

Conservation House
18 Manners Street
Wellington, 6011
doc.govt.nz

Ref: OIAD-5533

1 September 2025

Tēnā koe [REDACTED]

Thank you for your request to the Department of Conservation (DOC), received on 05 August 2025, in which you asked for:

I have serious concerns about the Department Of Conservation (DOC) addressing symptoms rather than causes of urchin barrens and not communicating those causes clearly.

*Your 13 June media release reports that divers removed more than “130,000 *Centrostephanus rodgersii* in a two-week trial involving 440 dives across six hectares” The same release notes that “~1.5 million urchins now occupy the reserve”*

At that removal rate (roughly 65 000 urchins per week), clearing the whole 1.5 million would take \approx 23 weeks – about five to six months of continuous effort. I’m interested in the total cost (staff, vessel time, dive gas, logistics) for the May 2025 two-week operation so I can compare the cost of this management approach to other options.

Question 1:

- A. What was the cost of the removal project.
- B. What would the cost have been without volunteers?

Is overfishing or climate change the root cause?

If predator depletion is the main driver

Long-term monitoring at the Poor Knights (1999-2022) shows lobster densities remain <1 individuals per 500 m²—orders of magnitude lower than in fully recovered reserves— despite a full fishing ban since 1998. Balemi and Shears (2023) go on to state that the lack of recovery may include:

1. *Limited larval supply associated with the small and isolated islands.*
2. *Limited shallow reef habitat for settlement.*
3. *A low regional pool of larvae associated with a severely depleted spawning population.*



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Question 2:

*What actions are the department considering to further understand the lack of recovery? For example, lobster translocations or requesting that Fisheries NZ increase larval supply for *Jasus edwardsii* and *Sagmariasus verreauxi*.*

If climate change is the dominant driver

*Long-term datasets show “sea-surface temperature at the Poor Knights has risen $\approx 0.25\text{ }^{\circ}\text{C decade}^{-1}$ (1999-2022)” and that *Centrostephanus rodgersii* abundance inside the reserve increased 9.3-fold over the same period.*

If the department has concluded that predation depletion is not the main driver, then:

Question 3:

*A. How is DOC explaining to the public and iwi partners that *Centrostephanus rodgersii* barrens are linked to ocean warming?*

Explanation.

A transparent explanation will help avoid the perception that the department is suppressing the effects of overfishing or climate change to manage small areas of the reserve for short-term tourism outcomes.

Question 4:

*If removal is not the department’s long-term strategy for managing *Centrostephanus rodgersii* barrens, then how does the removal operation inform management of the Poor Knights Islands Marine Reserve?*

We have considered your request under the Official Information Act 1982 (the OIA). Your questions and our responses are listed below:

Question 1:

A. What was the cost of the removal project?

The total operating expenses (OPEX costs) were \$120,000, which included \$30,000 for scientific contracts. Staff time was approximately \$26,000. Fuel costs for the boat were approximately \$4,000. The total estimated cost of the operation is \$150,000.

B. What would the cost have been without volunteers?

There were no volunteers. Everyone on the trip was paid, either as a contractor or as a staff member.

Question 2: *What actions are the department considering to further understand the lack of recovery?*

We are undertaking monitoring of marine reserves and proposed High Protection Areas to understand the extent of the problem. This includes investigating why lobsters have not recovered in offshore marine reserves and the importance of protection in supporting the recovery of populations in mainland marine reserves. Our monitoring data is being used to write scientific articles and reports to share findings.

We work closely with and provide advice to Fisheries New Zealand on fisheries impacts. We are supportive of recent changes to reduce commercial and recreational catch of lobster in Northland and the Hauraki Gulf.

Question 3: *How is DOC explaining to the public and iwi partners that *Centrostephanus rodgersii* barrens are linked to ocean warming?*

We began by engaging with tangata whenua to discuss the threat that *Centrostephanus rodgersii* were imposing on the reefs of Tawhiti Rahi. Our first meeting was hosted by DOC in November 2022, where it was agreed to run a trial removal programme. This was followed by two hui over two years at the marae of Te Whānau o Rangiwhakaahu in Matapōuri, where results of the trial were presented (August 2023) and options for further trials were discussed (October 2024). All hapū with whakapapa connections to Tawhiti Rahi were invited.

We also held a community hui in Tūtūkākā and regularly spoke with local dive operators in person to discuss the issue, its cause and share our proposed actions.

While warming oceans is a likely contributor to *Centrostephanus rodgersii* barrens, we are still trying to understand the multiple drivers behind the issue. We will continue to work with other researchers on this and share our findings with the public and iwi partners.

Question 4: *If removal is not the department's long-term strategy for managing *Centrostephanus rodgersii* barrens, then how does the removal operation inform management of the Poor Knights Islands Marine Reserve?*

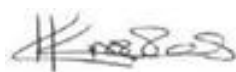
There is evidence from Tasmania that a large-scale removal effort allows for rapid recovery of depleted habitats. Our trial removal programme demonstrated that, in areas with sunlight, a rapid recovery is seen for both kelp and the understory.

Evidence from Tasmania also shows that a large-scale removal effort does not need to be repeated for 5-10 years, depending on the habitat. It is unclear whether the efforts will need to be repeated at the Poor Knights, but by giving the habitats a chance to recover, and by enforcing the protection around them, we hope the recovery period will be similar to Tasmania.

While we monitor the impacts of the removals, we are investigating other management options.

Please note that this letter (with your personal details removed) may be published on DOC's website.

Nāku noa, nā



Kirstie Knowles
Director Biodiversity System and Aquatic
Department of Conservation
Te Papa Atawhai