

Statement of Work

External Independent Peer Review by the Center for Independent Experts

Kona Crab Benchmark Assessment

Scope of Work and CIE Process: The National Marine Fisheries Service's (NMFS) Office of Science and Technology coordinates and manages a contract providing external expertise through the Center for Independent Experts (CIE) to conduct independent peer reviews of NMFS scientific projects. The Statement of Work (SoW) described herein was established by the NMFS Project Contact and Contracting Officer's Technical Representative (COTR), and reviewed by CIE for compliance with their policy for providing independent expertise that can provide impartial and independent peer review without conflicts of interest. CIE reviewer is selected by the CIE Steering Committee and CIE Coordination Team to conduct the independent peer review of NMFS science in compliance the predetermined Terms of Reference (ToRs) of the peer review. The CIE reviewer is contracted to deliver an independent peer review report to be approved by the CIE Steering Committee and the report is to be formatted with content requirements as specified in **Annex 1**. This SoW describes the work tasks and deliverables of the CIE reviewer for conducting an independent peer review of the following NMFS project. Further information on the CIE process can be obtained from www.ciereviews.org.

Project Description: The Kona crab (*Ranina ranina*) benchmark assessment will provide the basis for the management of this iconic Hawaiian species. The Kona crab fishery is one of three commercial crab fisheries Hawaii. Historically, Kona crab landings make up over 25% of all commercial crab landings and up to 5% of all commercially landed reef species in Hawaii. Kona crabs are found in sandy habitat adjacent to fringing reefs and rocky areas in depths from 2 to 200 m. The fishing methods (baited tanglenets) are generally thought to be benign to habitat (when not set too close to coral reefs) and take little bycatch. However, basic biological information for the Kona crab is generally unavailable, and commercial landings data are the main indicator available to determine stock abundance. The commercial Kona crab landings in Hawaii have declined over the last 18 years. Because the most recent stock assessment of the Kona crab fishery was conducted over 30 years ago (Vansant 1978) the need for a contemporary assessment of the stock and review of the fishery was identified at the 2008 National Oceanic and Atmospheric Administration (NOAA) Pacific Coral Reef Ecosystem Integrated Observing System (CREIOS) Workshop and prioritized within the Coral Reef Ecosystem Fishery Management Plan (CMFMGP). To date stock status is classified as "unknown". Though it is mentioned peripherally in fisheries management plans regulations regarding closures are "best guess" only. The Terms of Reference (ToRs) of the peer review are attached in **Annex 2**.

Requirements for CIE Reviewer: One CIE reviewer shall conduct an impartial and independent peer review in accordance with the SoW and ToRs herein. The CIE reviewer shall have working knowledge and recent experience in the application of stock assessment for fisheries, and it is desirable to have working experience with stock assessment of marine invertebrates. The CIE reviewer's duties shall not exceed a maximum of 10 days to complete all work tasks of the peer review described herein.

Location of Peer Review: The CIE reviewer shall conduct an independent peer review as a desk review, therefore no travel is required.

Statement of Tasks: The CIE reviewer shall complete the following tasks in accordance with the SoW and Schedule of Milestones and Deliverables herein.

Prior to the Peer Review: Upon completion of the CIE reviewer selection by the CIE Steering Committee, the CIE shall provide the CIE reviewer information (full name, title, affiliation, country, address, email) to the COTR, who forwards this information to the NMFS Project Contact no later the date specified in the Schedule of Milestones and Deliverables. The CIE is responsible for providing the SoW and ToRs to the CIE reviewer. The NMFS Project Contact is responsible for providing the CIE reviewer with the background documents, reports, and other pertinent information. Any changes to the SoW or ToRs must be made through the COTR prior to the commencement of the peer review.

Pre-review Background Documents: Two weeks before the peer review, the NMFS Project Contact will send (by electronic mail or make available at an FTP site) to the CIE reviewer the necessary background information and reports for the peer review. In the case where the documents need to be mailed, the NMFS Project Contact will consult with the CIE Lead Coordinator on where to send documents. CIE reviewer is responsible only for the pre-review documents that are delivered to the reviewer in accordance to the SoW scheduled deadlines specified herein. The CIE reviewer shall read all documents in preparation for the peer review.

Desk Review: The CIE reviewer shall conduct the independent peer review in accordance with the SoW and ToRs, and shall not serve in any other role unless specified herein. **Modifications to the SoW and ToRs can not be made during the peer review, and any SoW or ToRs modifications prior to the peer review shall be approved by the COTR and CIE Lead Coordinator.** The CIE Lead Coordinator can contact the Project Contact to confirm any peer review arrangements.

Contract Deliverables - Independent CIE Peer Review Reports: The CIE reviewer shall complete an independent peer review report in accordance with the SoW. The CIE reviewer shall complete the independent peer review according to required format and content as described in Annex 1. The CIE reviewer shall complete the independent peer review addressing each ToR as described in Annex 2.

