

Transport pathways of *Dinophysis acuta*: from Portugal to Galician Rias Baixas



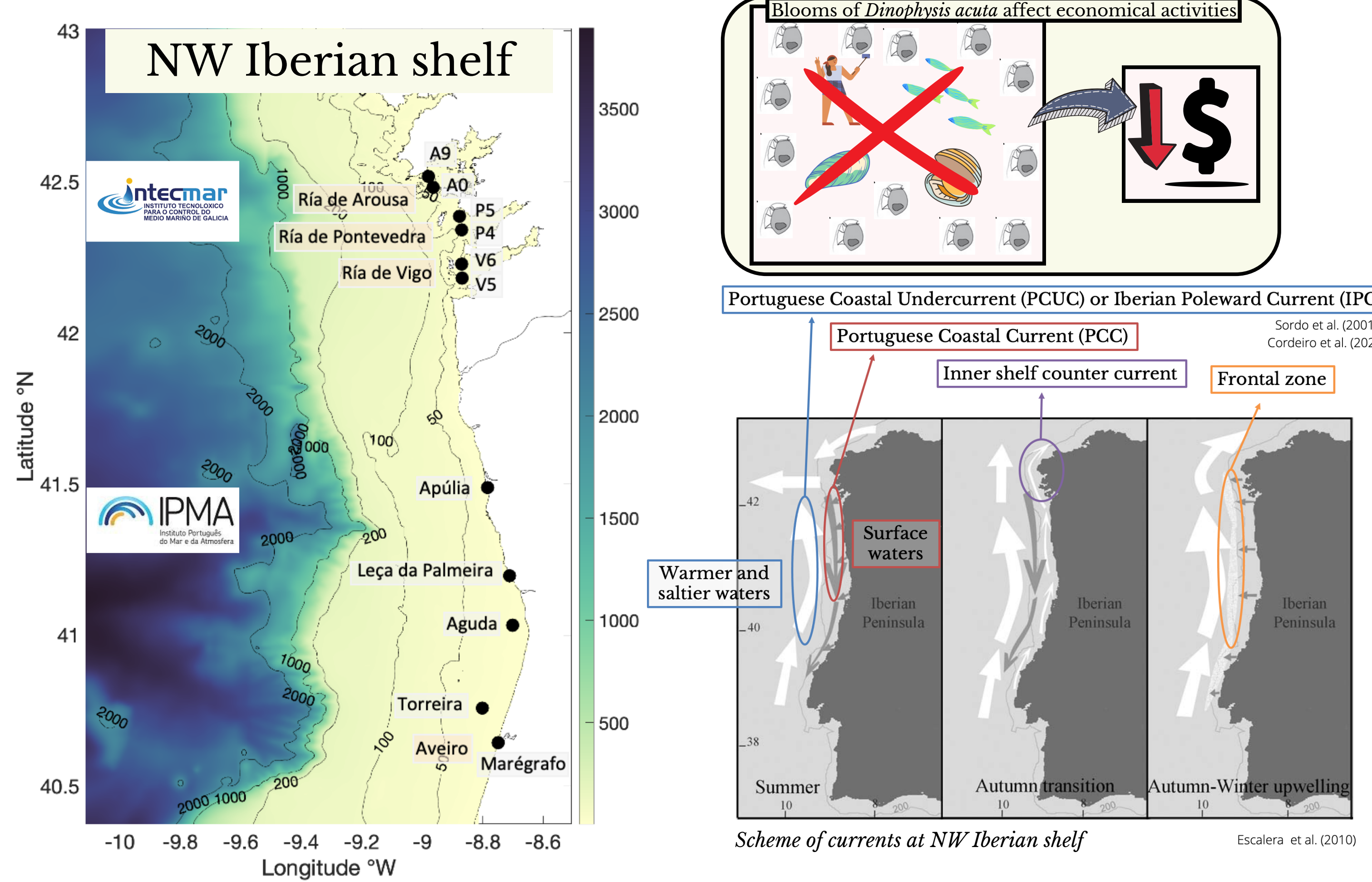
PRE-DOC

Elisabet R. Cruz,¹ Rita Nolasco,¹ Jesús Dubert,¹ Maria Teresa Moita,² Francisco Rodríguez,³ André Sobrinho-Gonçalves,⁴ Paulo B. Oliveira,⁴ X. A. Padín⁵
¹Department of Physics, Centro de Estudos do Ambiente e do Mar, University of Aveiro, Aveiro, Portugal
²CCMAR, Universidade do Algarve, Campus de Gambelas, 8005-339 Faro, Portugal
