



MINISTRY OF FISHERIES  
Te Tautiaki i nga tini a Tangaroa



# A guide to common **offshore crabs** in New Zealand waters



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# **A guide to common offshore crabs in New Zealand waters**

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This series continues the  
*Marine Biodiversity Biosecurity Report* series  
which ceased with No. 7 in February 2005.

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## **PREFACE**

Worldwide, there is increasing concern about the effects of fishing, not only on fishstocks, but also other species caught incidentally during fishing, such as crabs. Some of these species are part of New Zealand's Quota Management System, but many are not. Ministry of Fisheries observers, and researchers conducting Ministry of Fisheries research surveys, are required to keep catch records of all species, including those caught incidentally, but few can readily be identified at sea. The Ministry of Fisheries commissioned this identification guide of offshore crabs to complement the deepsea invertebrate guide (Tracey et al. 2005), thereby enabling observers and researchers to recognise these organisms more easily, and improve the standard of catch records of incidentally caught species.

The guide provides identification sheets of 22 crab species, each with a colour image and a description of the key diagnostic features and known distribution, both by depth and geographic location. Taxonomic experts have had direct input to each section, and reference to the principal scientific literature is given at the back of the document. Most of the species in the guide are typically encountered in deepwater fishing (deeper than 200 m), but there are a few that also occur nearer to shore. The guide brings together the knowledge and expertise gained by marine scientists during the last 30 years of research in New Zealand waters.

With more accurate identification, trends in the capture and distribution of non-fish bycatch can be better monitored, and this is seen as an important step towards fulfilling the environmental requirements of the Fisheries Act 1996.

Pamela Mace  
Chief Scientist  
Ministry of Fisheries, August 2005

## **ACKNOWLEDGMENTS**

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All images are NIWA copyright unless otherwise indicated. We thank P. Shearer, N. Bagley, and M. Clark (NIWA), for providing several images, and J. Poupin (Institut de Recherche de l'Ecole Navale, Brest, France), the Museum of New Zealand Te Papa Tongarewa (Te Papa), and NORFANZ for approving the use of their images. NORFANZ was a joint Australian-New Zealand research voyage funded by the New Zealand Ministry of Fisheries and Australia's National Oceans Office.

## **INTRODUCTION**

This is a pictorial guide to assist in the identification of key offshore crab species at sea, and includes instructions on how to determine their size and sex.

For each species there is an illustration and information on the known depth range and distribution around New Zealand, the bottom type on which it is usually found, and the fishing methods by which it is usually caught. Also given are key diagnostic features that identify the crab and distinguish it from others. The distinguishing characters for a given species should be considered together – a single character may appear on other species, but all the characters combined are unique to the species they are given for. Guide sheets for species currently in the Quota Management System include a map of the quota management areas.

The terminology of Griffin (1966) and McClay (1988) is used throughout the text.

## **DATA COLLECTION**

Data collected on these species will improve our understanding of the distribution and biology of deepwater crabs. These data should include crab name; date, position, and depth of capture; size measurement; sex; and the numbers caught. Size measurement is of carapace width (CW) (fish measuring code 6), measured at the widest point to the nearest millimetre as indicated by the dotted lines in the photographs. Note that for species with stout lateral carapace spines, CW usually includes the spines, whereas for those with less significant or slender (and easily damaged) lateral carapace spines, the CW usually excludes the spines.

Several of the crabs are commercially important or relatively abundant. However, the guide includes species that may be much less common, but which can appear in the same catches and be easily confused with the more common crabs. One or two inshore species that are sometimes taken offshore are also included.

‘Crab’ is a term used to cover both the true crabs (Brachyura) and the crab-like Anomura. (Infraorder Anomura includes the king crabs, half crabs, hermit crabs, and squat lobsters.) In anomurans the last pair of legs is greatly reduced in size and, in the king crabs, is usually tucked out of site under the carapace. The brachyurans described here can be further divided into the spider crabs (superfamily Majoidea, represented here by the families Majidae and Inachidae), swimming crabs (family Portunidae, in which the last pair of legs is modified into paddles), red crabs (family Geryonidae), and homolid crabs (family Homolidae). Species are ordered by family as listed on the contents page.

## **INSTRUCTIONS FOR RETENTION AT SEA**

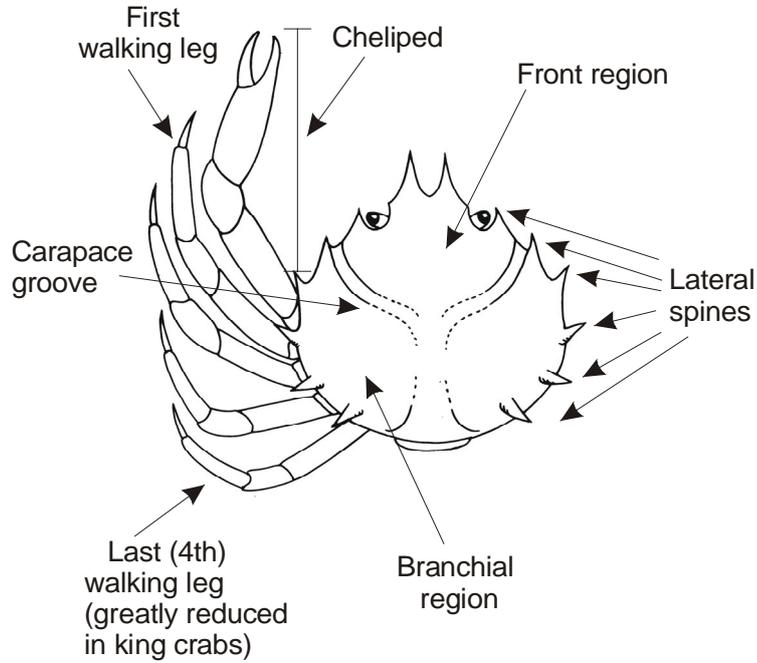
If crabs cannot be identified using this guide, a specimen should be retained for identification ashore. Crabs should be individually frozen in plastic bags, and include permanent labels with full capture details, i.e., date, position, and depth of capture, or the voyage number and station number. If the crab is fragile, place in a container of seawater before freezing.

