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THE CONNECTIVITY BETWEEN POPULATIONS OF THE MARINE CRAB *LIOCARCINUS DEPURATOR* IN THE ATLANTOMEDITERRANEAN TRANSITION: A FIVE YEAR SERIES

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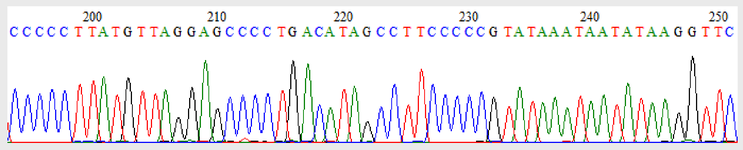
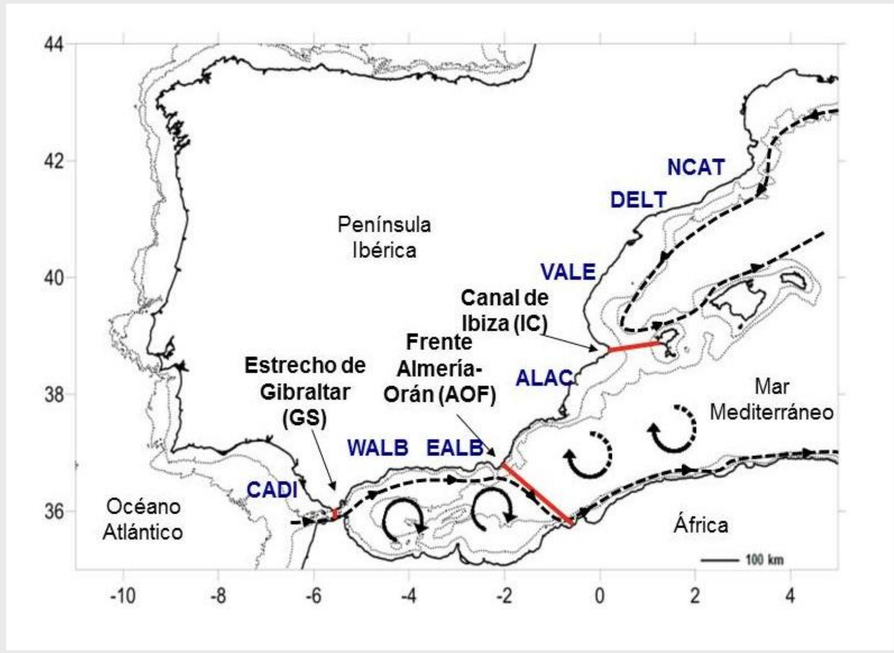
Introduction:

We carried out a spatial and temporal genetic differentiation analysis using seven populations of the marine crab *Liocarcinus depurator* to elucidate the effect of three oceanographic discontinuities in the Atlanto-Mediterranean coast: Gibraltar Strait, Almeria-Oran Front and Ibiza Channel. To conduct this study, a 527 bp fragment of the mitochondrial *COI* gene was sequenced in individuals captured in the period 2014-2018.