³Spanish Institute of Oceanography (IEO), Oceanographic Center of Vigo, Subida da Radio Faro 50, Cabo Estay, Canido, 36390-Vigo, Spain
⁴Instituto Português do Mar e da Atmosfera (IPMA), Rua Afonso Magalhães Ramalho, 6, 1495-165 Lisboa, Portugal
⁵Oceanology Group, Instituto de Investigaciones Marinas, Consejo Superior de Investigaciones Científicas, Vigo, Spain.
elisabetrguez@gmail.com

Introduction

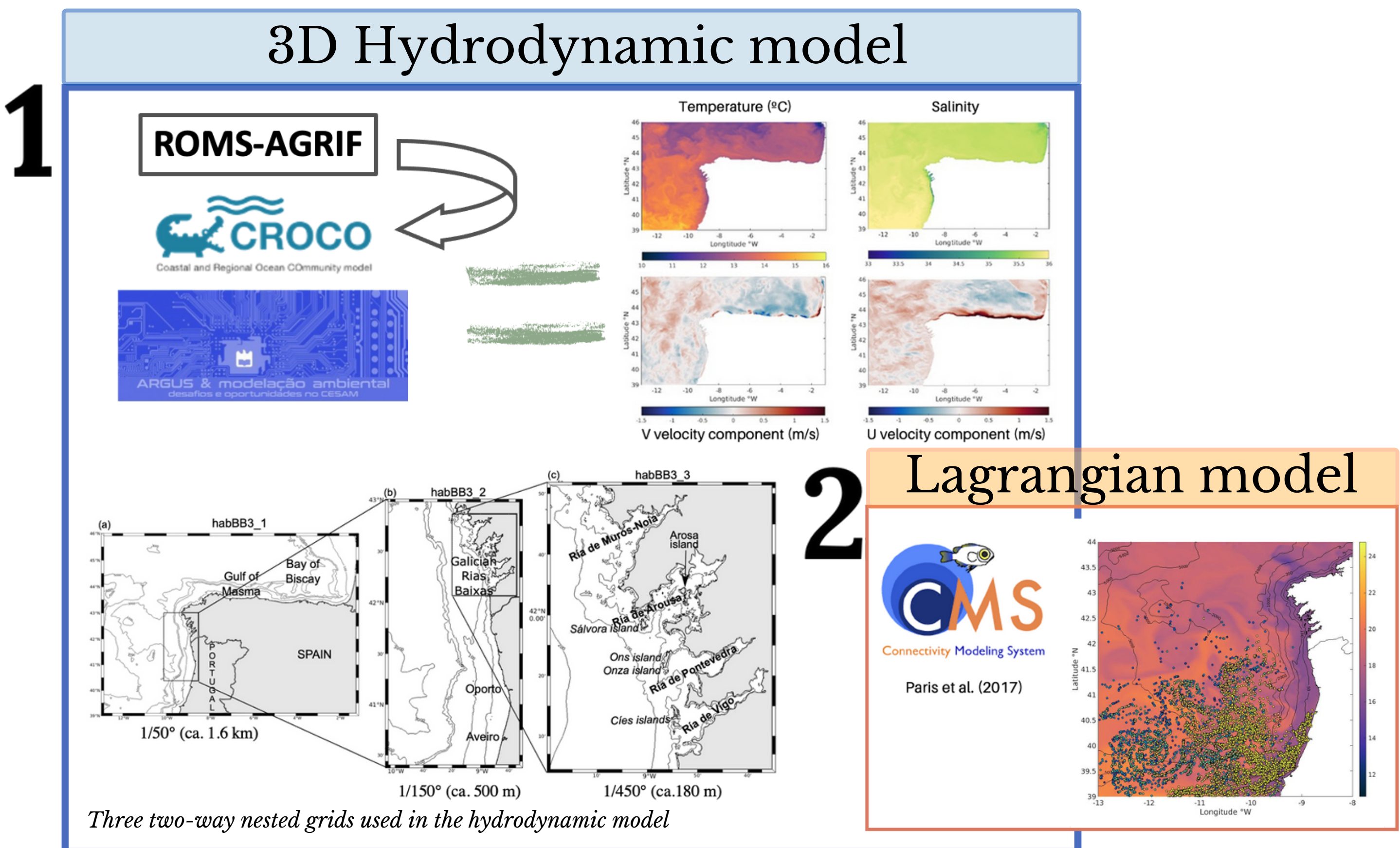
AIM

To study and describe the alongshore transport of *Dinophysis acuta* from Aveiro → Galician Rias Baixas (GRB)



