



QUESTIONNAIRE

Harmful Algal Bloom and Microbial Contamination Information (Galicia)



This short questionnaire aims to gather opinions from shellfish and fin-fish producers to help develop and tailor a Harmful Algal Blooms (HABs) and microbial contamination bulletin to their needs.

Currently, there is no public website or bulletin in Galicia. The PRIMROSE project hopes to develop a forecast bulletin for both HABs and microbial contamination events that will be accessible to the public. This is will be developed by Instituto Español De Oceanografía (<u>http://www.ieo.es/en</u>).



Predicting the Impact of Regional Scale events on the Aquaculture Sector The project builds on existing monitoring programmes carried out in the partners regions to estimate harmful blooms, shellfish toxins and microbial contamination to comply with EU regulations. It will add value to these programmes by re-use of valuable data that is already being generated.

Project number: EAPA_182/2016





- 1. Currently, if you receive an indication that a Harmful Algal Bloom (HAB) or microbial contamination event is imminent in the area where your stock animals are kept, do you have any strategies/protocols in place to mitigate stock damage/financial losses?
 - □ Yes
 - □ No

If **YES**, what strategies/protocols do you use, and are there any problems associated with them?

- 2. Once a harmful event has arrived where your stock animals are kept, do you have any strategies/protocols in place to mitigate damage/losses?
 - □ Yes
 - □ No

If **YES**, what strategies/protocols do you use, and are there any problems associated with them?





- 3. To help develop a public website or bulletin providing forecasting information on HABs/microbial contamination events, please tick what information you would like it to provide. Please tick all applicable
 - □ Current conditions
 - □ Water movements
 - □ Phytoplankton general observations
 - □ Prediction of temperature, salinity and density
 - □ Satellite-derived sea surface temperature
 - □ Satellite-derived chlorophyll images
 - □ Historical trends
 - \Box Other; please specify below:

4. What is the minimum timeframe for a short-term forecast to be useful to you?

- □ Forecast available 72 hours in advance
- □ Forecast available 1 week in advance
- □ Forecast available 2 weeks in advance
- Other; please specify ______

5. Would a long-term (seasonal/monthly) projection be of help to you?

- □ Yes
- □ No

If YES, how would such a report affect any decisions you have to make?





6. How frequently should the HAB/microbial contamination forecasting website/bulletin ideally be updated?

- □ Daily
- □ Weekly
- □ Fortnightly
- □ Monthly
- Other; please specify ______

7. How often do you think you would consult the website/bulletin?

- □ Daily
- □ Weekly
- □ Fortnightly
- □ Monthly
- Other; please specify ______

8. Would you use the information on the website/bulletin to make decisions?

- □ Yes
- □ No

If YES, what kind of decisions?

9. Overall, how important would a HAB/microbial contamination forecasting system be to you?

Crucial Very important		Slightly important
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□ Not important □ Indifferent





10. What would encourage you to consult a potential HAB/microbial contamination forecast bulletin more often? Please tick any that are applicable:

- □ Simplification of website bulletin
- □ Availability of a mobile app

□ Automated alert system e.g. alert message sent directly to your mobile phone

□ Other; please specify _____

11. Please provide any suggestions for the development of a potential forecasting system:





YOUR INFORMATION

1. What is your main business activity? Please tick all applicable:

- □ Fin-fish producer (seabass)
- □ Fin-fish producer (seabream)
- □ Fin-fish producer (other; please specify_____)
- □ Shellfish producer (abalone)
- □ Shellfish producer (mussels)
- □ Shellfish producer (oyster)
- □ Shellfish producer (scallops)
- □ Shellfish producer (hatchery)
- □ Shellfish producer (other; please specify_____)
- □ Seaweed producer
- □ Fin-fish processors
- □ Shellfish processors
- □ Aquaculture and seafood agency
- □ Seafood exporter
- □ Private research institute
- □ Public research institute
- □ University
- □ Other; please specify_____

2. Please provide the location of where most of your business activity takes place: