

Thank you for your constructive remarks. Please find our detailed responses to your comments, including expected modifications of the manuscript, below.

1. **Comment:** The main limitation is that pteropods are migratory (daily and seasonally) organisms with very patchy distribution. It is therefore virtually impossible to draw any conclusion on the relationship between pteropod abundances and environmental parameters using 22 spot measurements over thousands of km. As an example of this patchiness, their abundance was 0 in several locations in the East Mediterranean Sea where they are supposed to be the most abundant.
2. **Comment:** Furthermore, samplings were done at different time of the day at each location, which is highly problematic when studying organisms that are daily vertical migrators.

REPLY: An aim of this study was to obtain an upper 200 m integrated distribution of pteropods during spring across the Mediterranean Sea's large environmental gradients in order to shed light on the potential factors modulating pteropod distribution. Sampling the upper 200 m water depth allowed us to capture most of the total pteropod community, though we are aware that we may have underestimated species with a deeper diel vertical migration and/or distribution. Patchiness is expected for zooplankton, however abundance was not 0 in several locations but only in one station (station 20 - Northern Alguero-Balear) in the western Mediterranean. The closest stations in the region also had low abundances (station 21 – 0.48 ind. m^{-3} and station 22 with the second lowest abundance – 0.06 ind. m^{-3}).

Based on a study investigating the global distribution of pteropods, which utilised a very large dataset (25939 data points) that included 41 scientific studies (Bednaršek et al. 2012), it was found that most of the species live in the photic zone, although some pteropod species could be found at depths >500 m. From the same dataset of Bednaršek et al. (2012) in PANGAEA (doi:10.1594/PANGAEA.777387), we generated the graph in Figure 1A to show

the distribution of ind. m^{-3} of pteropods in the upper 850 m water depth of the Mediterranean Sea. The figure only shows values from stations where the total pteropod community have been collected from below and above 200 m, to allow for a comparison between depth distributions within the water column (see map generated in Figure 1B with the station locations). These data are comprised of sampling conducted during the day and night and does not differentiate between the two. On the basis of this dataset, 93% of pteropods (individual standing stocks) are distributed in the upper 200 m (Table 1 and to be added as a supplementary table).

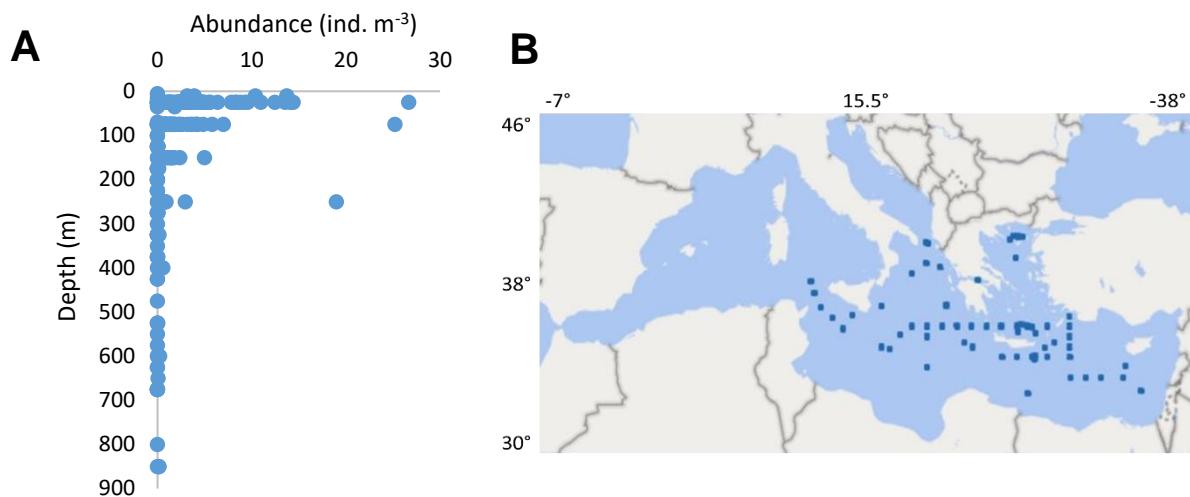


Figure 1. **A** Abundance of pteropods (expressed as ind. m^{-3}) in the Mediterranean Sea from the dataset in Bednaršek et al. (2012) only including sites where pteropods have been collected below and above 200 m; **B** Location of stations within the Mediterranean Sea where data were collected above and below 200 m water depth. Unfortunately, there are a paucity of datasets in the western Mediterranean that allow us to differentiate the depth distribution of pteropods above and below 200 m (Bednaršek et al. (2012); see Figure 1 from this document, (c) depth 200-500 m and (d) below 500m for the western Mediterranean).

