

## — The Spanish blackspot seabream (



This paper aims to investigate the potential interest of using a Vessel Monitoring System (VMS) based on GPRS/GSM (Global System for Mobile Communications) technology to obtain a better estimation of fishing activity and distribution of a small-scale artisanal fleet, for which the European satellite-based system is not available. Since the early 1980s, the artisanal fishery targeting blackspot seabream (*Pagellus bogaraveo*), commonly known as “voraz”, has been developing along the Strait of Gibraltar area. Up to now the fishing effort was estimated using the number of sales, a proxy for the number of fishing days. This measure does not, however, capture the “missing effort”, i.e., fishing days resulting in no catch or not enough catch to be sold at public auction. The European satellite-based VMS provides information about the dynamics of different fishing fleets, but is not installed on small vessels (<15 m), such as those used by the artisanal “voracera” fleet targeting blackspot seabream in the Strait of Gibraltar. The Andalucía Regional Government installed its own vessel monitoring system on several artisanal fleets using GPRS/GSM cellular network technology that sends data on vessel positions and speed every three minutes. Data collected from 2009 to 2011 using this system were filtered and analysed to estimate fishing effort, catch rates and the spatial distribution of the blackspot seabream fishery. The estimates obtained seem to provide a good representation of fishery reality. As expected, the missing effort increases as the resource levels decrease. Additionally, expert knowledge of the fishery allowed application of an algorithm for splitting these daily trips into estimated fishing hauls. Afterwards the spatial distribution of catches and Catch per Unit Effort (CPUE) could be obtained linking VMS locations with landings information. This study provides a considerably finer spatial scale view of the fishery than data available in the past.

**Auteurs du document :** Candelaria Burgos, Juan Gil, Luis Alberto del Olmo

**Obtenir le document :** EDP Sciences

**Mots clés :** Fishing effort, Spatial distribution, VMS, Artisanal fishery, *Pagellus bogaraveo*, Strait of Gibraltar

**Thème (issu du Text Mining) :** MILIEU NATUREL

**Date :** 2013-12-19

**Format :** text/xml

**Source :** <https://doi.org/10.1051/alr/2013068>

**Langue :** Anglais

**Télécharger les documents :** <https://www.alr-journal.org/10.1051/alr/2013068/pdf>

**Permalien :** <https://www.documentation.eauetbiodiversite.fr/notice/the-spanish-blackspot-seabream0>

Evaluer cette notice: