

Fish stock reviews for 1 October 2024

East coast South Island – Kina (SUR 3)



Proposal [online here](#).

1. Current total allowable catch (TAC) settings and proposed options, in tonnes.

Option	TAC	TACC	Allowances		
			Customary Māori	Recreational	All other mortality caused by fishing
Option 1 (<i>Status quo</i>)	42	21	10	10	1
Option 2	163 (↑121)	121 (↑100)	20 (↑10)	20 (↑10)	2 (↑1)
Option 3	284 (↑242)	221 (↑200)	30 (↑20)	30 (↑20)	3 (↑2)

Estimated landings	2021-22	2022-23
Commercial	18 t	14 t
Recreational	24 000 fish	5 000 fish

2. What is the current status of Kina 3?

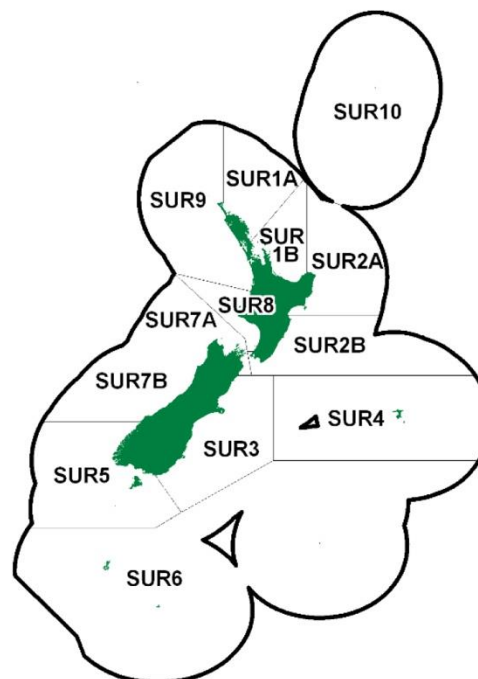
There is no available estimate for the current stock status of Kina 3 (SUR 3) on the east coast of the South Island¹.

3. Is overfishing occurring?

There is no available information to indicate whether overfishing is occurring in Kina 3 or if it will commence in the future.

4. What is the primary fishing method used to harvest kina in this area?

Kina are found in waters less than 10 m deep and are harvested by hand gathering while freediving. Harvesting kina with underwater breathing apparatus (UBA) is not permitted for commercial fishers. Recreational fishers harvest kina while wading, freediving or scuba diving from land and boat. There is no minimum legal size for kina².



5. What are the associated species and habitats?

Blue cod and rock lobster are known predators of kina in this South Island fishery. The proliferation of kina as a consequence of a decline in predators is widely acknowledged to cause kina (urchin) barrens, which are rocky reef areas devoid of macroalgae (kelp). Maintaining sufficient abundance of predators is fundamental to controlling kina populations at a level where they do not cause urchin barrens.

¹ Fisheries Assessment Plenary – Volume 2: Horse mussel to Red crab. May 2024. Fisheries New Zealand. At [p. 759]

² At [p.746]

6. What are the recommendations and primary concerns of the New Zealand Sport Fishing Council & LegaSea for this review?

- a. We have concerns that a significant increase in commercial catch, as proposed by Fisheries New Zealand (FNZ), will lead to increased competition between commercial and non-commercial fishers. FNZ need to outline how they will monitor and respond to increased spatial overlap and competition for kina between sectors.
- b. We acknowledge that there is a utilisation opportunity in Kina 3. However, given the uncertainties in the industry-led biomass estimate outlined in the proposal document, a precautionary, incremental increase would allow fisheries managers to respond to localised depletion while also allowing the stock to adjust to greater fishing pressure considering historically low fishing intensity.
- c. The current daily bag limit (DBL) for recreational fisher is 50 kina. If there is opportunity for greater utilisation, we recommend an increase to the recreational daily bag limit.
- d. To monitor changes in the commercial fishery, we recommend the development of a monitoring plan which implements data from Geospatial Position Reporting (GPR) to map the change in the area and extent of the commercial harvest of kina.
- e. Kina biomass is high and the proliferation of kina in some areas of New Zealand has led to urchin barrens where kina or *Centrostephanus* (long spined urchin, Northern New Zealand) have grazed down macroalgae from rocky reef structures. The occurrence of urchin barrens is assumed to be a consequence of fishing down predators of kina (rock lobster, snapper and blue cod) in combination with environmental conditions.
- f. Despite an abundance of kina potentially leading to damaging urchin barrens, it is important to note that when the ecosystem is in balance kina are a prey species for reef species. Blue cod and rock lobster are primary predators of kina in the South Island.
- g. FNZ has omitted to highlight the contribution of kina to blue cod and rock lobster diet. Rock lobster (CRA 5 & 7) biomass in the overlapping Quota Management Areas is estimated to be high and blue cod on the east coast of the South Island (BCO 3) are in a rebuilding state.
- h. For the Minister to make a precautionary decision taking into account associated and dependent species, the status of the predator/prey species must be better understood, or at the very least, acknowledged as a necessary element of the decision-making process.
- i. Since South Island kina was introduced to the Quota Management System in 2002, landings of kina in SUR 3 have not reached the TACC and only since 2019 has the total landings for SUR 3 been over 10 tonnes.

7. Who can you contact?

- a. Email submission to: FMSubmissions@mpi.govt.nz
- b. Email NZSFC fisheries team: FM@legasea.co.nz

Appendix – Kina 3 associated species

Commercial landings

Species and fish stock	2021-22	2022-23	TACC (2022-23)	% TACC caught (22-23)
Blue cod – BCO 3 East Coast South Island	132 t	135 t	130 t	104%
Kina – SUR 3 East Coast South Island	18 t	14 t	21 t	66%
Rock lobster – CRA 5 West of Marlborough Sounds, south to Banks Peninsula	350 t	350 t	350 t	100%
Rock lobster – CRA 7 (Otago) Waitaki River south to Long Point	106.3 t	111.7 t	112 t	100%

Recreational harvest estimates³

Species and fish stock	2022-23	2017-18
Blue cod – BCO 3 East Coast South Island	66.9 t	108.6 t
Kina – SUR 3 East Coast South Island	24 000 fish	5 000 fish
Rock lobster – CRA 5 West of Marlborough Sounds, south to Banks Peninsula	N/A	47.15 t
Rock lobster – CRA 7 (Otago) Waitaki River south to Long Point	N/A	2.33 t

³ Recreational harvest estimates include recreational fisher estimates from National Panel Surveys, amateur charter vessel reported catch and recreational take from commercial vessels under s111 landings, where available.