

e-Lasmobranc PROJECT

New technologies for the research of elasmobranchs in southeastern Spain

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Introduction

Elasmobranchs play a crucial ecological role in marine ecosystems. However, scientific knowledge about many species remains limited, and some are particularly difficult to identify. This challenge is compounded by widespread social misconceptions, often driven by sensationalist films and media, which have significantly contributed to the stigmatisation of these animals.

Objectives

To apply emerging technologies to enhance knowledge of elasmobranch species in south-eastern Spain, with the aim of integrating this information into the regulatory frameworks, management strategies, and monitoring plans of the study areas.

Actions

Workshops

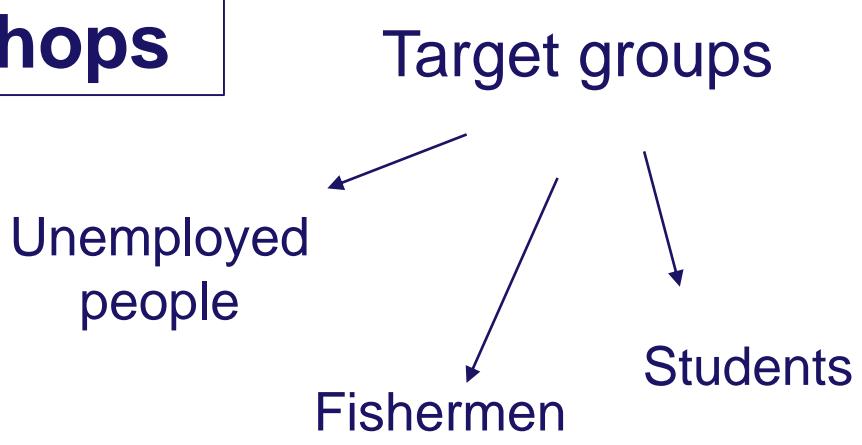


Image 1: Awareness-raising workshops

Fisheries catches analysis



Image 2: El Campello Fish market (Alicante, Valencian Community)



Image 3: Recreational fishing championship La Marina (Elche, Valencian Community)

