

Spiny lobsters in a changing ocean - How phyllosomata of commercially important species will cope with warmer and more acidic oceans

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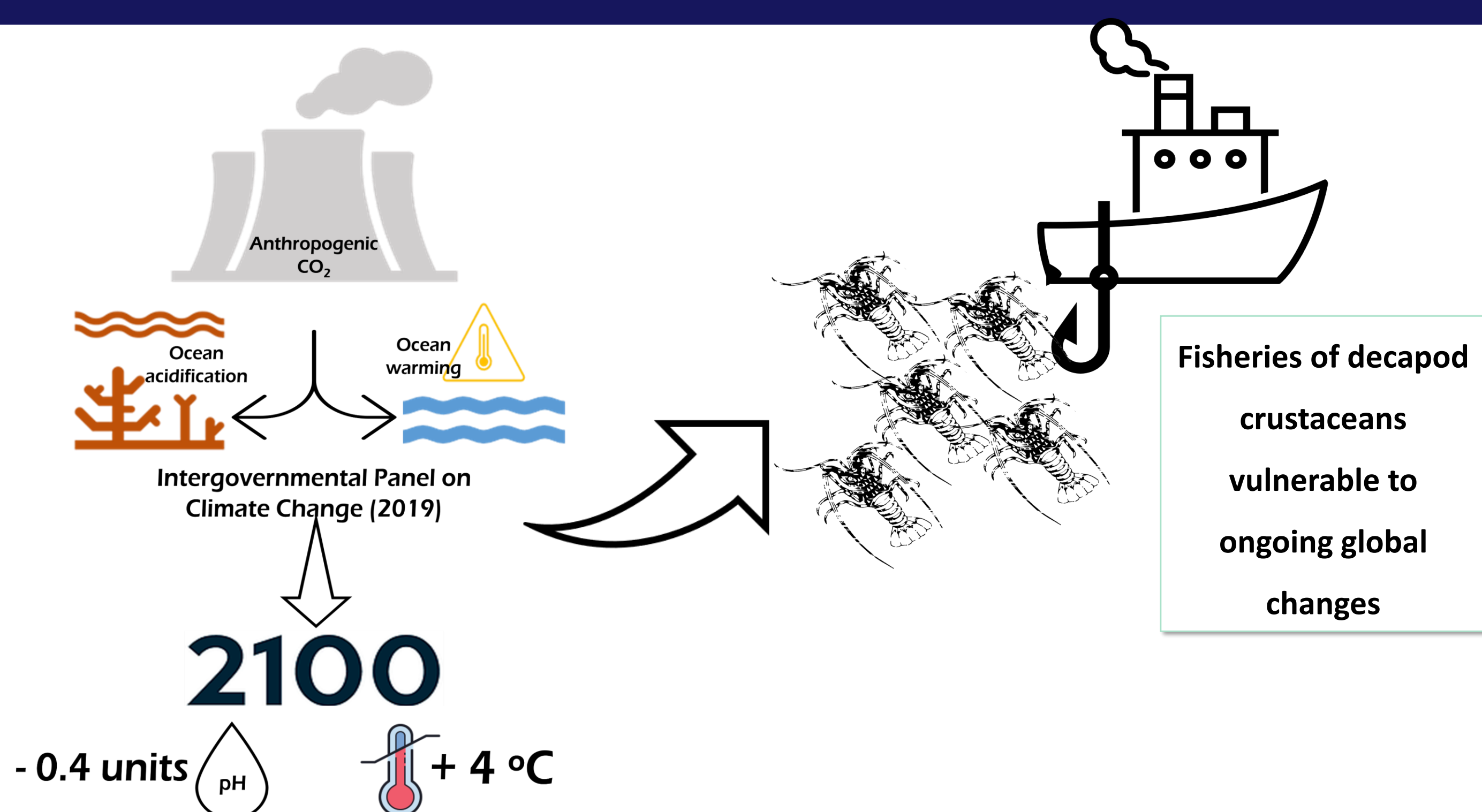
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OBJECTIVES



This proposal aims to evaluate how future ocean warming and acidification may impact the first larval stages of three commercially important spiny lobsters: *Palinurus elephas*, *Palinurus mauritanicus* and *Panulirus regius*.

