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Rock Lobster submissions
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NZ Sport Fishing Council submission on the review of Rock Lobster sustainability measures for 1 April 2013

NZ Sport Fishing Council

- 1. The New Zealand Sport Fishing Council appreciates the opportunity to submit feedback on the review of Rock Lobster sustainability measures for 1 April 2013. The Ministry for Primary Industries (MPI) released their proposals on 14 December 2012, with submissions due by 1 February 2013.
- 2. NZSFC representatives are available to discuss this submission in more detail if required. We look forward to positive outcomes from this review and would like to be kept informed of future developments. Our contact is Roz Nelson, secretary@nzsportfishing.org.nz.
- 3. The New Zealand Sport Fishing Council is a National Sports Organisation with over 32,000 affiliated members from 56 clubs nationwide. Rock Lobster are highly valued by members of clubs affiliated to the Council and a growing number of contributing supporters. Rock Lobster are harvested to feed family and friends. For many, these prized Crayfish simply cannot be valued in dollars.
- 4. Rock Lobster must be abundant to enable us to provide for our social, economic and cultural wellbeing, and be sustainable to meet the reasonably foreseeable needs of future generations, as per section 8(2)(a & b) of the Fisheries Act 1996.
- 5. The New Zealand Sport Fishing Council is committed to ensuring that sustainability measures and management controls are designed and implemented to achieve the Purpose and Principles of the Fisheries Act 1996. A precautionary approach needs to be taken in this highly valued fishery, which is managed using uncertain and incomplete information.
- 6. The New Zealand Sport Fishing Council is concerned that our members, supporters and others nationwide are becoming disillusioned with the ongoing mismanagement and subsequent depletion of our taonga [treasure], our Crayfish.

NZSFC recommendations

- That the Minister takes a more active role in the management of Rock Lobster, to restore abundance, to decrease the risks associated with low biomass levels and to provide for reasonable public use.
- That the Minister addresses the sustainability concerns of non-commercial stakeholders by agreeing to stop the use of Management Procedures based on CPUE [Catch Per Unit of Effort] controls, and to initiate a full review of Rock Lobster management.

Executive summary

- 7. The Ministry for Primary Industries (MPI) is following advice from the National Rock Lobster Management Group (NRLMG) that is driving Rock Lobster stocks in Crayfish 3 (CRA3, Gisborne) below levels that provide for reasonable public use.
- 8. Catch Per Unit of Effort (CPUE) point estimates, with little supporting information, are not a reliable proxy for abundance, particularly in CRA3.
- 9. The growing gap between modeled stocks and the observed stocks is diverging to the point where the models can no longer be relied upon as being 'best available information'.
- 10. There is insufficient information being gathered on catch to permit Management Procedures to be used in a useful, and potentially lawful way.
- 11. In our view, implementation of the proposed Management Procedures in our Rock Lobster fisheries will not meet the statutory obligations in the Fisheries Act 1996.
- 12. The use of Management Procedures based on CPUE-driven harvest controls must cease and a full review undertaken to correct the misnomer that in all Rock Lobster stocks 'CPUE is a reliable indicator of abundance'.
- 13. The New Zealand Sport Fishing Council (NZSFC) considers the current proposals benefit commercial interests and the NRLMG, to the detriment of non-commercial interests in the Rock Lobster fisheries.