Send by frozen freight to: Rick Webber, Museum Resource Centre, Te Papa Tongarewa Museum of New Zealand, 169 Tory St. Wellington, or to Collections Manager, NIWA, 301 Evans Bay Parade, Greta Point, Kilbirnie, Wellington.

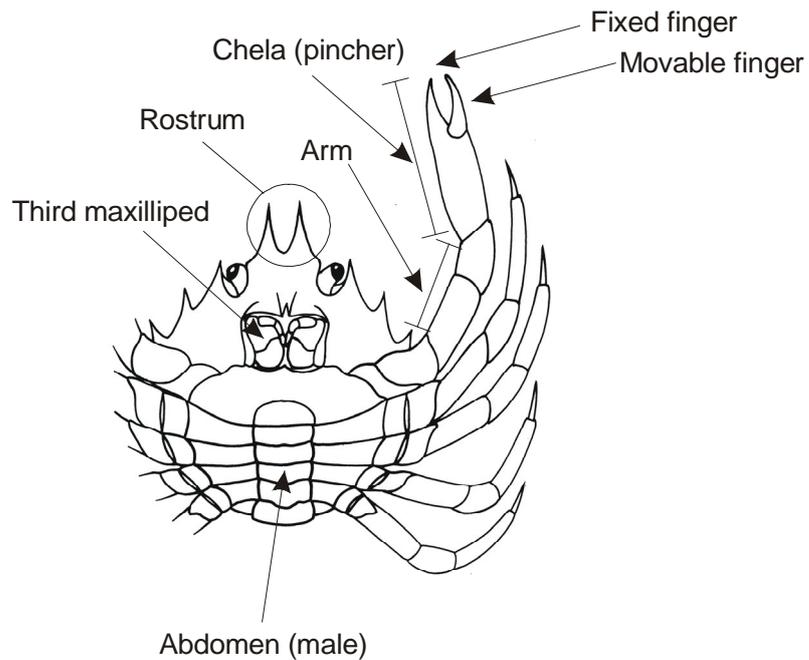


# GENERALISED CRAB DIAGRAM AND TERMS USED IN THIS GUIDE

## Dorsal (top) view of carapace and legs



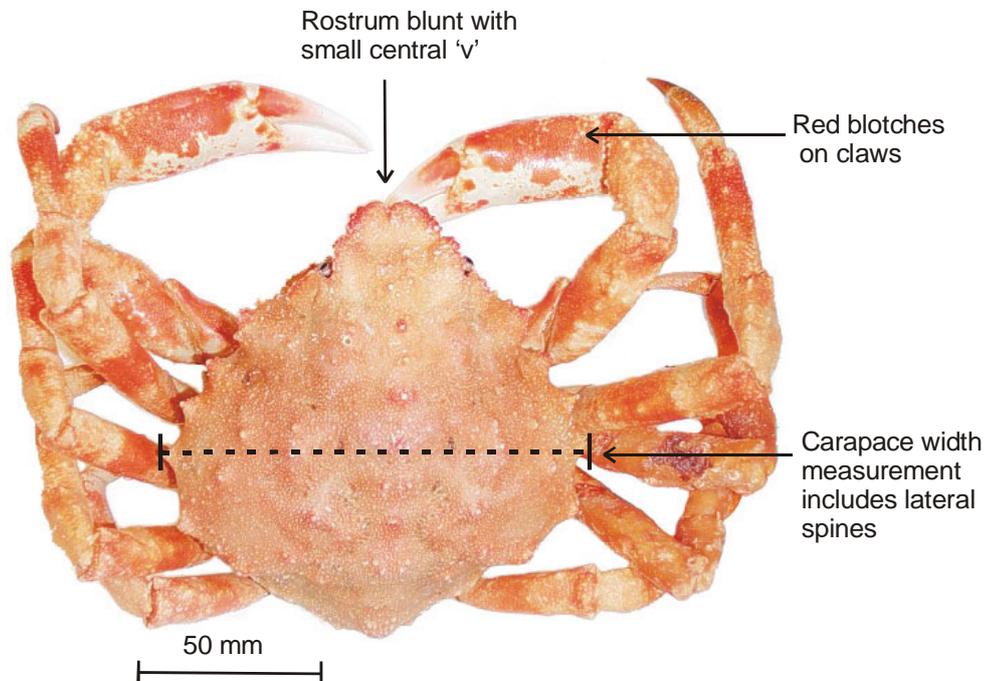
## Ventral (bottom) view





**Phylum** Arthropoda  
**Class** Crustacea  
**Order** Decapoda  
**Family** Majidae

### *Jacquinotia edwardsii* (Giant spider crab) (GSC)



**Distinguishing features:** Large. Rostrum blunt with a small, central 'v'. Long, stout legs.

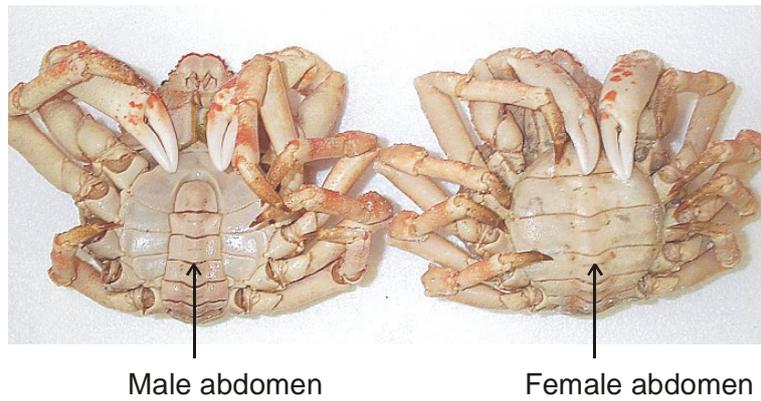
**Colour:** Carapace brick red to yellowish brown, often covered by white or mauve-pink, paint-like coralline algae. Pinchers yellowish white with bright red blotches. Colour lighter or darker depending on moult stage.

**Size:** Adults very large: carapace width up to 200 mm in males, 140 mm in females.

**Distribution:** Offshore, southern coast of New Zealand as far north as Kaikoura, around Chatham and Stewart Islands, and on the Pukaki Rise. Shallower around Auckland, Campbell, Bounty, and Snares Islands. On sandy and rocky bottoms. Usually caught in pots. QMS species.