LOCAL ADAPTATIONS

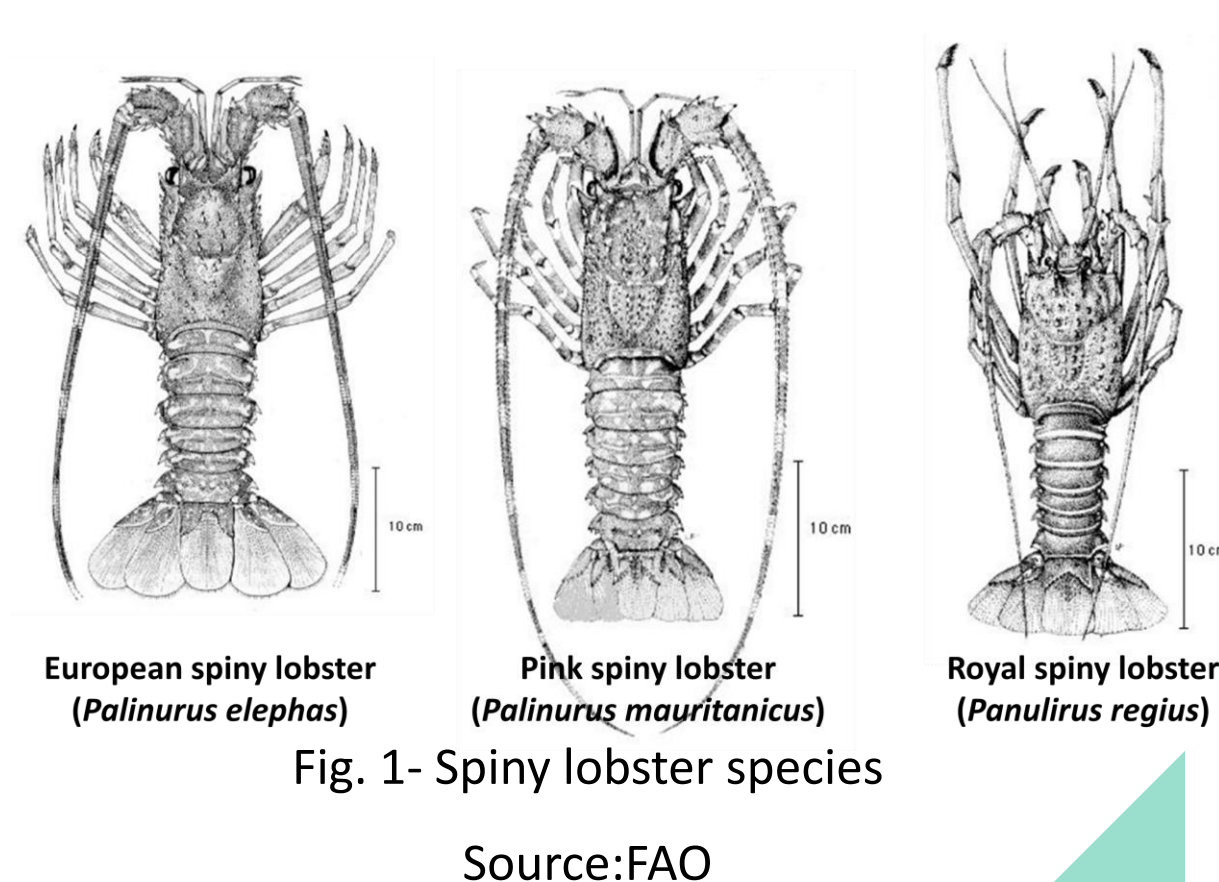
- Phyllosomata from contrasting habitats
- Phenotypic plasticity

GELATINOUS ZOOPLANKTON

- Blooms associated to climate change
- Key role in phyllosomas diet

METHODOLOGY

The present proposal, will be structured in 5 complementary work packages (WP):



WP1

LITERATURE REVIEW

- Global changes - the implications on decapod crustaceans' larval development

WP2

OPTIMIZATION OF CULTURE PROTOCOLS

- Optimal conditions for *ex situ* culture of spiny lobster larvae

WP3

EFFECT OF OCEAN ACIDIFICATION AND WARMING

- Impact of future ocean pH and temperature on development, of spiny lobsters phyllosomata

WP4

PHYLLOSOMATA FEEDING BEHAVIOUR

- Evaluate the potential benefits of phyllosomata trophic interactions with gelatinous zooplankton

WP5

THESIS AND MANUSCRIPT WRITING

- Dissemination of results



Fig. 2- Spiny lobster phyllosoma.

Source:<https://aquafeed.co.uk/>

EXPECTED RESULTS

By predicting effects of global changes on larval development success, it will be possible:

Anticipate impacts on spiny lobster WILD STOCKS

Envisage potential MITIGATION actions

A better understanding of their REARING conditions

Information about future AQUACULTURE production

ACKNOWLEDGEMENTS

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