NRLMG advice

- 14. In 1992 the National Rock Lobster Management Group (NRLMG) was established as a statutory body to provide advice to the Minister on managing the Rock Lobster fisheries. It is advertised as a multistakeholder group comprising representatives of customary, recreational and commercial fishing interests, and MPI. In reality, sector representatives are limited to Te Ohu Kaimoana (TOKM), NZ Rock Lobster Industry Council (NZ RLIC), New Zealand Recreational Fishing Council (NZRFC) and the Environment and Conservation Organisations of Aotearoa New Zealand (ECO).
- 15. The Ministry for Primary Industries is now engaged in the management of Rock Lobster from the sideline. The role of MPI as the facilitator of a group (NRLMG) comprising users has had the longest running trial in the Rock Lobster fishery. There is nothing obvious upon which to gauge the Group's performance or success, as s13(2) relieves advisors of the need to properly examine stocks for B_{current} and B_{msy} estimates, leaving open the possibility of choosing convenient proxies. Computer simulations to estimate stock size, where made-up numbers validate other contrived numbers, are a poor alternative to actual observational data.
- 16. NRLMG participants routinely select data with the comment "agreed to by Working Group members". This arises from the demands of the stock assessment models or Management Procedures for information, much of which is unknown. In our view, the unknowns overwhelm what is known about the Rock Lobster stocks.
- 17. The potentially most valuable data sets to inform on the status of a Rock Lobster fishery relate to:
 - a. Annual recruitment and abundance of pre-recruits; and
 - b. The full description of the catch and harvest by sex and size.

It seems that this data is missing or merely guessed at.

- 18. NRLMG advice routinely excuses itself from properly addressing the parlous state of non-commercial catch in some areas, CRA3 particularly, on the basis of poor information or by simply ignoring the matter.
- 19. The Purpose and Principles of the Fisheries Act 1996, sections 8-10, support the management of fisheries at abundant levels to enable people to provide for their social, economic and cultural wellbeing. The public has rights to fish for food and recreation under the Fisheries Act and failure to properly provide for this right is unreasonable. There are many ways that the public's fishing interest in the stock could be advanced in advice papers, but these are forgone in the pursuit of commercial benefits through higher catches.
- 20. In our view the NRLMG fails to give advice that enables all sectors to maximise the benefits from the Rock Lobster fisheries, instead adopting strategies and crafting advice that benefit commercial users, while barely noting the non-commercial dissent.
- 21. In our view the NRLMG must be held accountable to all stakeholders. In 2001 it was agreed by the Minister and NRLMG that the group would "provide well informed, credible, and consistent research and management information and advice to sector groups, Government agencies, and Ministers¹". The NRLMG must be obliged to achieve this unfulfilled commitment.

CPUE as a proxy for abundance

- 22. Assuming that commercial Catch Per Unit of Effort (CPUE) is proportional to abundance comes with many risks. It is inevitable that some major problems are only resolved by using numbers "agreed by members of the Working Group". Under this scenario, validation is not required if members merely agree. Commercial CPUE is often affected by operational changes and market demands, but there is no consistent way that these changes are recorded or taken into account.
- 23. One critical assumption is that commercial fishing effort effectively samples the vulnerable biomass. The submitters reject the assumption that CPUE provides an unbiased sample of population abundance, primarily on the grounds that Rock Lobster have always suffered serial depletion as the stock is fished down effort is redeployed to pockets of remaining adult stock.
- 24. The Rock Lobster population is fished at different rates across its range. Areas close to home ports are the first to be depleted. As catch rates diminish pots are moved to grounds holding a less heavily fished population, where abundance is greater. When that is exhausted another move is made, allowing stocks to be serially depleted without any apparent decline in CPUE to highlight changes in stock size.
- 25. Without knowing what effort is applied to the same area, in the same way, and the catch composition, the changes in raw CPUE data becomes non-attributable. In future some form of electronic logging of location and catch by pot lift could help.
- 26. High grading, where fishers release low value Crays and keep premium size animals, in line with market demand, is influencing the proportion of catch retained. The NZSFC is concerned that there seems little validation of what is recorded as 'returned to the sea'.
- 27. The NZSFC highlight to the Minister that the rapid increases in CPUE seen in some stocks last year merely indicate a change in fisher behaviour or the area fished. The Minister and fisheries managers must be wary of relying on CPUE as an index of abundance, especially where the rate of increase is implausibly high.

NRLMG 2003 Annual Report.

