# Climate Justice Taranaki submission to the Ministry for Primary Industry— Proposed temporary closure at Taranaki under section 186A of the Fisheries Act 1996 (September 2022)

- 1. Climate Justice Taranaki Inc. (CJT) is a community group dedicated to environmental sustainability and social justice. This includes issues of inter-generational equity, notably in relation to climate change, which impact current and future generations' inalienable rights to safe water, food and shelter, crucial to sustaining livelihoods and quality of life. CJT became an incorporated society in 2015.
- 2. CJT fully supports the request for recognition of and statutory support for the rāhui imposed by ngā hapū o Taranaki lwi over the mātaitai resources within the area specified in the request<sup>1</sup>, by way of a temporary, two-year, closure under section 186A of the Fisheries Act 1996.

#### The plight of marine species and ecosystems – cumulative and cascading effects

- 3. Many traditional food sources / mātaitai along the Taranaki coast are declining in availability and size, threatening the customary fishing practice of local hapū and iwi. The request from ngā hapū o Taranaki Iwi listed over 24 of such species, including mollusca (e.g. black-foot pāua, mussels, limpets, octopus), crustacea (e.g. koura/crayfish, crabs), echinoderm (e.g. kina/urchins), anemone, fish and seaweeds.
- 4. It is of critical importance that the government, as tangata tiriti, recognise the mātauranga and evidence provided by hapū and iwi as tangata whenua.
- 5. It often takes decadal data encompassing multi-species catch yields and sizes, ecological and reproductive traits, spatial and environmental variations, to reveal complex relationships between exploitation, stocks and environmental change<sup>2</sup>. In addition to exploitation pressures from commercial, recreational and customary takes, coastal and marine species and ecosystems are increasingly threatened by multiple stresses, from coastal runoffs and erosion to marine heat waves, ocean acidification<sup>3</sup> and deoxygenation, and invasive species<sup>4</sup>.
- 6. The National Institute of Water and Atmospheric Research (NIWA) has warned<sup>5</sup> that "the 40-odd marine heatwave days we currently see in a normal year will increase to between 80 days... and 170 days (high emissions worst-case scenario) by the end of the century... For coastal waters, average marine heatwave intensities will increase by 20%... to double... For the North Island, this means an average marine heatwave could be between 0.5°C to 2°C more intense than they are today".
- 7. "We're just coming off the back of one of our most intense marine heatwaves, like what we experienced in 2017. Our work indicates that this will start to become the norm as time goes on. Marine heatwaves can have significant impacts both at sea and on land. They kill off corals, disturb ecosystems, and can also pose a problem for fishing and aquaculture, as well as contributing to land heatwaves and climate extremes across the country.

What is particularly interesting is the disparity between regions, with some coastal areas predicted to experience a much bigger intensity, frequency and duration of warming than others. This is important to know so we can focus our efforts in helping marine ecosystems adapt to these changing conditions," Dr. Erik Behrens, NIWA (March 2022).

<sup>&</sup>lt;sup>1</sup> https://www.mpi.govt.nz/consultations/proposed-temporary-closure-at-taranaki/

<sup>&</sup>lt;sup>2</sup> https://www.tandfonline.com/doi/abs/10.1080/00288330.2021.1987281?journalCode=tnzm20

<sup>&</sup>lt;sup>3</sup> https://niwa.co.nz/news/investigating-ocean-acidification

<sup>&</sup>lt;sup>4</sup> https://www.nzgeo.com/stories/killer-algae/?source=homepage

<sup>&</sup>lt;sup>5</sup> https://niwa.co.nz/news/mean-heat-marine-heatwaves-to-get-longer-and-hotter-by-2100

- 8. Kelp forests of different species at different locations have experienced die-back since the 1980s, some managed to recover better than others<sup>6</sup>. The impacts of marine heat waves on the Giant kelp *Macrocystis pyrifera* have been shown to be exacerbated by declining clarity in coastal waters<sup>7</sup>. The deterioration and loss of such a habitat-forming foundation species have far-ranging effects on other species and ecosystem health, notably larvae of fish and crayfish no longer have safe nurseries. Experiments with juvenile spiny lobster *Jasus edwardsii* showed elevated predation risk in barren habitats devoid of kelp, and further studies are needed to understand the implications<sup>8</sup>.
- 9. Predator-prey relationships take place within complex food webs, the demise of one component could result in unexpected, sometimes devastating consequences. For example, the selective removal of top predators like snappers or adult crayfish that prey on sea urchins can result in over-grazing of kelp, leaving urchin barrens devoid of seaweeds and nursery habitats<sup>9</sup>. There are, as outlined above, other causes of decline of seaweeds, some synergistic, other antagonistic. Because of the intricate and complex inter-species relationships, single species fishery management is often inadequate in restoring ecosystem health.
- 10. International and local experiences have shown that networks of marine protected areas, when designed and managed well, create multiple benefits<sup>10</sup>:
  - biodiversity protection and increased productivity
  - increased resilience and maintenance of ecosystem services
  - benchmarking of environmental health
  - fisheries spill-over
  - protection of geological features or processes
  - protection of cultural values
  - recreational and tourism opportunities
  - education and science
- 11. As an example, rock lobster numbers in the Fiordland marine reserves were reported to have reverted to an "old-growth population structure", with many old, large individuals, producing up to eight times the reproductive output of commercially fished areas<sup>11</sup>. Moreover, effective marine protection offers species and ecosystems the chance to recover and build the resilience needed for adaptation to unprecedented global change.
- 12. Temporary closure of an area of concern is a useful first step towards potentially the creation of marine protected areas in various forms, including mātaitai reserves<sup>12</sup>, taiāpure and marine reserves<sup>13</sup>.

