

Referee 2

We would like to thank the reviewer for a thorough revision of the submitted manuscript. We took into account all issues raised and addressed them below. Additional more editorial comments on tables, figures and overall word choice have improved overall consistency of the submitted manuscript.

Although the technology and methods used are still relatively new (and exciting), I found the authors neglected discussing vent ecology/animal physiology (i.e. mechanisms driving the patterns) to focus on methods and data collected. The data aligns with the scope of BG, but the text requires work addressing specific interactions. This paper is an important stepping stone to better understanding the deep-sea hydrothermal vent environments. Although the findings are not exactly conclusive, there is valuable information presented here, about the tools and apparent (and lack of apparent) environmental and ecological temporal patterns. In general, I found the manuscript was well written, and the language used to be fluent and precise. That said, inconsistencies in formatting were very evident –this was distracting and, at times, outright confusing. The figures and tables also require work.

Valorising this reviewer's comment, as well as taking reviewer 1's comments into account, paragraphs in sections 4.1 and 4.2 are reorganised, though main lay-out is withheld, and more relevant information on the animals discussed was added. Links with their physiology are included when linked with environment, e.g. on tubeworms (see reply below). Overall, less significant interactions were observed than revealed by higher frequency analyses (e.g. Cuvelier et al. 2014, PlosOne).

SPECIFIC COMMENTS

Title and abstract. I found both to be slightly misleading. The majority of the study results yielded no evidence of rhythms. This lack of evidence is still a result and it warrants discussion (e.g. Why aren't the majority of vent animals influenced by tidal rhythms?).

In our experience, it is rather the opposite: the fact that tidal rhythms are present at deep-sea sites tends to surprise people, hence the more descriptive title. We decided to keep the same title as we do observe rhythms in both biotic and abiotic factors. More specifically, rhythms were found in one taxon at MAR (polynoids) and two (tubeworms and buccinids) at NEP (see L222-224 and L243-246 respectively). Rhythms in temperature were revealed at both sites L348-363).

L. 55. “. . .exact same time span and resolution, have been analysed.” Not sure I would say “exact”: with the differences in gaps, sizes of images, and data collection durations (at times, continuous vs. punctuated). The first two paragraphs of section “2.3.1. Imagery analysis” are to the contrary.

The word exact was removed.

L. 88. Was the lighting different for the different sites? Were the lights on for different durations? Discuss the effect of any variability in artificial light at the sites.

Lights were on continuously in the period analysed for the NEP (see Table 1, 23 days), contrastingly at the MAR where lights powered on with the same frequency as imagery recording (every 6 hours). This was added in section 2.2. and briefly touched upon in the discussion.

L. 122. Add text about the analysis of microbial mats and the anhydrite (in Fig. 2). Is there any mineralogical work to support the identification of anhydrite (could it have been sulphur precipitate)? How was the white encrusting mineral (“anhydrite”) resolved to be different from the white encrusting bacterial mats?

Movement in bacterial filaments allowed to distinguish between microbial mats and encrusted minerals. It is very likely that there are encrusted bacterial mats within the “anhydrite” patch, though due to the colour similarity these were impossible to differentiate and quantify. Unfortunately, we do not have mineralogical work to support the identification of anhydrite. Therefore, we changed anhydrite in the legend of Fig. 2 to “white substratum” and added “possibly anhydrite with encrusted microbial mats” in the legend text.

L. 124. Explain the “gaps”. Why are there gaps in the data?

Definition of gap has been added: “The gaps in the recordings were failed recordings (due to observatory black-out or instrument failure) or unusable video sequences (empty, black or unfocused).”

L. 127. What was the resolution of the images from the different sites (sub-centimeter)? Were the resolutions actually comparable? Were the cameras/image sizes/distances from substrate the same?

Cameras used in both ecological modules in 2011 was Axis Q1755.