Specific Tasks for CIE Reviewer: The following chronological list of tasks shall be completed by the CIE reviewer in a timely manner as specified in the **Schedule of Milestones and Deliverables**.

- 1) Conduct necessary pre-review preparations, including the review of background material and reports provided by the NMFS Project Contact in advance of the peer review.
- 2) Conduct an independent peer review in accordance with the ToRs (**Annex 2**).

- 3) No later than REPORT SUBMISSION DATE, the CIE reviewer shall submit an independent peer review report addressed to the “Center for Independent Experts,” and sent to Mr. Manoj Shivilani, CIE Lead Coordinator, via email to shivlanim@bellsouth.net, and CIE Regional Coordinator, via email to Dr. David Sampson *david.sampson@oregonstate.edu* or Dr. David Die *ddie@rsmas.miami.edu*. The CIE report shall be written using the format and content requirements specified in Annex 1, and address each ToR in **Annex 2**.

Schedule of Milestones and Deliverables: CIE shall complete the tasks and deliverables described in this SoW in accordance with the following *tentative* schedule.

<i>October 17, 2015</i>	CIE sends reviewer contact information to the COTR, who then sends this to the NMFS Project Contact
<i>October 24, 2015</i>	NMFS Project Contact sends the CIE Reviewer the report and background documents
<i>November 1-14, 2015</i>	The reviewer conducts an independent peer review as a desk review
<i>November 22, 2015</i>	CIE reviewer submit draft CIE independent peer review reports to the CIE Lead Coordinator and CIE Regional Coordinator
<i>December 9, 2015</i>	CIE submits the CIE independent peer review report to the COTR
<i>December 16, 2015</i>	The COTR distributes the final CIE report to the NMFS Project Contact and regional Center Director

Modifications to the Statement of Work: This ‘Time and Materials’ task order may require an update or modification due to possible changes to the terms of reference or schedule of milestones resulting from the fishery management decision process of the NOAA Leadership, Fishery Management Council, and Council’s SSC advisory committee. A request to modify this SoW must be approved by the Contracting Officer at least 15 working days prior to making any permanent changes. The Contracting Officer will notify the COTR within 10 working days after receipt of all required information of the decision on changes. The COTR can approve changes to the milestone dates, list of pre-review documents, and ToRs within the SoW as long as the role and ability of the CIE reviewer to complete the deliverable in accordance with the SoW is not adversely impacted. The SoW and ToRs shall not be changed once the peer review has begun.

Acceptance of Deliverables: Upon review and acceptance of the CIE independent peer review report by the CIE Lead Coordinator, Regional Coordinator, and Steering Committee, these reports shall be sent to the COTR for final approval as contract deliverables based on compliance with the SoW and ToRs. As specified in the Schedule of Milestones and Deliverables, the CIE shall send via e-mail the contract deliverables (CIE independent peer review reports) to the COTR (William Michaels, via William.Michaels@noaa.gov).

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Support Personnel:

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Annex 1: Format and Contents of CIE Independent Peer Review Report

1. The CIE independent report shall be prefaced with an Executive Summary providing a concise summary of the findings and recommendations, and specify whether the science reviewed is the best scientific information available.
2. The main body of the reviewer report shall consist of a Background, Description of the Individual Reviewer's Role in the Review Activities, Summary of Findings for each ToR in which the weaknesses and strengths are described, and Conclusions and Recommendations in accordance with the ToRs.
3. The reviewer report shall include the following appendices:
 - Appendix 1: Bibliography of materials provided for review
 - Appendix 2: A copy of the CIE Statement of Work

Annex 2: Tentative Terms of Reference for the Peer Review

Kona Crab Benchmark Assessment

1. *Evaluation of data quality and data application within the assessment model*
2. *Evaluation of methods used to assess the stock:*
 - *Are methods scientifically sound and robust?*
 - *Are methods appropriate for the available data?*
 - *Are methods applied correctly?*
3. *Evaluation of assessment findings:*
 - *Are abundance, exploitation and biomass estimates reliable, consistent with input data and population biological characteristics, and useful to support status inferences?*
 - *Is the stock overfished? Is the stock undergoing overfishing? What information is available for this conclusion?*
 - *Are key uncertainties acknowledged along with their potential consequences?*
4. *Evaluation of stock projections*
 - *Are methods consistent with accepted practices and available data?*
 - *Are result informative, robust, and useful for inferences of probable future conditions?*
 - *Are key uncertainties and their potential consequences addressed?*
5. *Evaluation of whether the science reviewed is considered to be the best scientific information available.*
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6. *Recommendations for*
 - *Data used in assessment*
 - *Assessment methods*
 - *Results and interpretation*
 - *Stock projections*
 - *Further improvements*

Note – CIE reviewer typically address scientific subjects, hence ToRs usually do not involve CIE reviewer with regulatory and management issues unless this expertise is specifically requested in the SoW.

The NMFS Project Contact will provide final ToRs no later than July 11, 2015.