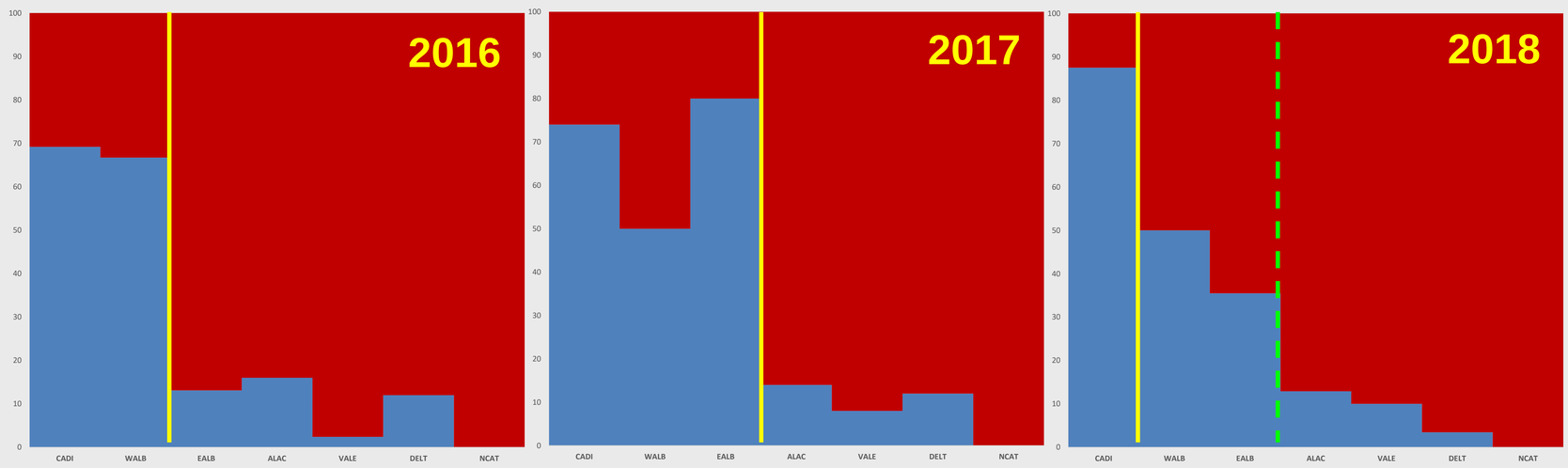


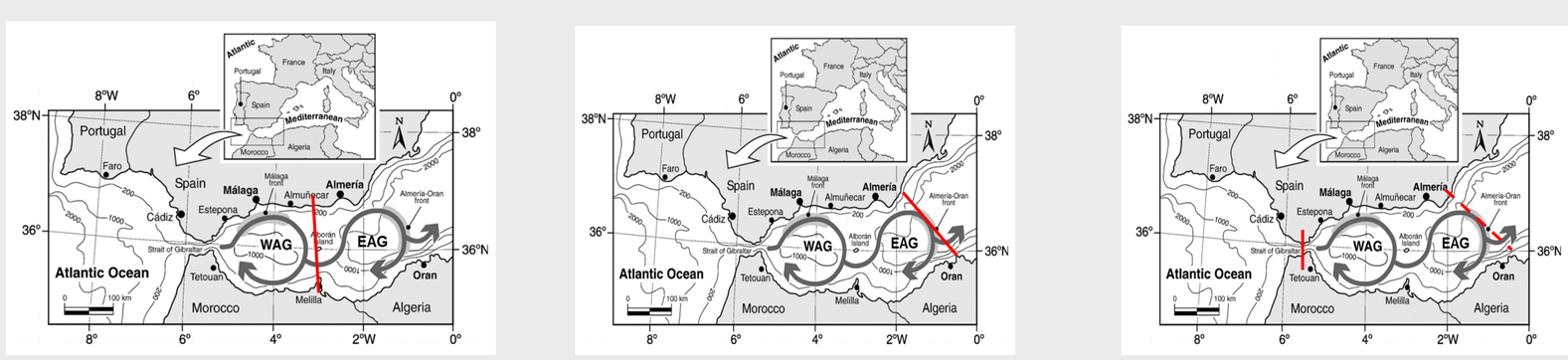


Main Marine currents (**black**). **Discontinuities** (**red**): GS (Gibraltar Strait), AOF (Almeria Oran Front) and IC (Ibiza Channel). **Localities:** CADI (Cadiz), WALB (West Alboran), EALB (East Alboran), ALAC (Alacant), VALE (Valencia), DELT (Ebro Delta) and NCAT (North Catalonia).

Results:

Two main haplogroups were observed: Atlantic and Mediterranean.
The most important oceanographic barrier is the AOF, although its intensity varies depending on the year.





Conclusions:

1. In the present study, the AOF seems to be the main barrier separating Atlantic and Mediterranean *COI* haplogroups. However, its magnitude and location could vary over time.

2. In general, the gene flow is mediated by oceanographic fronts, but their intensity and effects change over time.