Distances to the assemblage filmed tend to differ due to module location and proximity to the hydrothermal faunal assemblage and surface size of imagery recorded is thus different. Size of imagery recorded differed slightly, which was reflected in the size of the screen stills taken from the video sequences, which were 1920x1080 pixels for NEP and 1440x1080 pixels for MAR. However, surface filmed differs from the surface analysed see Table 2 (surface filmed: ~0.3802 m² for MAR, ~0.0661 m² for NEP; surface analysed: ~0.322 m² for MAR and ~0.0355 m² for NEP) and Fig. 2.

L. 132. “Sketch” suggests artistic, may be better to refer to it as a “map” (i.e. it is a single photo with overlays representing max. occurrences...). How was this map created? Add information regarding the program and method used.

Sketch has been changed to maps both in text and legends. These maps and the overlays were created in Photoshop, the merge of all images was done with ImgLEP programme (publication in prep), a software developed at Ifremer for (semi-)automated image analyses.

L. 138. Does “Fig. 1” show this? This figure and its caption don’t indicate as much.

Fig. 1. contained a sample image as filmed by each observatory, hence the reference. Both Fig. 1 and 2 have been altered (Fig. 2 contains now the sample images and Fig. 1 features more information on the observatory lay-out) and references to figures in the text we altered accordingly.

L. 223-225. and Fig. S1. Confusing. Consider removing at least the “days” from the text? As it reads now, the sentence references a Fig. with an x-axis in periods (which equal 6 hours), 18 hr periods, hours, days, and hours in multiples of 18. This is too much. Also, consider changing “*” to “x”.

The days were removed and “*” has been changed to “x”.

L. 247. I don’t see how Fig. 2 demonstrates this point: it’s a 2D schematic with no information about the substrate below the mobile fauna.

Figure reference has been removed.

L. 399. Add a sentence describing the diversities.

L.399: “This observation does not imply that the MAR is more diverse than the NEP since imagery only gives a partial overview of the actual diversity (Cuvelier et al., 2012).” When comparing samples, an overall higher diversity was observed in the Pacific when compared to Atlantic hydrothermal vent

ecosystems, with species richness being positively correlated with spreading rate, associated distance between vent fields and longevity of vents (Juniper and Tunnicliffe, 1997; Van Dover and Doerries, 2005). Nevertheless, such observations remain subject to how well a certain locality is studied and if all faunal size fractions (meiofauna to megafauna) are included in assessing diversity (e.g. Sarrazin et al., 2015). Diversity estimates represent one of the main limitations of imagery analysis which is limited to quantifying and correctly identifying (assessing) mega-and macrofauna (~mm).

L. 423. The assumption is the same individual is returning every time? Can you really say this?

Caution is needed to identify recurring animals as being the same individual between images. Though, here it appears to be the case. It is quite a recognisable animal (a large golden-coloured polynoid) which is not observed very often on imagery at the Eiffel Tower edifice. The size and number of scales seems to confirm that it is the same animal.

L. 425. And so?

The paragraphs for this section were restructured and succinct information on ecological interactions has been added. In this particular case, following sentence was added: "Many of the free-living polynoid species are known as active predators (Desbruyères et al., 2006) moving rather swiftly across the FOV looking for prey and were even observed attacking extended tubeworm plumes at NEP (Cuvelier et al., 2014)."

L. 435. What is the "very distinct spatial distribution in NEP"?

This was a reference to the heat maps published in Cuvelier et al 2014. The reference has been added. The sentence reads as follows:

"Sea spiders showed a very distinct spatial distribution in NEP featuring a localised clustering behaviour (see heat maps published in Cuvelier et al., 2014), whilst their presence on the MAR was occasional."

L. 442-443. Unclear what the authors are saying here.

This sentence was rephrased to: "While being an abundant taxon with a localised clustering behaviour at the NEP site, it is scarce and vagrant at the MAR. Their niche occupation at the studied sites is likely to differ thus causing the discrepancies observed."

