

# Valorization alternatives for a highly unused biomass (Small-spotted catshark discards and by-products) in the framework of LIFE iSEAS project.

María Blanco, Carmen G. Sotelo, Jose Antonio Vázquez and Ricardo I. Pérez Martín.  
 Instituto de Investigaciones Marinas (CSIC). Eduardo Cabello, 6. 36208. Vigo, Spain  
 mblanco@iim.csic.es

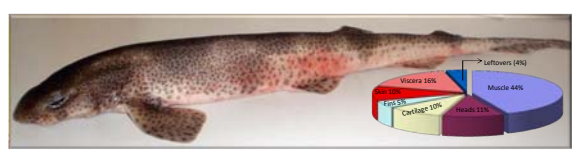
## INTRODUCTION

**Discards and By-products** are one of the most important issues in fisheries, both from an socio-economic and environmental point of view, representing a large waste of valuable biomass which plays an important role in the depletion of fish populations (discards representing 7% of total marine captures and by-products accounts for 35% of fish live weight). The application of an ecosystem-approach to fisheries management is one of the objectives of the Horizon 2020 European initiative called as *Blue technology* which is focused on how technologies can put marine resources to productive use and create sustainable growth for the exploration of bioactive compounds obtained from marine organisms with potential interest in the food/feed/pharmaceutical industries. In this context a New Common Fisheries Policy (CFP) has been set up by EU to reduce/eliminate discards (Discard ban or Landing obligation) and to make the best possible use of unwanted marine biomass in a sustainable manner.



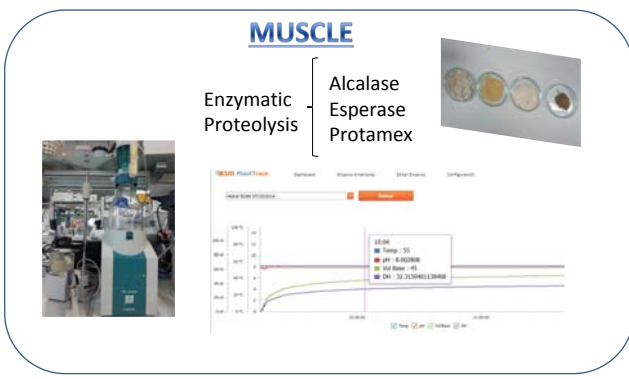
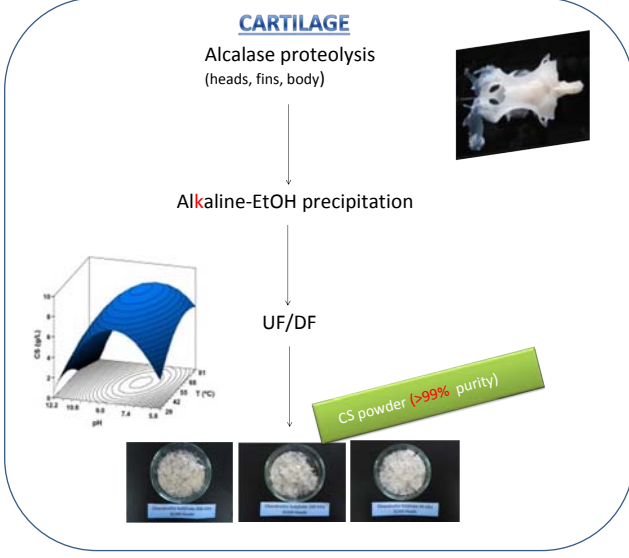
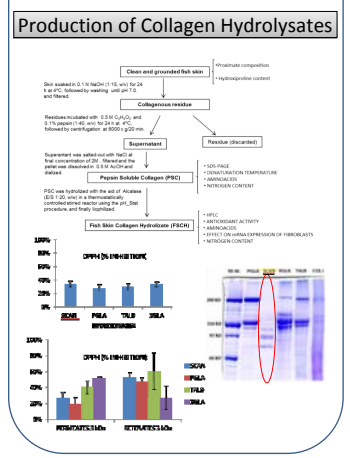
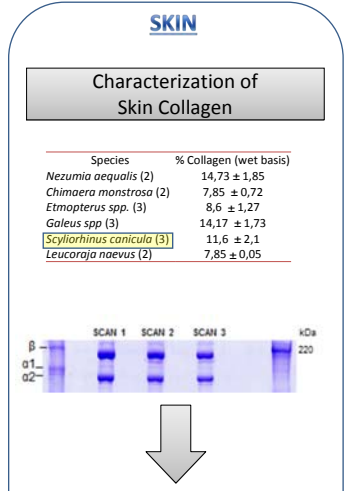
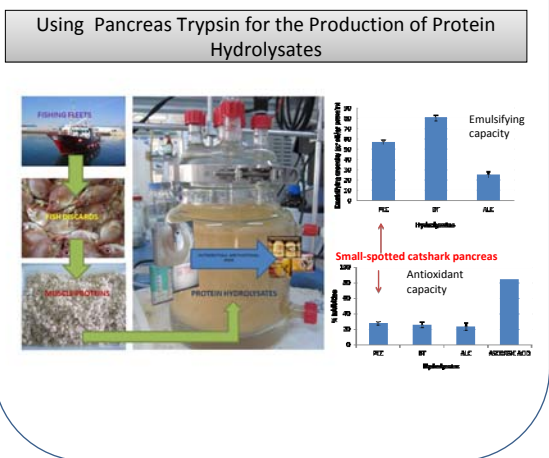
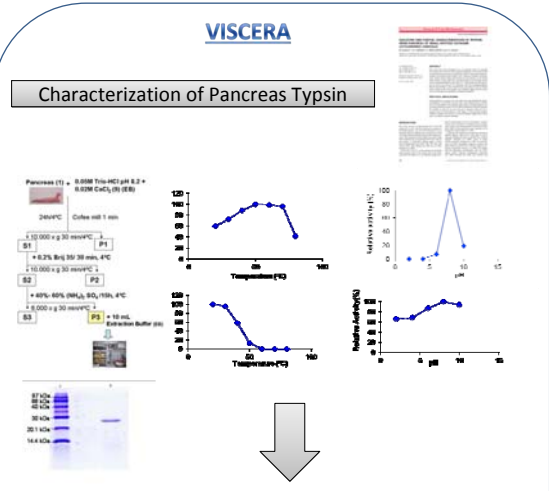
**LIFE iSEAS project** aims to demonstrate that a sustainable scenario for an efficient management of post-capture wastes (discards and by-products) is possible on the fishing sector, through the real application of existent knowledge and innovative solutions. Small-spotted catshark (*Scyliorhinus canicula*: SCAN) has been identified as a highly discarded by trawlers in NW Atlantic fisheries (more than 90%), although commercial landings are made for human consumption. Valorisation strategies developed within the context of previously granted projects (BE-FAIR, BIOTECMAR, MARMED, NOVOMAR, etc.) for species such as the one presented here, including production of chondroitin sulphate, isolation of viscera enzymes, extraction of skin collagen, and production of fish protein hydrolysates, will allow to test a fully operative in-land demonstration facility (located in the Port of Marin, NW Spain) for discards and by-products valorization processes. The environmental and socio-economic impacts/benefits of the implementation of proposed innovative solutions will be analyzed.

## RESULTS



**WHOLE**  
 74% water content  
 21% protein  
 2% lipids  
 3% ash

**Fishmeal Production**  
 13% fishmeal  
 1,8% fish oil



## REFERENCES

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