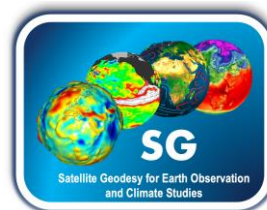


# Tecnologías marinas para la acuicultura de precisión y sostenible

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This study forms part of the ThinkInAzul programme and was supported by MCIN with funding from European Union NextGenerationEU (PRTR-C17.11) and by Generalitat Valenciana

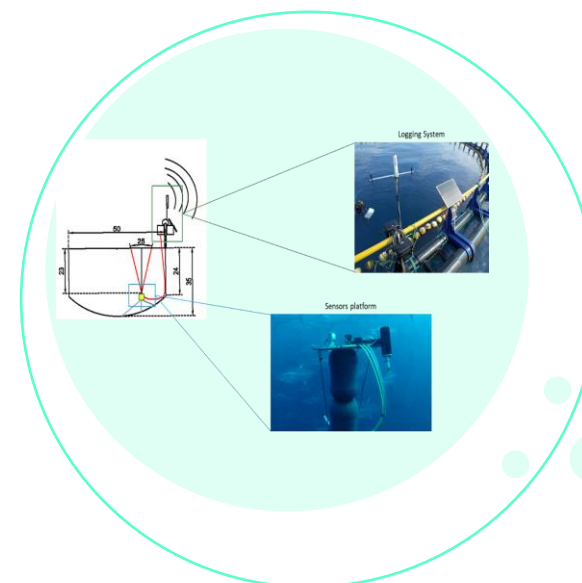
# Participantes



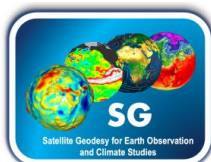
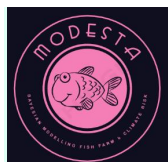
Interacciones ambientales y modelización



Robotización



Acústica, imagen y sensorización

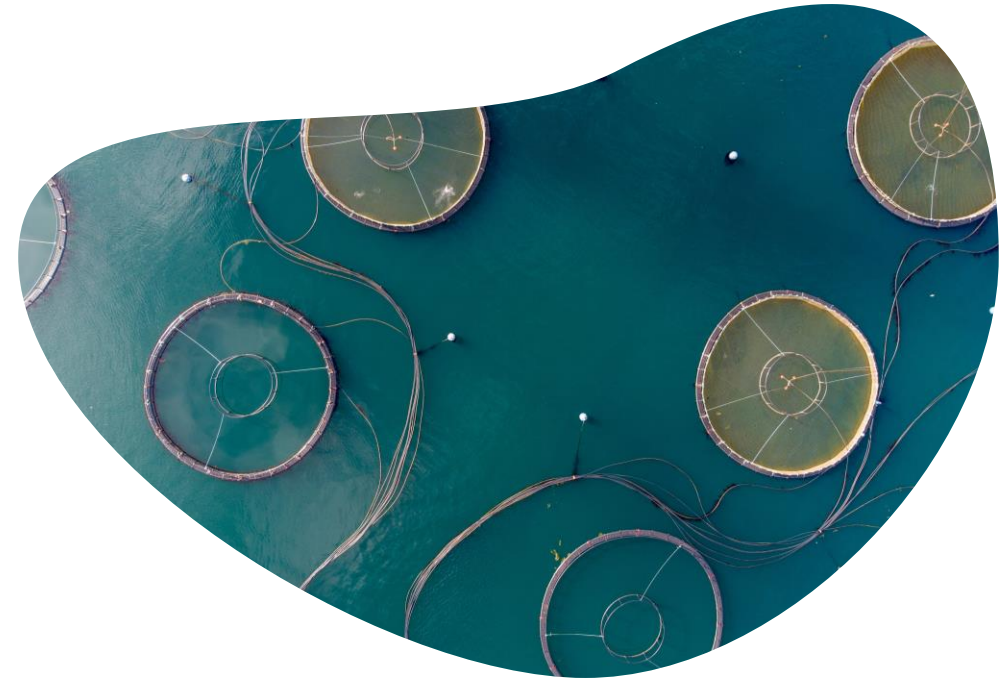


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# Objetivos globales del grupo de trabajo (WP6)

- **Objetivo 1.** Mejoras Tecnológicas en la Monitorización y Supervisión, en Tiempo Real, para una Acuicultura de Precisión, basadas en Redes de Sensores, IoT, IA, y Robótica.
- **Objetivo 2.** Evaluación, modelización y mitigación de riesgos e interacciones ambientales para una acuicultura resiliente y sostenible: desde la selección de sitio hasta la trazabilidad del producto.