L. 487. How fast do mussels move? Did you expect to see a difference at a frequency of 6 hrs?

Species of *Bathymodiolus* have been observed moving 0.74cm per hour (Govenar et al., 2004). Hence, if they would start to move, we should be able to observe them moving away between 2 consecutive images or videos (6h apart) since the distance they could cover in 6 hours amounts to ~5cm and the distance from the mussel bed to the edges of the FOV equals 15-20 cm. Here we observed mostly mussel repositioning, no large distances (cm's) were covered.

L. 594. At vents or everywhere?

This sentence applied to our study, so we added "at hydrothermal vents".

L. 607. Review Lau back-arc basin hydrothermal vent studies linking faunal variations with environmental gradients.

Contrastingly to the works carried out in the Lau back-arc basin by Podowski et al. (2009) and Sen et al. (2013, 2014), where multiple measurements allow for extrapolations across a mapped surface and

more successfully link environmental gradients to faunal presences, our study relies on single point measurements. These single-point measurements make establishing direct links between faunal variation across the FOV and environmental variables hard, despite the high resolution of data available. Spatial variation in environmental gradients is high as illustrated by the Lau back-arc basin hydrothermal vent studies and even when examining relatively small surfaces as is the case here. For instance, at the Grotto edifice at NEP, next to the TEMPO-mini deployment, temperature arrays (strings of loggers) in two areas of ca. 30x50 cm on the faunal assemblages demonstrate the high spatial variation at cm-scale both in fauna and temperature (Lee et al., 2015). We realise that the statement in L607 might have come across as an over-generalisation. This was clarified in the text.

Discussion and Conclusion: Explicitly offer at least one mechanism to connect the influence of the tides and temperature, and the influence of tides and the pattern observed in tubeworm appearance.

The influence of tides on the temperature regimes has been discussed in L549-561. Temperature variability at hydrothermal vent on the Juan de Fuca Ridge was shown to correlate with the variability of the current speed and direction (more so than with ocean tidal pressure) (Tivey et al. 2002). Potential mechanisms causing tide-related variability in hydrothermal fluids include the modulation of seafloor and hydrostatic pressure fields by ocean tides, modulation of horizontal bottom currents by tides and solid earth tide deformations (Schultz and Elderfield, 1997; Davis and Becker, 1999).

A section was added on modulation of temperature by tides in section 4.3.

Extension retraction in tubeworms and possible links with environment was briefly touched upon in L495-496, but we added the following sentence "Emergence/retraction movements of siboglinid tubeworms were proposed to be a thermoregulatory behaviour or suggested to be governed by oxygen or sulphide requirements (Tunnicliffe et al., 1990, Chevaldonné et al., 1991) or tolerance to toxic components (sulphides, metals, etc.). Changing hydrothermal inputs (high sulphide concentrations/high temperature) and oxygen concentrations could thus regulate tubeworm appearances, reflecting the tidal patterns of these environmental variables."

Discussion and Conclusion: Do the authors believe the tides change the overall temperature of a vent, or just the outflow directionality of the fluid at the point location of the probe?

Based on personal observations on imagery, the fluid flow changes direction when currents are strong, no longer (temporary) bathing an assemblage in fluid flow. A negative (though not significant) correlation was observed between fluid flux and current speed at MAR (Sarrazin et al., 2014). In our opinion, the overall temperature of a vent does not change but the fluids get redirected following the currents and locally perceptions might change since a probe may be only periodically exposed to the expelled fluid.

Similarly, methane seepage was shown to be modulated by periods of enhanced bottom currents associated with diurnal shelf waves, internal semidiurnal tides, and also wind-generated near-inertial motions (Thomsen et al 2012).

Discussion and Conclusion: Were all the tubeworms alive? If not, what effect could this have had on the ecological patterns observed/not observed?

No, it is very likely that several tubeworm tubes were "empty" or no longer containing live individuals. Visible tubeworm densities ranged between 11-70% of the entire tubeworm bush at the

time points analysed. This will have no influence on the temporal patterns revealed, such as the tidal pattern. It could play a role in the spatial interpretation, e.g. dead tubeworm areas can be characterised by presence of certain organisms or a lack of associated organisms and thus be an indication of a changed microhabitat.

