An underwater-themed illustration with a dark blue background. In the center, a white-bordered box contains the main title. To the left of the box, a sea turtle swims. To the right, a large blue whale is visible. The scene is decorated with coral reefs, bubbles, and small fish.

UNDERWATER RADIATED NOISE

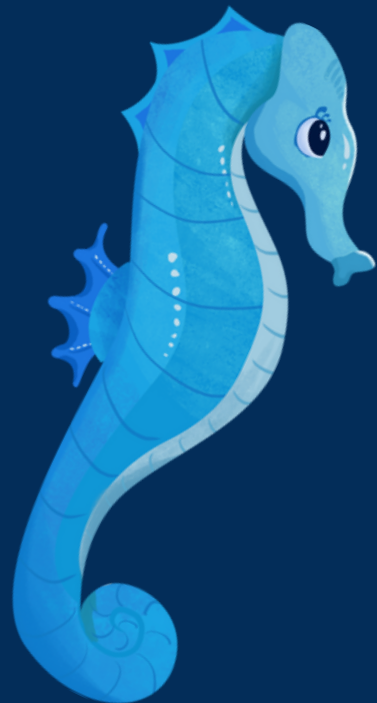
COSTA RICA LEAD PILOT
COUNTRY

COSTA RICA MARITIME PROFILE



Costa Rica borders with Pacific and Caribbean coasts, there are 5 harbor master offices in the Pacific and 1 in the Caribbean.

We have 5 commercial ports along the Pacific and 3 along the Caribbean.





MARITIME ACTIVITIES

01

Passengers activities
(Ferries, taxi boats,
yachts, jet ski, kayak,
catamaran).

02

Observation
tourism (marine
mammals, scuba
diving, snorkel).

03


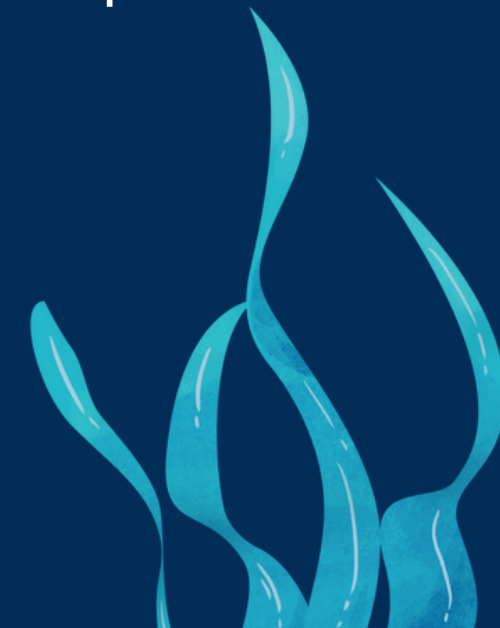
Sport and
commercial
fishing.

04

Marinas and docks.

05

Merchant ships (Cargo,
grain, roll on-roll off),
navy ships.





30

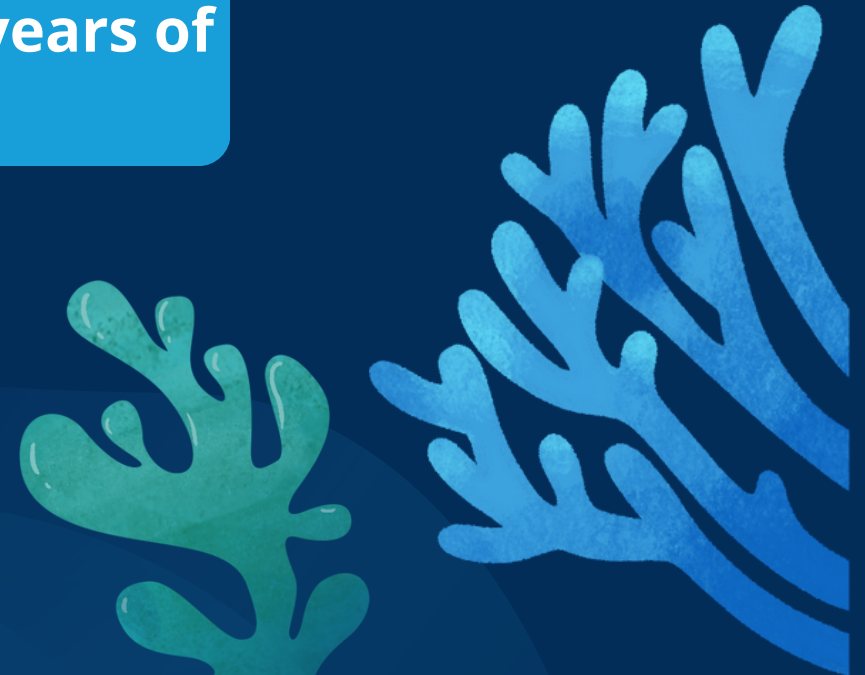
Marine and coastal zones under protection

Scientific data

The Ph.D. Laura May Collado, from Vermont University with CIMAR of University of Costa Rica, since 2016 has been putting underwater acoustic recorders with the aim of study acoustic landscapes, cetaceans presence and noise source. This is called ONDAS Project.

