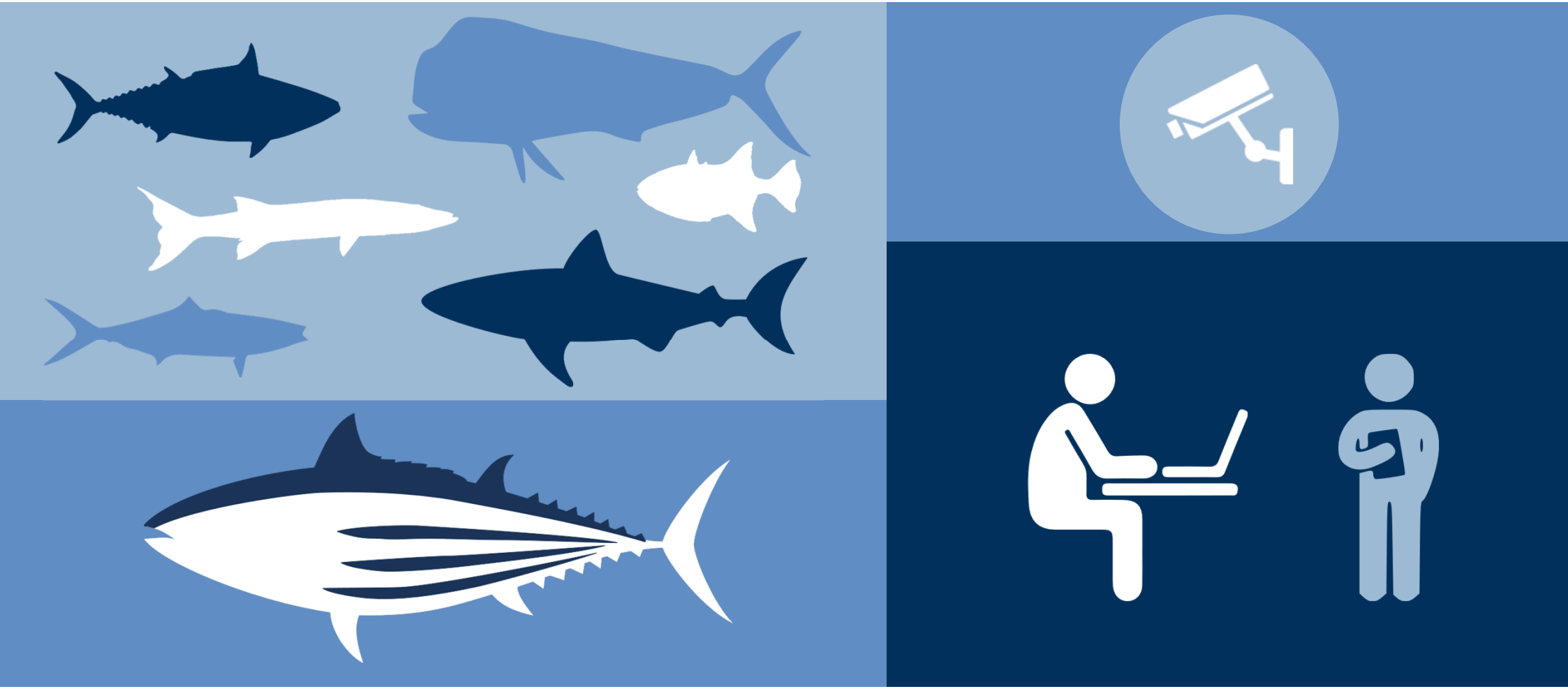
IOTC 2nd Working Group on Electronic Monitoring Standards– June 2022

(Re)defining ambiguous terms

to support the work of RFMOs on Electronic Monitoring Systems



(Re)defining ambiguous terms on EMS

All tuna RFMOs are showing a growing interest for the use of “Electronic Monitoring Systems” as an alternative or a complement to onboard observation, as a solution to grant compliance with existing management measures, or to facilitate the reporting of information electronically.

