

**REVIEW AND REFORM OF THE DUNGENESS CRAB
FISHERY: A RUSE TO REALLOCATE ACCESS TO THE
RECREATIONAL FISHERY**

BACKGROUND

The Crab Sectoral Committee and its Crab Working Group subcommittee are currently involved in discussions related to Pacific Region's discussion paper, *Review and Reform of the Dungeness Crab Fishery*.

Commercial representatives of the Crab Sectoral Committee have profound concern that the Pacific Region's stated motivation for reforming the fishery is a ruse. In reality, the discussion paper is more consistent with an underlying Pacific Region objective to reallocate resource access from the commercial sector to the recreational sector.

The commercial sector understands that, after conservation, First Nations access to crab for FSC purposes has priority. However, there is no justification, in either policy or fact, for the Pacific Region's blatant and capricious attempt to increase recreational access at the expense of reduced commercial access (i.e., fishing to feed Canadians, and generate incomes and provide jobs). And it is this commercial/recreational reallocation of access arrangements that is the focus of this paper.

The remainder of this paper builds the case to support the above perspective.

PACIFIC REGION'S CASE FOR REFORM

By way of background, the intent of the Pacific Region's discussion paper is:

...to summarize the issues and objectives for short-term and long-term changes to the crab fisheries. Several options are proposed but are not necessarily the only options to be considered. A consultation process is included to solicit views on key objectives and how they can be achieved. This process will guide development of a management framework and provide recommendations for the development of the 2008 and 2009 Crab Integrated Fisheries Management Plans.

The document also proposes the following objectives for the crab fishery: ensure conservation, improve crab abundance, respect Aboriginal and treaty rights of First Nations, provide stable resource access, enable the commercial fishery to self-adjust, improve fishery monitoring and catch reporting, improve

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responsibility and accountability, and ensure compliance. Presumably, alternative management options are to be evaluated with respect to their ability to pursue these objectives.

With the above purpose and objectives stated, the discussion paper proceeds to outline the 3 key issues and concerns (sustainability/abundance, commercial restructuring and harvesting opportunities) allegedly facing the crab fishery, which in turn drive the need for "significant" commercial-sector management change.

KEY ISSUE 1: SUSTAINABILITY OF THE FISHERY AND CRAB ABUNDANCE

The discussion paper notes that "Conservation is paramount and the primary focus of the Department." Given the primacy of conservation and its identification as a key issue, the commercial sector's question is: What is the evidence that a conservation problem exists?

Unfortunately, while conservation may be a key issue, the discussion paper presents no credible evidence of a conservation problem in any of the harvesting Areas, and in fact notes "The minimum size limit has met conservation requirements so far."

The discussion paper's only, and rather pedestrian, observation concerning a conservation problem is discussed in Appendix 5. It is noted that, with respect to commercial landings, "Crab Areas G and H have shown downward trends in recent years. Crab Area E has also seen a decrease in landings which may be partially to blame through the reduction of available crab due to sea otter predation. A decline is also seen in other parts of Crab Area E indicating an overall reduction in stock abundance."

The use of changes in commercial catch to measure abundance change is confusing, as the discussion paper also provides information on catch rates. Catch rates are a measure of catch per unit of effort (CPUE), and changes in CPUE are arguably a better measure of stock health than simply looking at changes in landings. (Declining CPUE is consistent with abundance declines - more effort produces fewer fish. And increasing CPUE suggests the opposite.)

And, interestingly, the discussion paper notes that, over the 1997 to 2005 period, average annual catch rates (measured as crabs per trap and crabs per trap soak day) have, "remained relatively constant" in areas B, E, H and G, and "have shown an increasing trend in Crab Areas I and J, and have varied significantly but remain at high levels in Crab Area A." Ironically, the best

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abundance information provided concerning stock status contradicts the Pacific Region's argument of a conservation driver for "significant" commercial management change.

The discussion paper also makes the following two comments about the "possibility" of a conservation problem and consequent need to reduce commercial "handling" in order to increase abundance:

...in many areas of the B.C. coast, there are concerns about the intensive fisheries and high discard rates. Repeated handling of undersized and female crab and any handling of soft-shell crab leads to mortality, reduced recruitment and abundance, and, **possibly** [emphasis added], conservation problems.

Management measures, such as decreasing commercial trap limits, increasing escape ring size and/or significant Crab Area wide commercial closures for a portion of the year can be taken to reduce handling mortality of soft, female and undersize crab. Improvements in stock abundance will likely be realized through measures designed to reduce handling mortality and increase productivity.

The fact is the Pacific Region has provided absolutely no evidence that "handling mortality" or any other factor is producing a conservation problem. And if the Pacific Region is arguing for reduced "handling" in order to generate a non-conservation related increase in abundance, then both the recreational sector and commercial sector should pay the price for this investment, not just the commercial sector.