**Depth:** Intertidal to 550 m.

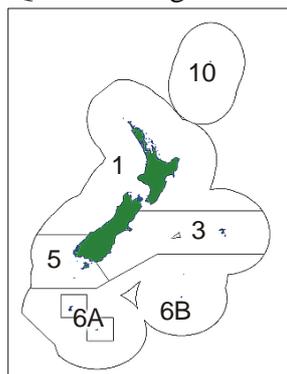
**Sex determination:** Abdomen almost round in females, much narrower in males.



**Similar species:** Long-legged masking crab (*Leptomithrax longipes*) is similar, but adults smaller and has

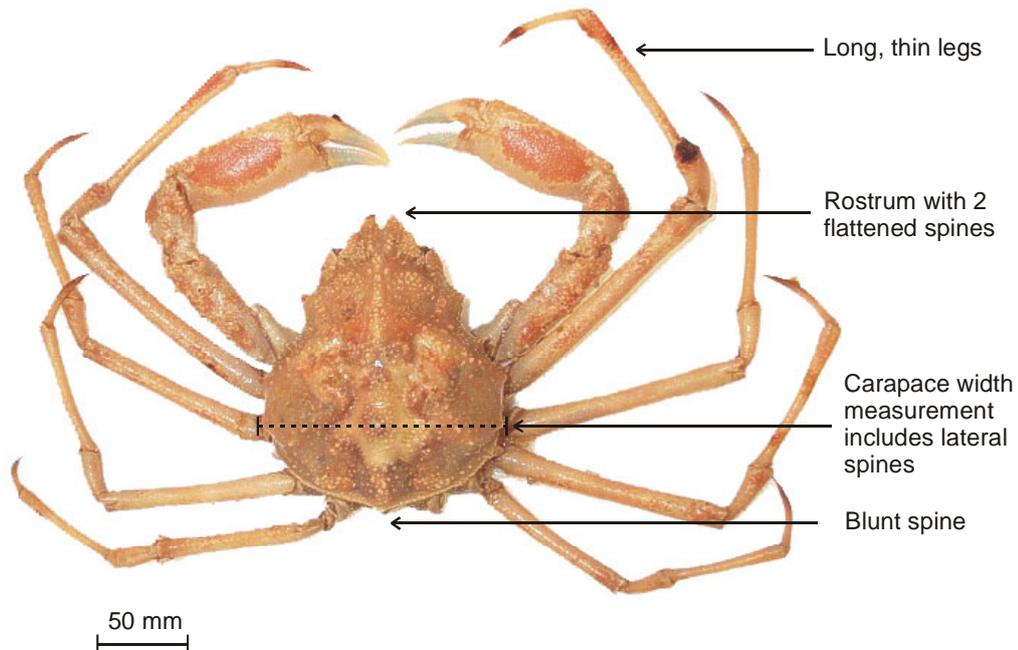
- maxillipeds with porcelain-like knobs
- thinner legs

GSC Quota Management Areas



**Phylum** Arthropoda  
**Class** Crustacea  
**Order** Decapoda  
**Family** Majidae

### *Leptomithrax longipes* (Long-legged masking crab) (LLC)



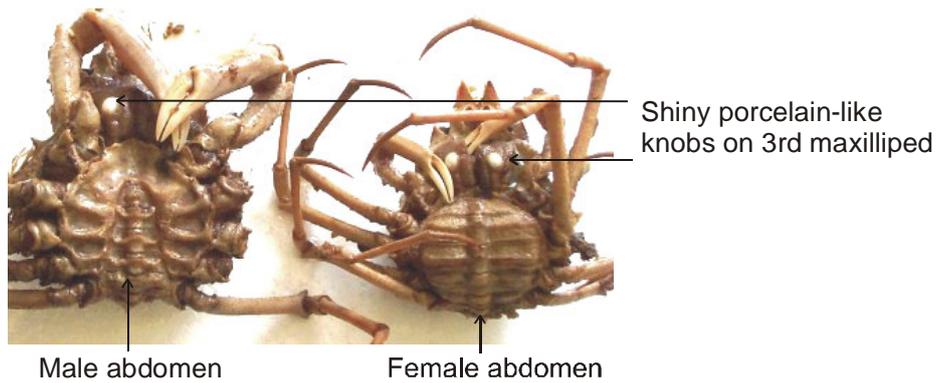
**Distinguishing features:** Shiny, porcelain-like knobs on third maxillipeds. Long, thin walking legs. Rostrum of 2 short flattened spines. Short, blunt spine at back of carapace.

**Colour:** Carapace pale yellowish white; red speckling and blotches on legs. Often covered with invertebrates such as sponges and anemones.

**Size:** Carapace width to 70 mm in males, 30 mm in females.

**Distribution:** Cook Strait to Foveaux Strait, Chatham Islands, and Macquarie Island. Usually on sandy or muddy bottoms. Caught in pots.

