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Submission: Review of sustainability measures for spiny rock lobster (CRA 2) for 2025/26

Summary statement

The abundance of spiny red rock lobster (*Jasus edwardsii*) on the North Island's east coast has collapsed while creating trophic cascades in the form of kina barrens, and impacting associated and dependent species and habitats. Depletion of red rock lobster has been accompanied by the proliferation of the larger packhorse crayfish (*Sagmariasus verreauxi*) which may limit the return of red rock lobster to their original habitat if the population is rebuilt.

In 2016, rock lobster in the Hauraki Gulf were described by marine ecologists as being "[functionally extinct](#)", unable to carry out its natural functions as predator and prey. Despite previous management reviews, CRA 2 has not rebuilt to a level of abundance which allows rock lobsters to fulfil their natural role within the ecosystem, particularly in statistical area 905 (inner and outer Hauraki Gulf). The progressive collapse of CRA 2 has been drawn out by successive Ministers and Fisheries New Zealand (FNZ) who have failed to administer the Fisheries Act (**the Act**) as required by law.

The depletion of rock lobster fisheries CRA 1 (Northland) and CRA 2 (Hauraki-BOP) and the consequent proliferation of kina barrens could have been prevented if the purpose and principles of the Act were comprehensively applied. Successive Fisheries Ministers, through FNZ, have failed to avoid, remedy, or mitigate the adverse effects of fishing, and this was confirmed by the High Court's ruling for CRA 1 in 2022.¹

Rock lobster has been overfished, and the manner in which catch settings were established has failed to defend the stock or the rocky reef ecosystems. While rock lobster and other species are managed at levels that prioritise harvest and ignore the wider ecosystem, we will not have abundant, functioning marine ecosystems.

The New Zealand Sport Fishing Council has advocated for more [precautionary management](#) of rock lobster populations for more than two decades. Considerable investment has been put into involvement in the National Rock Lobster Management Group and into developing comprehensive

¹ Environmental Law Initiative v Minister for Oceans and Fisheries [2022] NZHC 2969 [11 Nov 2022].

submissions every year advocating the need to rebuild the abundance and size structure of crayfish populations, to restore ecosystem function. That feedback is largely ignored and rarely reflected in advice to Ministers in favour of Management Procedures that support maximum commercial yields.

The ongoing persistence by officials to permit the harvest of depleted species from degraded ecosystems is incoherent. The Minister must be advised that he cannot lawfully set catch limits each year whilst shallow reef ecosystems have been degraded due to the cumulative effects of fishing.

Now, we've reached the point where conservation alone will not save our rock lobster populations and associated ecosystems, and there is an urgent need for a recovery plan.

In its current state a Total Allowable Catch (**TAC**) cannot be lawfully set for CRA 2. A recovery plan is required and immediate actions are needed, a pause on rock lobster harvest is required until CRA 2 is subdivided and until fishery-independent assessments are reported so separate catch limits can be lawfully set for each sub-divided area. When the stock is sufficiently abundant to allow for harvest whilst allowing rock lobster to fulfil their natural ecosystem role, the recovery plan will guide a new method for establishing a precautionary TAC, with effort limits on commercial operations.

It is evident that management is failing and the status quo is no longer an option. The Minister and FNZ have had their chance to effectively manage rock lobster. In 2022 the [CRA 1 High Court decision](#) issued directions about not crossing the environmental bottom line, and the abject failures of breaching that limit are evident in CRA 2.

The status of CRA 2 is another example of commercial interests internalising the benefits of depleting our natural resources while passing on the costs of extraction to future generations.

As kaitiaki [guardians] of taonga, our precious crayfish, our first priority must be to stop the depletion, then work out a way to restore abundance, indigenous biodiversity and ecosystem function.

Recommendations

1. **The Minister acknowledges** that a Total Allowable Catch cannot be lawfully set for CRA 2 whilst there are significant areas of known depletion.
2. **The Minister does not approve** any increase to the Total Allowable Catch for CRA 2.
3. **The Minister approves** the sub-division of CRA 2 into smaller management areas that will allow targeted management and monitoring for each sub-divided area.
4. **The Minister directs Fisheries New Zealand** to develop and support new fishery-independent surveys of rock lobster size and abundance for the whole CRA 2 Quota Management Area.
5. **The Minister directs Fisheries New Zealand** to develop a recovery plan package of measures which will support the long-term management of rock lobster and contribute to the functioning of kelp forest ecosystems, including but not limited to –
 - a. A new method for setting appropriate catch limits;
 - b. Splitting the CRA 2 Quota Management Area into a minimum of two smaller areas;

- c. Setting commercial pot/effort limits;
 - d. Support for current, new and ongoing fishery independent surveys of rock lobster; and
 - e. Setting a long-term management target that takes into account ecosystem considerations.
6. **The Minister supports** a programme to independently monitor water temperature in CRA 2 as the impacts of critical temperature events on rock lobster is not well understood and needs to be considered, which means precaution is essential when setting catch limits.
 7. **The Minister does not support a closure** of the inner Hauraki Gulf. Separate management settings for all of statistical area 905 and the Hauraki Gulf Marine Park are needed as part of a CRA 2 recovery plan.
 8. The Minister seeks to set a long-term management target for CRA 2 to rebuild the population to a more natural abundance and size structure, allowing rock lobster to fulfil their role as predator and prey.
 9. **Fisheries New Zealand provides to the Minister** advice on setting commercial pot/effort limits as a measure to improve the management of rock lobster which will contribute to overall ecosystem functioning over the long-term.
 10. **We recommend** the National Rock Lobster Management Group is disbanded, and full management responsibility is returned to the Minister for Oceans and Fisheries.

The submitters

11. The New Zealand Sport Fishing Council (**NZSFC**) appreciates the opportunity to submit on the review of proposed measures for rock lobster (*Jasus edwardsii*), in Quota Management Area CRA 2. Fisheries New Zealand's (**FNZ**) [Discussion Paper 2024/33](#) was received on 13 December 2024, with submissions due by 29 January 2025.
12. The New Zealand Sport Fishing Council is a recognised national sports organisation with over 37,000 affiliated members from 55 clubs nationwide. The Council has initiated LegaSea to generate widespread awareness and support for the need to restore abundance in our inshore marine environment. Also, to broaden NZSFC involvement in marine management advocacy, research, education and alignment on behalf of our members and LegaSea supporters. www.legasea.co.nz
13. The New Zealand Angling and Casting Association (**NZACA**) is the representative body for its 24 member clubs throughout the country. The Association promotes recreational fishing and the camaraderie of enjoying the activity with fellow fishers. The NZACA is committed to protecting fish stocks and representing its members' right to fish.