Table 1. Maximum, average, and percentage of total abundance of pteropods within the Mediterranean. A list of datasets used in this study can be found at the end of this document.

Depth range (m)	Max abundance (ind. m ⁻³)	Number of observations	Avg. abundance (ind. m ⁻³)	% Abundance (ind. m ⁻³)
0-200	26.67	455	0.98	93.37
201-850	19	502	0.07	6.63

An additional study performed in the Mediterranean South Adriatic Sea demonstrated that during a yearlong survey of the vertical distribution of gelatinous zooplankton, the large majority of pteropod species (78%) were found in the upper 50 m and 88% in the upper 200 m (Batistić et al., 2004).

On the basis of the information above, we will include in the Methods section of the revised manuscript the paragraph below, highlighting that in this study, we are characterising pteropod abundance, and that those abundances may be slightly underestimated as some species live below the sampling depth.

Added to methods section 2.2:

Sampling the upper 200 m water depth (regardless night or day collection) will probably not capture entirely the pteropod community at each location, however, it allows to quantify most of the total pteropod abundance. Based on a study investigating the global distribution of pteropods, which utilised a very large dataset (25939 data points) that included 41 scientific studies (Bednaršek et al. 2012), it was found that most of the species live in the photic zone and that in the Mediterranean Sea, specifically, pteropod abundance below 200 m is more than one order of magnitude lower (mean 0.07 ± 0.89 ind. m⁻³) than the abundance in the upper 200 m (mean 1.04 ± 2.77 ind. m⁻³) with 93% and 7% of pteropods distributed above and below the 200 m, respectively (Table 1 here and added as a supplementary table in the revised manuscript).

We understand that *Cavolina inflexa*, as well as *Styliola subula*, have a depth preference below 200 m and a strong diel and seasonal variations in their depth

distribution habitat (Andersen et al., 1998; Rampal, 1975; Tarling et al., 2001). For this reason, we have decided to be more conservative in our approach and not incorporate *S. subula* and *C. inflexa* into the discussion of pteropod ecology and into our statistical analysis. We will focus on the species that mainly live in the upper 200 m. As these species formed a very small portion of the total abundance, when we compare the original Canonical Correspondence Analysis (CCA) against the new CCA (where some variables were removed to avoid collinearity), the alignment of species with the significant environmental parameters (temperature and Ω_{ar}) is unchanged. The results and significance for the Pearson's correlations are also unchanged (please see response to comments 16, 17, 18 and 19 for details on the updated statistical analyses).

We have added the following paragraph in the revised Methods section to clarify our approach:

We are aware that vertical distribution of pteropods is species-specific. Limacina bulimoides, L. trochiformis, C. acicula and C. conica are classified as surface and subsurface species (Rampal, 1975). Heliconoides inflatus and S. subula can be found at depths below 200 m and are classified as mesopelagic by Rampal (1975), however recent studies show that H. inflatus primarily occurs in the upper water column (Batistić et al., 2004; Granata et al., 2020; Juranek et al., 2003) while S. subula shows the greatest abundance below 150 m (Andersen et al., 1998). C. inflexa is classified by Rampal (1975) as a bathypelagic species with a distribution extending below 1000 m, and this preference for deeper water has been corroborated by more recent studies in the Ligurian Sea focusing on this species (Granata et al., 2020; Sardou et al., 1996; Tarling et al., 2001). Due to the strong diel and seasonal variations in their depth distribution habitat (Andersen et al., 1998; Rampal, 1975; Tarling et al., 2001), we decided not to incorporate S. subula and C. inflexa into our statistical analyses of distribution in relation to the environmental parameters.

The collection of day and night samples at each location was not anticipated in our research. However, we considered diurnal vertical migrations (visual interpretation, ANOVAs using a categorical approach by dividing stations

between day and night) and found no significant difference in total or species abundances when comparing results between day and night sampling (Table 2). We also sampled 10 stations during the day and 10 during the night, spread across the Mediterranean. For a multivariate approach, we conducted a CCA which indicated that PAR (photosynthetically active radiation) did not heavily affect pteropod community composition within the Mediterranean Sea (Figure 2).

