

Accepted Manuscript

Monitoring small pelagic fish in the Bay of Biscay ecosystem, using indicators from an integrated survey

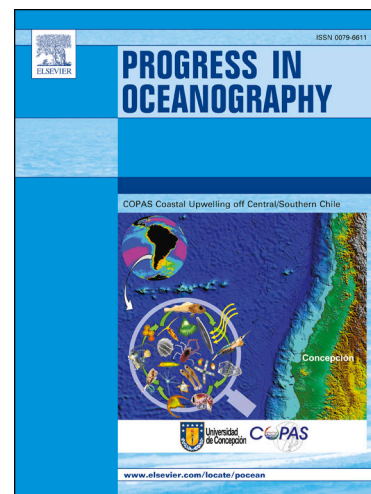
Mathieu Doray, Pierre Petitgas, Martin Huret, Erwan Duhamel, Jean Baptiste Romagnan, Matthieu Authier, Christine Dupuy, Jérôme Spitz

PII: S0079-6611(17)30091-5

DOI: <https://doi.org/10.1016/j.pocean.2017.12.004>

Reference: PROOCE 1886

To appear in: *Progress in Oceanography*



Please cite this article as: Doray, M., Petitgas, P., Huret, M., Duhamel, E., Baptiste Romagnan, J., Authier, M., Dupuy, C., Spitz, J., Monitoring small pelagic fish in the Bay of Biscay ecosystem, using indicators from an integrated survey, *Progress in Oceanography* (2017), doi: <https://doi.org/10.1016/j.pocean.2017.12.004>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Monitoring small pelagic fish in the Bay of Biscay ecosystem, using indicators from an integrated survey

Mathieu Doray¹, Pierre Petitgas¹, Martin Huret², Erwan Duhamel³, Jean Baptiste Romagnan¹, Matthieu Authier⁴, Christine Dupuy⁵, Jérôme Spitz⁴

¹ Unité Écologie et Modèles pour l'Halieutique, Ifremer Nantes, Rue de l'Île d'Yeu, BP 21105, 44300 Nantes Cedex 3 France. tel: +33 (0)2 40 37 41 65 - fax : +33 (0)2 40 37 40 75, e-mail: mathieu.doray@ifremer.fr

² Laboratoire de Biologie Halieutique, Centre Ifremer Bretagne - ZI de la Pointe du Diable - CS 10070 - 29280 Plouzané, France.

³ Laboratoire de Technologie et Biologie Halieutique, Station Ifremer de Lorient - 8, rue François Toullec - 56100 Lorient, France.

⁴ Observatoire PELAGIS, UMS 3462, Université de La Rochelle/CNRS, La Rochelle, France.

⁵ Université de la Rochelle-CNRS, UMR 7266, Littoral Environnement et Sociétés (LIENSs), 2 rue Olympe de Gouges, 17000 La Rochelle cedex, France.

Corresponding author: Mathieu Doray, Unité Écologie et Modèles pour l'Halieutique, Ifremer Nantes, Rue de l'Île d'Yeu, BP 21105, 44300 Nantes Cedex 3 France. tel: +33 (0)2 40 37 41 65 - fax : +33 (0)2 40 37 40 75, e-mail: mathieu.doray@ifremer.fr

Keywords: Min/max autocorrelation factors; time correlation; survey-based indicators; Marine Strategy Framework Directive; ecosystem variability; Bay of Biscay; pelagic ecosystem

Highlights

- A method for selecting relevant ecosystem indicators is applied to PELGAS integrated survey
- River plume, bottom temperature, phyto & mesozooplankton selected as hydrobiology indicators
- Small pelagic fish species appear to have followed distinct trajectories over the last 15 years
- A marked decrease in mean weights of age 1&2 anchovy and sardine over the last 15 years is highlighted
- Low impact of fishing and no effect of climate forcing on pelagic ecosystem in spring are confirmed

Download English Version:

<https://daneshyari.com/en/article/8886604>

Download Persian Version:

<https://daneshyari.com/article/8886604>

[Daneshyari.com](https://daneshyari.com)