14. The New Zealand Underwater Association (**NZUA**) comprises three distinct user groups including Spearfishing NZ, affiliated scuba clubs throughout the country and Underwater Hockey NZ. Through our membership we are acutely aware that the depletion of inshore fish stocks has impacted on the marine environment and the wellbeing of many of our members.
15. Collectively we are *'the submitters'*. The joint submitters are committed to ensuring that sustainability measures and environmental management controls are designed and implemented to achieve the Purpose and Principles of the Fisheries Act 1996, including "maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations..." [s8(2)(a) Fisheries Act 1996].
16. Our 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 Helen Pastor, secretary@nzsportfishing.org.nz.

Fisheries New Zealand's proposals

17. Fisheries New Zealand (**FNZ**) has released a [Discussion Document](#) with a suite of proposals for the future management of rock lobster in CRA 2. The proposals include changes to the Total Allowable Catch (**TAC**) and potential closures for selected areas. FNZ are also seeking public feedback on a longer term management target for CRA 2.

Total Allowable Catch

18. FNZ are proposing three options for the CRA 2 TAC settings (**Table 1**). The Minister must first set a TAC taking into account the purpose and principles of the Fisheries Act 1996 (**the Act**) and international treaty obligations.

The current TAC is 173 tonnes:

- a. Option A1 proposes to retain the status quo.
- b. Option A2 increases the TAC by 1.5 t to 174.5 t, which includes an increase to the Total Allowable Commercial Catch (**TACC**) by 10 t from 80 t to 90 t, reduces the allowance set aside for all other mortality caused by fishing by 8.5 t to 34 t, and retains the allowances for Customary Māori (16.5 t) and Recreational (34 t) interests.
- c. Option A3 increases the TAC by 15.5 t to 188.5 t, including an increase in TACC by 20 t to 100 t, a reduction in allowance set aside for all other mortality caused by fishing by 4.5 t to 38 t, and retains the allowances set aside for Customary Māori and Recreational interests.

Table 1: Proposed catch settings (in tonnes) for CRA 2 from 1 April 2025.

Option	TAC	TACC	Allowances		
			Customary Māori	Recreational	All other mortality caused by fishing
Option A1 (status quo)	173	80	16.5	34	42.5
Option A2	174.5 (↑ 1.5)	90 (↑ 10)	16.5	34	34 (↓ 8.5)
Option A3	188.5 (↑ 15.5)	100 (↑ 20)	16.5	34	38 (↓ 4.5)

Spatial management

19. FNZ are also proposing spatial management measures (closures) as a means to address areas of low rock lobster abundance (**Table 2**). FNZ advise that these closures would support the recovery of rock lobster populations, which may in turn restore their role in the coastal ecosystem and help to address the issue of sea urchin barrens. If approved, the closure will be implemented under section 11 of the Act and the efficacy of the closure will be reviewed in a minimum of 10 years.
20. Table 2 outlines the proposed closures. Option B1 maintains status quo, no additional closures beyond existing measures and proposed new High Protection Areas (**HPAs**). Option B2 proposes a closure to the inner Hauraki Gulf to all commercial and recreational rock lobster fishing under section 11 of the Act (**Figure 1**).

Table 2: Proposed spatial management measures.

Option	Action	Description
Option B1	Maintain status quo	No additional spatial management of rock lobster fishing is proposed beyond the existing marine reserves, mātaítai, and proposed new High Protection Areas (HPAs) provided for in the Hauraki Gulf / Tikapa Moana Marine Protection Bill. ¹³
Option B2	Close the inner Hauraki Gulf to all commercial and recreational rock lobster fishing	Closure of the inner Hauraki Gulf (specifically waters south of a straight line that extends from the southern boundary of the Cape Rodney-Okakari Point Marine Reserve to Port Jackson Bay, top of the Coromandel Peninsula) to all commercial and recreational rock lobster fishing, in addition to existing marine reserves, mātaítai, and proposed new HPAs provided for in the Hauraki Gulf / Tikapa Moana Marine Protection Bill.

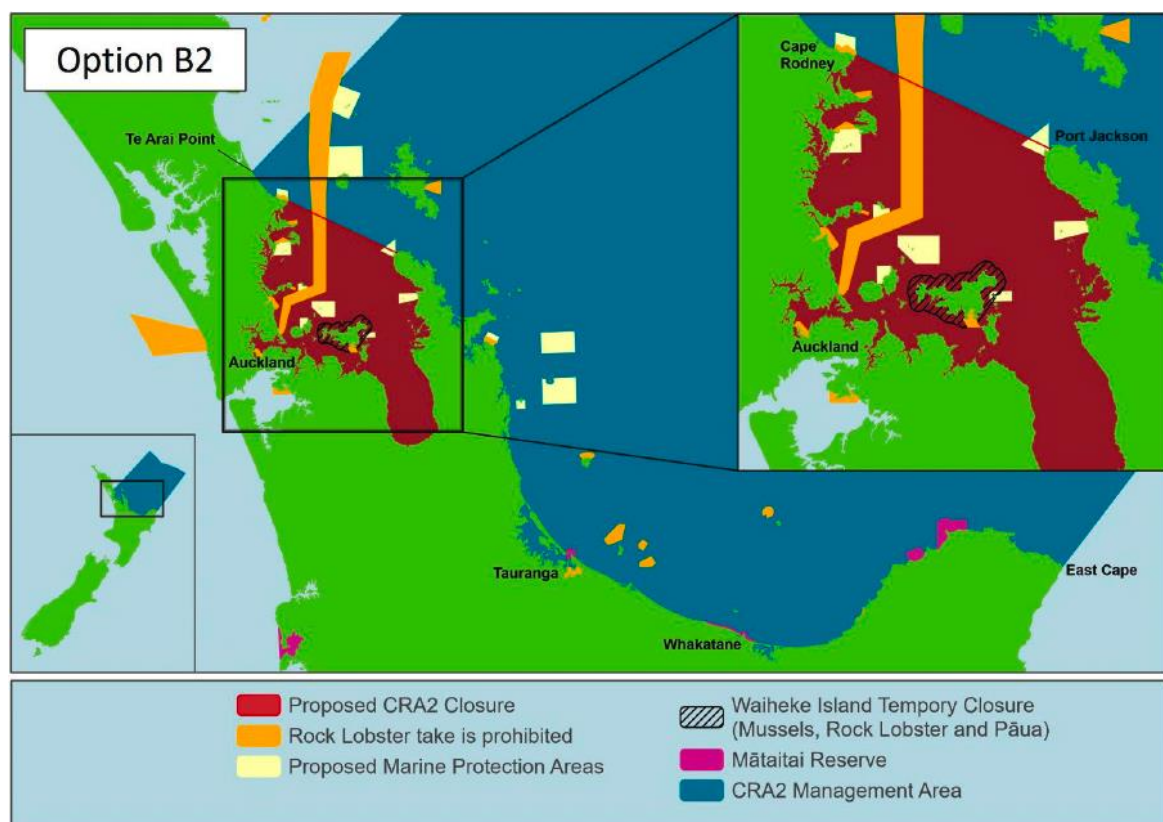


Figure 1. Existing and proposed spatial management measures for the CRA 2 QMA.