TECHNICAL COMMENTS

L. 56-60. Rewrite “Key questions” sections so that the sentences are grammatically correct. For example, “. . . put forward are: (i) are tidal. . .” and “the most? And finally, (iv) do . . .”.

ok

At times, I found the writing was too informal for a scientific manuscript. I was not happy with the (repetitive) use of “vs.”, “on one hand. . .on the other”, and “and/or”, and [L. 422] “...individuals appeared very attached...” The tense of the manuscript jumps around sometimes. For example, L. 134-135. There are many inconsistencies in the text formatting: * “Hours” was written as “hours”, “hr”, and “h”, with a space or with no space between the number and the shorthand “hr” or “h”. This inconsistency was even more confusing because the UTC time was also reported using “h” (again, with either a space or no space between the number and the “h”) or UTC was reported with “AM” or with no units. * In-text citations are inconsistently formatted: “et al.,” is often missing a comma; both “and” and “” are used for 2 author papers; multi-paper citations were not always listed chronologically [L. 406]; author’s initials included [L. 164]; and missing a comma after authors [L. 186] * Values with units are reported with and without spaces. For example, m vs. m. * The shorthand for “Figure” is written with and without punctuation, within the text and the figure captions (i.e. “Fig.” and “Fig”). * Section numbers are written with and without “.” at the end (in the section titles, as well as when referred to in the text). * “Oxygen” or “oxygen”. * Text jumps between “iron” and “Fe” in same paragraph. * Formatting the title of a subsection varied between: title in the text (e.g. L. 253 and title on a separate line (e.g. L. 341); indented or not; followed by a long/short/bolded/no dash. * Mean and stdev written: \pm units, \pm units, and \pm units. * Within the same paragraph, reporting a date range changes from “date to date” and “date - date”. * The Reference section requires some attention. For example, “Year” vs. “(Years)”; ending the authors list with a “,”; inconsistent formatting of the volume number, issue number, and page text; inconsistent spacing; inconsistent punctuation; different color text [L. 839-840]?; etc.

The manuscript was checked thoroughly to remove such cases and other inconsistencies. Extra attention was given to the tenses used.

L. 165-166. Insert space

ok

L. 177. Remove “()”.

ok

L. 198-200. Poorly written. Rewrite sentence.

Sentence was changed to: “No specific correlations between faunal densities and environmental variables were presented. The high spatial variation occurring at hydrothermal vents proved difficult to capture with the experimental settings from the 2011 deployments. The probes at NEP were placed at a distance from the filmed assemblage and the relatively large surface filmed at MAR decreased the representativeness of the single point measurements. The measurements made were thus more representative of an overall variability, not at the scale of individuals.”

L. 237. Change "featuring" to "with".

ok

L. 272-273. (as one example) Watch the p-value sig. figs.; at times, they vary within the same sentence. Personal preference: never report $p = 0$ (or in this example, "0.00"), report it as $p < 0.001$.

P-values have been checked and changed accordingly.

L. 305. Reference Fig. 5 somewhere in the paragraph.

Ok

General: Write out values less than 10 (e.g. 9 months → nine months)

Ok

L. 339. Repetitive.

This was omitted.

L. 344. Use "...was already.." or "...as well", but not both.

We deleted "as well".