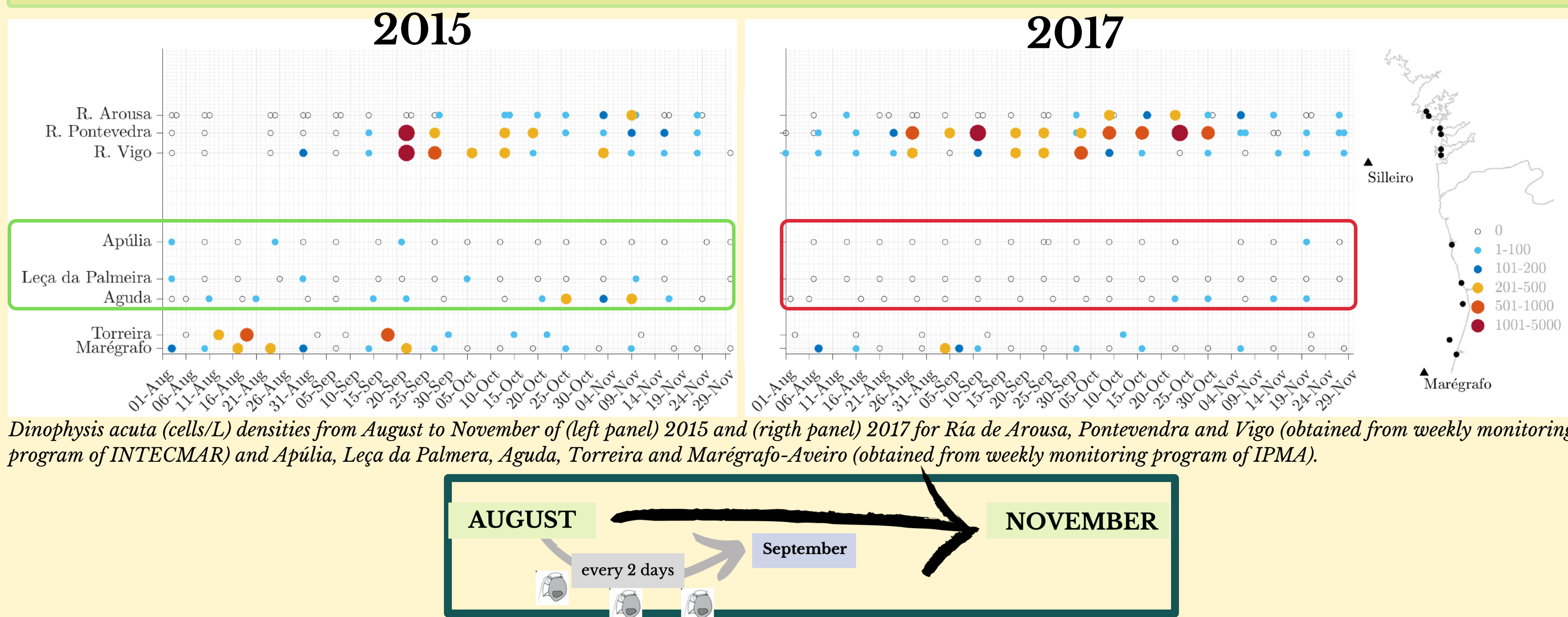
Methodology

We used two models, a 3D hydrodynamic model, CROCO, and using its output we run a lagrangian model, Connectivity Modeling System (CMS).