Application of Management Procedures

- 28. Management Procedures are a mechanism used to guide catch limit decisions in most Rock Lobster fisheries. Management Procedures are driven by CPUE data.
- 29. Setting and altering the Total Allowable Catches (TACs) based on un-validated fisher-recorded CPUE data requires a good deal of faith to overcome the possibility that this data is easily manipulated, as there may be a high incentive to do so.
- 30. The basic understanding of Rock Lobster settlement, recruitment, growth, migration, natural mortality, and natural variances are mostly missing. A few small pieces have been studied, but the unknown dominates the knowledge base, and this alone reinforces the need for the Minister to act in a precautionary manner when managing the Cray fisheries.
- 31. One informative data set that has not been properly utilised is the size distribution of landed catch. To understand how the stock is affected by fishing it is critical that we know the numbers of each cohort being taken in commercial Cray pots. This data is important if we are to have any understanding of population changes, particularly when no reliable index of Rock Lobster settlement and recruitment exists.
- 32. Most of the commercial landed catch is passed over Licensed Fish Receiver scales to grade into sizes. For most Rock Lobster fisheries this data is available for the past 20 years. This information provides essential indicators of the changes in size structure of the harvest.
- 33. Tracking changes in the age/size composition of the harvest is essential if the effects of a Minimum Legal Size (MLS) Concession are to be understood.
- 34. Moreover, we are seriously concerned that commercial fishers, in CRA3 in particular, are reliant on Concession fish. At earlier CRA3 regional meetings fisheries managers advised that Concession fish were estimated to be between 60 and 70% of landed catch.
- 35. The Minister must insist that information on where, when and how many fish below the Minimum Legal Size, at 52mm and 53mm, is being harvested by commercial fishers as per the Concession. This information is critical to determining whether it is the abundance of these small fish that is skewing the CPUE results.
- 36. Without this information we can only guess at the proportion of how many Rock Lobster below the MLS are contributing to the CPUE. Having validated this information the Minister will then be empowered to make a more informed TAC decision.
- 37. THE NZSFC REQUESTS the following information
 - a. What percentage of fish below the MLS are landed, per stock?
 - b. When and where are fish below the MLS being harvested, per stock?
 - c. What proportion of legal Rock Lobster catch is returned to the sea?
 - d. What is the trend in high grading, over time, in each Rock Lobster fishery?
 - e. What is the total effort in pot days for each fishery?
 - f. What is the trend in total effort?

Management without this supporting information means there is no ability to crosscheck the changes observed in CPUE. Validation of such important information enables credible management.

38. In a fishery of such high social, economic and cultural value it is important for the Minister to insist he receives full and balanced advice, and MPI must provide the Minister with the best information – not just an all-powerful point estimate of CPUE.

Differing worlds of modeled and observed stock

- 39. The assumptions made of stable Rock Lobster stocks used to base historical abundance (B_{ref}) and B_{msy} on is an illusion convenient certainly, but unfortunately not supported by observation.
- 40. There has not been a stable period since the Second World War. Ask any fisher that worked through the 1960s, 70s and 80s and hear of expansion, as better boats, mechanical haulers, better pots, enabled the exploitation of new grounds. The major fishing strategy was breaking in new territory.
- 41. There is clearly something basically wrong with a model that cannot be confirmed by observations. The changing size of Rock Lobster in the CRA3 population and the loss of range, confirm a stock that long-time observers have estimated at less than 10% of the unfished stock below the 'hard limit' as per MPI's Harvest Strategy Standard.
- 42. The calculations of B_{msy}, and the B_{ref} estimate, are simply not credible to anyone who compares the model predictions against real-time, daily observations. The 2009 CRA3 stock assessment predicted further decline in stock size, and (cynically) this is overturned by a 'miraculous' and unpredicted rebound in CPUE since the introduction of the Management Procedure.
- 43. A plausible explanation of how stock size has leapt from low and declining, to record highs in just three years is required, with supporting information, before allowing CPUE to drive Management Procedures.
- 44. In our view, the Management Procedure being applied in CRA3 fails to meet the provisions of ss8, 13, 20, 21 of the Fisheries Act 1996, by making changes to the Total Allowable Commercial Catch (TACC) while barely paying lip-service to the need to provide for public catch and interests, or comply with other statutory duties.