21. The submitters reject these FNZ proposals based on the need for the Minister to meet his statutory duty to **ensure sustainability**, including maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations, and to avoid, remedy or mitigate any adverse effects of fishing on the marine environment. As per the purpose and principles of the Fisheries Act 1996, sections 8 to 10.

Background

CRA 2 management

22. Rock lobster is an important species and fishery for all sectors in Aotearoa New Zealand. In the past rock lobster were abundant and played a significant role in coastal ecosystems. Large catches were taken out of some ports in the 1920s for canning and export to Europe. Widespread commercial rock lobster fishing has occurred since the 1930s.
23. The CRA 2 commercial landings for the 2023–24 fishing year were 80 tonnes. An updated estimate of recreational harvest from the [2022–23 National Panel Survey](#) in CRA 2 was 9.9 tonnes (+/- 3.10 t), not including 1.20 tonnes of catch taken for personal use while commercial fishing (section 111 landings) and 910 kg of reported amateur charter vessel catch.² The majority of recreational harvest is hand gathering via diving, with a small amount harvested by potting.³
24. The commercial quota year applying to rock lobster is 1 April to 30 March the following year. The minimum legal size (**MLS**) for harvesting male rock lobsters is 54 mm tail width (**TW**) and a minimum of 60 mm TW applies to female rock lobster. These apply to commercial and recreational harvest.
25. In 2018, the Minister at the time, Stuart Nash, [reviewed CRA 2](#) and significantly reduced the TACC due to sustainability concerns. The TAC was reduced from 416.5 t to 173 t, reducing the recreational allowance from 140 t to 34 t, reducing the allowance for all other sources of mortality to 42.5 t and reducing the TACC from 200 t to 80 t.
26. Later in 2020, the recreational daily bag limit was halved from 6 to 3 rock lobsters, within a combined daily bag limit of 6 including packhorse crayfish. This reduction was to contribute to the stock rebuild. [Telson clipping](#) was also introduced to discourage black market sales of

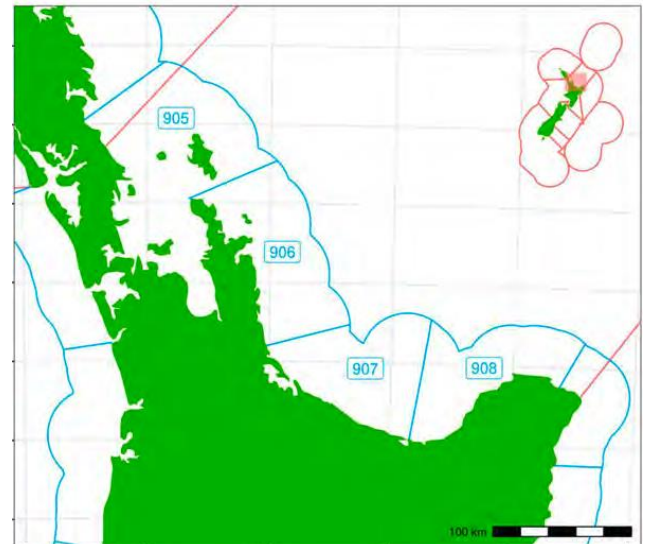


Figure 2. CRA 2 quota management area and statistical areas.

² Review of sustainability measures for spiny rock lobster fishery (CRA 2). Fisheries New Zealand Discussion paper No: 2024/33. December 2024. At [85]

³ At [84]

recreationally caught crayfish. At the time we [submitted in support](#) of an interim bag limit reduction to 3 rock lobster to help rebuild the CRA 2 population.

27. No pot limits apply to commercial fishers. Recreational fishers are limited to 3 pots per person, and up to 6 pots for 2 or more people fishing from a boat.
28. In 2014, the NZSFC and LegaSea [submitted](#) that the rock lobster abundance in CRA 2 was depleted and the Minister must address the long-term depletion evident in CRA 2.
29. Again in 2018, the NZSFC, LegaSea and the New Zealand Angling and Casting Association highlighted concerns regarding the state of CRA 2 and [submitted](#) in support of the Minister's option to close the CRA 2 fishery, acknowledging that this would have negative social and economic effects. A [public survey](#) by NZSFC and LegaSea with 3541 respondents, indicated that the majority of respondents at the time supported a closure of CRA 2 to all rock lobster fishing.
30. **FNZ and successive Ministers have missed the opportunities to take decisive action to rebuild the abundance of rock lobster and restore ecosystem function.**

Status of CRA 2

31. The stock status for CRA 2 is unknown. FNZ have relied on establishing the status of the stock by using a model that has relied heavily on Catch Per Unit of Effort (**CPUE**) records self-reported by some commercial fishers. It is obvious to non-commercial fishers and independent divers that the FNZ stock assessment model fails to align abundance, as described by computer models, with actual observed abundance. The divergence between the modelling and real-life observations has been growing for almost 30 years.
32. We submit that the recent stock assessment (2022) and successive rapid assessment updates are not just uncertain, but are not fit for the purpose of setting the TAC, the TACC or allowances, or establishing ecosystem-based management targets.
33. **The FNZ stock assessment for CRA 2 is rejected in full.**
34. We submit that is irresponsible at the least, and arguably ultra vires, for FNZ to present the stock assessment to the Minister as the best available information.
35. The NZSFC has pointed out for years the pitfalls of using fishery-dependent data as the foundation of a model that uses CPUE is a proxy for abundance ([2013](#), [2014](#), [2018](#)). What is required is an independent sampling programme that samples random areas of rock lobster habitat. Currently, using CPUE gathered from the places where commercial fishers operate only samples a portion of the QMA - the portion holding the largest relative abundance. And because commercial fishers do not target depleted areas, these areas are not sampled so they do not feature in the data – it's as if they do not exist, are unimportant. In using CPUE, the TAC is set based on the assumption that there is equal abundance in all areas of CRA 2, when we know this is not true.

