Brown Box Crab Experimental Gear Permit Planning Update

Dr. Julia Coates, Marine Region, Environmental Scientist
Marine Resource Committee, San Clemente, July 17, 2018
Issue history

• Landings increases began 2014
• Experimental gear permit requests began June 2017
• MRC discussion November 2017
• CDFW Director designated all non-Cancer crabs an emerging fishery April 2018
• Survey and constituent meeting
  April 2018
• Regulation change notice hearing
to limit incidental take June 2018
EGP Overview

• Evaluate potential for a box crab fishery
• Collect king crab info where possible
• Collaborative research partnership
  • CDFW
  • Fishermen
  • Academic & NGO
• Substantial commitment by all parties
• Opportunity to test management tools
  • Data collection systems
  • Whale entanglement & other bycatch minimization
• Minimize permit fee (legal cost recovery requirement)
• No guarantee of a fishery
Constituent meeting

• Discussion topics: participation, research goals, bycatch accounting, data collection methods, permit terms & conditions, future permit structure, incidental limit regulation

• Outcomes
  • Interest in research and sustainable fishery development
  • Rock crab & spot prawn permittees south, Dungeness crab north
  • Concern over gear conflicts & fisherman experience level
  • Need sufficient allowable catch for fisherman cost recovery
  • Revisit biomass estimate and allowable catch
  • Fishermen want transferrable permits
Catch limit

- Precautionary limit based on best available biomass information
- Determines permit number and research scope
- Fisheries-independent NOAA trawl survey
- Low biomass estimate
- Uncertainty: reflects only trawlable habitat, small sample number
Catch limit revision

- Recent CDFW landings data
- Interviewed fishermen on trap number & location
- Published “effective area fished”
- Density x habitat area = biomass
- High biomass estimate
- Uncertainty: CPUE, effective area fished proxy, habitat area
- Approach: 10% of average marketable biomass between trawl and catch data methods
Permit number

• Catch limit sufficient for cost recovery
• 7-8 Permits
  • 5 south of Pt Conception
  • 2-3 north of Pt Conception
• Southern permit distribution
  • 2-3 Santa Barbara channel ports
  • 2-3 San Diego area ports
Research goals: biology

• Biomass estimates & sustainable yield
• Basic biology
  • Distribution & habitat
  • Movement
  • Natural mortality
  • Growth
  • Diet
• Reproduction
  • Size at maturity
  • Fecundity
  • Seasonality
Research goals: management

• Bycatch (including whales)
• Optimize data collection systems
• Overlap with established fisheries / potential gear conflict
• Trap specifications
  • Design
  • Limits
Research activities

- Electronic monitoring
  - Test two EM systems and human observers
  - Provide guidance for potential future state implementation
- Bycatch
  - Catch (retained & discarded), size, sex
- Fishing/trap surveys
  - Two methods for biomass estimation
  - Effective area fished
  - Removal/depletion experiment
- Tag-recapture: growth, mortality, movement
- Collections & laboratory
  - Reproduction: fecundity, age at maturity, seasonality
  - Molting
  - Diet
Funding & collaborations

- Electronic monitoring – Ocean Protection Council (OPC), Pacific States Marine Fisheries Commission (PSMFC)
- Fishing/trap surveys – Fishermen
- Tag-recapture – Sea Grant, NOAA Saltonstall-Kennedy
- Collections & laboratory – Sea Grant, NOAA Saltonstall-Kennedy
- Permit fee for remaining cost recovery
Terms & conditions

• Observer coverage
  • Electronic monitoring and human observers
  • Must allow CDFW staff to board and observe vessels as requested
  • Current Coast Guard safety decal required

• Permits valid for 1 year with up to 4 years of renewal. May be revoked by CDFW at its sole discretion, upon 48-hour written notice to the permittees.

• Permit fee (TBD by FGC)

• Box crab, rock crab, and Dungeness crab may be landed (with appropriate permits). King crab landings subject to FGC-determined limit. All other species to be returned and not used as bait.
Terms & conditions cont.

- Annual & monthly trip limits
- Participate in all requested research data collection activities
- Retain only crabs above size limit (5 ¾ in?)
- Maximum 96 hour service interval?
- Traps meet mutually agreed upon specifications
- Follow best practices for avoiding mammal & turtle entanglement
- Float marking requirements
- No pop-ups
- Maximum traps per permit (50-100?)
- Cooperation with domoic acid testing
Permit distribution

• Qualifying criteria
  • Current trap fishery permit holder in good standing (Commercial fishing license, general trap permit, and other trap fishery permit) with history of landing crab
  • Agree to terms & conditions
• If number interested > 8, develop a lottery
• Possible lottery constraints
  • Home port
  • Verifiable deep water fishery experience
  • Other?
Next steps & timing

• Determination on OPC funding, July 25
• CDFW to finalize permit fee, terms & conditions
• Meeting/conference call with fishermen to identify interest, Sept/Oct
• Discuss EGP distribution and research program at FGC meeting, Oct 17, Fresno
• Official EGP requests at FGC meeting, Dec 12, Oceanside
• Work with permittees to finalize research plans and specific fishing constraints
• Installation of electronic monitoring equipment and begin fishing, early 2019
• Contact: Julia.Coates@wildlife.ca.gov
  805-730-1328