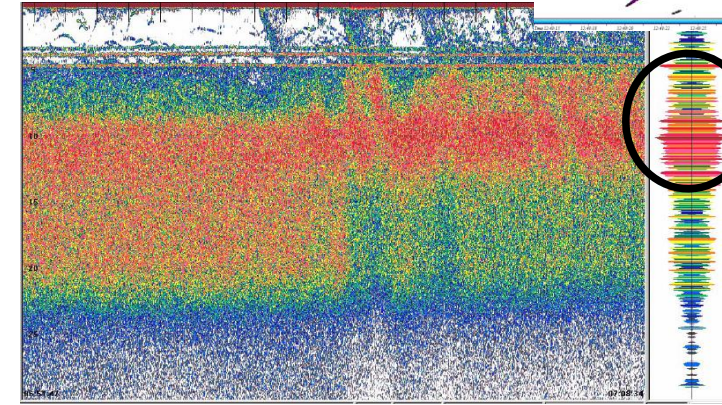
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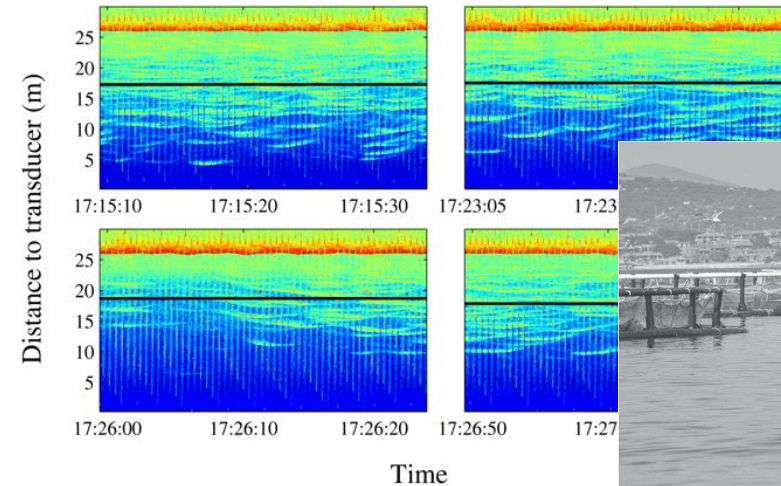
# Principales resultados

- Estimación y control de la biomasa de peces y de los procesos de alimentación.
- Análisis del paisaje sonoro en granjas marinas y relación con el comportamiento de los peces.

Feeding started



- School at surface: fishes are attracted by falling pellets

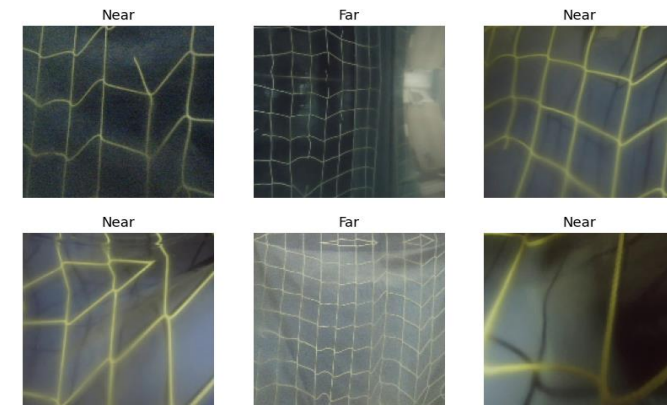



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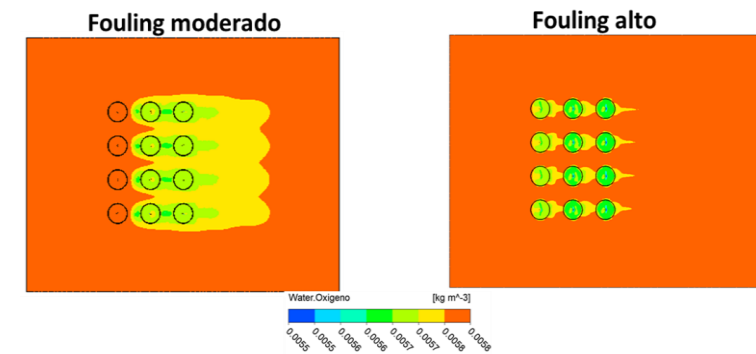


# Principales resultados

- Robótica y sensorización aplicada al mantenimiento de instalaciones acuícolas.
- Herramientas computacionales aplicadas al análisis del entorno hidrodinámico de las instalaciones de acuicultura y sus necesidades de aireación.

| ALP@AETAC Biosensor |                            |
|---------------------|----------------------------|
| Dynamic range       | 0.5-5 mM                   |
| Sensitivity         | 2.82 $\mu\text{A mM}^{-1}$ |
| LOD                 | 0.1 mM (3 ppm P)           |



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# Principales resultados

- Planificación Espacial adaptativa de la acuicultura.
- Interacciones ambientales y socioeconómicas: prevención, contingencia y mitigación de escapes.