36. The submitters do not see the point in going through the stock assessment and comments made by FNZ on the state of the stock. The stock assessment process cannot establish the state of the stock or predict what will result from various possible catch settings. The assessment outputs are imaginary fish within an imaginary fishery – their presence is not established and for assessment purposes exist only in a computer.
37. We submit the beginning point of the current assessment must be the abundance observed and recorded by independent surveys.
38. The University of Auckland has conducted region-wide dive surveys in the Hauraki Gulf Marine Park that provided fisheries independent information to evaluate the status of adjacent rock lobster stocks. Marine protected areas were dominated by large, legal-size individuals, whereas lobster in fished locations were mostly below or around legal-size. Total, vulnerable, and spawning stock biomass was 12-43 times higher within MPAs compared to fished locations. Overall, biomass at fished locations was <10% of that in reserves and there was little evidence of recovery following catch reductions. This fisheries-independent data suggests that recent stock assessments have severely overestimated the recovery and state of lobster populations in the Hauraki Gulf and that populations on shallow reefs remain depleted. Most of the fished sites were around the Mokohinau Islands, Aotea/Great Barrier Island, Hauturu/Little Barrier Island, and Mercury Islands, not the inner Hauraki Gulf.⁴
39. We submit that in statistical area 905 5% ($B_{0.05}$) is close to observed abundance (**Figure 2**). The range of rock lobster has been steadily contracting for 30 years as areas have become depleted and are not repopulated by recruitment. Large expanses of coastline hold very few rock lobster, it is now rare to encounter any. There are still areas inhabited by rock lobster, however, the population size structure is highly truncated – the large rock lobster are gone, with a loss of their ecosystem services.
40. It is essential that the stock assessment information included in the consultation paper is wholly rejected as implausible. It is irrelevant if there is a section on the prospect of closing areas in the Hauraki Gulf to rock lobster fishing because there are so few left, particularly in the inner Gulf. This stock assessment is for CRA 2. Te Arai Point to East Cape. With observed abundance being far below any level that will support continued removal in statistical area 905, FNZ's discussion document is full of contradictions and is inadequate to allow the Minister to lawfully set a TAC.
41. Currently, the Minister sets the TAC, allowances and the TACC for the whole of the CRA 2 Quota Management Area (**QMA**). Within that QMA are five statistical reporting areas – 905, 906, 907, 908 and 909 (**Figure 2**). Catch data is collected and reported for each of these areas. Within the QMA is the Hauraki Gulf Marine Park (**HGMP**). The Park straddles statistical areas 905 and 906. The Park has its own legislation that promotes a modified purpose which is weighted in favour of ecosystem function and health of the marine environment in general – while the Fisheries Act is more generalised.

⁴ Nessia HR, Hanns BJ, Haggitt TR, Shears NT (2024) Using marine protected areas to assess the status and recovery of the spiny lobster *Jasus edwardsii* fishery in the Hauraki Gulf, Aotearoa New Zealand.

42. Neither the Fisheries Act nor the Hauraki Gulf Marine Park Act ever contemplated stocks being reduced to less than 10% of the natural size and becoming functionally extinct.
43. For FNZ to contemplate increasing catch when the stock within the HGMP is in such poor condition is incoherent. The first option offered to the Minister by FNZ must be to close the fishery until it rebuilds to a naturally size structured state and delivers the natural ecosystem services required to contain and eliminate sea urchin barrens. That is the legal requirement, as clarified by the High Court in 2022.
44. Ultimately, the recovery of rock lobster stocks is uncertain and relying on anything from the stock assessment outputs is risky, contrary to the requirement on the Minister to act in a precautionary manner.
45. The stock assessment process has led us here and it will not allow us to escape from poor policy prescription. A truly sustainable fishery will only exist when the rock lobster abundance recovers to where natural ecosystem services are provided and rocky reefs recover to a natural balance of species and productivity.
46. **We cannot fish our way towards abundance and no amount of computer generated stories will provide the necessary defence for the Minister setting a TAC based on existing assessments, when challenged.**

Ecosystem degradation

47. Rock lobster within the Hauraki Gulf have been termed as being “[functionally extinct](#)”, not able to fulfil their natural ecosystem role. The lack of predators has driven the proliferation of sea urchin barrens within the Gulf and throughout the east coast of the North Island where localised depletion has occurred. FNZ have loosely defined a sea urchin barren as:

“sea urchin dominated areas of rocky reef that would normally support healthy kelp forest but have little or no kelp due to overgrazing by sea urchins.”⁵

48. There are two primary species of sea urchin known to cause barrens on temperate rocky reefs in New Zealand. Kina (*Evechinus chloroticus*) is endemic to New Zealand, and long-spined urchins (*Centrostephanus rodgersii*) which have been known to occur in New Zealand since the 1920s or earlier. *Centrostephanus* is less common, however, with warming water and changing ocean currents, their spatial distribution is expanding and abundance has been increasing.
49. Heavy grazing by urchins have turned previously diverse rocky reef habitats into barren areas with low biodiversity and productivity. This ecosystem imbalance is a clear example of where the single-species based Quota Management System (**QMS**) has failed and the Minister and FNZ have resiled from administering the Fisheries Act as lawfully required. This failure was discussed at length in the CRA 1 High Court decision, in 2022.

⁵ Doheny B., Davis J.P., Miller B. (2023). Fishery-induced trophic cascades and sea urchin barrens in New Zealand: a review and discussion for management.

50. The formation of urchin barrens is thought to be driven by a combination of factors including changes in environmental conditions and a significant reduction in the number of predators causing a fishery-induced trophic cascade. In northeastern New Zealand, fishing of top reef predators is considered to be a key factor driving the proliferation of kina, resulting in extensive kelp loss and expansion on urchin barrens.⁶
51. Large snapper (*Pagrus auratus*), blue cod (*Parapercis colias*) and rock lobster are accepted as the predators of kina. Both snapper (SNA 1) and rock lobster (CRA 1 and CRA 2) populations have historically been fished down to levels where they cannot fulfil their natural ecosystem services. The lack of natural predators of sea urchins, including rock lobster, has contributed to a significant adverse effect on the ecosystem and the Minister has a statutory obligation to avoid, remedy or mitigate the adverse effects of fishing on the marine environment as well as the target and non-target species.
52. In New Zealand, the occurrence and severity of sea urchin trophic cascades is complex. Many reef finfish, invertebrates and macroalgae have been displaced by urchin barrens. A number of reef fish are also known to eat juvenile kina or kina spat. Yet these species have been continued to be excluded from the urchin barren conversation. Setnet fishing on reefs has also contributed to the depletion of long-lived resident fishing across the north east coast.
53. Reducing the extent of urchin barrens and preventing further formation of barrens will require a combination of active and passive measures including fine-scale management of fishing and active habitat restoration. But active restoration efforts are pointless unless the Minister and FNZ can contribute to the long-term control of urchin populations and the recovery of rock lobster populations and rocky reef ecosystems as a whole.

