus*) and the conservation status of its foraging and nesting areas in the area impacted by the La Pampilla refinery oil spill that occurred in January 2022 in Lima, Peru.

Objective 1

Determine the abundance and distribution of the American oystercatcher (*H. palliatus*) in the area affected by the oil spill.

Objective 2

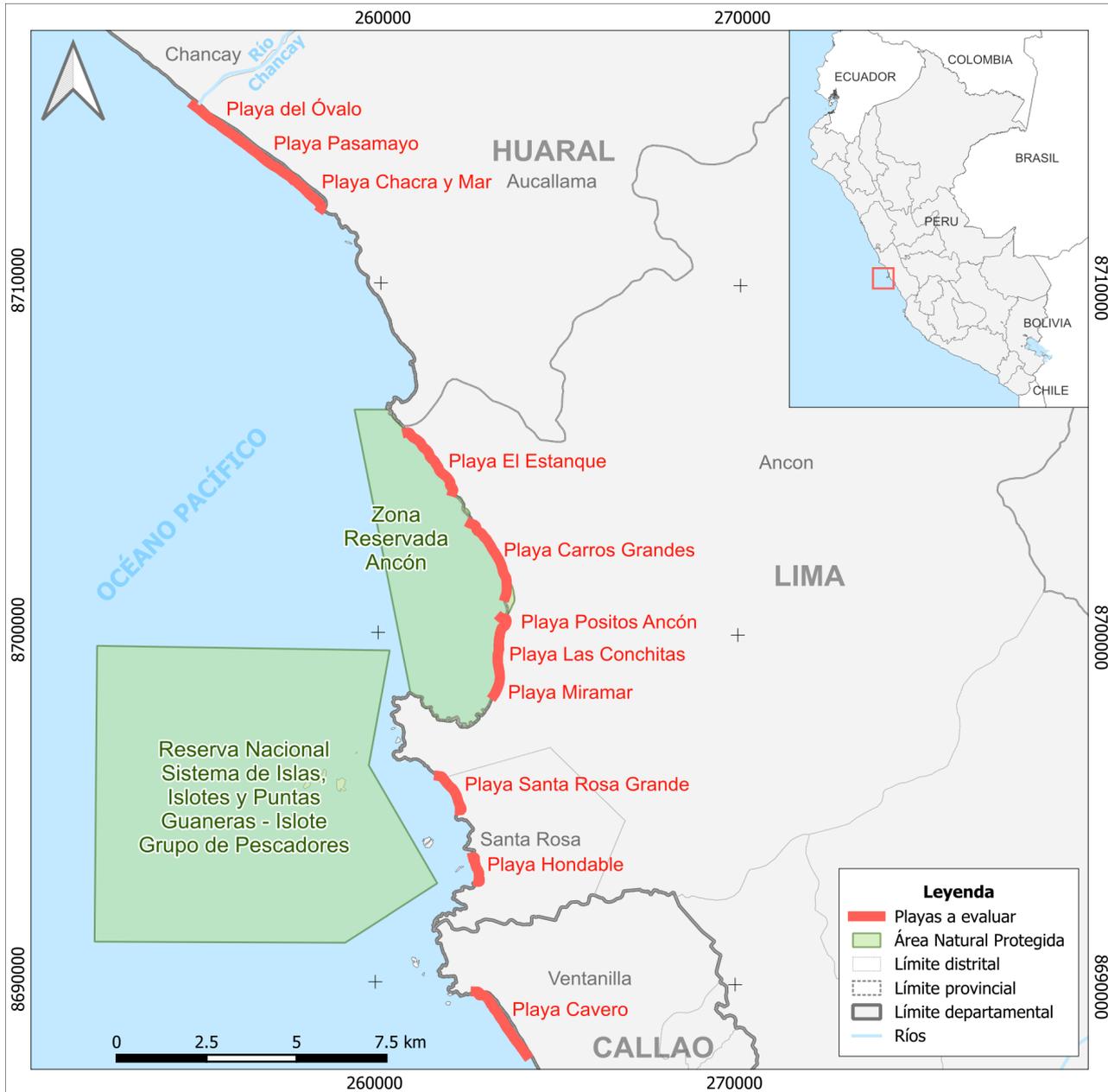
Identify the foraging areas of the American oystercatcher (*H. palliatus*) and assess its current conservation status.

Objective 3

Study the nest site selection of the American oystercatcher (*H. palliatus*) and identify its main threats.