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## A proxy for carrying capacity of Mediterranean aquaculture

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## On the wrong track: Sustainable and low-emission blue food diets to mitigate climate change

Javier Atalah\* and Pablo Sanchez-Jerez

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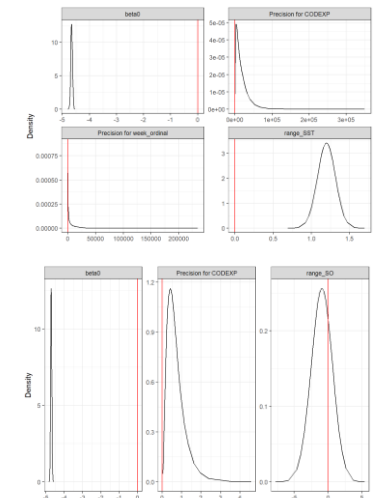
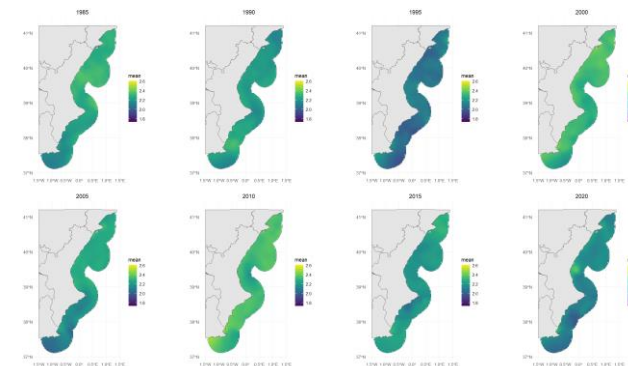
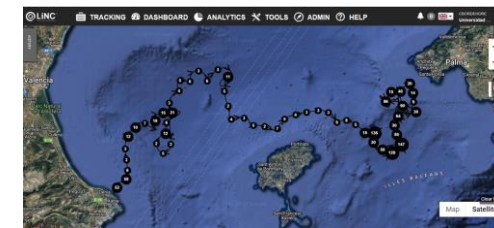
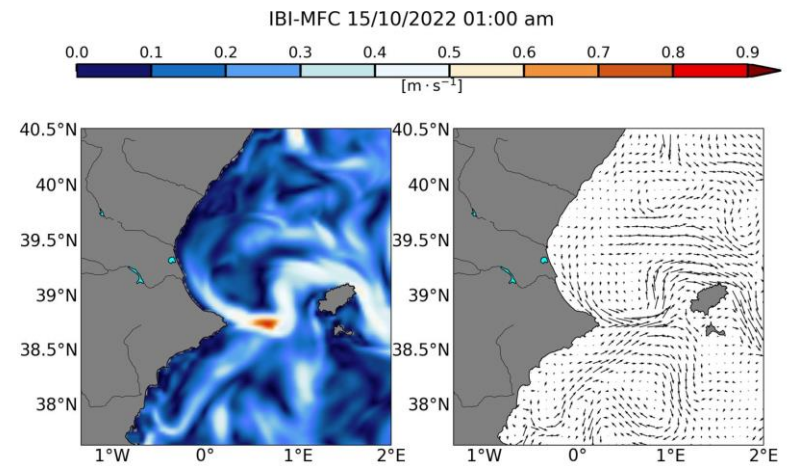
Article

## Metabolomic and Lipidomic Tools for Tracing Fish Escapes from Aquaculture Facilities

Warda Badaoui, Frutos C. Marhuenda-Egea,\* Juan Manuel Valero-Rodriguez, Pablo Sanchez-Jerez, Pablo Arechavala-Lopez, and Kilian Toledo-Guedes

# Principales resultados

- Herramientas de modelización para aplicaciones en la gestión ambiental de la acuicultura en un contexto de cambio climático.



This study forms part of the ThinkInAzul programme and was supported by MCIN with funding from European Union NextGenerationEU (PRTR-C17.I1) and by *Generalitat Valenciana*



# We're thinking in azul

Thanks | Gràcies

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