**Depth:** 20 to 380 m.



**Sex determination:** Abdomen almost round in females, much narrower in males.

**Similar species:**

Giant spider crab (*Jacquinitia edwardsii*) similar, but

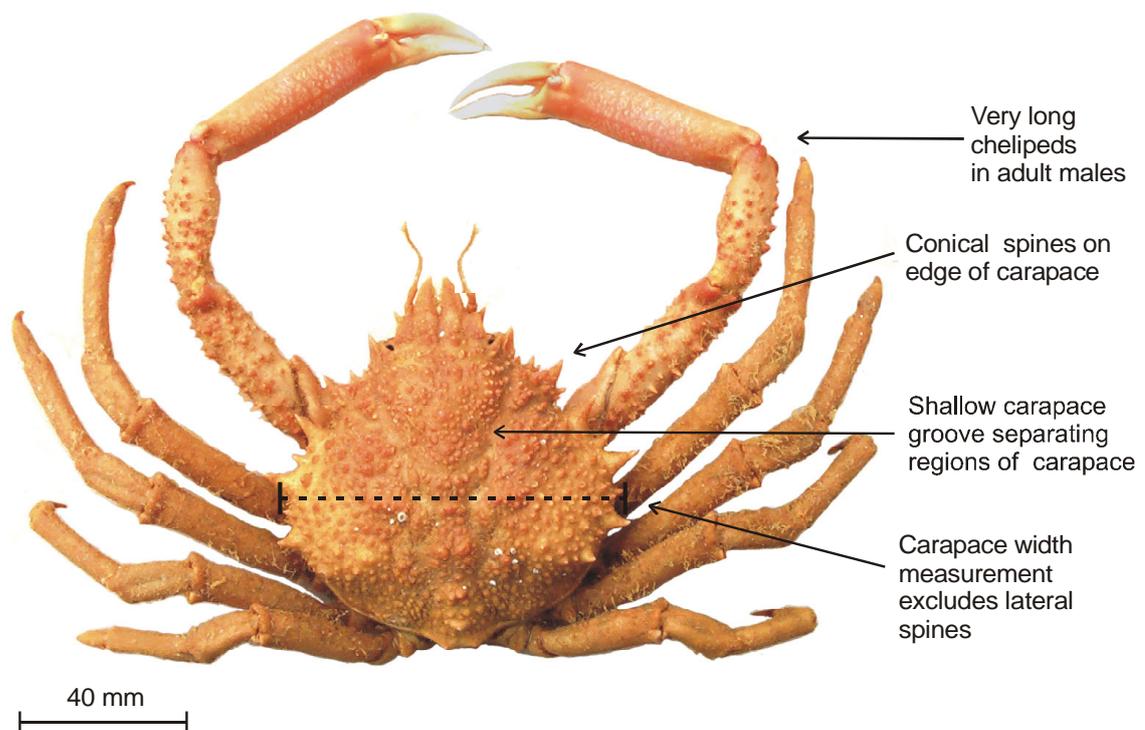
- lacks shiny, porcelain-like knob on third maxillipeds (N.B., small *Jaquinotia* will be very difficult to distinguish from *L. longipes* except for the porcelain knobs)
- has stouter walking legs

Giant (*Leptomithrax australis*) and long-handed (*L. longimanus*) masking crabs similar, but they

- lack shiny, porcelain-like knob on third maxillipeds

**Phylum** Arthropoda  
**Class** Crustacea  
**Order** Decapoda  
**Family** Majidae

***Leptomithrax australis* (Giant masking crab) (SSC)**



**Distinguishing features:** Large. Carapace pear-shaped. Shallow carapace groove. Six equally spaced and prominent conical spines on lateral margins of carapace. Numerous small blunt spines/knobs on carapace. Very long chelipeds in adult males with blunt spines on arms. Long, thin walking legs.

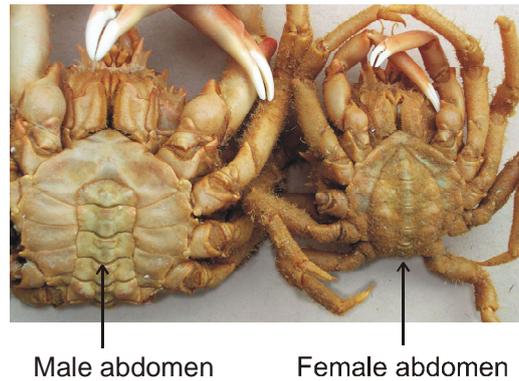
**Colour:** Carapace and legs orange-red to deep red. Teeth on fixed finger of pincher and tips of legs white. Shallow-water specimens often masked with seaweed, deepwater specimens frequently covered with sessile animals (e.g., anemones, sponges).

**Size:** Carapace width to 90 mm in males, 60 mm in females.

**Distribution:** Offshore from Cook Strait to Stewart Island, around the Chatham Islands, and on the Pukaki Rise. Shallower around the Snares, Auckland, Bounty, and Campbell Islands. On muddy, sandy, or rocky bottoms. Caught in trawls, seines, or pots.

**Depth:** Intertidal to about 100 m.

**Sex determination:** Abdomen much narrower in males.



**Similar species:**

Long-handed masking crab (*Leptomithrax longimanus*) very similar, but

- more pear-shaped, less oval
- carapace groove deeper, more obvious
- branchial regions clearly defined
- pinchers longer and with tubercles, legs thicker in adult males

Garrick's masking crab (*Leptomithrax garricki*) very similar, but

- longer, sharper rostral spines
- found in deeper water (180 to 800 m)

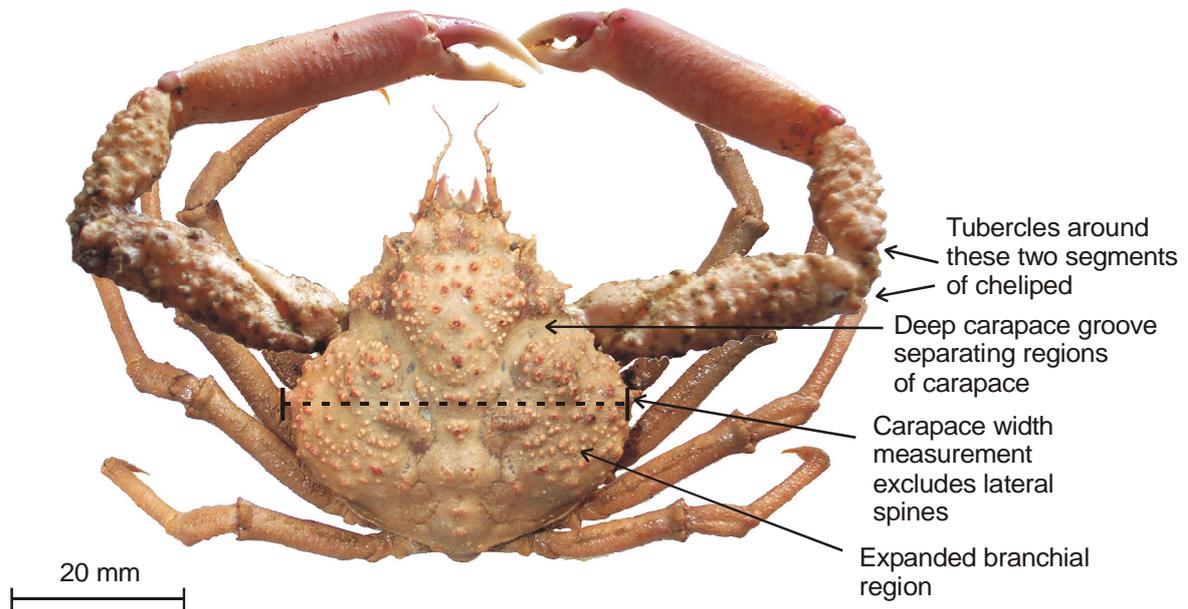
Long-legged masking crab (*Leptomithrax longipes*) similar, but has

- shiny porcelain-like knobs on third maxillipeds

N.B., *Leptomithrax australis*, *L. longimanus*, and *L. garricki* are very similar. If species cannot be identified, record as *Leptomithrax* sp. (LMI).

