

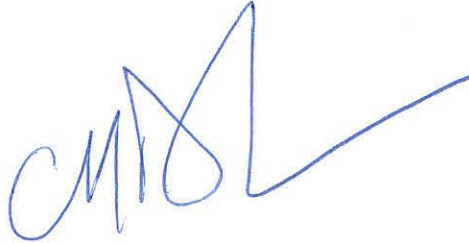
State of California
Department of Fish and Wildlife

Memorandum

Date: April 4, 2018

To: Valerie Termini
Executive Director
Fish and Game Commission

From: Charlton H. Bonham
Director



Subject: **Agenda Item for the June 20-21, 2018 Fish and Game Commission Meeting**
Re: Designation of the Harvest of Non-Cancer Crabs as an Emerging Fishery

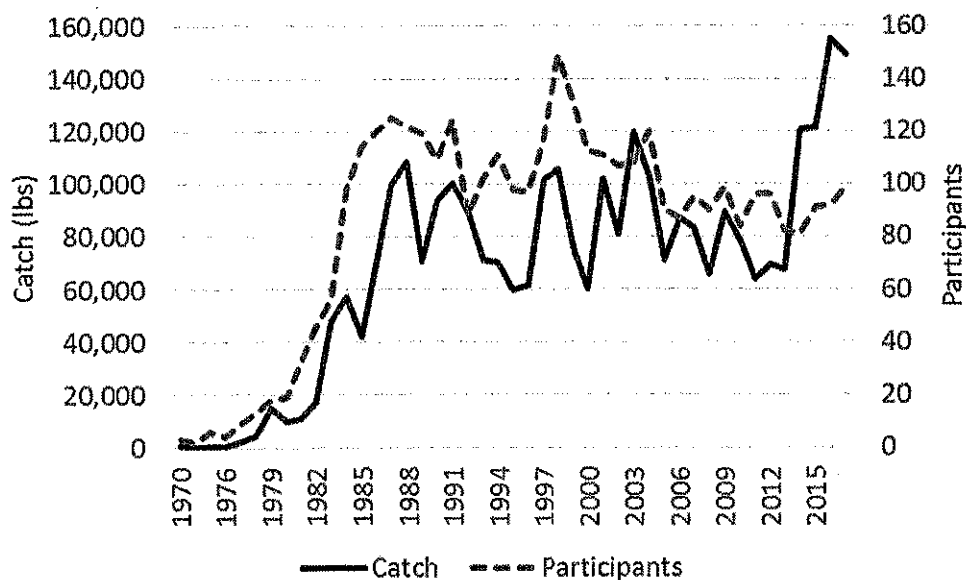
California Fish and Game Code (FGC) §7090 of the Marine Life Management Act (MLMA) requires the Fish and Game Commission (Commission), based upon the advice and recommendations of the Department of Fish and Wildlife (Department), to encourage, manage, and regulate emerging fisheries. Consistent with the criteria outlined in FGC §7090 and Commission policy, the Department has determined that the fishery for non-Cancer crab is an emerging fishery. Based on presented information and discussions regarding brown box crab and California king crab at the Commission's Marine Resource Committee meeting on November 2017, the Commission directed the Department to develop a regulatory proposal to limit allowable incidental take of non-Cancer crab due to rising catch and uncertain sustainability. An emerging fishery designation is necessary for the Commission to exercise the authority to adopt new management measures.

Incidental take of non-Cancer crab (except Tanner crab) is permitted when using traps to target rock crab south of Monterey County (FGC § 8284 (c)), lobster (FGC § 8250.5 (b)), and Dungeness crab (FGC § 8284(a)). Current regulations place no restrictions on the amount of non-Cancer crab that may be taken as long as it is taken incidentally to the target species. Landings of non-Cancer crab reached an all-time high of 155,000 pounds in 2016 (Figure 1). Species the Department tracks include brown box crab (*Lopholithodes foraminatus*), armed box crab (*Platymera gaudichaudii*), California king crab (*Paralithodes californiensis*), and sheep crab (*Loxorhynchus grandis*). The increase in brown box crab (hereafter referred to as box crab) has been most noteworthy. Other species have seen less pronounced and consistent increases, but have also reached previously unseen peaks in catch in recent years. Little biological information exists for these species to determine sustainable levels of harvest.

Box crab and California king crab are relatively deep-water crabs typically inhabiting depths between 150-550 meters. It is likely that the increased landings can be attributed to a combination of a change in fishing behavior (*i.e.*, rock crab fishermen fishing deeper) and developing markets for alternative crab species.

For box crab, current catch levels as well as research surveys indicate a high biomass that may be suitable for exploitation. However, deep-water species are often slow growing and long-lived and therefore cannot sustain high exploitation rates. Additionally, research in British Columbia showed that females produce larvae only every two years.

The Department expects to request the Commission notice a proposed regulation change at its June meeting that would limit possession and landings of incidentally harvested non-Cancer crabs (all species combined) in trap fisheries to no more than 100 pounds. A more restrictive limit for species in the Lithodidae family (box and king crabs) would be set at 25 pounds (*i.e.*, up to 25 pounds of the total 100 may be made up of box crab or king crab). The more restrictive limit for Lithodidae species is necessary due to the rapidly growing interest in these species. Additionally, the Department has been directed by the Commission to pursue development of an experimental gear permit for box crab. Associated plans for collaborative research with fishermen to determine sustainable harvest levels would be hampered by uncontrolled incidental harvest. Species not in the Lithodidae family (*e.g.*, sheep crab) would be subject to a higher, 100 pound limit because this species has sustained relatively higher landings over the past three decades. However, the Department recommends a limit is also important for sheep crab to safeguard against potential future run-away incidental harvest as new markets develop.



Non-Cancer crab commercial landings and number of individuals making landings, 1970 – 2017.

The lack of existing regulations and trend of increasing landings, demonstrate that the incidental take of non-Cancer crabs satisfies the criteria laid out in the MLMA for “Emerging Fisheries”.

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The relatively small size of this fishery, limited available data, and lack of fishery provided funds precludes the preparation of a fishery management plan for this species. The Department therefore recommends the Commission continue the approach of developing regulations to address the rising incidental harvest, followed by the use of experimental gear permits to fill information gaps and promote a sustainable fishery.

If you have any questions or need additional information, please contact Dr. Craig Shuman, Marine Regional Manager, at (916) 445-6459.

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