L. 430. Correct. "...abundant on to areas..."

Corrected

L. 432. Correct. "...both species [are] considered..."

Corrected

L. 474. "...feeding [activity]..."?

Corrected

L. 494. Open bracket with no closing bracket.

Corrected

L. 496. Delete "Until now", because it still has not been established.

Corrected

L. 508. "...by a [longer] study..."

Corrected

L. 510. "...as they [become] more..."

Corrected

L. 522. "...in a single taxon..."

Corrected

L. 545. "...for both [temperature] probes..."

Added

L. 567. "...were close to..."

Corrected

L. 572. "...Tunncliffe et al., 1997)."

Corrected

L. 614. What is meant by "harshness"?

The harshness of the local environment or rather the extreme environmental conditions and gradients. We changed the sentence to "Biotic interactions are at play as well; they can be observed thanks to the remote observatory set-up granting us access to long-term high resolution data (Matabos et al. 2015)." as it appeared more relevant to our study

L. 617. "...and [piloting] skills...?"

Added

L. 629. "This is [likely] due...?"

Accepted

L. 635. Capitalize "automated".

ok

Do they "need" to, or would it be helpful?

In any scenario, it would be helpful. However, if we want to increase the resolution and duration of analysis (and deployments), automated tools are needed because of the time-consuming character of imagery analysis. There is only so much a person can do in a certain amount of time. In order to reflect this issue, we changed the sentence to: "(Semi-) Automated tools should be developed for specific taxa and settings to assist in assessing faunal abundances on in images."

Suggestion: "faunal abundances [in] images."

ok

Figures (in general):

Consider

(i) standardizing graph formatting throughout the manuscript,

Fig. 4 was the only graph that stood out and was made consistent with the formatting of the other graphs

(ii) removing repetitive information in graph titles (e.g., Fig. 6: use the probe name only vs. "T-MAR for imagery duration - hourly average"; that information is in the caption),

(iii) clean up the axis ticks, labelling, and titles, and (iv) move footnotes (denoted by an asterisks, "**") at the end of a Fig. caption.

Fig.1. This figure is missing some key information. The text for the scale bars is too small. Why is there text and colour bars in the lower right-hand corner of the NEP bottom inset? Label Canada and/or

USA? Label the oceans? In the caption, explain or refer to the 4 insets. What are we looking at here? Consider providing larger photos? Add punctuation for "Fig. 1." and "Matabos et al.".

The sample images featuring the scale bars have been added to Fig. 2, thus increasing readability (see inserted figure below). Fig. 1 and legend have been changed accordingly including more information on the observatories.

