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Sighting durations during commercial whale-watching recorded in three years in the Pelagos Sanctuary

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Introduction

In the Pelagos Sanctuary (North-western Mediterranean sea), the whale watching activities do not have any national legislation granting permits. To embed the sustainability of this activity, the two international agreements for cetacean conservation (Pelagos Sanctuary and ACCOBAMS) developed and deployed the High Quality Whale Watching® certificate -HQWW®- for commercial operators [1]. To observe cetaceans found in the Sanctuary [2], certified operators must commit to a number of actions including the respect of the code of good conduct for observing cetaceans. One point of the code sets to thirty minutes the sighting duration (fifteen minutes when other boats approached the individual or the group). The present study aimed to calculate the sighting duration in all trips done in 3 years (2020-2022) for a single operator after being certified with the HQWW® in 2019.

Materials and methods

Data have been collected by the company Consorzio Liguria Via Mare, operating in the Gulf of Genoa. The numbers of trips per year were 33, 49 and 74 for a total of 156. The staff used the app 'Ilogwhales' to record tracks and sightings. Data were successively checked by CIMA Research Foundation and duration of each sighting was determined according to tracks and sighting information using QGIS. In particular, sighting duration was determined in function of the time spent in the precautionary area (100-300m) at low speed. For medium and large species, the surface-sighting duration was also calculated by removing the diving-duration from the full-sighting duration.

Results

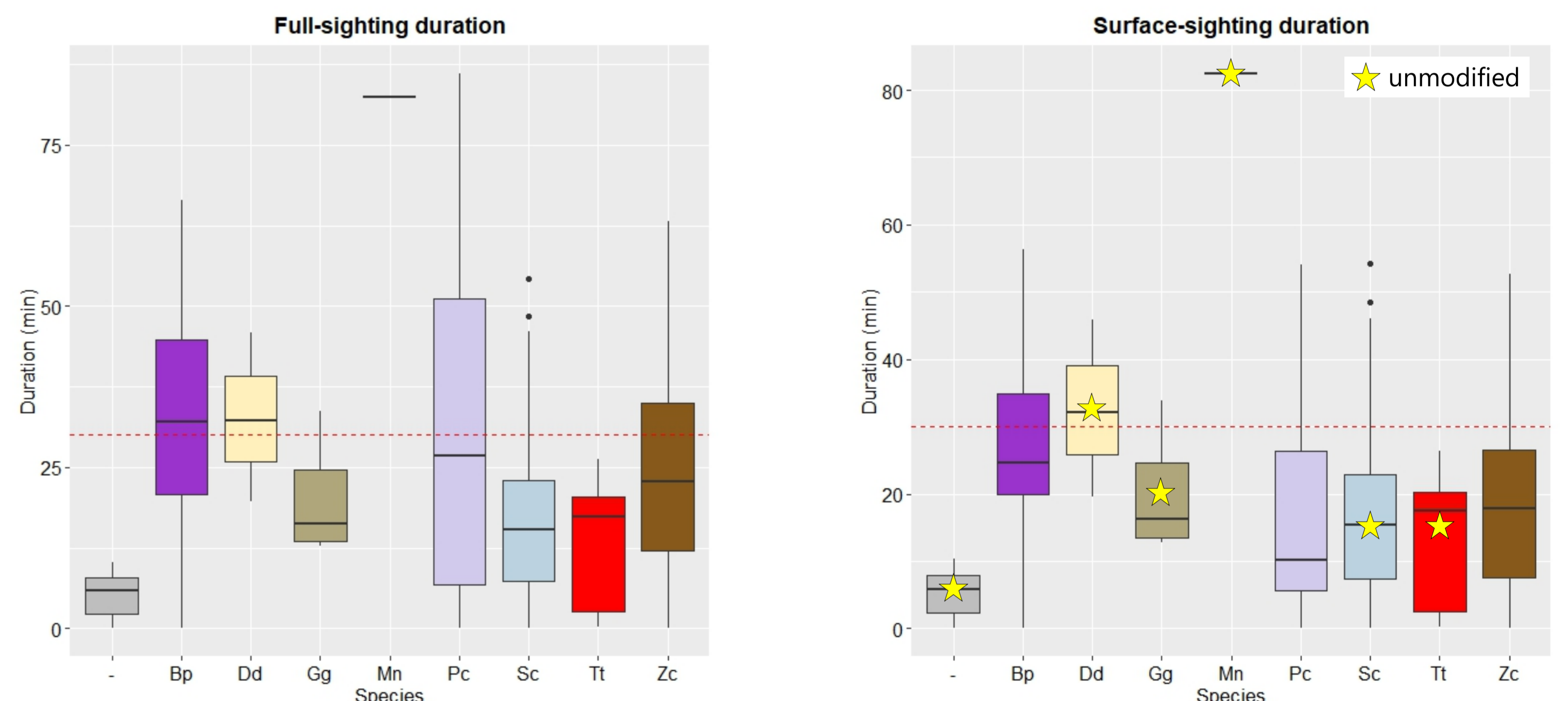
This research resulted in 481 sightings (Table 1) including seven sightings with undetermined species. The full-sighting duration was exceeding the 30 minutes of the code of conduct in 9.88% of Sc sightings and in 66.66%, 16.67% and 0% of Dd, Gg and Tt sightings. Regarding medium and large species, 51.85% (Bp), 47.83% (Pc) and 36.25% (Zc) of sightings exceeded the limit. But excluding the duration of the dive(s), the surface-sighting duration with whale-watching vessel was exceeding in 33.33%, 21.74% and 16.25% of Bp, Pc and Zc sightings. A total of 18.71% of sightings exceeded thirty minutes and the percentage dropped to 13.1 for surface-sighting duration.

References

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- [3] Tepsich, P., Borroni, A., Zorgno, M., Rosso, M., & Moulins, A. (2020). Whale Watching in the Pelagos Sanctuary: Status and Quality Assessment. *Frontiers in Marine Science*, 7, 596848. <https://doi.org/10.3389/fmars.2020.596848>

Table 1: Number of sightings and average duration per species

Species	Number of sightings	Average duration (minutes)	
		Full-sighting	Surface-sighting
<i>Stenella coeruleoalba</i> (Sc)	324	15.85	15.85
<i>Ziphius cavirostris</i> (Zc)	80	24.66	18.09
<i>Balaenoptera physalus</i> (Bp)	27	32.59	26.55
<i>Physeter catodon</i> (Pc)	23	30.74	16.91
<i>Tursiops truncatus</i> (Tt)	10	13.34	13.34
<i>Grampus griseus</i> (Gg)	6	19.83	19.83
<i>Delphinus delphis</i> (Dd)	3	32.59	32.59
<i>Megaptera novaeangliae</i> (Mn)	1	82.5	82.5



Discussion

There were an increase of activities over the three years which is in accordance with other whale-watching activities of recent years in the area [3]. Full-sighting duration analysis shows that 18.71% of the duration were higher than thirty minutes. The surface-sighting duration was higher in 13.1%. These results give a concrete indication on how a single company commit to the sighting duration. However, this methodology is clearly limited: most of companies, even though they are HQWW® certified, do not want to share their data. Thus, it is fundamental to improve data collection raising awareness of the benefits of a collaboration based on trust.