Public frustration with depletion

- 45. Abundance continues to fall along in the northeastern Rock Lobster fisheries, CRA1 (Northland), CRA2 (Auckland East Coast) and CRA3 (East Coast Gisborne). Non-commercial catches have plummeted in response to stock depletion.
- 46. The concentration of commercial potting on the remnants of the Rock Lobster stock has the public questioning the process that permits increasing fishing effort in a stock that, in many places, is seemingly fished out.
- 47. The cycle of NRLMG advice being accepted on face value, in stark contrast to the observations of the public, has seriously eroded confidence in the Ministry's ability to control and manage commercial activity in the Rock Lobster fisheries.
- 48. There are increasing numbers of people aware that this advice is only guided by a goal of securing a short-term commercial benefit. NZSFC members have asked the executive to explore other means of influencing these decisions.
- 49. The NRLMG and the Minister must take non-commercial interests and needs seriously.
- 50. There was a clear message from the stakeholders' meeting held in Dunedin last year. Joint sector aspirations were identified for two quite different fisheries, CRA7 (Otago) and CRA8 (Southland). High abundance was the goal in both cases -
 - For CRA7: increased abundance, improved stability, a more responsive management regime and increase safety (meaning less chance of overfishing);
 - For CRA8: high stock abundance and maintained stability.

Stakeholders in other Quota Management Areas would likely endorse similar goals if an equivalent process were conducted.

Fisheries Act support for reasonable public catch

- 51. Advice to the Minister includes comments on his statutory duties when making decisions under the provisions of the Fishers Act 1996. This advice would include, among other matters, how the decision conforms to the Purpose (s.8).
- 52. The Purpose directs the Minister to manage fisheries sustainably, to both enable people to provide for their social, economic and cultural wellbeing, and to maintain the potential of the fishery to meet the reasonably foreseeable needs of future generations. (s8)(2)(a & b).
- 53. The Supreme Court has also identified the obligations of the Minister in saying, "the notion of people providing for their wellbeing, and in particular their social wellbeing, is an important element of recreational interests²".
- 54. The NZSFC urges the Minister to make a lawful decision. To do so, the Minister must be made aware that the application of Management Procedures to set TACs and TACCs, particularly in CRA3, ignores the public's fishing interests and has resulted in further depriving the public of an opportunity to a reasonable catch.
- 55. Gisborne-based recreational fishers have spent thousands of hours advocating for the local fishery to be managed at a higher abundance level, to enable the local community to provide for their wellbeing. All to no avail.
- 56. Increasing abundance in the Rock Lobster fisheries would yield many benefits for the Minister and others including, but not limited to:
 - a. Improved marine environment, with more diversity and robust fisheries;
 - b. Increased real-time CPUE for commercial fishers;
 - c. Increased size and abundance of Rock Lobster available for non-commercial use;
 - d. Reduced conflict between various interest groups; and
 - e. Simplified and more credible management processes inclusive of stakeholder input.

Hauraki Gulf Marine Park Act

- 57. The Hauraki Gulf Marine Park boundaries fall within the CRA2 management area. When setting the TAC the Minister is required, under s11(2)(c) of the Fisheries Act 1996, to have *particular regard* to sections 7 and 8 of the Hauraki Gulf Marine Park Act 2000. These sections recognise the Hauraki Gulf's national significance, the wellbeing of people and the protection and enhancement of the natural resources, including kaimoana, within the Park.
- 58. The NZSFC emphasise the need for the Minister to comply with the provisions of these Acts, to rebuild this fishery to abundant levels, to improve marine diversity and to enable people to provide for their social, economic and cultural wellbeing.

Previous NZSFC submissions

- 2012 Submission on the review of Rock Lobster regulatory controls.
- 2012 Submission on the review of Rock Lobster sustainability measures for 1 April 2012
- 2011 Submission on the review of Rock Lobster commercial Concession Area Regulations
- 2011 Submission on the review of Rock Lobster sustainability measures for 1 April 2011
- 2010 Submission on the review of sustainability measures for CRA 3 & 4, for 1 April 2010.
- 2010 NZSFC Zone 5 clubs submission on the review of CRA sustainability measures for 1 April 2012.