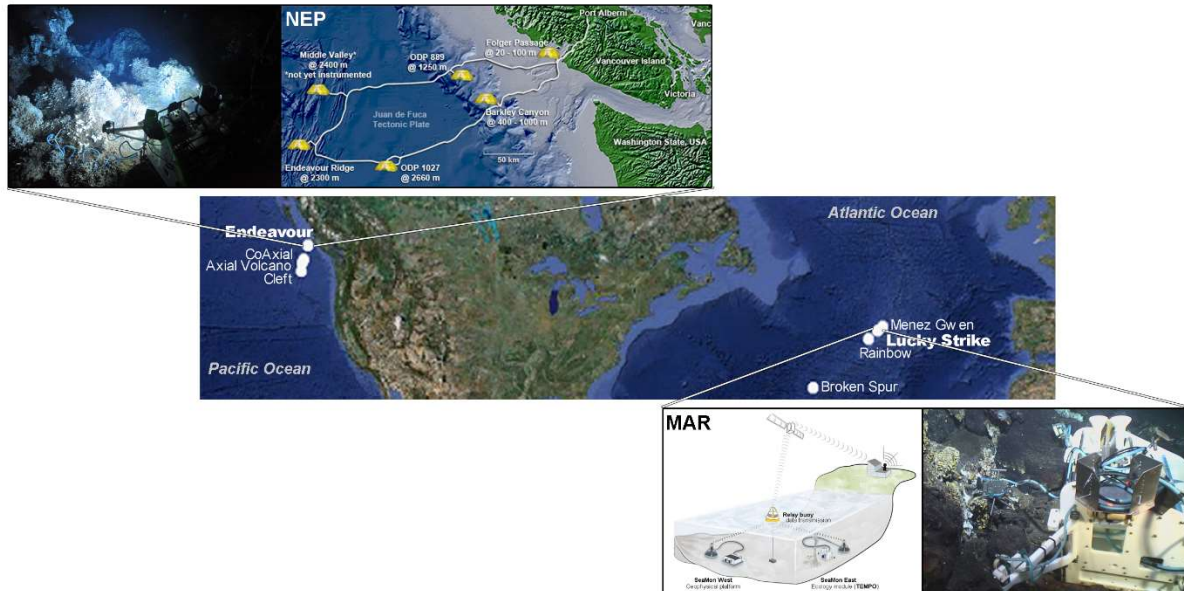


Fig. 1. Location of the two study-sites in the Atlantic and the Pacific Ocean, along with some other well-known vent fields for reference purposes. The NEP inset (top) shows the location of the different instrumented nodes of Ocean Networks Canada at the right and the TEMPO-mini ecological module deployed at Main Endeavour Field on the Juan de Fuca Ridge (NEP). With the MAR inset (bottom) representing the Atlantic observatory (MoMAR) at Lucky Strike vent field on the left and the TEMPO ecological module on the right. For more details of the exact location of the observatories within the hydrothermal vent fields see Matabos et al. (2015) for MAR and Cuvelier et al. (2014) for NEP.

Fig. 2. Is it necessary to retain some transparency (the key colours really do not match the colours overlaid as semi-transparent)? Change to "Microbial [c]over" (in key). Why is the text "Ifremer" in the bottom right corner and why is it coloured in as "Pycnogonida" (in yellow)? The hatching in the MAR image (for "Mussel background" is difficult to resolve. Add punctuation for "Fig. 2.". Move footnote to the end of the caption?

The semi-transparent colours allow the reader to see what is underneath and could facilitate interpretation.

The Ifremer text is part of the watermark on the images recorded, as is Neptune Canada written before it. Since an original sample image has been added to this figure, we hope it is clear that it indeed is part of a watermark and not a pycnogonid patch.

