# Kona Crab Benchmark Assessment

## 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.

## Terms of Reference

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 results 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.
6. Recommendations for
    - Data used in assessment
    - Assessment methods
    - Results and interpretation
    - Stock projections
    -Further improvements

**Format and Contents**

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:
    a. Appendix 1: Bibliography of materials provided for review
    b. Appendix 2: A copy of the CIE Statement of Work