As stated in the original manuscript – “After an initial analysis, PAR (photosynthetically active radiation) was removed as it did not significantly contribute to the variation of environmental parameters.” We acknowledge that species do undertake diurnal migration and we have made a point in the revised manuscript that the time of day for collection did not appear to be a driving factor affecting abundances in the upper 200 m integrated samples of this study.

Updated text:

Many pteropod species undertake diurnal vertical migration, and after an initial analysis, PAR was removed as it did not appear to be a driving factor affecting pteropod's abundances in the upper 200 m integrated samples of this study (Supplementary Figure – CCA and ANOVA using day/night stations).

Table 2. ANOVA table using night/day as the dependent variable against total and species abundances.

		Sum of Squares	df	Mean Square	F	Sig.
total abundance	Between Groups	1.988	1	1.988	.713	.409
	Within Groups	50.182	18	2.788		
	Total	52.170	19			
<i>H. inflatus</i>	Between Groups	.000	1	.000	.000	.987
	Within Groups	4.317	18	.240		
	Total	4.317	19			

<i>L. trochiformis</i>	Between Groups	.354	1	.354	1.029	.324
	Within Groups	6.198	18	.344		
	Total	6.552	19			
<i>L. bulimoides</i>	Between Groups	.251	1	.251	.789	.386
	Within Groups	5.726	18	.318		
	Total	5.977	19			
<i>C. acicula</i>	Between Groups	.002	1	.002	.056	.816
	Within Groups	.590	18	.033		
	Total	.592	19			
<i>C. conica</i>	Between Groups	.003	1	.003	.121	.732
	Within Groups	.400	18	.022		
	Total	.403	19			

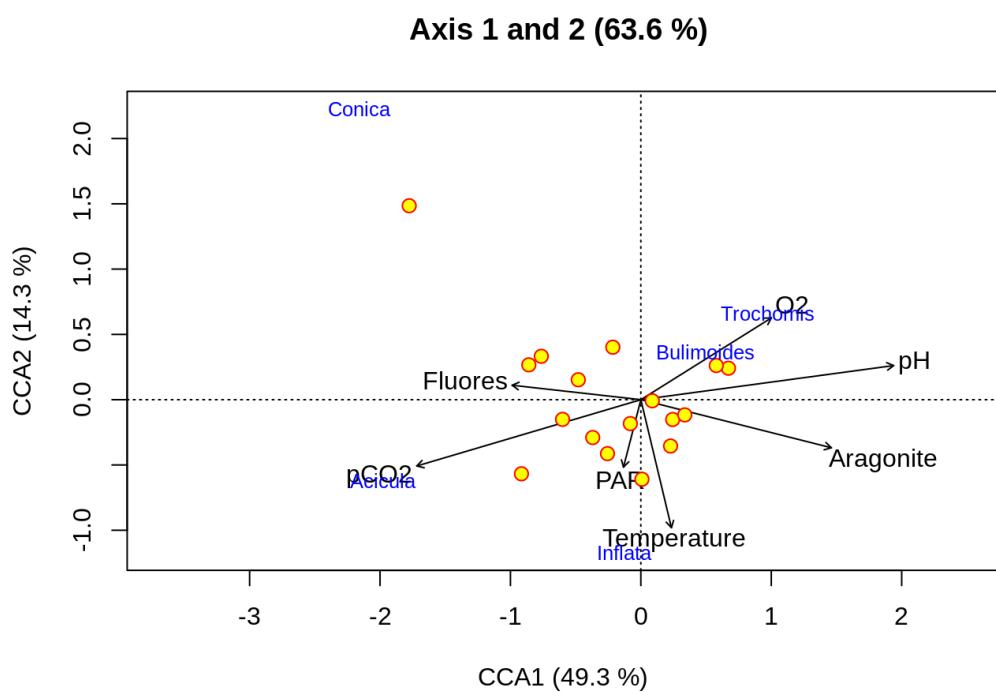


Figure 2. Triplot from the Canonical Correspondence Analysis (including the PAR variable), where the relation between species and environmental variables are

obtained from the proximity (or remoteness) of species labels and environmental arrows (tips). The length of the arrow represents the importance (contribution) of the environmental variable to the data structure, thus we can see that the PAR variable, due to its short arrow, does not heavily contribute to pteropod community composition within the Mediterranean.