**Phylum** Arthropoda  
**Class** Crustacea  
**Order** Decapoda  
**Family** Majidae

### ***Leptomithrax longimanus* (Long-handed masking crab) (LHC)**



**Distinguishing features:** Carapace pear-shaped. Deep groove separating front and expanded branchial regions of carapace. Six equally spaced, short conical spines on margin of each side of carapace. Very long chelipeds in adult males. Tubercles, not spines, on arms of chelipeds. Long, thin walking legs.

**Colour:** Carapace and legs a dull yellowish brown. Chelipeds in adult males dark brown with yellowish markings on inside of pincher. Females lighter colour. Often with encrusting polychaete worms and sponges on carapace and legs.

**Size:** Carapace width to 50 mm in males, 35 mm in females.

**Distribution:** Uncommon. From Three Kings Islands to Stewart Island, on muddy or sandy bottoms, occasionally on shallow rocky bottoms. Has been caught in pots.

**Depth:** Most often 20 to 220 m, rarely intertidal, and occasionally to 550 m.

**Sex determination:** Abdomen much narrower in males (see *Leptomithrax australis*).

#### **Similar species:**

Giant masking crab (*Leptomithrax australis*) similar, but

- less pear-shaped, more oval
- carapace groove less obvious
- less expanded branchial regions
- shorter pinchers, thinner legs in adult males

Garrick's masking crab (*Leptomithrax garricki*) similar, but

- longer rostral spines
- less pear-shaped, more oval
- carapace groove less obvious
- less obvious branchial regions
- small spines, not tubercles, on cheliped arms

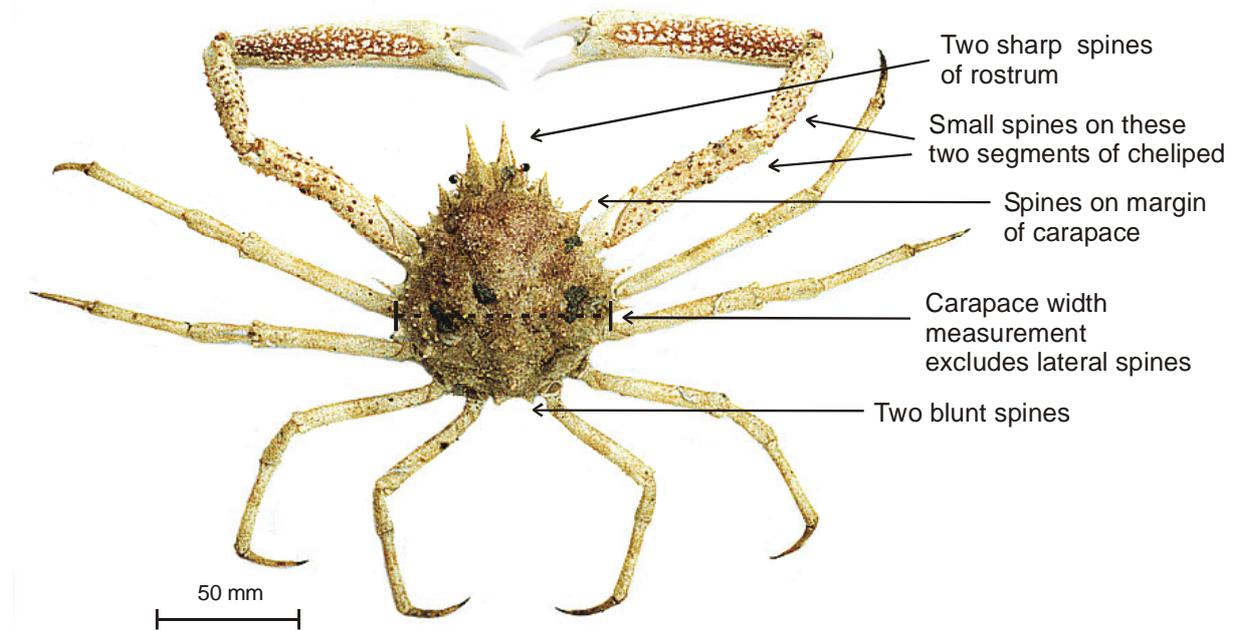
Long-legged masking crab (*Leptomithrax longipes*) similar, but has

- shiny porcelain-like knob on third maxillipeds.

N.B., *Leptomithrax longimanus*, *L. australis*, and *L. garricki* are very similar. If species cannot be identified, record as *Leptomithrax* sp. (LMI).

**Phylum** Arthropoda  
**Class** Crustacea  
**Order** Decapoda  
**Family** Majidae

### *Leptomithrax garricki* (Garrick's masking crab) (GMC)



**Distinguishing features:** Strictly deepwater. Carapace oval. Rostrum of 2 rather sharp spines. Long walking legs and very long chelipeds in adult males. Seven equally spaced and prominent, outwardly directed spines on margin of each side of carapace. A few spines on carapace dorsally. Numerous small spines on chelipeds.

**Colour:** Carapace yellowish brown to greeny white with brick-red speckling. Walking legs patterned with pale orange. One record of the carapace being completely covered by a sea anemone.