## Kaitiakitanga and community support

- 13. Ngā hapū o Taranaki lwi have agreed to stop issuing traditional permits during the period of closure, demonstrating their commitment to protect the mātaitai and leadership-by-example to other concerned parties.
- 14. Numerous community hui/meetings and wānanga/workshops have been held at various locations around the motu to inform and galvanise support from residents and concerned parties such as boat clubs, recreational fishermen and neighbouring iwi. Territorial authorities are also showing signs of support.

<sup>&</sup>lt;sup>6</sup> https://www.nzgeo.com/stories/the-kelp/ (July/August 2022)

<sup>&</sup>lt;sup>7</sup> https://www.frontiersin.org/articles/10.3389/fmars.2021.721087/full

<sup>8</sup> https://www.tandfonline.com/doi/full/10.1080/17451000.2016.1236200

<sup>&</sup>lt;sup>9</sup> https://www.rnz.co.nz/national/programmes/ourchangingworld/audio/201757704/kelp,-urchins-and-marine-reserves

 $<sup>^{10}\,\</sup>underline{\text{https://www.environmentguide.org.nz/issues/marine/marine-protected-areas/benefits-of-marine-protected-areas/b$ 

<sup>11</sup> https://www.nzgeo.com/stories/sea-change/

<sup>12</sup> https://www.mpi.govt.nz/fishing-aquaculture/maori-customary-fishing/managing-customary-fisheries/

<sup>&</sup>lt;sup>13</sup> https://www.doc.govt.nz/nature/habitats/marine/type-1-marine-protected-areas-marine-reserves/

#### Follow-up plans and needs

- 15. Poaching, under-resourced fisheries officers, inadequate baseline species information all needs to be addressed<sup>14</sup>. Enforcement of regulations, surveillance and reporting of fishing and collection activities, including species that are not restricted under the rāhui or temporary closure, are critical. We hereby ask that MPI support ngā hapū o Taranaki iwi with the following:
  - Resourcing a team of (at least ten) full-time fisheries officers
  - Resources for training of voluntary fisheries and education officers and production of materials
  - Assistance and collaboration in ecological and resource inventory and monitoring within the closure area as well as nearby areas outside, for comparisons
  - Review of fishing pressures outside the 2 nautical miles and their impacts
  - Scientific research on environmental threats including coastal runoffs, invasive species, ocean acidification and climate change
  - Assistance for evaluation and development of a management plan for the Taranaki coast beyond the two-year closure, taking in lessons learnt from other areas<sup>15</sup>, <sup>16</sup>
- 16. Challenges abound in ensuring successful marine management to safeguard ecosystem health while providing for customary practices and sustainable fisheries. More stringent and ecosystem-based fisheries management, spatial planning and protection, as well as genuine stakeholder inputs, are needed. Supporting ngā hapū o Taranaki lwi's request for temporary fishery closure is a crucial first step towards sustainable resource management and regeneration of the Taranaki coastal ecosystems.

### The big picture

- 17. At the national level, CJT cautions that the continuous push for an export focus primary industry, notably dairy and meat, shellfish<sup>17</sup> and finfish fisheries, is utterly unsustainable and irresponsible. It threatens Aotearoa's ability to provide for its people while dealing with climate disruption, and importantly, to honour Te Tiriti o Waitangi by protecting Māori's customary rights and wellbeing.
- 18. The growth economy is absolutely reliant on fossil fuels which exacerbate climate impacts and other ecological and social harm. The only wise and responsible thing to do is to stop extracting and burning fossil fuels, while transforming our export and profit driven economy to a more local economy that prioritizes community and ecosystem wellbeing and resilience.

 $<sup>^{14}\,\</sup>underline{\text{https://www.stuff.co.nz/environment/117230527/poaching-and-environmental-changes-threaten-taranaki-puastocks}$ 

<sup>&</sup>lt;sup>15</sup> https://www.mpi.govt.nz/consultations/proposal-to-reopen-the-kaikoura-marine-area-to-paua-fishing

<sup>&</sup>lt;sup>16</sup> https://ourarchive.otago.ac.nz/handle/10523/12851

<sup>&</sup>lt;sup>17</sup> https://www.odt.co.nz/business/crayfish-backlog-builds-fishers-fear-not-filling-quotas