Since 2015, ORTHONGEL and IRD collaborate on various projects of scientific observation of French and Italian tropical tuna purse seiners of the Atlantic and Indian Oceans. Through this collaboration, and also through exchanges in various fora (ICCAT, IOTC, ICES working groups among others), we have noticed that some of the terminology used to refer to “EMS” may be ambiguous or misleading.

Here, we propose terms that can assist the work of tropical tuna RFMOs on EMS, and ensure that all stakeholders (managers, scientists, fishers, NGOs and others) use a common and clear vocabulary. The terms we propose here were discussed are adapted from ICES Working Group on Technology Integration for fishery-dependent data (WGTFID) and our own experience from the *OCUP observation program* and its *Electronic Eye* component.

Our sources of information

Maufroy, A., Bonnieux, A., Denoize, A., Godefroy, R., Goujon, M., Lebranchu, J., Le Couls, S., et al. 2021. Developing Electronic Monitoring System (EMS) standards to collect scientific data: learning from experience with French and associated fleets of the Indian Ocean. IOTC-WGEMS01-06.

WGTFID. 2019.. Working group on technology integration for fishery-dependent data ICES scientific reports, Volume 1, issue 46.

(Re)defining ambiguous terms on *EMS*

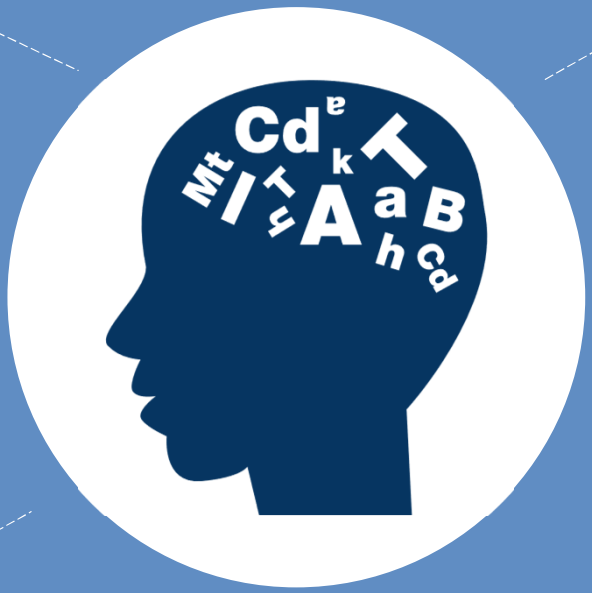
incorrect terminology

Human observers VS **Electronic monitoring**

Numerous documents refer to *human observers* vs *electronic monitoring*. Such a terminology suggests that the monitoring is either be done by *humans*, often presented as fallible and corruptible, or is on the contrary *fully automatized.* This is currently incorrect and misleading since humans are also behind the electronic monitoring of the fishery and electronic observers are in charge of analyzing EM photo/video records. Even in the absence of interactions with fishing crews, which may of course influence data collection, the quality of data collected in the frame of this *remote monitoring* may be affected by the quality of the work of electronic observers.

correct terminology

Onboard observers VS **Electronic observers**



Electronic Technologies

Electronic Monitoring

Electronic Observation + **Electronic Surveillance**

Electronic Reporting

Numerous documents refer to Electronic Monitoring (EM) as a tool to collect scientific information, report mandatory data and verifying compliance with existing management measures. These three tasks can be carried out with *Electronic Technologies* (ET) but are not all strictly speaking *Electronic Monitoring*. Since using an ambiguous terminology may lead to set too numerous objectives for ET or EM programs, a refined terminology is needed.

Electronic observation (EO) allows to collect the information needed to assess the impacts of a fishery. It allows collecting remotely data that complement fishers declarations and does not aim at monitoring compliance with existing management measures.

Electronic Monitoring is broader and covers both the remote scientific *observation* of a fishery and its remote *surveillance* , using sensors, imagery or GPS to collect the desired information for scientific or compliance purposes.

EM does not cover *Electronic Reporting* (ER) tools that corresponds to the use of Electronic Technologies to report (and not to collect) information on a fishery.

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