**Size:** Carapace width to 80 mm in males, 55 mm in females.

**Distribution:** Off Cape Palliser to Kaikoura, and on Chatham Rise. On rock and mud bottoms. Has been caught in pots.

**Depth:** 180 to 800 m.

**Sex determination:** Abdomen almost round in females, much narrower in males (see *Leptomithrax australis*).

**Similar species:**

Giant masking crab (*Leptomithrax australis*) very similar, but

- shorter, blunter rostral spines
- not found deeper than 100 m

Long-handed masking crab (*Leptomithrax longimanus*) very similar, but

- usually not found deeper than 220 m
- carapace more pear-shaped, less oval
- deeper carapace groove

Spiny masking crab (*Teratomaia richardsoni*) similar, but has

- single spine at back of carapace
- longer and more divergent rostral spines

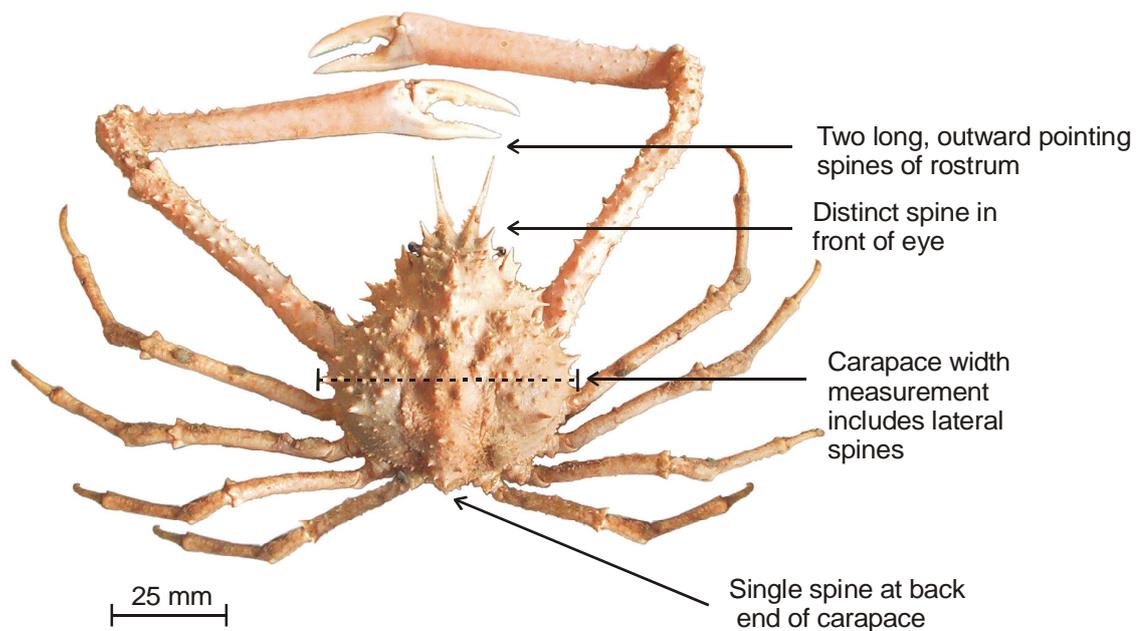
Long-legged masking crab (*Leptomithrax longipes*) similar, but has

- shiny porcelain-like knob on third maxillipeds

N.B., *Leptomithrax garricki*, *L. longimanus*, and *L. australis* are very similar. If species cannot be identified, record as *Leptomithrax* sp. (LMI).

**Phylum** Arthropoda  
**Class** Crustacea  
**Order** Decapoda  
**Family** Majidae

***Teratomaia richardsoni* (Spiny masking crab) (SMK)**



**Distinguishing features:** Distinct spine in front of eye. Rostrum of 2 long divergent spines. Carapace pear-shaped. Single large, sharp spine at back of carapace. Chelipeds long, especially in adult males.

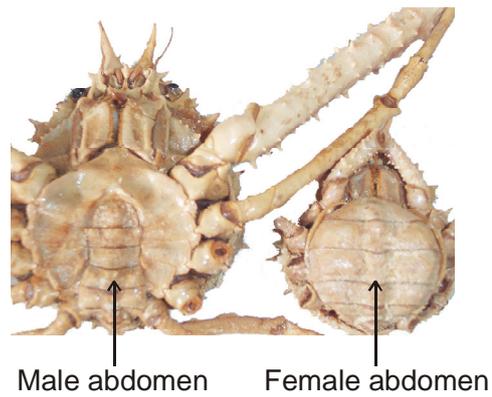
**Colour:** Dull creamy white. Some red on carapace and legs.

**Size:** Carapace width to 50 mm in males, 40 mm in females.

**Distribution:** Kermadec Trench, Challenger Plateau, Chatham Rise, Campbell Plateau, and Bounty Plateau. On fine sandy mud and sand bottoms. Caught in deepwater trawls.