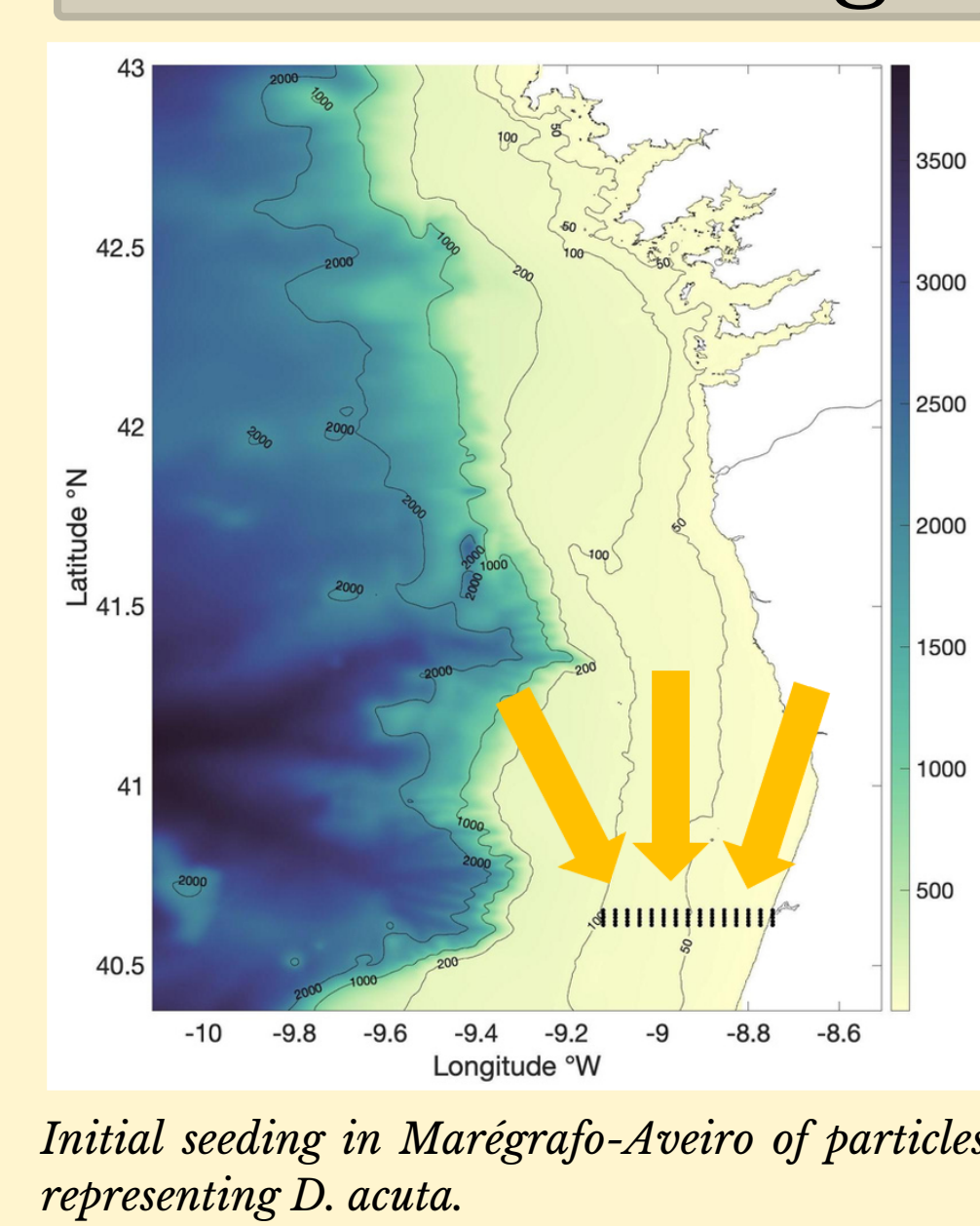


Characteristics of particles in lagrangian model

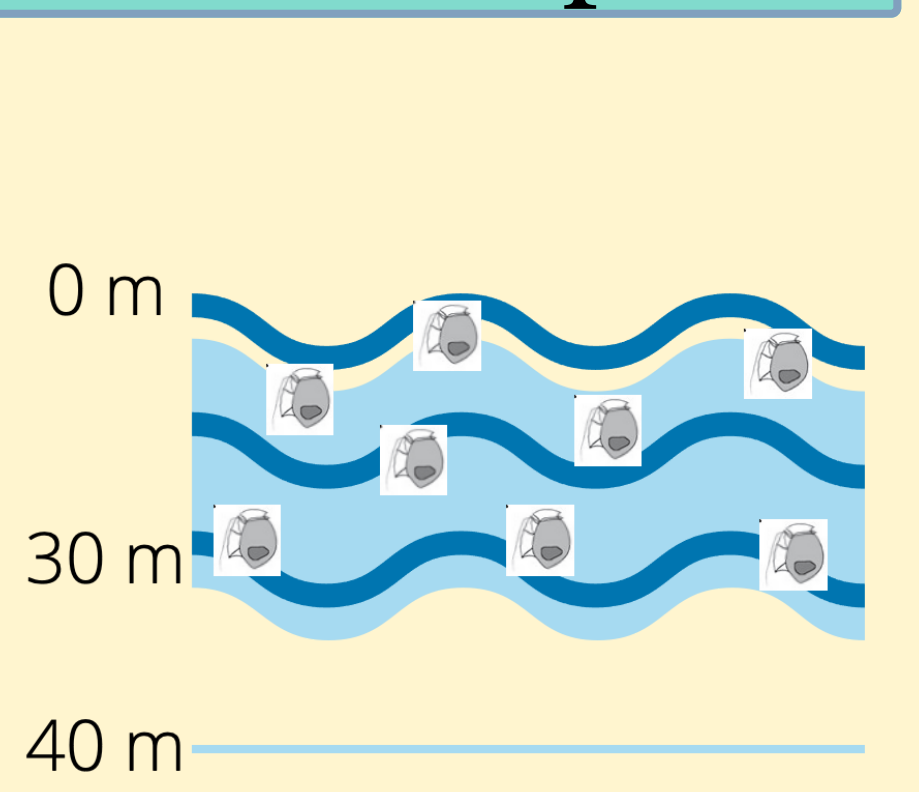
When?



Initial seeding

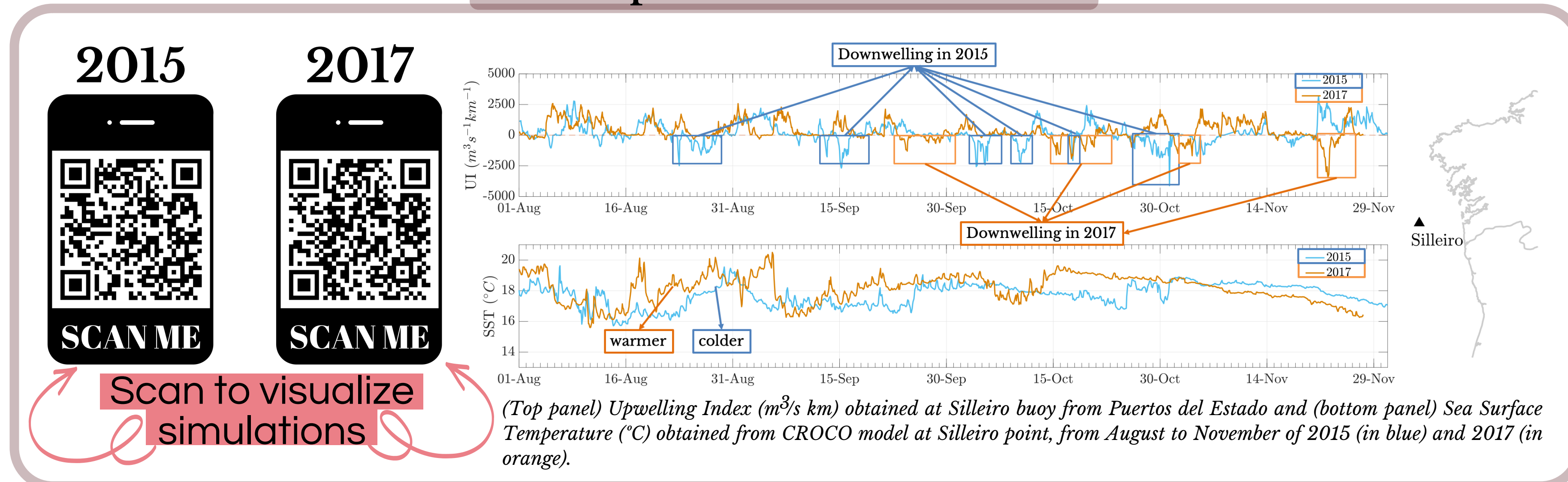


Which depths?