CRA 1 High Court decision

54. In 2022, the Environmental Law Initiative (**ELI**) and a Northland hapū challenged the Minister for Oceans and Fisheries' decisions for CRA 1, made in 2020/21 and 2021/22. Recreational fishers supported the legal challenge and the NZSFC was a third party intervenor.⁷ The NZSFC was one of three intervenor parties to the judicial review proceedings challenging the Minister's 2021/22 and later 2022/23 decisions for the future management of CRA 1.
55. ELI successfully argued the Minister had been misled, using inaccurate and outdated information to make his decisions. In November 2022 Justice Churchman (**Churchman J**) of the High Court [upheld the challenge](#) and directed the Minister to reconsider the 2022/23 decision for CRA 1 using best available information and in accordance with the judgment.
56. The High Court provided clarification on the Minister's responsibilities in terms of setting the TAC. Churchman J. described those responsibilities (in part) as follows –

⁶ Discussion of proposed measures for the Northland spiny rock lobster fishery (CRA 1). Fisheries New Zealand Discussion paper No: 2024/30. November 2024

⁷ Environmental Law Initiative v Minister for Oceans and Fisheries [2022] NZHC 2969 [11 November 2022].

*“When setting or varying [the] TAC the Minister **must take into account any effects of fishing on any stock and the aquatic environment.** ‘Effect’ means the direct or indirect effect of fishing, including any positive, adverse, temporary, permanent, past, present, future, and/or cumulative effect. ‘Fishing’ means the catching, taking, or harvest of fish, aquatic life, or seaweed.”⁸ [emphasis added]*

57. In August 2024, [ELI challenged the remade \(2023\) decision](#). ELI’s key concern is that FNZ continues to ignore a key part of the law which requires a more ecosystem-based approach to fisheries management. We are still waiting for the High Court’s decision.

Discussion – proposed TAC and spatial management

58. FNZ are proposing to increase catch limits in CRA 2 based on an opportunity for utilisation, however, within the same proposal they have made a contradictory statements including -

“...concerns about localised depletion have been raised by numerous stakeholders across much of CRA 2, particularly in relation to the inner Hauraki Gulf.”⁹

59. The submitters share the same concerns as other stakeholders and reports from members of the public, that the biomass of rock lobster in CRA 2 is low and ecosystem function is unstable.

60. In this submission we make recommendations so the CRA 2 fish stock can rebuild to a more natural level assisted by contributions from all sectors.

61. The submitters acknowledge that there may be small pockets of abundance spread throughout CRA 2. Anecdotal reports suggest rock lobster are more abundant in the Bay of Plenty than in the Gulf. This abundance is seen as an improvement compared to earlier depleted levels, coming from a very low baseline. There is likely to be some resistance to closing the area to rock lobster fishing given the reported availability of crayfish in the Bay of Plenty. However, in the absence of a reliable index of abundance, and that the best available information points to the CRA 2 stock being below 10% of unfished biomass, the Minister has a statutory duty to manage the stock across the whole area, from Bream Bay to East Cape.

62. We are concerned that increasing the TAC in CRA 2 will reverse any recovery efforts that have been made by all sectors in recent years.

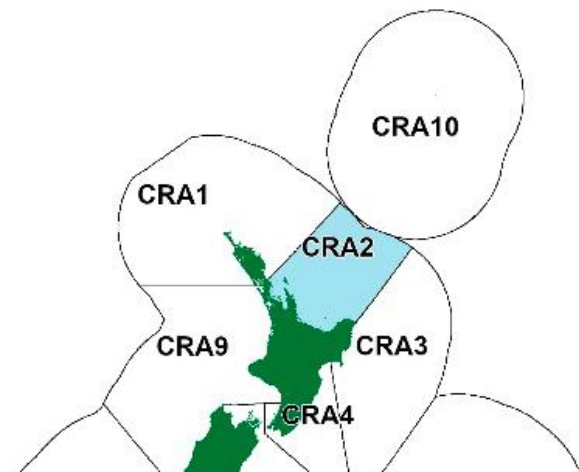


Figure 3. CRA 2 Quota Management Area shaded blue

⁸ At 22.

⁹ Review of sustainability measures for spiny rock lobster fishery (CRA 2). Fisheries New Zealand Discussion paper No: 2024/33. December 2024. At page 12.

63. We submit that given the current state of CRA 2, the Minister cannot lawfully set a TAC permitting catch to be removed from a severely depleted ecosystem. Current catch levels are not allowing the whole of CRA 2 to rebuild. FNZ’s proposal to increase catch limits for CRA 2 whilst acknowledging in their discussion document that there are areas of depletion is unintelligible.
64. FNZ also state –
*“any increase to the TAC is expected to lead to increased fishing effort. As catch is not evenly distributed across CRA 2, this may lead to an aggregation of fishing effort at specific locations, that in turn could lead to localised depletion.”*¹⁰ This will only be exacerbated by more closures.
65. It is obvious that with the introduction of spatial closures and increases in catch limits, fishing effort will be displaced. This leaves open areas around Aotea Great Barrier and neighbouring islands at risk of further depletion. There are already anecdotal reports from locals and published scientific surveys show that rock lobster abundance is low. Additionally, a [section 186A application](#) was submitted in 2022 to prevent the removal of rock lobster from Aotea Great Barrier, Hauturu-o-Toi Little Barrier, the Mokohinau Islands, Simpson and Horn Rocks. A decision from the Minister on this application is still pending.
66. Establishing a closure to rock lobster fishing for the inner Gulf does not resolve any concerns of localised depletion in other areas and will only make matters worse with increased catch limits.
67. In the April 2024 Sustainability Round, on the [decision for CRA 3](#), the Minister stated –
“...the TAC is the primary tool to ensure sustainability and I am required to set a TAC that satisfies the requirements of the Fisheries Act 1996...”
68. Fisheries are managed at the QMA level, the Minister must consider the whole of CRA 2 when setting a TAC. Given the state of CRA 2, the Minister cannot lawfully set a TAC. The Minister has a **statutory obligation to avoid, remedy or mitigate the adverse effects of fishing on the marine environment**. When setting a TAC the Minister **must take into account any effects of fishing on any stock and the aquatic environment**.
*“Effect means the direct or indirect effect of fishing, including any positive, adverse, temporary, permanent, past, present, future, and/or cumulative effect. ‘Fishing’ means the catching, taking, or harvest of fish, aquatic life, or seaweed.”*¹¹
69. In its current state, a pause on rock lobster fishing is required in CRA 2 to allow for the implementation of an agreed rock lobster recovery plan. The submitters acknowledge that a large scale closure to rock lobster fishing would be unpopular even amongst our own constituents. However, the rock lobster population on the northeast coast in particular is in such a dire state that this must be considered, at least discussed and debated. The Minister is obliged to apply the law when making management decisions. As clarified by Justice