In a final attempt to raise a conservation concern, the discussion paper notes that:

From experiences in Alaska, there is also a caution about depending on the minimum size limit for conservation. In Cook Inlet, Prince William Sound, and Yakutat areas Dungeness populations are designated as collapsed and are closed to commercial, sport, personal use and subsistence fisheries out of concern that stock abundance is insufficient to ensure sustainable use.

The relevance of this to the Canadian situation is unclear. The Canadian commercial sector faces a variety of management measures, including, a minimum size limit, vessel trap limits, Area trap maximums, vessel size restrictions, gear restrictions, transferability restrictions, area/seasonal closures and mandatory catch monitoring. In any event, the Alaskan experience hardly makes the case for a reduction in commercial access.

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KEY ISSUE 2: COMMERCIAL RESTRUCTURING

With respect to a second key issue, commercial restructuring, the discussion paper notes the following major drivers for restructuring:

- Recent declines in catches and prices, in hand with increasing costs (e.g., electronic monitoring, fuel) are reducing the commercial sector's economic viability.
- Current management arrangements do not provide the fleet sufficient flexibility to adapt to current and future conditions.

A few points are worth noting concerning the above drivers. First, the discussion paper provides no evidence of declining economic viability in the commercial fishery. However, Appendix 5 does make the observation that average fish price (calculated from fish slips) peaked in 2000, declined until 2004, and then increased slightly in 2005. "As a result, in the areas where landings have also decreased, the average earnings per licence has dropped significantly. For example, the average earning per licence in Crab Area E was \$86,391 in 2000 and decreased to \$42,189 in 2005. Similar decreases have occurred in Crab Areas G and H as well."

However, the conceptual problem with this approach is that revenue per licence is not a measure of economic viability. In any given year, licence profitability is determined by revenue minus costs. Because revenue per licence information only provides information on revenue, it is only a very crude measure of average profitability.

More importantly, profitability and economic viability are two distinctly different creatures¹. And this distinction is important from a policy and analytical perspective. The commercial fishing industry, like any other commercial sector of the Canadian economy, experiences yearly and cyclical fluctuations in profits due to variations in fish prices, resource abundance, fishery management regulations and costs. However, a short-term decline in profits does not mean that any specific commercial sector in Canada is less economically viable, and the same holds for the commercial crab fishery. Economic viability is a long-term concept; and evidence of declining economic viability requires evidence on a secular decline in expected future long-term profits. Regardless of these conceptual considerations, the empirical evidence provided on economic viability and profitability is vacuous.

¹ This may be an unfair observation; however, it appears few if any economic skills were utilized in writing the economic-related sections of the discussion document.

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Most importantly, almost all of the discussion paper's proposed commercial management options (aimed at reducing commercial access to improve recreational access) would negatively impact on long-term profitability, and consequently, the economic viability of the commercial fleet.

It is ironic, to say the least, for the Pacific Region to argue that the commercial fleet is under increasing economic viability pressure, and then suggest a number of the reallocation-induced management options that would directly reduce commercial economic viability. This is particularly odd given the lack of evidence for an underlying conservation driver for restructuring.

Concerning the second bullet-point above, it is true that current commercial management arrangements do not provide the fleet with sufficient flexibility to adjust to changing economic, stock abundance and other external conditions. However, the Pacific Region does not provide any meaningful analysis of how well their proposed management options would accomplish this task. The reality is that the discussion paper's intent to reduce commercial access would place increased adjustment pressure on the commercial sector, without providing any immediate and workable mechanism to aid in self-adjustment.

Summary

In summary up to this point, concerning the conservation key issue, the discussion paper produces no credible evidence of an alleged conservation problem. With respect to the second key issue, the need for commercial restructuring, no evidence has been presented of a commercial economic viability problem. And while current commercial management arrangements provide the fleet little flexibility to effectively respond to a changing environment, it is unclear how the discussion paper's closure and trap-reduction management options provide additional flexibility. In fact, they would only reduce economic viability.

From the commercial sector's perspective, the first two key issues only provide cover for the third, and real, key issue behind the discussion paper - "harvesting opportunities", in other words, access reallocation to the recreational sector. This is discussed next.

KEY ISSUE 3: HARVESTING OPPORTUNITIES

The Summary section of the discussion paper states one of the paper's purposes is "... equitable sharing of the Dungeness crab resource in British Columbia."

However, the commercial sector sees little "equitability" in the "harvesting opportunities" section of the paper. The following quotes from the discussion

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paper set the Pacific Region's perspective on "equitable sharing", or to use the key-issue wording "harvest opportunities".