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Cetaceans types over 20 years of noise records



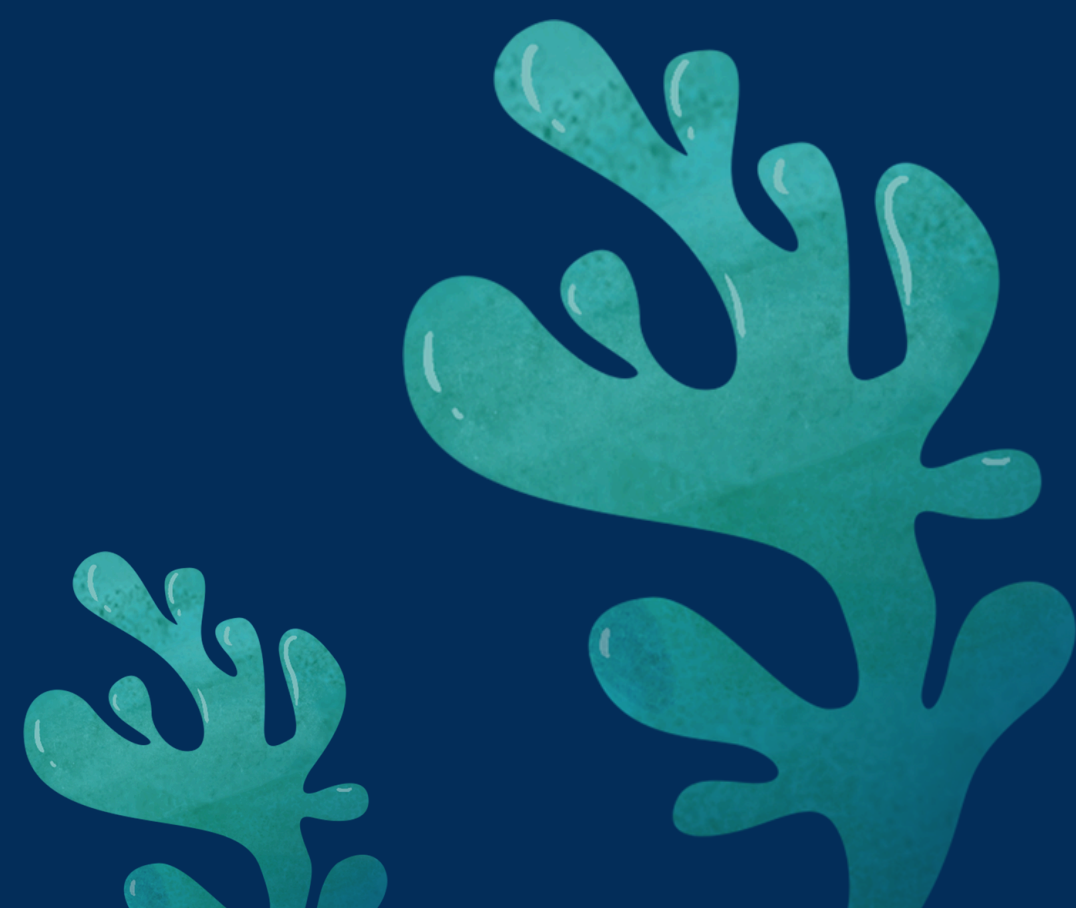
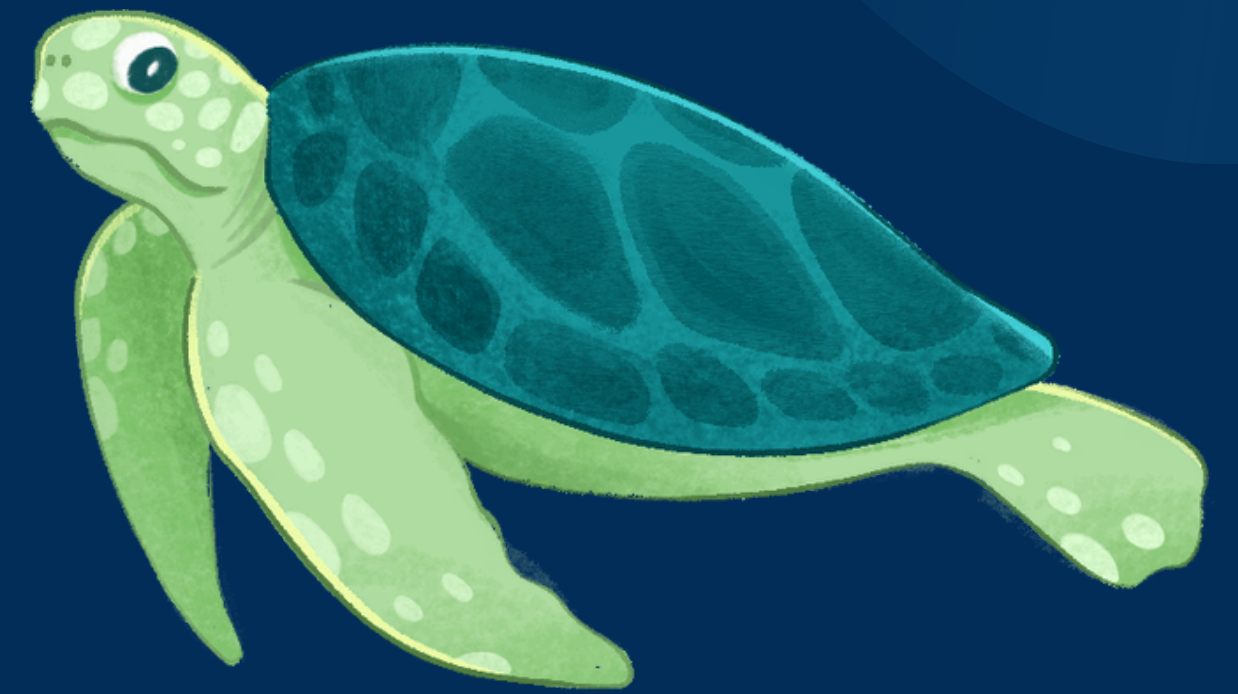
URN REGULATIONS