¹⁰ Review of sustainability measures for spiny rock lobster fishery (CRA 2). Fisheries New Zealand Discussion paper No: 2024/33. December 2024. At page 12.

¹¹ Environmental Law Initiative v Minister for Oceans and Fisheries [2022] NZHC 2969 [11 November 2022]. At [22]

Churchman, and admitted by the then Minister, Ministerial decisions must be informed by the best available information.

70. Managing fisheries at the QMA level is just one downfall of the QMS. Fine-scale management is required to improve the long-term sustainability of all rock lobster stocks.
71. **We submit that whilst rock lobster in CRA 2 is managed at such a large scale, the TAC needs to be reset and FNZ work with stakeholders to develop a recovery plan that will allow for future sustainable utilisation.**
72. **The submitters insist** that a TAC cannot be lawfully set for CRA 2 whilst there are significant areas of known depletion, and while the ecosystem is degraded and kina barrens continue to expand.

CRA 2 recovery plan

73. The Minister's first responsibility is to stop the depletion of rock lobster, the Minister must do this by first resetting the TAC. The following section provides recommendations on measures that need to be considered as part of a strategy to monitor the fishery and gradually reopen discrete areas for long-term sustainable utilisation. Splitting the CRA 2 QMA into a minimum of two smaller manageable areas would be required for long-term fine-scale management.

Fishery-independent surveys

74. FNZ does not independently monitor fish stocks, it relies on self-reported information submitted by commercial fishers. We insist that fishery-independent surveys will be essential for the long-term management of rock lobster and to assess rock lobster abundance and ecosystem changes over time.
75. [Past published fishery-independent surveys](#) of inside and outside marine reserves in the Hauraki Gulf and eastern Coromandel indicated that rock lobster populations are less than 10% of unfished levels. These surveys question the robustness of previous stock assessments and provide little evidence that rock lobster populations within the Hauraki Gulf have recovered since the large commercial catch reductions in 2018.
76. Recent published fishery-independent information needs to be taken into account when reviewing fish stocks. Leading marine ecologists compared rock lobsters populations on shallow reefs (<20 m depth) in three marine reserves with six fished locations across the Hauraki Gulf to provide a fisheries-independent assessment and the degree of recovery following catch reductions. Region-wide surveys found that rock lobster populations within protected areas were dominated by large, legal-size individuals, whereas lobster in fished locations were mostly below or around legal-size. Total, vulnerable, and spawning stock biomass was 12–43 times higher within marine protected areas (**MPA**) compared to fished locations. From 2021–22 their

mean estimate for spawning stock biomass was 5%, suggesting a small improvement from 3% in 2018–19.¹²

77. This fisheries-independent data suggest that recent stock assessments have severely overestimated the recovery and state of lobster populations in the Hauraki Gulf and that populations on shallow reefs remain depleted. Overall, biomass at fished locations was <10% of that in reserves and there was little evidence of recovery following catch reductions.¹³ These findings highlight the critical need for fisheries-independent data and the value of MPA monitoring data in evaluating population status and recovery following fisheries management actions.
78. **The submitters support** the need for independent monitoring of water temperature. Evidence from CRA 3 and elsewhere indicates that critical temperature events for rock lobster need to be considered, which again emphasises the need for precaution when setting catch limits.
79. **The submitters insist** the Minister directs FNZ to establish and support new and ongoing fishery independent surveys of rock lobster throughout CRA 2. Once abundance and the state of the environment has been assessed, fisheries managers can determine whether smaller, discrete areas can begin to be opened for restricted levels of rock lobster harvest.

Commercial effort limits

80. Non-commercial cray fishers are limited in the amount of fishing effort able to be lawfully deployed – the use of a maximum of 3 pots per person. Commercial fishers have no effort limit – they may lawfully deploy as many pots as they wish. The effect of not limiting commercial effort was clearly displayed as a primary cause in the collapse of CRA 2.
81. We note the successful management of West Australian rock lobster stocks using a mix of quota and pot limits to avoid the proliferation of pots in popular fishing spots, as has occurred around the Coromandel, Aotea and other offshore islands. In WA, each commercial fisher has limited units of effort and catch. Fishing stops whenever the first of these units are met. The pot limit is effective in preventing stock collapse, and rebuilding stocks are protected by the catch limit. A win-win for the fishery and for future generations.
82. Limiting total catch is a raw and unsophisticated policy. The High Court judgment clarified that a broader view must be taken of the effects of fishing while clearly identifying the limitation of just setting single-species catch limits.
83. Catch limits become completely ineffective if fishing effort is able to increase and maintain catches when fish stocks are declining. Relying on CPUE without understanding efficiency gains as an index of abundance is a delusion, and is perfectly reflected in the collapse of CRA 2. Policy must progress beyond reliance on catch limits.

¹² Nessia HR, Hanns BJ, Haggitt TR, Shears NT (2024) Using marine protected areas to assess the status and recovery of the spiny lobster *Jasus edwardsii* fishery in the Hauraki Gulf, Aotearoa New Zealand.

¹³ Nessia HR, Hanns BJ, Haggitt TR, Shears NT (2024) Using marine protected areas to assess the status and recovery of the spiny lobster *Jasus edwardsii* fishery in the Hauraki Gulf, Aotearoa New Zealand.

