

Individual Review Form

Proposal number: 2001-B200-2

Short Proposal Title: Development of an Effective Management Strategy for the Chinese Mitten Crab

1a) Are the objectives and hypotheses clearly stated?

Yes, but the link between the 3 major objectives and the development of “an effective and efficient theoretically-based removal strategy” is tenuous. It is likely that the information gained from this project will not support a removal program or will be inconclusive.

1b1) Does the conceptual model clearly explain the underlying basis for the proposed work?

The conceptual model does support the proposed work, but as mentioned above, the link between the major objectives and the development of a removal program is weak. As the mitten crab is extremely fecund (reportedly up to 1 million eggs per female), relatively short lived, and a very large year class has already been produced from relatively few adults, a very large percentage of female crabs may need to be removed for a program to be effective (>99.99%). Additional information may need to be developed to ascertain that a removal program will be effective, and more importantly, feasible

1b2) Is the approach well designed and appropriate for meeting the objectives of the project?

For the 3 major objectives, generally “yes”:

1. Objective 1, Settlement. Methods are well tested with other species of crabs.
2. Objective 2, Reproductive Events. Recommend that brood size be **quantified** for a subset of the ovigerous females collected. Note that brooding grounds are documented in San Francisco Bay and the proposed trawling for this element may not be needed.
3. Objective 3, Age at maturity. Unclear what the source of juvenile crabs will be from North Bay. Also “period of known molting” probably cannot be documented by presence of exuvia unless someone is frequently in the field (weekly or more often).

1c1) Has the applicant justified the selection of research, pilot or demonstration project, or a full-scale implementation project.

Yes, this is clearly a research project.

1c2) Is the project likely to generate information that can be used to inform future decision making?

Possibly, if CALFED or other agencies support a mitten crab control program. More likely, this project will lead to a better understanding of the factors controlling recruitment of the mitten crab and improve our ability to predict strong year classes.

2a) Are the monitoring and information assessment plans adequate to assess the outcome of the project?

As this is a research project, no monitoring plan is included.

2b) Are data collection, data management, data analysis, and reporting plans well-described, scientifically sound and adequate to meet the proposed objectives?

The data management and reporting plans appear to be adequate.

3) Is the proposed work likely to be technically feasible? Yes, see section 1B2 (above) for some relevant comments.

4) Is the proposed project team qualified to efficiently and effectively implement the proposed project?

Yes, although the distance of the project team from the study site(s) may affect their efficiency.

Miscellaneous comments

Note that no agency has determined what would trigger a mitten crab removal program, who would be responsible for implementing it, or who would pay for it. There is a **draft** National Management Plan for the

mitten crab that addresses the crab's impacts and proposes some management actions. A removal program is just one of several actions, and would not necessarily target adult crabs.

Overall Evaluation Summary Rating	Provide a brief explanation of your summary rating
<input type="checkbox"/> Excellent <input type="checkbox"/> Very Good <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	Overall rating is "good". Major concern is the weak link between the objectives and the development of a removal program. The life history information itself would be very valuable in predicting strong year classes, which would allow some lead time to implement a removal program, if warranted.
