Thanks to all the reviewers for their thoughtful comments and suggestions, which have strengthened the manuscript. We have engaged with these suggestions and have responded below in blue, as can be seen in the new version of this manuscript.

CRISP is a great idea and will be of great value to the coral reef community.
Thank you! Much appreciated.

Providing the data in netCDF format is great for scientists skilled in data analysis. However, a user-friendly interface should be provided. Many scientists and most coral reef managers have no idea how to handle NetCDF data but may wish to access particular datasets.
We understand the sentiment of this comment, and we do intend to create a user-friendly interface down the road, ideally even linked with Coral Reef Watch. However, we believe that is beyond the scope of this initial presentation of the CRISP data product in ESSD. NetCDF is the most suitable data format because it is compact and is really the standard for climate datasets. The main science enabled by CRISP relates to large-scale analyses that blend many loggers, and this is not well suited for spreadsheet applications like Excel. This is especially true as some of the CRISP individual datasets are so large that they cannot even be opened in Excel. We believe that most researchers, who are the main audience of the present manuscript, should be able to work with NetCDF or be able to learn.

Line 33: Mortality can result from SEVERE or prolonged heat stress.
Thank you for the correction on language usage. We have revised Lines 32-33 to reflect the reviewer's request.

Line 36: You really should cite recent papers on the third and fourth global coral bleaching events here.
We now cite two additional papers (Emslie et al., 2025 and Eakin et al., 2026) that discuss reef damage and bleaching extent during the 3rd and 4th bleaching events.

Additionally, a typo was corrected where Spady et al., 2016 was referenced. It was intended for Spady et al., 2026 to be cited, a paper discussing the 4th global coral bleaching event. While this was reflected in the references, the in-text citation was incorrect.

Line 40: Actually, CRW has a suite of products. DHW is only one of them. This should be noted here.
We have addressed this comment by discussing the purpose of the daily variables, then highlighting DHW as a widely used tool. See edits below:

Line 39-44 reworded to: "Instead, CRW employs a satellite-derived sea surface temperature (SST) product with a five-kilometer resolution to assess temperature stress using an array of daily variables to nominate geographical locations of concern and categorize risk as scalable bleaching alert levels. Specifically, the Degree Heating Weeks (DHW) metric has become a widely adopted predictor of risk by incorporating both the magnitude and duration of temperature anomalies to provide measurable thresholds above which various levels of coral bleaching and mortality can be expected."

Line 59: Exposure to higher DTRs MAY experience improved thermal tolerance -- this is not a given.
Thank you for the correction on language usage, Line 61 has been updated to reflect this correction.

Line 66: It isn't just the coarse resolution but also the thin layer of surface water that is measured by satellites.
Thin satellite penetration depth has been added as a constraint, reflected in Lines 69-70.

Lines 69-70: Pat may have said in situ loggers are the "gold standard" but they only measure what is happening at a very precise point. Therefore, they are only the "gold standard" for adjacent corals. Unless someone plans to deploy a fine mesh of loggers, loggers don't address the spatial variability you describe earlier in this paragraph. In situ loggers are a great tool, but they aren't perfect either! Don't oversell them.
We agree, "gold standard" is too subjective. We understand the reviewer's comment and have made edits accordingly to reflect this. See below:

Lines 71-73 were edited to "As a result, properly calibrated and deployed *in situ* loggers are critical for reef temperature monitoring at spatial and temporal scales unresolved by satellites (Colin 2018)."

Line 80: Accessible to people trained in the use of NetCDF but not to a broad audience unless a friendly user interface is created as well.
Similar to our response in an above comment, but we believe NetCDF is used by the majority of climate scientists and remains the most viable option for data management given the size and complexity of CRISP. We hope to one day have a more user-friendly interface for those who are not trained on NetCDF; however, this first presentation in ESSD focuses on the data product as assembled for scientists.

Line 100: NOAA is a big organization that does a lot more than coral reefs. Which parts of NOAA? While not as big as NOAA, AIMS is a big organization that does a lot more than coral reefs. Which parts of AIMS? NOAA Coral Reef Watch has a compilation of logger data that may not be in NCEI. Did you reach out to them?
Thank you for the specification as to data location. The majority of the governmental data was sourced from digital repository sites, which is now reflected in the manuscript. We were unaware that NOAA Coral Reef Watch may have additional logger data and we have reached out to them to inquire about it.

Lines 110-112: CRISP should include a list of these inaccessible data in case others wish to pursue them.
We totally agree with the sentiment here; it is not acceptable for people to publish papers with purportedly available data and then fail to deliver it upon reasonable requests. That said, we think it could be in poor taste to release a list of those who did not respond or had inaccessible data and anticipate there could be considerable backlash if we were to do so. If someone felt motivated to do so, they could cross-check the literature list provided by Rich et al. (2024) with the citation information in CRISP and figure out which authors did not provide their data.

Lines 132-133: Using the mid-point of depth ranges is a good solution.
Thank you for the positive feedback.

Line 161: UTC is the correct universal time based on the atomic clock standard and should be used instead of the now archaic GMT. This should be corrected in both the dataset and the paper.
We appreciate the fix. This has been corrected within the manuscript and will be corrected in the next published version of CRISP.

Line 205: Was this a single 9.2 year logger deployment? Those HoboTemp units had a 6-year nominal life and a non-replaceable battery. Files should indicate when units were swapped out or maintenance was performed. Neither is noted here, implying a continuous record.

This is a good point and highlights a complication of the data compilation. It was at the discretion of the publishing author if they chose to disclose logger deployment information as such. CRISP does have limitations, many of which are the result of limiting or misplaced information from authors. We have made this limitation clear by addressing them in the data description in addition to the limitations section:

Line 254-256 was added: "In some cases, data contributors separated each logger deployment as individual records whereas others provided all deployments as one. As a result, some records derived from one source may reflect multiple logger deployments in the same location over a period of time."

Line 289-292 was added: "Certain information such as logger swapping or maintenance may be inferred from record length or data gaps in a given time series; however, information as such was not always included under Notes unless specified by the corresponding author."

Conclusion: You fail to indicate the future of CRISP. Is this a one-and-done exercise? Is there a plan to continue to update CRISP with new data? An effort like this one really deserves to have a long-term future.

It is our intention to update CRISP annually or bi-annually, dependent on the influx of data shared. Doing so will certainly require additional funding which we will be pursuing, so it is difficult to give a more explicit sustainable model at this time. Another version of CRISP (CRISPv2.nc) will be uploaded to Zenodo with additional data and reviewer changes when the final manuscript is published. As is common for these types of data-product manuscripts, we specify the timeframe over which data was sought (see Lines 109-110). That is all that can be stated with complete confidence in this first publication. The Zenodo record will show updated versions when released, so while the paper will be static, the linked Zenodo record will be a living data product.

Line 317: Storing the data in NCEI is the right place.

Mistype, thank you for the catch.

Line 319: Well that's odd. You just said they were at NCEI? Where are they really?

Referring to the above comment, thank you for the catch. The typo was corrected.