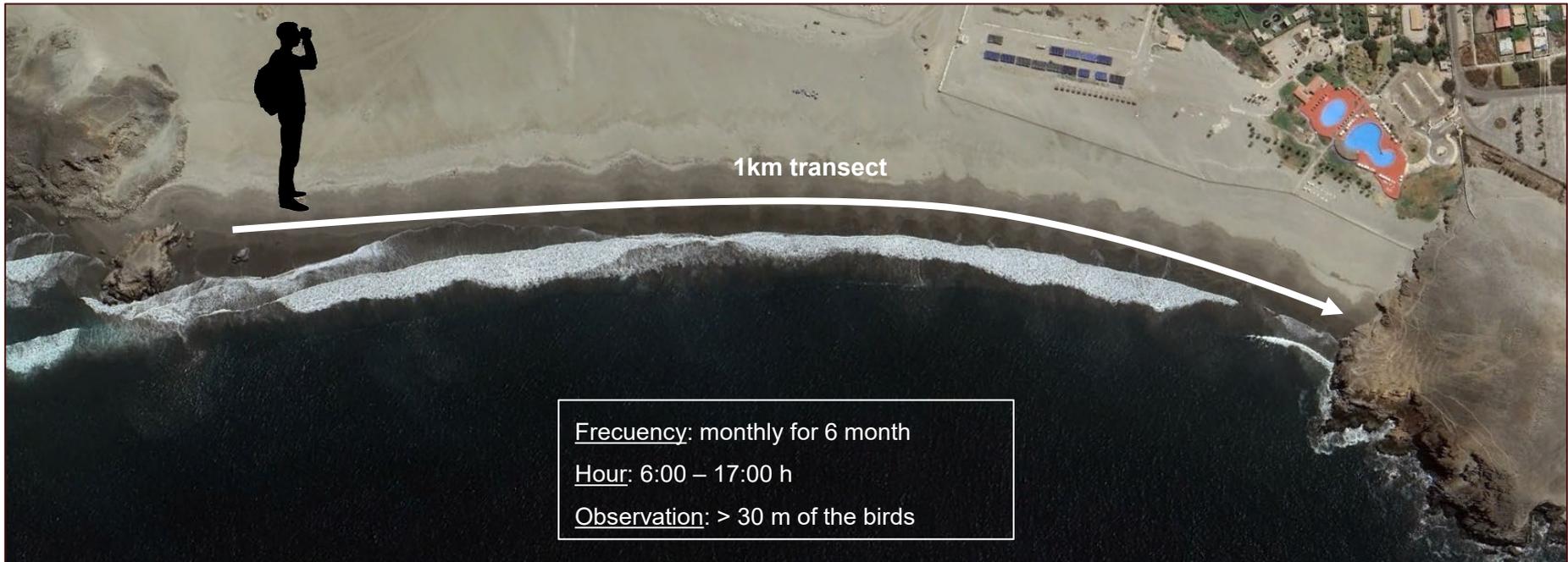


STUDY AREA



METHODOLOGY

a. Census of American oystercatcher

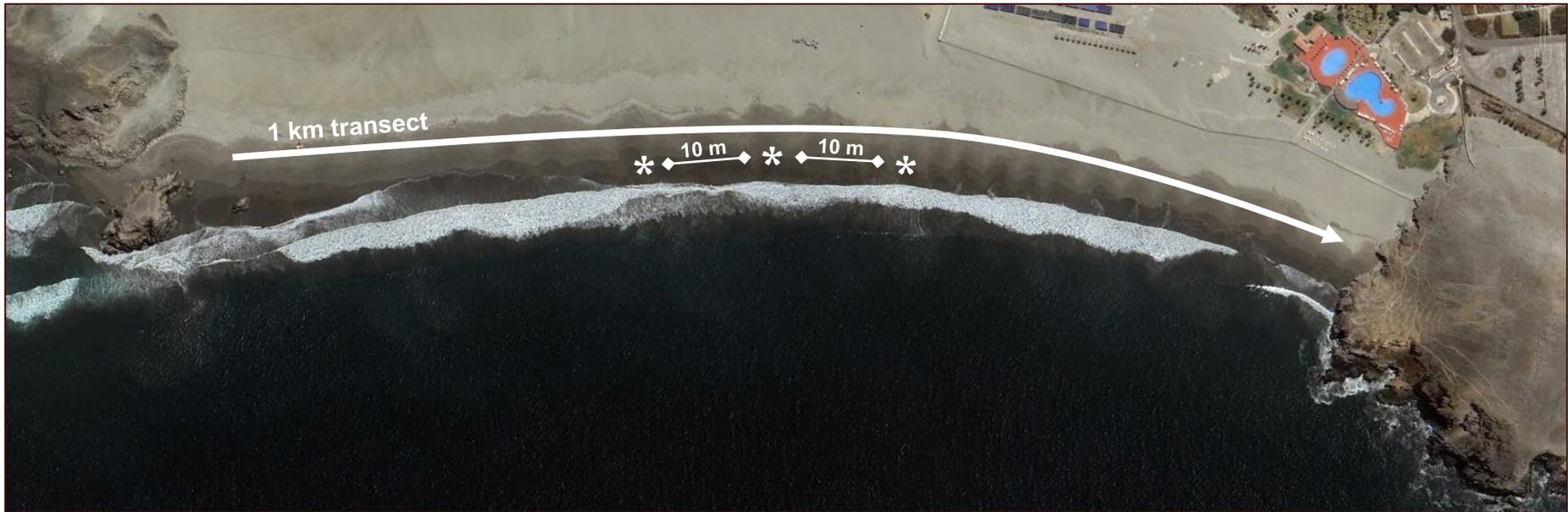


For each oystercatcher I will record:

- ✓ Geographic location, date, time
- ✓ Stage (adult, juvenile, chick)
- ✓ Activity (foraging, nesting, perching, flying, etc.)
- ✓ Substrate (sand, rock, vegetation, mixed, etc.)
- ✓ Nest, etc



b. Characterization of habitats



- ✓ Abundance, composition and biomass of macroinvertebrates (*)
- ✓ Substrate type
- ✓ Beach slope
- ✓ # people and their activities

- ✓ Solid waste
- ✓ Infraestructure, vehicules
- ✓ Dogs, horseback riding

a. Bird capture



Photograph: Lisset Carito Gómez



Weight; measures:

- ✓ Tarsus
- ✓ Chord wing
- ✓ Bill

b. Bird marking



GPS transmitter (Druid Nano) in 9 birds



<https://conservewildlifenj.org/2024/10/30/tracking-american-oystercatchers-on-delaware-bay/>

c. Analysis

- ✓ I will identify the foraging areas
- ✓ I will analyze polycyclic aromatic hydrocarbons, total hydrocarbons, and metals in sediment of the foraging areas.
- ✓ I will identify anthropogenic disturbances such as the presence of horses, dogs, vehicles, solid waste, etc.

a. Nest site selection



- ❖ Presence of disturbing elements such as human activity, dogs, predators, vehicles or solid waste.

...

Characterize the nest and random points:

- ❖ Substrate type
- ❖ Distance to foraging areas
- ❖ Distance to high tide
- ❖ Distance to low tide
- ❖ Distance to the beach boundary
- ❖ Vegetation cover
- ❖ Vegetation height





PERÚ Ministerio de Desarrollo Agrario y Riego

SERFOR Servicio Nacional Forestal y de Fauna Silvestre



PLAN NACIONAL DE CONSERVACIÓN DE LAS AVES PLAYERAS EN EL PERÚ

2023 -2032

OBJETIVO ESPECÍFICO:

Incrementar el conocimiento sobre las poblaciones de las aves playeras, sus rutas migratorias, hábitats, escenarios climáticos y sus amenazas.

LÍNEA DE ACCIÓN

1

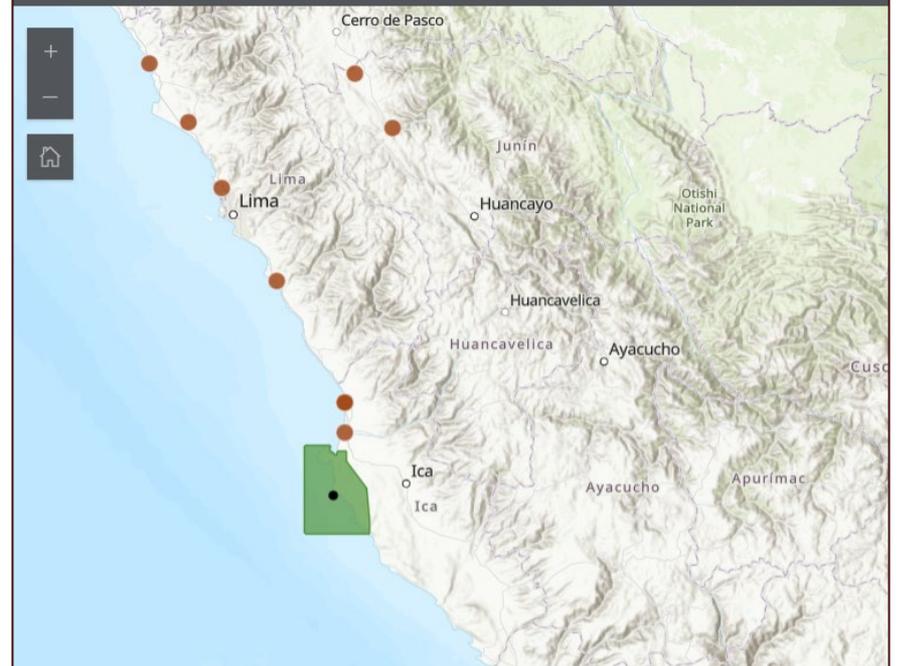
INVESTIGACIÓN Y MONITOREO

This study contributes to:

Mapa de Sitios Importantes para Aves Playeras

Important Shorebird Sites in the Americas

Explore potential WHSRN sites across the Western Hemisphere



I will work with local communities and present the results to authorities for consideration in restoration and monitoring plans.

Funding:



**MANOMET
CONSERVATION
SCIENCES**



Society for Conservation Biology
A global community of conservation professionals

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Thank you!



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