**Depth:** 300 to 7000 m.

**Sex determination:** Abdomen almost round in females, much narrower in males.



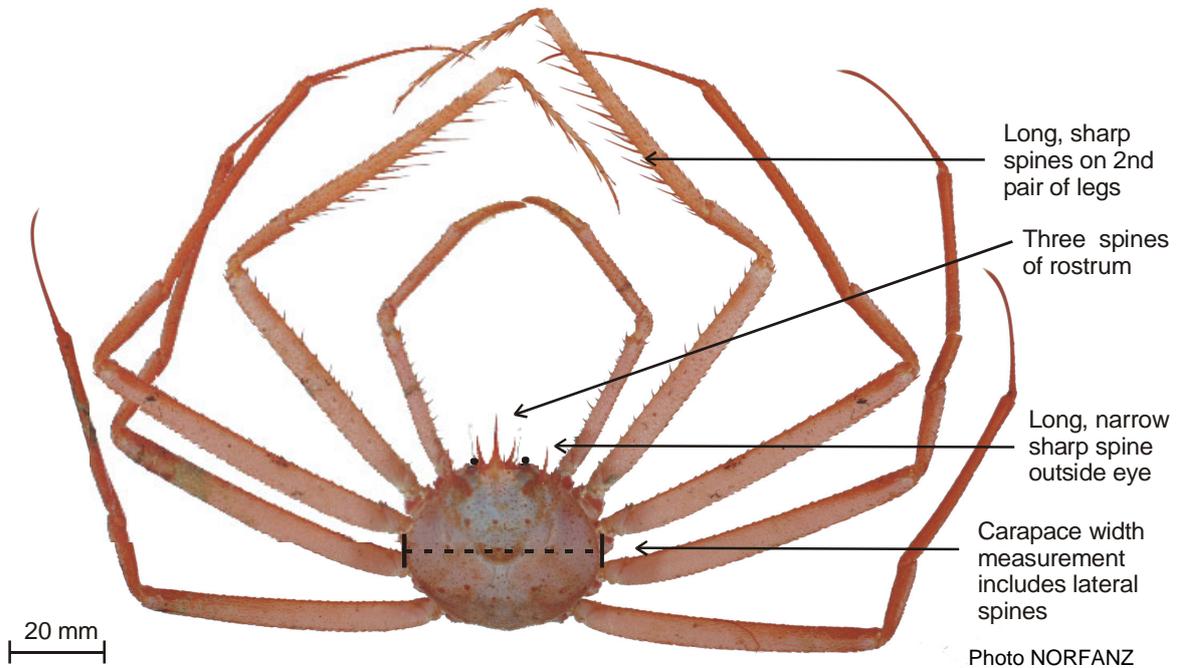
**Similar species:**

*Leptomithrax* species are similar, but have

- no distinct spine in front of eye
- shorter, less divergent rostral spines

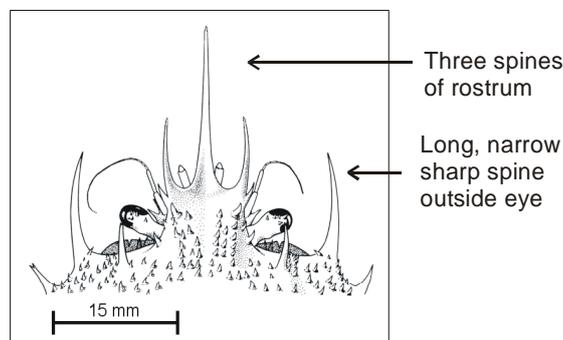
**Phylum** Arthropoda  
**Class** Crustacea  
**Order** Decapoda  
**Family** Inachindae

***Vitjazmaia latidactyla* (Deep-sea spider crab) (VIT)**



**Distinguishing features:** Very deep water. Carapace nearly round from above, oval in profile. Trident-like rostrum with strong, sharp middle spine (see below). A long, narrow, sharp spine outside each eye. Walking legs very long and flat, covered with tiny, sharp, curved spines. Long, sharp spines on second pair of legs. Numerous, small sharp spines on carapace. Pinchers heavier and tapered in male.

**Colour:** Juveniles almost unpigmented. Spines on rostrum and carapace bright red-orange. Abdomen and ends of pinchers light red-orange in males. Fresh specimens often blue-grey due to fine deposits of bottom sediment on small setae of carapace and legs.



Front of carapace showing 3 spines of rostrum. (Drawing by W. R. Webber)

**Size:** Carapace width to 80 mm in males, 75 mm in females.

**Distribution:** Wanganella Bank, east and west of North Island, Challenger Plateau, Chatham Rise, and Chatham Islands. On soft bottoms. Caught in deepwater trawls.

**Depth:** 500 to 1300 m.

**Sex determination:** Abdomen unpigmented in females, much narrower in males.

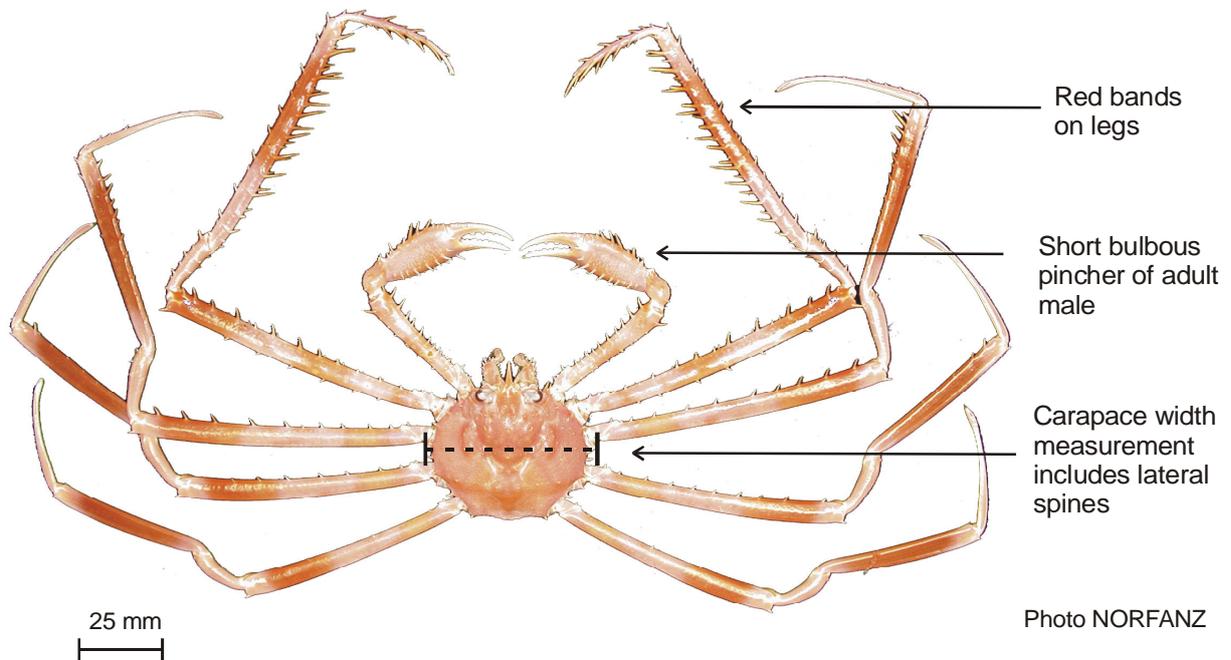
**Similar species:**

*Platymaia maoria* is similar, but

- red and white bands on legs
- eyes relatively larger
- 3 spines of rostrum shorter and stouter
- spine outside eye stubby
- pinchers short and bulbous in adult males
- carapace less oval in profile
- without covering of tiny sharp spines on carapace and legs

**Phylum** Arthropoda  
**Class** Crustacea  
**Order** Decapoda  
**Family** Inachindae

### *Platymaia maoria* (Dell's spider crab) (PTM)



**Distinguishing features:** Deep water. Carapace nearly round from above. Rostrum of 3 short, strong spines. A few stubby spines on carapace. Pinchers short and bulbous in adult males. Walking legs flattened with rows of sharp spines along front edges of front 3 pairs. Legs with red bands on peach-white.

**Colour:** Peach coloured, red bands on legs.

**Size:** Carapace width to 60 mm.

**Distribution:** North of Cape Brett to northeast of Poor Knights Islands; Challenger Plateau. On soft bottoms. Caught in deepwater trawls.

