

Operational Review and Closeout Meeting

Anchialine Pool Animals 2024

Purpose

Operational review and closeout meetings are annual meetings to discuss the most recent field season and data collection activities, and to document matters related to protocol implementation. The purpose is to discuss and capture lessons learned and to make improvements for future seasons. This meeting also provides staff with an opportunity to discuss the state of the science of the protocol, and to make suggestions for changes to the protocol documents, with the goal of ensuring that the written protocol remains up to date and in sync with monitoring activities.

Important Links

- [IMD Implementation Memo – Reviewing and Revising Approved Vital Signs Monitoring Protocols](#)
- [IMD Protocol Review Guidance](#)

Objectives

1. Review the most recent field season or data collection effort;
2. Obtain feedback that may help improve implementation in future years;
3. Discuss safety concerns associated with implementation and make sure risks are appropriately mitigated;
4. Document deviations from protocol that could potentially affect data quality or utility;
5. Document suggestions for improving protocol documents, and decisions regarding suggestions;
6. Establish a path and plan (with tasks and timelines) for staff to make changes to the protocol documents and/or initiate a scientific review of proposed changes, as needed.

Evaluation Questions and Agenda

Review and discuss issues, feedback and lessons learned related to the following:

1. Preparations

- a. Hiring/staffing, housing, onboarding, IT privileges
Staff was able to stay at PUHO dormitory, which was a convenient option and inexpensive for sampling at PUHO. Our SIP intern was not able to participate in KAHO sampling, but we had some support from KAHO SIPs and staff.
- b. Training – sufficient, effective, ways of improving? Sufficient.
- c. Field support – GPS, field maps, pre-printed packets, site directions, species lists, etc.
Appropriate. This protocol requires a lot of preparation to ensure completion of anchialine pool protocol and water quality protocol simultaneously.

2. Logistics, Communications and Safety

- a. Accommodations & park permits (front- and back-country) – changes needed? The FWS Recovery permit is good through 2028. The most recent version of the KAHO Research Permit expired as of Oct 2024 and has been renewed. PUHO Research Permit renewed.
- b. Site accessibility Adequate
Scheduling and logistics planning. This protocol requires a lot of preparation to ensure completion of anchialine pool protocol and water quality protocol simultaneously.
- c. Travel and communications. Adequate. Travel plan prepared and communicated to park staff.
- d. Was everyone satisfied with the flow of information among staff during the field season? Yes
- e. Any safety incidents or near misses? Explore concerns and suggestions for making procedures safer. Determine an appropriate means of mitigating each concern (e.g., improved training, equipment, detailed safety discussions). There had been an influx of potentially stinging jellies in one of our sampling pools. Sofia Fox (Aquatic Ecologist for CACO) identified them as of the genus *Gonionemus* from a sample collected by KAHO staff. Pool was visually surveyed prior to entry into the pool. No jellyfish were seen within 24 hours of sampling. No ill effects from standing in the water. Staff wore pants and tabs for protection.
- f. Is the sampling schedule reasonable? Sufficient buffer time for schedule interruptions? Yes, but it should be noted that staff must plan holiday leave around the anchialine pool animal schedule as there are limited appropriate tidal windows and a ton of fieldwork in west Hawaii during the 4th quarter between this protocol, benthic, water quality and groundwater.

3. Equipment

- a. Any equipment, GPS or camera issues? The Licor meter is saying its out of calibration again although it should have a few more months. One of the YSI pH probes failed on 12/11. It was brand new, so YSI replaced under warranty. pH was flagged for the

affected samples. The probe was swapped out with a functional one for 12/12 sampling. The fish traps need replacement or repair as most of the zippers are not functional any more. The shrimp traps need repair and we need more of the little envelopes for treats.

- b. Any equipment changes? May any of these changes lead to a discontinuity in the data? Are side-by-side data comparisons needed? Field maps implementation. Went well with some changes needed to collection layer. Information communicated to GIS specialist.

