

## The capability of electronic monitoring to measure logbook reporting performance and improve data for scientific analysis

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Scientists in the Fisheries Science Program at Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) have analysed EM and logbook data collected by the Australian Fisheries Management Authority (AFMA) since 2015, in the Australian Eastern Tuna and Billfish Fishery (ETBF), to assess a range of issues including:

- the impact of EM on logbook data reporting ([Emery et al 2019a](#));
- the capability of EM to replace or supplement human observer data collection ([Emery et al, 2018](#));
- improvements needed to both logbook and EM data collection systems ([Emery et al. 2019b](#)), and;
- how EM can assist both scientific assessments and fishery management decision making processes ([Emery et al. 2025](#)).

ABARES latest published paper (see attached) undertook an analysis of congruence between EM and logbook data reported in the ETBF at the individual vessel level. The analysis identified that there can be significant variation in congruence between logbook and EM reported data at the vessel-level. The paper highlights and discusses the value of vessel level analyses in identifying vessels with general (i.e. universal) or specific (e.g. particular species) logbook reporting deficiencies and/or issues with individual vessel EM systems (e.g. camera placement). This is information which:

- Managers can use to undertake education or compliance actions to improve vessel level, and therefore fleet level, improvements in both logbook and EM data reporting.
- Scientists can use to identify and filter out data reported by vessels for which there is perhaps less confidence in its reliability for use in a given scientific analysis (e.g. CPUE standardisation).

We will also describe how the implementation of EM can enable fishery managers to implement individual vessel-based accountability approaches to management, using the AFMA seabird management approach as an example.