3. **Comment:** L 29: Probably not the best reference

REPLY: Thank you. This reference has been changed to Fabry (1989).

4. **Comment:** L32: Comparatively to what?

REPLY: This line has been changed to:

Pteropods are very susceptible to changes in carbonate saturation state (Ω) due to their aragonite shell, which is a more soluble form of calcium carbonate compared to other morphs such as calcite (Mucci et al., 1989).

5. **Comment:** L47: Two "this "in one sentence is a bit awkward.

REPLY: This line has been removed.

6. **Comment:** L54: Mediterranean Sea temperature?

REPLY: This line has been updated:

Mediterranean Sea surface temperature is expected to rise by 1.5-2°C by the end of this century, with atmospheric warming likely to be 20% faster than the global average (Lazzari et al., 2013; Lionello and Scarascia, 2018).

7. **Comment:** L63: Why only ocean acidification?

REPLY: This line does not only refer to ocean acidification but the changes associated with ocean warming and acidification - “how organisms and communities will respond to ocean conditions under climate change.”

8. Comment: L69-70: This sentence is not clear and true.

REPLY: Thank you for your recommendation. This sentence has been updated:

The Mediterranean Sea is a semi-enclosed evaporitic basin characterised by an overall lower sea surface temperature (SST) and salinity in the western basin compared to the eastern basin. This is a consequence of its anti-estuarine circulation with surface Atlantic water entering through the Gibraltar Strait being modified moving eastward (Rohling et al., 2009).

9. Comment: L72: Average by what? Yearly average?

REPLY: Thank you for indicating the need for clarification. This sentence will be updated as:

Using data collected from the MedSeA research cruise (2013) (D’Amario et al., 2017a, 2018; Gemayel et al., 2015; Hassoun et al., 2015a, 2015b; Mallo et al., 2017) the average Ω_{ar} (saturation state of aragonite) in the upper 200 m water depth gradually increased from approximately 2.7 in the Atlantic to approximately 3.6 in the Eastern Mediterranean.

10. Comment: L123-124: Was the boat moving during the sampling? This could have big implication on what was sampled.

REPLY: The methods section has been updated with:

The plankton towing was performed with the vessel moving at approximately 1 nautical knot, with an oblique sampling direction.

11. COMMENT: A mesh size of 150 um is very small to capture large species. *Cavolinia inflexa* is for example relatively big (and can be very abundant in the Med). This could explain their low abundance.

REPLY: The effect of net and mesh size on global pteropod biomass was investigated in Bednaršek et al., (2012) and the results indicated that average biomass was similar, regardless of the size of mesh that was used in sampling. Wells et al. (1975) and most recently Howes et al. (2014) highlighted that a larger mesh size (e.g. 330 μ m) can result in underestimating (the often more abundant) pteropod juveniles and small-sized adult species (such as Limacinidae). A large mesh size will also result in the collection of other large-sized zooplankton, which can result in damaging the fragile pteropod shell, making identification and counting much more challenging.

Further, the abundance ranges in this study are comparable to other studies in the Mediterranean when using a variety of mesh sizes, with the exception of very coastal sites (Table 3 in comment #22).

On the basis of the reasons above, we believe that the mesh size used in our study provides a good estimate of the pteropod community in the upper 200 m.

Please refer to the reply in comment #2 regarding our strategy with *C. inflexa*.

Updated text:

The mesh size in this study gives a good estimate of the pteropod community, aimed at including juveniles, the adults of small species (Howes et al., 2014), and large adults. Although some large adult individuals may have escaped collection, the majority of the pteropod community could be sampled. The effect of net and mesh size on global pteropod biomass was investigated in Bednaršek et al., (2012) and the results indicated that average biomass was similar, regardless of the size of mesh that was used in sampling.

12. Comment: L129: Were the samples fixed with buffered formalin? How long were the samples stored before species ID?

REPLY: The Methods have been updated with:

Plankton samples were preserved on board in a 4% formaldehyde solution that was buffered with Hexamethylenetetramine at pH 8.2 and were stored in 500 ml polycarbonate bottles at 4°C in the dark. pH was measured in all the samples, at the beginning, during and the end of the storing period to ensure that the state of the pteropod shells were not affected by the preservation technique. The samples were processed a few weeks after the collection.

13. Comment: L144: Time of collection should be included in the PCA, this could greatly affects the presented results.

REPLY: Please refer to our reply to comments 1 and 2 regarding time of collection.

