

Robots4Whales Real-Time Analysis

Notes Document

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Objective

The purpose of this template is to create a platform to document observations about real-time data from the Robots4Whales website. This document can assist current and new groups using Robots4Whales buoys and gliders. It facilitates effective communication between analysts within a team to address questions and ensure consistency in scoring periods. Notable advantages of this document is that it can be modified, read, version-controlled and keyword-searchable through different softwares. This document can be customized by different analyst groups, while also prioritizing standardization of analyst notes within the Robots4Whales network.

Primary Elements

This document is customizable by each group for their buoy or glider. The first element is a **daily procedure** outlining specific steps for daily analysis of the Robots4Whales buoy or glider. This serves as a reminder for analysts within the same team as they begin their daily review of the real-time data. The second element includes **optional additions** to a team's notes document, including specified components for: color coding notes, location of previous notes and access to training materials, list of current/previous analysts, etc. All components are valuable in keeping the notes document easily searchable and communication clear. The third element and main body of the notes document (**Analyst Notes**) is the accumulation of information and observations analysts make daily to inform their group members about their analysis. This includes the date, the analyst's name, the last period they reviewed that day, and any notable comments. Any additional notes may include: questionable periods in which an analyst may request a second opinion (e.g., if it is borderline between the scoring categories Not Detected and Possibly Detected or with Possibly Detected and Detected), interesting sounds to keep track of and possibly review in the archived audio when it is recovered, or important updates to include in reports, etc.

Notes Document (Template)

Daily procedure: A few standard steps each analyst performs on a daily basis when they start their real-time analysis review.

Example:

1. **Review analysts' notes from previous day(s)**, Daily analyst review table is here (insert hyperlink) with gray, yellow, and red rectangles.
2. **Begin your daily review**, picking up from where the previous analyst left off. Be sure to enter your initials before any notes are submitted on the website.
3. **Enter your daily notes for the pitchtracks you reviewed**
Date, reviewer name or initials, time period that was last reviewed
 - Total questionable periods from your analysis:
 - Date and time of a questionable period
 - Hyperlink to period in question
 - Notes on questionable period (this can include the panel number or exact time with questionable pitch tracks, specific properties of pitch tracks in question, and why the analyst is questioning the period)
 - 2nd reviewer's response, with initials, and appropriate color coding (see below for color scheme). The 1st reviewer can be tagged or assigned if an action is necessary.
 - If an action is necessary, the 1st reviewer then notes the date they made a change to their score on the website (if applicable).
4. **Please download this Analyst Notes Google Doc to your computer after each daily review** so there are back-up copies and append the filename with today's date . You can delete earlier versions so you just have the latest copy on your computer.

Optional Additions: This includes specific components to your team for color coding notes, location of previous notes and access to training materials, list of current/previous analysts, etc. Headings for these additions are in purple boxes.

Color coding for notes:

Color coding helps your team to easily identify important components within the notes document for quick action and/or future reference. This can be helpful when there are questionable periods and a second analyst's opinion is important in a decision for a scoring submission.

Examples:

- Agree within notes and submission remains the same on the website.
- **Change submission entry** - a questionable period in which the second analyst's opinion suggested the submission should be changed on the website.

- **Notes to be included in the progress report**- an observation and/or action that was made from real-time analysis submissions (i.e. slow zone activation for NARW protections), and/or affected the daily analysis (i.e. server was down and analysis was delayed). Essentially something your team finds important to report on to stakeholders).

Previous notes available here (insert hyperlink) and here (insert hyperlink). Training materials are located here (insert hyperlink) and here (insert hyperlink).

List of analysts

To support traceability of noted observations and any changes to the analyst team, especially for long term projects, specify the names of current and previous analysts for each note document your group may have at your institution.

Example:

Current Analysts: Name (Initials), Name (Initials), Name (initials)

Previous Analysts: Name (Initials)

Abbreviations in the Notes section on the website and below in the notes:

Using abbreviations can reduce time in annotating observations, however, it is important that all group members understand and are consistent with using abbreviations. This strengthens clear communication within the group and more broadly within the Robots4Whales network.

Example:

pts=pitch tracks, **P**=panel, **ND**=not detected, **PD**=possibly detected, **D**=detected, **HW**=humpback whale, **RW**=right whale, **FW**=fin whale, **SW**=sei whale, **LF**= low frequency, **MF**=mid-frequency, **HF**=high frequency.

Current deployment information:

Different groups may have multiple deployment locations. This section can be used to clearly define the current deployment data being collected.

Example:

Current buoy deployed on 22nd October 2024 (insert current hyperlink). Previous buoy detections

here ([insert hyperlink](#)) from October 2023-October 2024 (referred to as Year 3 of the project).

Current Protocol Notes: This section is for current protocol notes that might be useful to the daily reviewer given the context of recent (within a year or deployment) daily detections.

Examples:

- Protocol regarding current pattern of humpback whale song.

Analyst Notes: The main body of the notes document includes information and observations analysts make daily to inform their group members about their analysis. This includes the date, the analyst's name, the last period they reviewed that day, and any notable comments.

Example Entries

Note: Example analyst names and entries are hypothetical and do not convey true information associated with the date and time or within the link included as the questionable period.

November 23, 2025 John last reviewed 13:11:47

- Questionable periods: 0
- Slow zone implemented on 11/23/22 from RW detected on 11/22/22

November 22, 2022 Cassie last reviewed 09:56:47

- Questionable periods: 0

November 21, 2022 John last reviewed 09:26:47

- Questionable periods: 0

November 20, 2022 Cassie last reviewed 9:56:47; also reviewed November 19, 2022 from 04:56-09:26, periods filled in when buoy had a gap in transmissions.

- Total questionable periods: 2
- 11/20/22 6:41:27
 - https://dcs.whoi.edu/mdoc1023/mdoc1023_mdock_html/ptracks/2024_05/mdoc1023_mdock_20240513104229.html
 - Classified RW detections all contain artifacts, RW-ND. Patterned sounds just below 400 Hz in P3 & 4, HW-PD? All sounds are short and amplitude is inconsistent.
 - I think there is just a lot of noise in this period, the pts in P3 and P4 are very short and lack shape and pattern. I would change this to **HW - ND** - JA- changed 11/21/22, CE
- 11/20/22 6:56:47
 - https://dcs.whoi.edu/mdoc1023/mdoc1023_mdock_html/ptracks/2024_05/mdoc1023_mdock_20240510104229.html
 - Some isolated, LF downsweeps throughout, examples in P3 above 53 s, P4 above 7 s, P7 above 46 s. Some other interesting sounds throughout the period,

like P7 from 10-15 s and P9 from 20-25 s. Classified RW detections are short and contain artifacts, RW-ND. HW-PD?

- This is definitely interesting and looks like HW, I agree HW - PD - JA