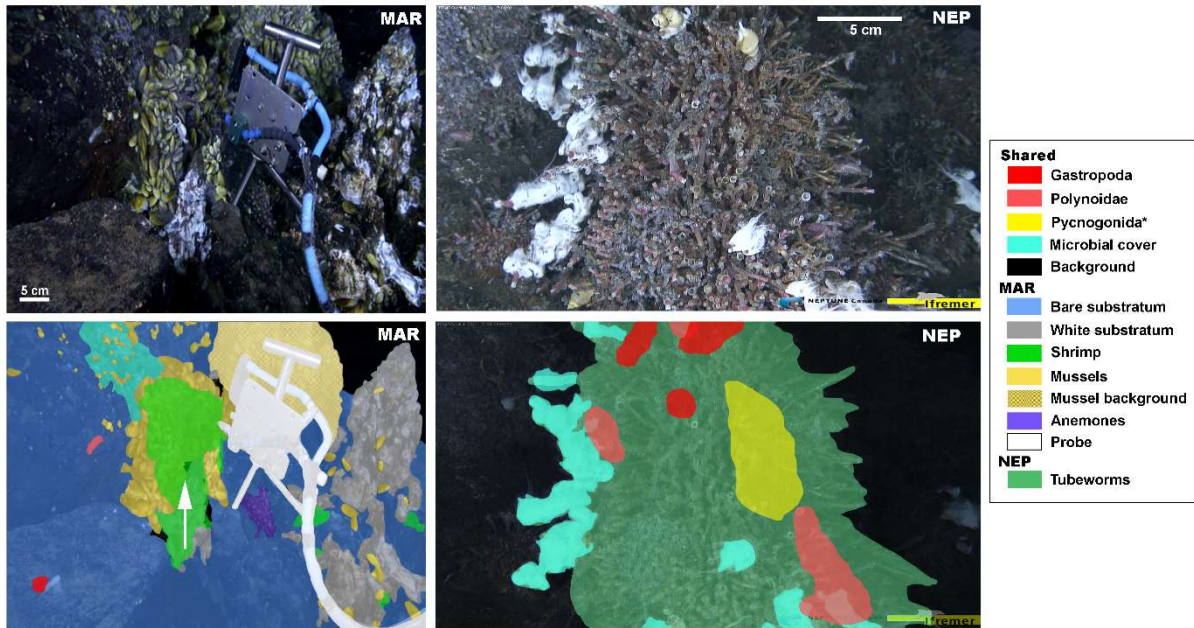


Fig. 2. A sample image as recorded by the ecological observatory modules for MAR and NEP (top) and a map of the fields of view (FOV) featuring the various taxa assessed (bottom). Taxa or other features that are shared between the two have the same colour codes. Gastropoda applies to Buccinidae for NEP and bucciniform Turridae on MAR. White substratum could possibly be anhydrite with encrusted microbial mats. 'Mussel background', 'background' and 'probe' correspond to areas that were not assessed because of increased distance to the camera's focal point and associated light emission and were therefore not included in the surface calculations. The white arrow represents the fluid flow exit and direction. No visible emission was observed on NEP. Visiting fish and crab species were not included (Table 2). Crab presence on MAR tends to correspond predominantly to shrimp distribution (Matabos et al., 2015). Surfaces filmed and analysed are listed in Table 2. '* is a shared taxon but not visible on MAR due to the scarce presence and low densities.

Fig. 3. Graphs and text are grainy. Consider deleting "densities" from the 10 individual titles (repetitive), and just list the taxa. Reduce the number of x-axis ticks (I can't tell which line is associated to the values listed). Add y-axis title. The Crab graph is missing the number "10" on the y-axis. Shorten the number format of the y-axis for the MAR Pycnogonoid and Shrimp graphs (i.e. 0, 1, 2... vs. 0.0, 1.0, 2.0...). Mention "23 days" in the caption. Change to "...with an "*" OR "*Taxa with significant trends."

Resolution of the original graphs which will be submitted separately is better than those in the pdf of the manuscript. Axes, labels and (sub)titles have been changed. Instead of reducing the number of ticks, we chose to elongate those ticks that correspond to the numbers below.

Fig. 4. When printing in black and white, it is impossible to tell the difference between light blue and light gray. In Fig. 5, NEP is black and MAR is light gray (which can be distinguished in black and white print). To standardize the figures, and for printing purposes, consider changing NEP to black and MAR to gray for Fig. 4. Consider rewriting caption and/or changing the x-axis title. I'm not sure what the value is supposed to be, hours or periods? Reorganize so the sentence doesn't start with "

We agree and changed the colours of the graph to correspond to the other graphs.

Fig. 5. To save space, consider adding a 2nd axis to the temperature graph (to display both NEP probe temperatures, instead of repeating the MAR data. Remove "shortterm" for graph titles? If not, change

to "NTU short-[t]erm". Is it necessary to repeat the same key for 3 of the 4 graphs? Although this is not the only time the figures include stacked graphs, this is the only time the x-axis is included.

Changes have been carried out.

Fig. 6. Shorten the y-axis labels to represent a count of the days (e.g., day "1", "2"... "23" vs. "2011-10-07", "2011-10-08"...). Add titles for the x- and y-axis (e.g., "day" and "hour"). Indicate somewhere in the figure or caption: temperature in °C.

The comment on changing the dates to count of days is opposite to what was proposed for Fig. S3. We opted to stick with the dates because they allow a reference to the time series investigated

Other changes have been carried out.

Fig. 7. More information is required for the caption. Are there gray and black vertical lines (appear to be)? If so, what do they represent? What are the 2 blue dashed horizontal lines on each graph? Change "X-axis" and "Y-axis" to "x-axis" and "y-axis" (to be consistent with text).

Vertical lines are all in the same colour. The horizontal blue dashed lines indicate the point of statistical significance (here $ACF=0.8$, with $p<0.05$), with the lines above towards 1 and below towards minus 1 being significant (this was added to the figure legend).