4. Protocol Implementation

- a. Lessons learned from this year's implementation
- b. Discussion of any issues with surveying/sampling and field methods. Sophia Fox (Aquatic Ecologist from CACO) came in the field and commented that our light meter may not be accurately measuring the light since we use it just above the surface of the water and this sensor is an underwater sensor. Need to check this and ensure we are using accurate equipment, and that the information collected is useful.
- c. Were all sites visited as intended/planned? Yes
- d. Any known deviations from protocol that could potentially affect data quality or utility? If so, do these need to be addressed with changes or clarifications to procedures? No
- e. Concerns related to data quality or repeatability – were there any for the year/period in question?
- f. Concerns related to lab analyses. Lab agreement modification in progress, but currently paused.
- g. Any suggestions for changes to field data sheets/forms, SOPs or other protocol documents? Suggestions to update fieldmaps fields have been submitted. The SOP for the Licor meter needs updating and a new SOP needs to be written for Fieldmaps image collection. Need to develop a plan for pool mapping moving forward. We are supposed to be updating a map annually rather than drawing a new one. The annual recovery permit report requirement should be written into an SOP somewhere.
- h. Any new methods or procedures that need to be considered or developed? Review LiCor equipment/data validity.

5. Data Management

- a. Any changes needed to data management workflows or guidance? No
- b. Any problems with data entry? When entering the water quality data for the low and high tide samples, the database currently automatically adds the YSI information to the same sampling event. Amanda has a work around, but she needs to see if Kelly can make a change in the database to make this smoother.
- c. Are linkages with SOPs and field forms sufficiently clear? Yes, with the exception of the Licor and field images SOPs which need updates.
- d. Are there other changes that need to be made to the database (including QAQC checks, validation procedures, data summaries or reporting output)? Database will be updated

by Assistant Data Manager to allow for data entry of overnight trapping results into the same site record.

- e. Was the data entry schedule reasonable? Sufficient time to enter, verify, scan data? Our SIP left his position early, but Amanda was able to enter the data. She had to delay working on other protocols to do so. Additional data support from an SIP or other is needed, but we made do this time.
 - f. Status of data and progress toward data approval/certification. Ready for certification.
 - g. Review the project season closeout checklist for status of other items (e.g., scans, file management)
6. Reporting and Analysis – review current plans, discuss needs and follow-up tasks as appropriate. Amanda wrote and submitted an Annual Report for the FWS Recovery Permit for 2023 and 2024. No Analysis or Trend reporting has been completed to date.
 7. State of the Science – do changing needs, new conditions, or emerging information suggest the need for updating or revising the design, or otherwise suggest a scientific review? No
8. Develop Summary of Decisions, Action Items and Timeline

Participants

David Raikow, Anne Farahi, Amanda McCutcheon

Meeting Notes

[Following the general order of the agenda, with emphasis on clearly documenting issues related to safety concerns, deviations from protocol, data quality concerns, and suggestions for improving the protocol documents.]

Summary of Decisions

[The following items are placeholders for organizing decision content; these can be modified to convey the actual discussions and decisions in a suitable manner.]

1. Protocol document updates, including a determination of whether the update is a clarification or a major/substantive change
2. Data follow-up: Follow-up on any data flagging or other special handling as a result of deviations from protocol, equipment changes, or quality concerns identified above
3. Database updates:

Plan for Follow-up Action Items

Category	Task	Who	When
Protocol			
Other docs	Upload permits to SharePoint	Raikow	March 2025
Data updates			

Category	Task	Who	When
Database changes			

- Add Jellyfish to the JHA.
- Calibrate the Licor (purchasing issues???)
- Repair shrimp traps
- New fish traps.
- Research probe on light meter
- Mapping / photos? Survey 1-2-3? Talk to Mark about antennas.
 - Do maps before the survey?
 - Try this out?
- Database change?
- Update SOPs
 - Field image collection
 - Licor SOP