14. Comment: L177: Would the result of the study be the same if pteropod biomass rather than pteropod abundance was investigated?

REPLY: Detailed biomass data are not the focus of this paper and they are in the process of being analysed (length and weight data). Biomass is a function of size and abundance. Where there are no weight or length data available for pteropods, biomass is usually calculated using abundance and general length-weight conversions for particular species or groups, as in global study of pteropod biomass by Bednaršek et al., (2012). Most of the organisms in this study were juveniles and the adults were rather evenly distributed between the stations. We anticipate that the trend will be similar whether biomass or abundance was investigated. We are basing the results in this paper on count data only.

15. Comment: L 235: It is not surprising to find Limacinedae as the most abundant species with this method of sampling.

REPLY: It is not clear what specific part of the sampling strategy the reviewer is referring to. For instance, Manno et al. (2019; Tyrrhenian Sea) and Fernandes de Puelles et al. (2007; Balearic Sea) found Creseidae to be the dominant family, despite using a mesh size similar to ours (200 and 100-120 μm , respectively). All sampling methods contain an element of bias and there is no one way to determine the absolute abundance of all species. This was also noted in Howes et al. (2015) that suggested an undersampling of juvenile *Heliconoides inflatus* due to using a 330 μm mesh size. We have commented on mesh size in the Methods section of the revised manuscript as a potential sampling bias (please see our response to comment #11).

16. Comment: L 243: If the energetic cost is driving the response of pteropod, why are they not more abundant (or at least not less abundant) in the region with more food resource?

REPLY: This was explained in the manuscript in the section **Sensitivity to Ω_{ar}** , however, we will further clarify this point and rephrase this section:

Pteropods need to split the energetic cost between calcification and catching food. The energetic cost of calcification is generally very high (Sanders et al., 2018). Conversely, pteropods can starve for long periods (Busch et al., 2014). In pteropods, shell calcification is important for balance and defence (Harbison and Gilmer, 1992). Further Watson et al. (2017) showed that an increase in the cost of carbonate deposition, including from the projected decrease in pH, may lead to a ~50 to 70% increase in the proportion of the total energy budget required for shell production, to a doubling of the CaCO_3 deposition cost. Changes in the energy budget allocation to shell cost would likely alter ecological trade-offs between calcification and other drivers (Watson et al., 2017). What we suggest in the paper is that high Ω_{ar} is likely more important than a high nutrient environment. If there is not a strong Ω_{ar} gradient, it is likely that pteropods will follow a food gradient, as in Burridge et al. (2017).

17. Comment: L265: Kapsenberk paper shows data for 1 and 50 m depth.

REPLY: Thank you for pointing this out. This will be updated in text: locations (~15 m in the Gulf of Trieste and 1 and 50 m in Villefranche-sur-Mer).

18. Comment: L266-270: This sentence is not clear. What is the point made here?

REPLY: This sentence has been removed as it uses references that are no longer required for the point regarding seasonality of Ω_{ar} saturation in the Mediterranean Sea.

19. Comment: L278-281: This is not true, western Mediterranean Sea temperature in winter are higher than 10. This is also not shown on Fig. 4.

REPLY: These are values reported in Rohling et al. (2009). Figure 4B shows the gradient of temperature in the Mediterranean from the data collected on our cruise, and the text will be updated to indicate this.

In the Mediterranean, sea surface temperatures (SST) vary by about 10°C over the year, with the north-western Mediterranean having a winter average of approximately 10°C and a summer average of 21°C, while the south-eastern Mediterranean winter average is approximately 15°C and the summer approximately 26°C (Naval Oceanography Command, 1987, as cited in Rohling et al., 2009), with a consistent west to east gradient as illustrated in Fig. 4B (from data collected on the MedSeA research cruise, 2013).

20. Comment: L 290: Some stations are located in the Adriatic, I would not call this sea as ultraoligotrophic.

REPLY: Thank you for pointing this out. The sentence has been updated:

In our study, pteropod abundance was ~5x greater in the largely ultra-oligotrophic eastern Mediterranean (not including the Adriatic Sea).

21. **Comment:** L320: I don't see the point of comparing the data between pteropods and foraminifera here. They have been no mention of forams before in the methods and the results. This section comes from nowhere and should be deleted.