Effort in the commercial crab fishery has seen significant increases from the mid-1990s (see appendix 5). During this period, a number of First Nations have expressed concern about their ability to harvest legal sized crab for food, social, and ceremonial (FSC) purposes and the recreational fishery has expressed concerns about their ability to catch legal sized crab in some locations. Often, commercial area closures are requested to improve FSC and recreational opportunities.

The commercial fleet is the largest harvester in all management areas, taking the majority of the available legal crab. This has led to increasing concerns from First Nations and recreational harvesters about the availability of legal sized male crabs for harvest, particularly in south coast areas. The recreational sector has listed access to crab as one of their top three issues along with groundfish integration and halibut.

*Currently, the Department has attempted to address access to First Nations for FSC purposes and to recreational harvesters through seasonal or permanent commercial closure of the relevant locations (e.g., a portion of Ucluelet Harbour). This is proving to be a **difficult process for the Department** [emphasis added] as the data to support the decisions is limited.*

Management measures need to be taken to establish a process to guide sharing of opportunities to harvest legal sized crab. The current controls on the commercial fishery are not sufficient and alternatives need to be reviewed.

To paraphrase the above, increases in commercial sector fishing effort since the mid-1990s have been concurrent with First Nations and recreational sector concerns about their ability to harvest legal-sized male crabs. In response, the Pacific Region addressed these concerns through seasonal and permanent commercial sector closures. The problem for the Pacific Region is that there is limited data available to support the commercial closure decisions. Therefore, "management measures need to be taken to establish a process to guide sharing of opportunities" – current commercial management controls are insufficient.

The above Pacific Region perspective borders on the incomprehensible.

First consider the statement that "Effort in the commercial crab fishery has seen significant increases from the mid-1990s (see Appendix 5)". In fact, the discussion in Appendix 5 does not suggest significant increases in commercial effort since the mid-1990s, but argues:

Effort, measured as trap soak days and trap hauls, is highest in Crab Area H where levels have increased substantially from 1997 until recent years where it appears that poor catch levels have resulted in decreased effort (Table 3). Effort

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in Crab Areas I and J has remained relatively consistent over the years, as both fisheries occur during predetermined periods. Crab Areas B, E, and G have shown relatively consistent effort levels over this period. Crab Area A has had significant fluctuations in effort due to the cyclical nature of the fishery driven by periodic recruitment events that result in large increases in crab abundance.

The above quote contradicts the earlier statement of significant increases in commercial fishery effort since the mid-1990s. The quote states that significant effort increase only applies to Area H. Areas B, E, G, I and J have experienced "relatively constant" effort levels. And Area A effort levels have followed abundance.

Second, the recreational sector's assertion that it cannot catch legal-sized crab in some areas because of commercial fishing is just that – an assertion.. Where is the independent evidence of reduced recreational crab harvesting? The Pacific Region, itself, acknowledges that there is little data to support this recreational claim. According to MacDougall and Harbo², data from the 2000 and 2005 *Survey of Recreational Fishing in Canada* show a 49% increase in crab catch (in lbs) by BC residents. They also note "In resident and non-resident Canadian anglers there was an increase in the number of respondents who felt that overall the fishery was good, very good or excellent, and a decrease in the number respondents who felt the fishery was fair or poor."

Eyding et al³. identified 360 recreational crab floats during July and August 2007, and based on telephone numbers identified on floats, undertook a telephone survey with 42 participants. In addition, 39 interviews were conducted with respect to crab fishing from docks. In response to the question of whether crab abundance was increasing, decreasing, or constant compared to the previous five years, fishers with five years experience or more responded as follows: "Twenty three respondents thought crab populations were decreasing, 13 thought they were increasing and 20 thought they were the same - hardly a case for abundance decline or reduced "quality of experience" arguments. Of course, the study has little if any scientific underpinning, especially in light of the infinitesimal sample size. As the authors note, "Due to low sample sizes, it is difficult to interpret the widely varied catch rates."

² Summary and comparison of recreational shellfish data between the Survey of Recreational Fishing in Canada 2000 and Survey of Recreational Fishing in Canada 2005, DFO, 2007.

³ A Preliminary Survey of Recreational fishing for Dungeness crab in southern waters of Vancouver Island B.C. DFO, 2007

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The recreational sector has a vested interest both in claiming it is being crowded out by the commercial sector and in continuing to resist the collection of accurate and timely recreational catch data. However, the commercial sector does not understand why this self-induced lack of recreational catch information should be used by the Pacific Region to increase recreational access at the expense of commercial access.

Third, it is difficult to comprehend the meaning of the statement "Management measures need to be taken to establish a process to guide sharing of opportunities to harvest legal sized crab. The current controls on the commercial fishery are not sufficient and alternatives need to be reviewed." How are the commercial management options detailed in the discussion paper (such as additional commercial closures and reduction in traps) going to establish a *process to guide sharing of harvesting opportunities*? These management measures are directly aimed at reducing commercial access and increasing recreational access. This has nothing to do with establishing "a process to guide sharing". It is simply a reallocation of access that is not based on conservation, economic viability or best use of the resource. And the reallocation is simply aimed at making the "difficult process" of fisheries management easier for the Pacific Region.