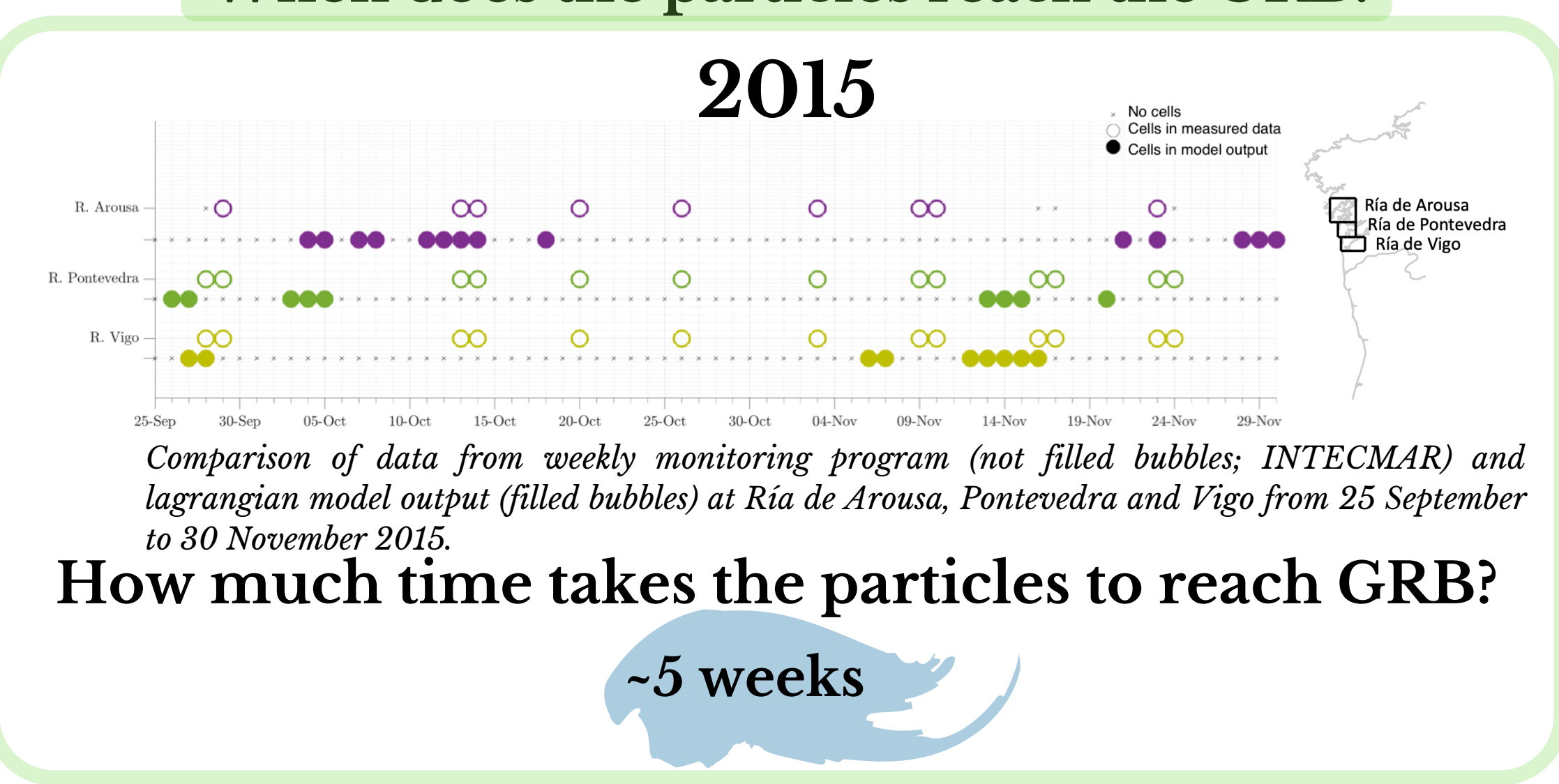


Results

Do the particles reach the GRB?



When does the particles reach the GRB?



- In 2015 there was a northward transport; whilst in 2017 there was not.
- 2015 was a year with more frequent and longer periods of downwelling events, and colder than 2017.
- Sample points at Aguda and Apúlia are located at the pathway taken by *Dinophysis acuta* cells to reach Galician Rias Baixas.

Conclusion

Hydrodynamic (CROCO) and lagrangian (CMS) models can be a valid management tool to be incorporated in monitoring programs to study and even predict the movement of phytoplankton species causing HABs along the coast of Galicia and Portugal.

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