REPLY: This paper is providing the first comparison of pteropod and foraminifera distribution in the Mediterranean Sea. Foraminifera are single-celled marine eukaryotes producing calcite and little is known about how the distribution of these important groups of calcifying zooplankton differs. The foraminifera were collected in the same plankton towing samples as the pteropods of this study and the results were published in BG (<https://www.biogeosciences.net/14/2245/2017/>), adding value to this work.

As mentioned, the published foraminifera study used data collected from the same set of samples and has been already published. This was mentioned in the introduction and we refer to Mallo et al. (2017) for details on the methodology. We realise that for clarity this information could be expanded on in order to provide a better rationale for their inclusion. We added the following text in the Introduction, Methods and Results sections.

Introduction:

We also present the relationship between pteropods distribution and another major group of planktic marine calcifier, foraminifera (single-celled, calcareous zooplankton). Investigating this relationship between pteropods and foraminifera is important as ocean acidification has been shown to cause ecosystem shifts due to altered competition between calcareous species, likely resulting from the physiological responses of individual species (Kroeker et al., 2013). Foraminifera were collected during the same research cruise campaign (data published in Mallo et al., 2017) and are therefore directly comparable with this study on thecosome pteropods, giving us the opportunity to investigate the ecological relationship between groups of prime calcifying zooplankton in the Mediterranean Sea.

Methods:

Samples for foraminifera were collected in the same net as the pteropod samples at all of the same stations and preserved using the same methodology. Foraminifera were identified to species level using a light microscope and following the guidelines and taxonomic nomenclature of André et al. (2013), Aurahs et al. (2011), Hemleben et al. (1989) and Spezzaferri et al. (2015), depending upon each species. For a more detailed description of collection, preservation and taxonomic identification methods, please refer to Mallo et al. (2017).

Statistical Methods:

Planktic foraminifera total abundance and distribution presented in Mallo et al. (2017) were compared to the pteropod data from this study. The tow samples from Mallo et al. (2017) were collected during the same cruise and within the same nets as the pteropods of the present study, allowing a direct comparison of these two groups of key planktic calcifiers. To compare the abundance of pteropods and foraminifera within specific regions of the Mediterranean Basin, we used a Generalised Linear Mixed Model (GLMM) with a gamma distribution. As the magnitude of the abundance data is very different between pteropods and foraminifera (almost one order of magnitude), the abundance data was transformed to its logarithmic scale to make abundances from both groups comparable. For this analysis, the Mediterranean was split into two basins: “western” stations (1, 2, 3, 5, 6, 7, 19, 20, 21, 22) and “eastern” stations (11, 12, 13, 14, 15, 16, 17, 16-18).

To run the GLMM, the functions “glm” in the glmmTMB package was used (Brooks et al., 2017).

Results:

The results from the GLMM comparing the aggregated abundance of pteropods and foraminifera between the two basins (Eastern and Western basins), indicates

that there are significant differences between the abundance of both taxa ($chisq = 29.27, p < 0.05$), between the Eastern and Western Mediterranean basins ($chisq = 5.57, p < 0.05$), and also in their interaction ($chisq = 4.97, p < 0.05$). These results indicates that an inverse relationship between taxa abundance and Mediterranean basin exist.

Pteropod abundance is distinctly greater in the Eastern ($\bar{x}=2.13 \text{ ind. } m^{-3}$) Mediterranean than in the Western Mediterranean ($\bar{x}=0.47 \text{ ind. } m^{-3}$), while foraminiferal populations showed a contrasting abundance (Figure 3 here and to be added to the revised manuscript) with higher abundance in the Western Mediterranean ($\bar{x}=1.87 \text{ ind. } 10 m^{-3}$) than in the Eastern Mediterranean ($\bar{x}=0.96 \text{ ind. } 10 m^{-3}$).