84. Despite such an obvious policy gap, FNZ propose possible restrictions across recreational fishing, yet remains silent on matters of commercial fishing effort which the submitters have consistently raised as a vital factor for effective management.
85. We submit that the lack of any effort limits applying to commercial fishing reduces the effectiveness of past catch reductions; both effort limits and catch controls are required for stocks with moderate productivity and variable recruitment. A broad age structured rock lobster population cannot be maintained by catch limits alone, and this policy gap needs urgent reform.
86. In the rock lobster fisheries effort limits can be easily applied, and depletion can be detected much sooner. Each vessel must be limited in the number of pots able to be lawfully deployed. If there is insufficient catch from the designated number of pot lifts the signal of depletion will become very clear.
87. An effort limit on commercial rock lobster harvest will contribute to mitigating the formation of urchin barrens in the long-term.
88. Given the Minister's statutory responsibilities as clarified by the High Court, to create an environmental 'bottom line' of sustainability, **the submitters recommend this policy gap must be addressed immediately.**
89. **The submitters recommend that an effort and pot limit must be applied to commercial fishing in CRA 2.**

Regulatory capture

90. An effective regulatory regime is necessary for fisheries to be managed and operated efficiently and equitably. It is inevitable that the regulator will become captured, but the degree of capture will vary across agencies from low to high. Strong capture violates the public interest to such an extent that the public would be better served by either (a) no regulation of the activity in question – because the benefits of regulation are outweighed by the costs of capture, or (b) comprehensive replacement of the policy and agency in question (Carpenter and Moss 2014: 11).
91. Fisheries in general, and rock lobster in particular, suffer from strong regulatory capture in New Zealand. In CRA 2 the stock assessment outputs are generated in concert by an industry lobby and government agency. The harvest strategies devised by this process are preoccupied with maximising commercial catch, often using contrived models to support the strategy. The steady decline of age structure and abundance in CRA 1 and CRA 2 over time contradict the harvest strategies. Neither CRA 1 or CRA 2 will survive to rebuild to functional levels while this process continues.
92. The regulatory environment has become heavily captured and the popular quote attributed to Albert Einstein seems appropriate: *'No problem can be solved from the same level of*

consciousness that created it'. Over time it has become more obvious that the problem of overexploitation will not be solved with current actors and processes.

93. **We recommend** the National Rock Lobster Management Group is disbanded, and full management responsibility is returned to the Minister for Oceans and Fisheries who can then apply policy that values abundance and ecosystem function over a short term desire for maximum catches, as required by law.

Independent review of rock lobster assessment processes

94. In July 2024, an international, fully independent panel of three scientists met to receive and evaluate information on the Rock Lobster Stock Assessment Model, the associated biological reference points, the Management Procedures, and the Rapid Assessment Updates that have been used in recent years. Twenty-five recommendations for future development and improvement were provided to FNZ and the public in a [final report](#).
95. FNZ have failed to mention any of these recommendations or the report in the CRA 2 discussion document.
96. Management Procedures and Rapid Assessment Updates are used in interim years between full stock assessments for rock lobster stocks. The panel commented on the use of these models in interim years in their recommendations and concluded –

“The objectives behind developing the management procedures should be made explicit, in particular, whether their intent is likely to increase risk to the stock.”

“The use of the management procedures appears inherently risky. Either find a way to demonstrate that increased risk is not occurring or only use the management procedures to keep the TACC stable or to decrease it.”

“As with Management Procedures, either find a way to demonstrate that increased risk is not a problem if the rapid update assessments are used to increase TACC, or, only use them to keep the TACC stable or decrease it.”¹⁴

97. One of the 25 recommendations from the independent review panel was for fishery-independent surveys to be conducted under repeatable and consistent frameworks aimed at reducing fisher-induced changes in the catchability of fish. Fishery-independent surveys are common practice in many lobster fisheries globally and inclusion of fishery-independent data into assessment have been shown to have positive stock and financial outcomes through robust assessments and less conservative quota set.¹⁵ This recommendation reinforces the necessity for fishery-independent surveys.

¹⁴ de Lestang, S.; Haddon, M.; Hoyle, S. (2024). Review of Red Rock Lobster Stock Assessment Modelling and the Determination of Management Reference Points.

¹⁵ Review of red rock lobster stock assessment modelling and the determination of management reference points. August 2024. Fisheries New Zealand. New Zealand Fisheries Science Review 2024/01. At [p.6]

98. Based on the conclusions from the independent review panel, marine ecologists, and the state of CRA 2 as reported by fishers and the public, **the Minister cannot lawfully increase the TAC for rock lobster until FNZ can provide a strategic plan for the recovery and future, sustainable management of rock lobster.**

Environmental bottom line

99. The purpose and principles in sections 8, 9 and 10 of the Act form an environmental bottom line to **ensure sustainability**. This bottom line applies to all species – none are exempt from the statutory obligation to ensure sustainability. The primary tool used to defend the bottom line is the setting of the TAC pursuant to s13 of the Act, for each stock.

100. The biomass that will provide the maximum sustainability yield (B_{MSY}) of any species is only a starting point at determining the environmental bottom line. From this theoretical point the Act's principles must be applied to describe and take into account the uncertainty, information fullness and reliability, international obligations, and to adopt the precautionary principle, as described by Churchman J. of the High Court:

“Accordingly, I accept Mr Salmon’s submission that the importance of the requirement relating to the use of the ‘best available information’ in a fisheries context, is somewhat elevated. Indeed, the purposes of the Act appear to create what could be described as an ‘environmental bottom-line’, and are accordingly complemented by a scheme that favours precaution”¹⁶. [emphasis added]

101. The single species focus has been ruled by the Court as insufficient. In considering the challenge to the Minister’s 2021 and 2022 decisions for CRA 1, the Court described how the Minister applies the Fisheries Act 1996, saying “there are two approaches to fisheries management that are identifiable at international law, being an ‘ecosystem approach’ and a ‘precautionary approach’:

- a. The ecosystem approach requires decision-makers to incorporate wider ecosystem effects into fisheries management, instead of considering sustainability with a single-species focus; and
- b. The precautionary approach stipulates that decision-makers are more cautious where information is uncertain, unreliable or inadequate¹⁷.

102. Full application of the relevant factors is required to ensure the bottom line is at least achieved; the bottom line is not an aspiration, it is a bottom line not to be breached.

103. Considering the High Court judgment, the latest proposal for CRA 2 from FNZ is a defiant dedication to the status quo, making as few concessions as may be lawful. It certainly doesn’t engage in the spirit and detail directed by the High Court.

104. In order for the Minister to make a lawful decision, officials must provide the Minister with more complete information that takes into account all of the uncertainties, and the interactions with associated and dependent species. In the absence of this information, the Minister is obliged to apply all of the Act’s principles in setting a TAC to achieve a stock size well above the

¹⁶ Environmental Law Initiative v Minister for Oceans and Fisheries [2022] NZHC 2969 [11 Nov 2022]. At [108]

¹⁷ Environmental Law Initiative v Minister for Oceans and Fisheries [2022] NZHC 2969 [11 Nov 2022]. At [16-17]

bottom line, to ensure sustainability.