Government

There is no official regulation for URN, but there are 2 decrees protecting the whales from ship collision and managing the marine spaces.

INICIATIVES

The ONDAS Project.



Colaborators



SISTEMA NACIONAL DE ÁREAS DE CONSERVACIÓN



An underwater-themed background with a dark blue gradient. At the top, several small, light blue fish are swimming. The bottom is decorated with various coral and seaweed illustrations in shades of light blue and teal. A white rectangular box with a thin border is centered in the upper half of the image.

THANK YOU!

1) What are the most pressing environmental concerns in costa rica related to underwater noise, and how is it affecting your marine biodiversity?

Disruption of Marine Life: Noise pollution interferes with mating calls, feeding behaviors, and predator-prey interactions, leading to declines in populations of sensitive species.

Habitat Degradation: Increased noise can contribute to stress in marine organisms, affecting their health and reproductive success.

2) What are the main challenges costa rica faces in assessment of vessel URN and implementing mitigation measures to reduce URN from commercial vessels?

Limited Monitoring Infrastructure: There is a lack of adequate monitoring systems to assess noise levels effectively.

Regulatory Framework: Current regulations may not be robust enough to address the specific sources and impacts of underwater noise pollution.

3) How does underwater noise impact the livelihoods of coastal communities in costa rica, particularly those involved in fishing and tourism?

Fishing: Noise can drive fish away from traditional fishing grounds, leading to reduced catches and economic losses for local fishermen.

Tourism: Areas known for marine wildlife viewing may suffer as noise disrupts animal behavior, reducing the attractiveness of these destinations for eco-tourism.

4) What role can international partnerships and funding, like the GloNoise Partnership, play in supporting costa rica efforts to reduce underwater noise pollution from vessels?

Technical Assistance: Providing expertise in monitoring techniques and noise reduction technologies.

Funding for Research: Supporting studies that assess the impact of underwater noise on marine biodiversity.

Capacity Building: Enhancing local knowledge and skills to manage and mitigate underwater noise effectively.

5) What types of technologies or innovations are most needed in your region to effectively monitor and mitigate underwater noise, and how can they be adapted to local conditions?

Acoustic Monitoring Systems: Deploying underwater microphones (hydrophones) to continuously monitor noise levels.

Noise Reduction Technologies: Implementing quieter vessel designs and operational practices to minimize noise emissions.

Mobile Apps and Data Platforms: Developing user-friendly platforms for fishermen and tour operators to report and share noise-related data, fostering community engagement.