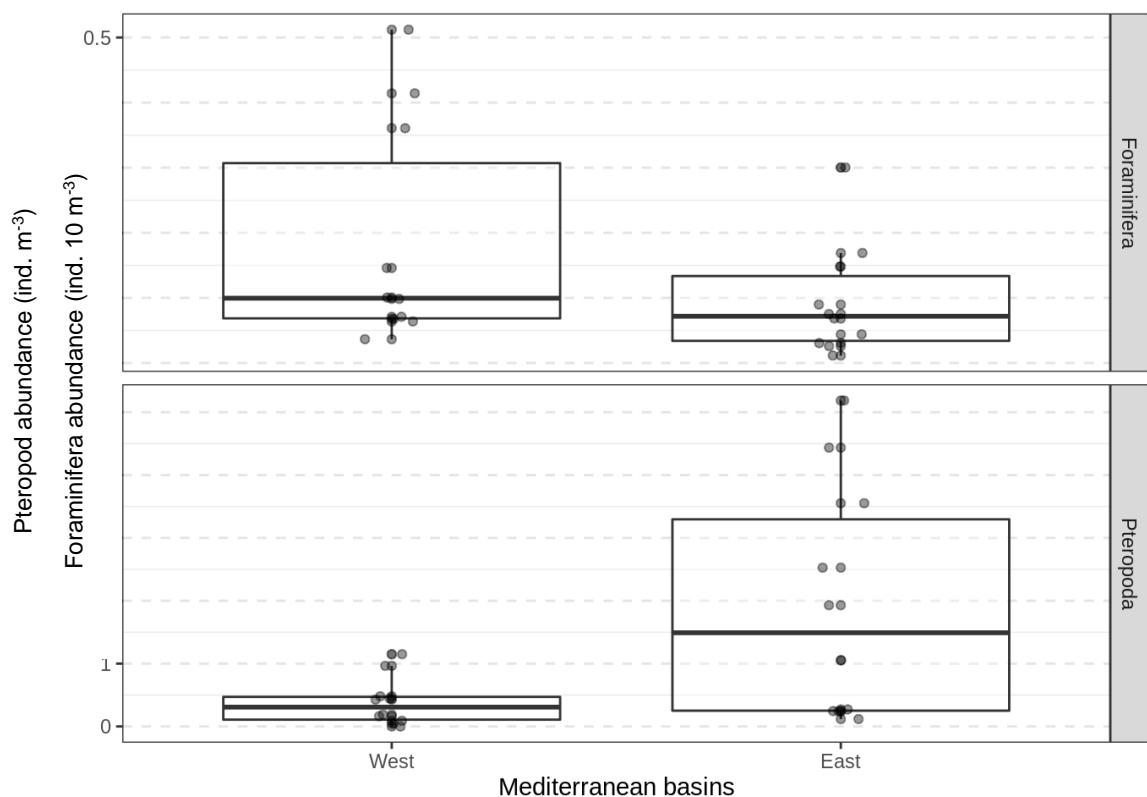


Figure 3. Box plot showing the contrasting abundance distribution between pteropods and foraminifera between the East and West of the Mediterranean.

22. Comment: I would rather like to see a comparison of the data collected here with the one collected previously in the Med Sea in other locations for

example. How do those data correlate with previous data on pteropods from coastal stations or other cruises?

REPLY: An additional section on pteropods in the Mediterranean has been added to the Discussion to give more context to our results. Table 2 compiles relevant published pteropod studies in the Mediterranean Sea and is included here and in the supplementary material of the revised manuscript.

This study aims to give the most comprehensive pteropod distribution within the upper 200 m across the Mediterranean Sea during the spring period. A previous investigation of the whole basin was made by Rampal (1975) who performed a comparative analyses of pteropod abundance within the different Mediterranean sectors. Unfortunately, the heterogeneity of the collected materials limited the quantitative approach of this study and the results are not presented in terms of pteropod concentration. The only published Mediterranean long-term study focusing solely on pteropods (Howes et al., 2015) is in the Ligurian Sea (water depth 0-70m depth). In this study, the dominant species in each family were C. acicula and H. inflatus, corroborating well with our overall findings. Contrary to our results, in this study, Limacinidae was found to be the least abundant family, which the authors contributed to a sampling bias which led to under-sampling. Abundance average of pteropods in Howes et al. (2015) over the period from 1957-2003 was 15.7 ind. m⁻³ for family Creseidae, and 5.5 ind. m⁻³ for family Limacinidae (this includes H. inflatus). Other studies investigating pteropod community abundance in different Mediterranean Sea regions (e.g. Ligurian Sea, Balearic Sea, Adriatic Sea, Tyrrhenian Sea) show average abundances of the entire pteropod community ranging from 0.34 – 5.9 ind. m⁻³ (Batistić et al., 2004; Fernández de Puelles et al., 2007; Granata et al., 2020; Manno et al., 2019; Table 3 here and added as a supplementary Table to the revised manuscript). Pteropod abundance in our study is as high as 5.14 ind. m⁻³ and within the same magnitude as most of these other Mediterranean studies, with an average of 1.22 ind. m⁻³ across the whole Mediterranean. In agreement with our results, Granata et al. 2020 and Batistić et al., 2004 also found H. inflatus to be the most abundant pteropod species. However, all the previous studies mentioned above differed in

sampling methodology, were sampled over different seasons and time periods, and are coastal versus open sea stations, making a direct comparison between the studies and regions difficult.