Management targets

105. FNZ are seeking public feedback on a longer term management target for the CRA 2 fishery. The FNZ stock assessment team has developed a model-based method for estimating the biomass that will produce the Maximum Sustainable Yield (B_{MSY}) for rock lobster stocks. This is based on the same assumptions that CPUE is a reliable index of abundance and natural mortality is the same for all sizes of rock lobster. Based on past performance and flawed assumptions, we have dismissed this model as so inaccurate it cannot reliably be used for assessing current stock status or future biomass predictions.

106. The size distribution of all CRA 2 rock lobster is unknown. The model output in Figure 4 based on commercial logbook data represents the only the areas regularly fished. However, it does highlight that a management target needs to be significantly higher than the current B_{MSY} reference level to increase the number of large rock lobster and restore their natural function as predator and prey within the ecosystem. Any management target must include reference to the proportion of large rock lobster (>70 mm tail width) across all of CRA 2. It is unknown what stock level will deliver sufficient abundance and size structure to deliver the ecosystem services rocky reef ecosystems require. The correct target size structure and abundance will only be discerned by independent observation and when urchin barrens are retreating.

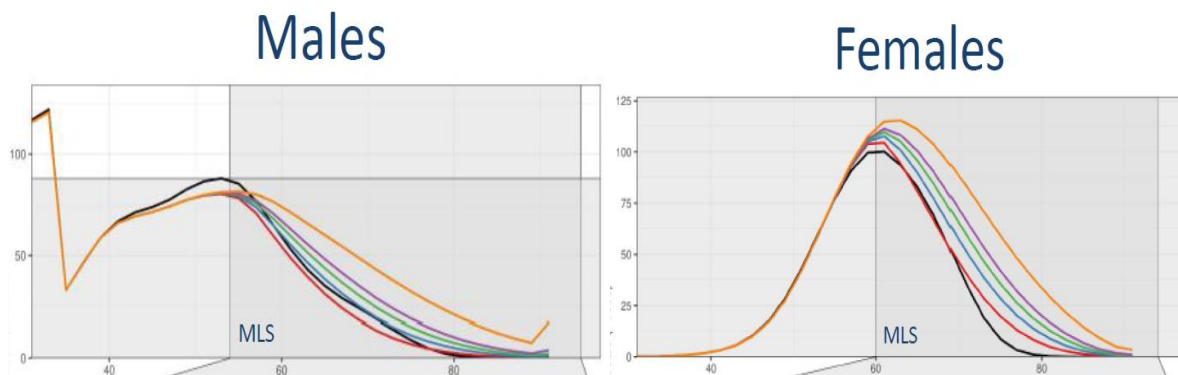


Figure 2. The predicted size distribution (mm tail width) of CRA 2 rock lobster under different management targets. MLS (vertical shading) is the minimum legal size by sex. Red line is the model prediction of managing at the B_{MSY} reference level.

107. Selecting a management target requires consideration of the range of potentially conflicting objectives (ecological, economic, cultural, and social). The models produced by FNZ only consider the assumed productivity of the stock and the maximum catch that can be sustained based on an uncertain historic performance. In the face of environmental change such as marine heat waves and ocean acidification, more precaution is needed than these models can suggest. The independent review panel commented on targets, stating –

“...with the marine environment undergoing significant directional changes, there are ecological advantages to building increased resilience by not ‘maximising’ catches, even in what can be perceived as healthy stocks.”¹⁸

108. The estimation of B_{MSY} reference levels as a proportion of the unfished level remains elusive due to the unknown size and age structure of the original biomass. Our concern is that it's not that current abundance is 12, 30 or 40% of the unfished size estimated in a model, it is that in most places all indications point to a stock size of 2, 3, or 5% of historic levels of abundance of large rock lobster from the eastern North Island prior to large-scale commercial fishing. Hence our preference for a real world observed state of nature to serve as a target.
109. Single stock model estimates of B_{MSY} management targets do not take into account wider ecosystem considerations or environmental interactions. Coastal kelp forests are important nursery areas for many species including newly settled rock lobster.
110. In CRA 1, 2, and 3, rock lobster were a major rocky reef ecosystem service provider. The original biomass in all three areas is not being recognised in modelling, because if the real degree of depletion was taken into account these stocks would be below the hard limit which would require the Minister to close the fishery. Consequently, we are presented with statistical models that start in 1980 and only use recent data to estimate the biomass of rock lobster in the absence of fishing. These do not match our reality or the available fishery-independent data, but clearly serve to maintain commercial catches.
111. There are multi-species models provide new perspectives on ecosystem function. These should be considered when establishing ecosystem-based management targets, particularly where applied in the New Zealand context and published in peer review journals such as the Journal of Marine science.¹⁹

“Exploitation of lobster showed the strongest ecosystem effects, followed by abalone and urchin. In all three fisheries, the current exploitation rate exceeds that which produces maximum sustainable yield, with considerable ecosystem effects. Interestingly, a reduced exploitation rate is predicted to increase target catches (and catch-per-unit-effort), thereby strongly reducing ecosystem effects, a win-win situation. Our results suggest that invertebrate exploitation clearly influences ecosystem structure and function, yet the direction and magnitude of responses depend on the target group and exploitation rate. An ecosystem-based fisheries management approach that includes the role of invertebrates would improve the conservation and management of invertebrate resources and marine ecosystems on broader scales”

112. Internationally, it is recognised that management targets can be informed by the science but it is up to stakeholders, tangata whenua, and fisheries managers to determine the wider

¹⁸ de Lestang, S.; Haddon, M.; Hoyle, S. (2024). Review of Red Rock Lobster Stock Assessment Modelling and the Determination of Management Reference Points.

¹⁹ Trade-offs between invertebrate fisheries catches and ecosystem impacts in coastal New Zealand. Tyler D. Eddy, Marta Coll, Elizabeth A. Fulton, Heike K. Lotze (2015)

management considerations and propose realistic targets for each rock lobster stock to the Minister.

113. Until rock lobster are managed at a level that allows them to fulfil their ecological role, they will not be able to contribute to the reduction of sea urchin populations and prevent the expansion of new urchin barrens.

114. The submitters consider success to be a return to the obvious abundance of rock lobster in CRA 2 and a gradual return to healthy kelp forests that maintain the biological and indigenous biodiversity of the marine environment.