Labelling images for species identification

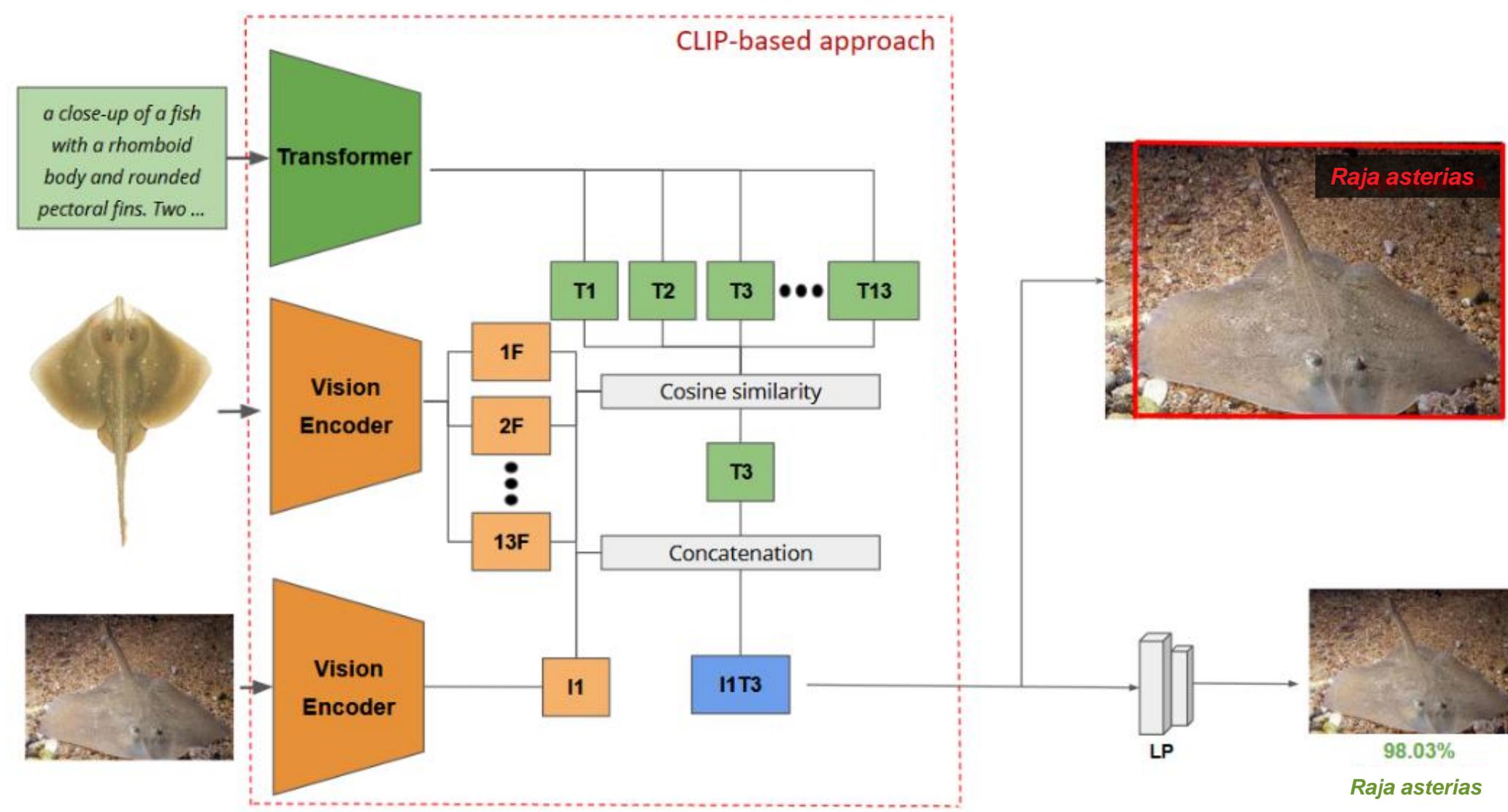
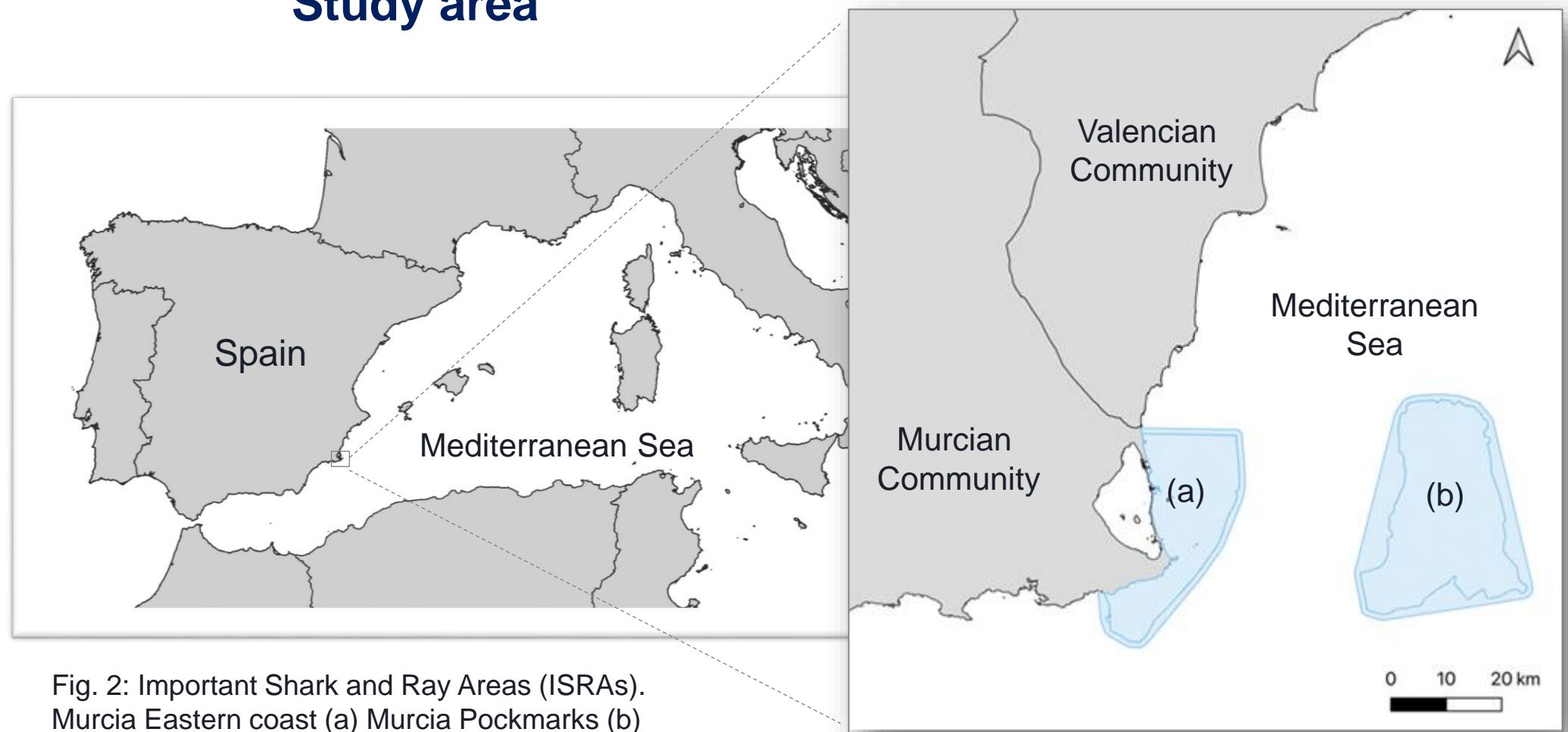