MANAGEMENT OPTIONS FOR DISCUSSION

The Pacific Region notes, in the Management Options for Discussion section, that significant changes are required to meet its objectives, and that the status quo approach to management of the fishery is not an acceptable option.

The discussion paper details eight possible management options. However, it is also noted that these are not the only possible options, and that no single option will adequately address on the objectives - a combination of options will need to be considered.

The options include: commercial seasonal crab area closures; closure of large scale areas within each crab Area (establishment of set-aside areas for FSC and recreational access); establishing Area total allowable catches (including defined sector shares, and possibly commercial ITQs); differential sizes limits; reduced commercial crab area trap maximums and vessel trap limits; increase escape-ring size; trap stacking; and, commercial licence retirement.

The objective here is not to provide a detailed comment on each option but to make general observations from the commercial perspective.

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The first important thing to note is that practically all options suggested relate to management of the commercial fishery. In other words, Pacific Region thinks the "significant changes" required to meet the stated objectives should fall largely, if not solely, on the shoulders of the commercial fishery.

Only one option (Option 3, sectoral TACs) would immediately involve the recreational sector, and the two other options suggest partial recreational involvement in the *longer term* (Option 1, soft shell closures in high use areas, and Option 6, increasing escape ring size).

The second important thing to note is that the aim of Options 1, 2, 4, 5, 6 and 7 is to improve recreational access at the expense of reduced commercial access. With respect to the remaining two options, Option 8 (licence retirement) would not necessarily reallocate access (assuming no other options were introduced); and the re-allocative impact of Option 3 (inter-sectoral TACs) would depend on how inter-sectoral allocations were determined.

According to the discussion paper, a virtue of a number of the options is that they provide for "stable resource access". This is certainly not the case with respect to commercial sector access. And this inter-sectoral access reallocation policy is contrary to department policy. The national document, *Recreational Fisheries in Canada: An Operational Policy Framework*, states "Further consideration will be given to increased or priority access for recreational use under the concept of 'best use' of the resource, after obligations to First Nations are met." And there is absolutely no best-use evidence to support the position that the recreational fishery should be given increased or priority access. The best-use case would need to be transparently demonstrated. In addition, if access is to be reduced to meet First Nations obligations, then both the recreational and commercial sectors should be equally subjected to closures, increased size limits, etc. to meet this objective.

SUMMARY

The commercial crab sector thinks that an inter-sectoral approach to reviewing and reforming the Dungeness Crab Fishery offers a potentially productive way forward. However, Pacific Region's discussion paper is a poor vehicle upon which to start such discussions. The paper is factually flawed, confused and confusing.

The paper's underlying premise, that recreational access needs to be improved at the expense of commercial access has no basis in fact. As the discussion paper notes "Currently, the Department has attempted to address access...to

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recreational harvesters through seasonal and permanent commercial closures...This is proving to be a difficult process for the Department as the data to support such decisions is limited.”

The fact that the Pacific Region faces a “difficult process” because of a lack of data to support recreational assertions is hardly a reason to cave in to one vested-interest group and in turn reduce commercial access.

The commercial crab fishery provides food for Canadians, and generates income and jobs for residents of B.C. Clearly, the Pacific Region is responsible for managing the commercial fishery, but reallocating access to the recreational sector just because the Pacific Region is confronted with a “difficult process” is inequitable, and without supporting evidence, is contrary to the “best-use” policy stated in DFO's national policy document, *Recreational Fisheries in Canada: An Operational Policy Framework*.

An open, transparent and evidence-based approach to inter-sectoral issues in the crab fishery requires an examination of both commercial and recreational access arrangements, management measures and catch monitoring. There is absolutely no reason the current review should be focussed solely on the future of commercial sector management. The SFAB (a Pacific Region established and funded advisory body) should not have veto authority when it comes to an all-sector examination of future recreational management arrangements – such a role is more consistent with a Pacific-Region-funded lobbying group, than an advisory body.

Until inter-sectoral allocations are in place, discussions around inter-sectoral crab management are likely to be little more than disguised vested-interest grabs for greater access. The discussion paper arguably plays into this game. Commercial/recreational intersectoral allocations should be on the table; this issue will not be resolved in a day, but it will never reach resolution if the topic is rejected out-of-hand.

In conclusion, the Pacific Region needs to take a more transparent, multi-sector, evidence-based, and professional approach to managing the B.C. crab fishery. The Crab Sectoral Committee and Crab Working Group offer as a useful vehicle with which to start such a venture.