Table 3. An overview of published pteropod studies in the Mediterranean

Region of Collection	Min-max conc. of pteropods community (ind. m ⁻³)	̄ conc. (ind. m ⁻³)	Period of sampling	Collection depth	Water column depth (m)	Most abundant species/taxa	Net/mesh size	Reference
Ligurian and Tyrrhenian Seas (NW Mediterranean)	Study focuses on <i>C. inflexa</i> , <i>C. pyramidata</i> and <i>S. subula</i> . Min-max not provided	Day: <i>Cavolina inflexa</i> : 4.0 <i>Clio pyramidata</i> : 2.1 <i>Styliola subula</i> : 0.3 Night: <i>Cavolina inflexa</i> : 1.7 <i>Clio pyramidata</i> : 1.6 <i>Styliola subula</i> : 0.4	April, 1994	0-25 25-50 50-75 0-75 75-150 100-150 150-200 150-250 250-350 350-400 400-450 450-500 500-550 550-700	Various 700-2700	<i>Cavolina inflexa</i>	BIONESS 1 m ² mouth 500 µm mesh	Andersen et al., 1998
Southern Adriatic	Min: 0.38 Max: 57.68	2.87	April September November February June	0-50 50-100 100-200 200-300 300-400 400-600 600-1000	1242	<i>Heliconoides inflatus</i>	113 cm diameter 380 cm length 250 µm mesh	Batistić et al., 2004
Balearic Sea	Only monthly ̄ given. Min: 4 Max: 11	5.9	1994-2003 (all year round)	0-75 0-100	Various 78-200	<i>Creseis acicula</i>	Bongo-20 Plankton net 100 µm and 120 µm meshes	Fernández de Puelles et al., 2007
Ligurian Sea	<i>C. inflexa</i> : 1.59 (20-40 m) <i>C. pyramidata</i> : 0.06 (100- 200 m) <i>H. inflatus</i> : 6.87(0-20 m)	0.3	April-May, 2013	0-20 20-40 40-60 60-80 80-100 100-200 200-400 400-600 600-800 800-1000 1000-1300	Various 1400-1639	<i>Heliconoides inflatus</i>	BIONESS multinet 1 m ² mouth 230 µm mesh	Granata et al., 2020
NW Ligurian Sea	Creseidae: ~630 Cavoliniidae: ~790 Limacinidae (incl. <i>H. inflatus</i>): max 60.8	Creseidae: 15.7 Cavoliniidae: 13.8 Limacinidae: 5.5	1967-2003 (all year round)	0-75	~80	Creseidae	Juday Bogorov net 330 µm mesh 50 cm diameter	Howes et al. (2015)
Tyrrhenian Sea	Min: 0.00 Max: 4.02	<i>C. acicula</i> : 1.48	August, 2015	One depth for each station according to	Various (73-185)	<i>Creseis acicula</i>	Bongo-40 200 µm mesh	(Manno et al., 2019)

		<i>C. conica</i> : 1.11 <i>H. inflatus</i> : 1.03 <i>L. trochiformis</i> : 0.64 <i>L. bulimoides</i> : 0.33		the sea bottom (min depth 0-65, Max depth 0-170				
Eastern Mediterranean	Sicilian Channel: Max. 120 ind. m ⁻³	Sicily Channel: 2.07 Ionion Sea: 0.56 Cretan Sea: 1.00 Cretan Passage: 2.32 Rhodes area: 2.94 Levantine Sea: 1.37	Oc to be r- No ve m be r	300	Various: 449-4359	N/A	WP-3 net 113 cm diameter 200 µm mesh	Mazzocchi et al., 1996
Ligurian Sea	<i>Study focuses solely on Cavolina inflexa</i> Max: \bar{x} 1.64 (0-200 m)	Not provided	September, 1997	0-500 with intervals 0-25 25-50 50-75 100-125 125-150 150-200	Not provided	<i>Cavolina inflexa</i>	MOCNESS 1 m ² mouth 300 µm and 2000 µm meshes	Tarling et al., 2001

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