Fig. 8. Label and mention: one graph is MAR and the other is NEP. Change text and vector lines to black (vs. blue). Difficult to read the text on the graph, increase the size? Define RDA? There is a noticeable difference in the size and quality of text in the left and right graphs. Standardize?

Changes have been carried out.

Fig. 9. Is the x-axis in hours? Include "Temperature (°C)", not just "°C" for y-axis. Remove redundancy in the graph titles and consider adding this information to the figure captions, e.g. "...over six and nine months".

Changes have been carried out.

Fig. 10. Confused again by the x-axis title and the caption. This data is for a one-week period equalling 200 hours, but the x-axis title is "Period", not "Hours", and plus, 1 week = 168 hours. Please clarify. Change the lines to black (no need to be coloured red).

Lines are rendered in black.

Fig. S1. Include the information for the white vs. black symbols. Why change the x-axis intervals? If each period = 6 hrs, and there are 45 periods, the graph represents 270 hrs or 11.25 days. Include this easy to understand temporal reference (and why this length of time)? Change the lines to black (no need to be coloured red).

Information on the black squares was added (Black squares indicate periods significant at the 5% level.). X-axis interval changed because the time series for fauna is recorded at a 6h frequency while the temperature time-series as presented in Fig. 10 was recorded on an hourly frequency. This is mentioned in the figure legend as (1 period on x-axis=6h).

The periodograms have a maximum length of $n/2$ with n being the length of the time series analysed. For fauna this is thus 23 days/2. Length of the time series was added to the legend.

Lines are rendered in black.

Fig. S2. Similar concerns to Fig. S1. Why change the x-axis intervals? Remove the repetition of the x-axis title (i.e. only include "Period" once). Change the lines to black (no need to be coloured red).

See reply above. X-axis label was only included once.

Fig. S3. Change to "...(a) MAR and (b) NEP...". Are the "random" data consecutive? Yes

Why not report the specific month and year (even if it was selected randomly)? In analogy to what was decided for Fig. 6. We chose to add the specific dates to the random time series.

Use the same style quotation marks at start and end of the quote -or in this case, consider not using quotation marks at all. Many of the same comments and concerns as expressed for Fig. 6.

Tables (in general):

Consider

- (i) reducing the number of lines (vertical and horizontal) for each table,
- (ii) removing repetitive information (e.g. "2011-2012"),
- (iii) condensing the area of each table (there is often a lot of blank space between rows),
- (iv) use either "Table :" or "Table .", but be consistent, and
- (iv) move footnotes (denoted by an asterisks, "*") below a Table.

Table 1. "[o]xygen". "[T]wice". Use "NA" instead of "/" (or define "/"). Be consistent, "min" or "min.". If minutes = "min", seconds could = "sec". As in the text, include "at" when listing the sample times (e.g., at 2h, 6h...UTC). Be consistent with apostrophe symbols for the coordinates (styles change between MAR and NEP). Explain/include row title for "Wireless" and "Cabled".

Changes have been carried out.

Table 2. Move footnote to below table (or at least the end of the caption). "[A]re visiting...". Fix: "see fig. X"? Reverse how the gap range is reported ("9 to 93 gaps" and "5 to 93 gaps")? For surface filmed and surface analyzed, be consistent with sig. figs. and with the information provided (why list the ca. dimensions 2 out of 4 times?). Reported frequency as "6hr" and "12 h" in the same table (use a consistent format). Check citation formatting (missing punctuation). Use "NA" instead of "/" (or define "/"). The lines of this table are bolded, why?

Gaps have been defined in the text and the legend (see comment above) and equal 9 for MAR and 5 for NEP. 93 is the amount of images theoretically present in our 23-day time series at a 6h frequency. They have been included as follows: "93 total with 9 gaps". Other changes have been carried out.

Table 3. n = ? (photos?) Missing "h" after "553" twice. Add a space to "(2 days)".

n=number of images, other changes have been carried out.

Table 4. Include "°C" in the table caption and remove it from each record. "[S]tdev"?

Changes have been carried out.