Fig. 1: Proposed architecture of the framework, showing key components and workflow

Study area

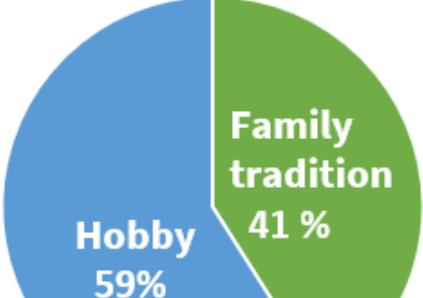


Preliminary results

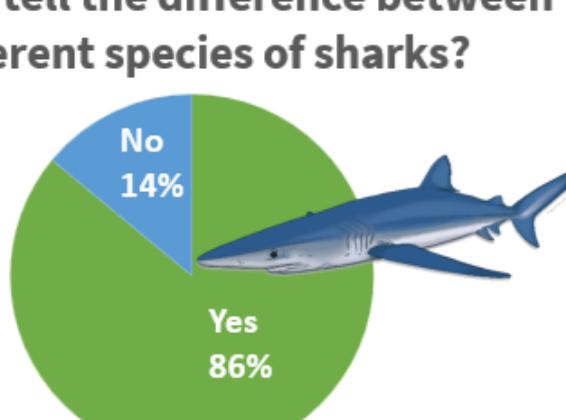
Analysis of catches in fishing championships

Fishing motivation

117 conducted surveys



Can you tell the difference between different species of sharks?



Do you know of any examples of elasmobranch fishing and where it was caught?



Can you tell the difference between different species of rays?

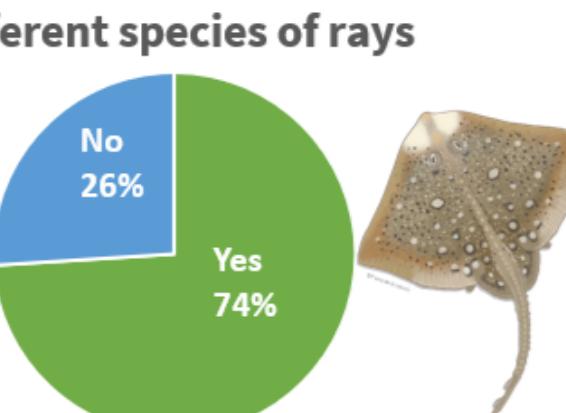


Fig. 3: Surveys analysis

Protocol elasmobranch image capture

Recreational fishing sector



Scientific observers



Commercial fishing sector



PROTOCOL ELASMOBRANCH IMAGE CAPTURE

Elasmobranch Taxonomic Identification from Out-of-Water Images



Elasmobranch Taxonomic Identification from Out-of-Water Images



Take images from dorsal, ventral, and lateral perspectives

Ensure the specimen is fully extended, clearly visible, and displays all relevant body structures

Position the specimen centrally so that it occupies most of the frame

Maintain good contrast with the animal by using a uniform background that is plain, non-reflective, and either dark or white

Avoid any overlap with external elements such as people, utensils, or other animals

Avoid excessive digital noise, such as speckles or spots in dark areas

Use proper lighting to prevent reflections and shadows

Ensure no people are present in the photographs

READY TO PROCEED?
SEND THE IMAGES TO

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Fig. 4: elasmobranch protocol snapshot

This project is developed with the collaboration of the Biodiversity Foundation of the Ministry for Ecological Transition and the Demographic Challenge, through the Pleamar Programme, and is co-financed by the European Union through the European Maritime, Fisheries and Aquaculture Fund."