**Depth:** 270 to 950 m.

**Sex determination:** Abdomen much narrower in males.

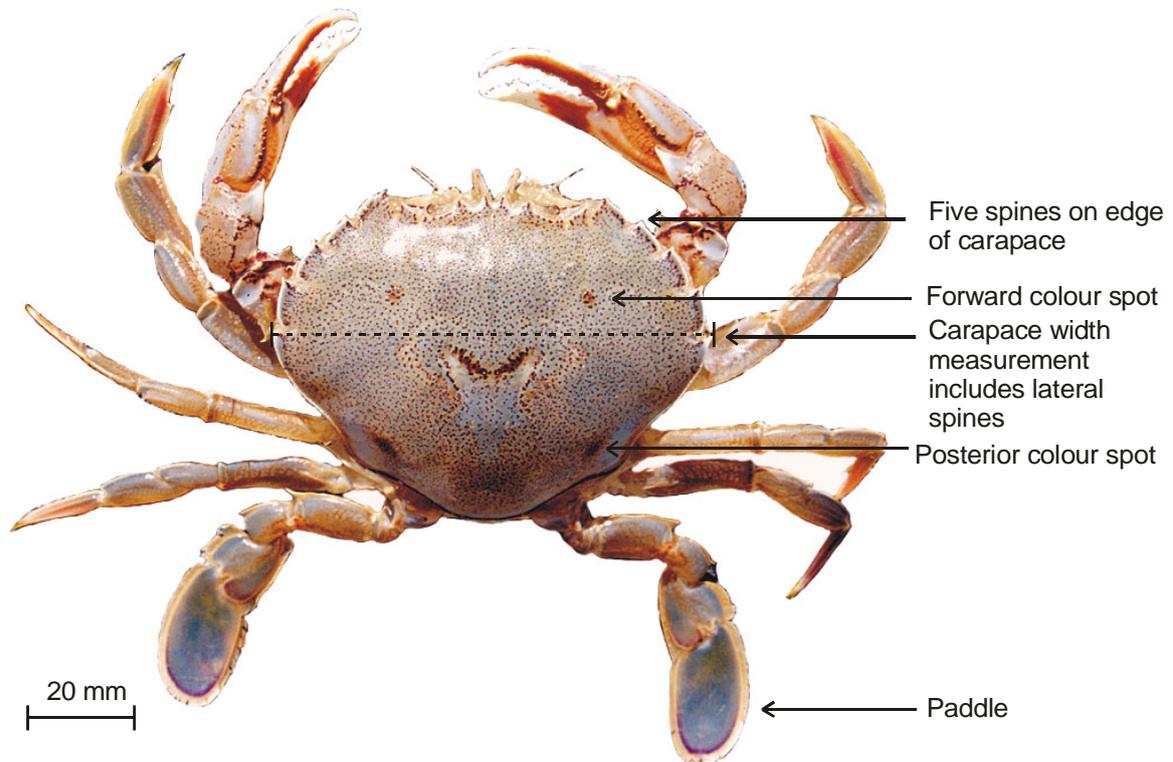
**Similar species:**

*Vitjazmaia latidactyla* is similar, but

- carapace more oval in profile
- 3 spines of rostrum and spine outside eye much longer, narrower, and sharper
- carapace and legs with many tiny, sharp spines
- red-orange spines and less colour on carapace and legs

**Phylum** Arthropoda  
**Class** Crustacea  
**Order** Decapoda  
**Family** Portunidae

### *Ovalipes catharus* (Paddle crab) (PAD)



**Distinguishing features:** Last pair of legs flattened into paddles. Carapace smooth, speckled with red-brown spots. Five spines on each lateral edge of carapace.

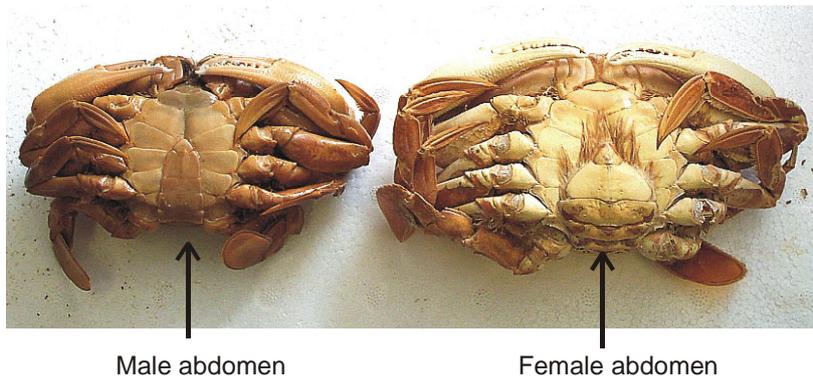
**Colour:** Pale orange bluish, densely speckled with dark red-brown spots. Colour spots concentrated into 2 forward and 2 larger posterior spots.

**Size:** Carapace width up to 150 mm in males, 115 mm in females.

**Distribution:** Widely distributed around New Zealand and at the Chatham Islands. On open sandy beaches, in harbours and estuaries. Commercially caught in pots, set nets, and seines. A common bycatch in beach seines. QMS species.

**Depth:** Intertidal to 100 m. Most common in upper 10 m.

**Sex determination:** Abdomen much narrower in males.



**Similar species:**

The swimming crab (*Ovalipes molleri*) is similar, but has

- reddish iridescence on carapace and no dark brown speckling
- flattened, spiny edged area on pinchers and legs

The dwarf swimming crab (*Liocarcinus corrugatus*) is broadly similar, but

- series of corrugations over much of carapace
- much smaller

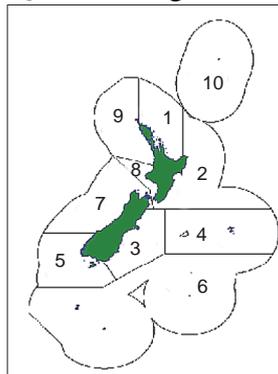
The smooth red swimming crab (*Nectocarcinus bennetti*) is similar, but

- only 4 spines on each lateral edge of carapace
- no dark-brown speckling on carapace
- may have pink iridescence on carapace

The hairy red swimming crab (*Nectocarcinus antarcticus*) is similar, but has

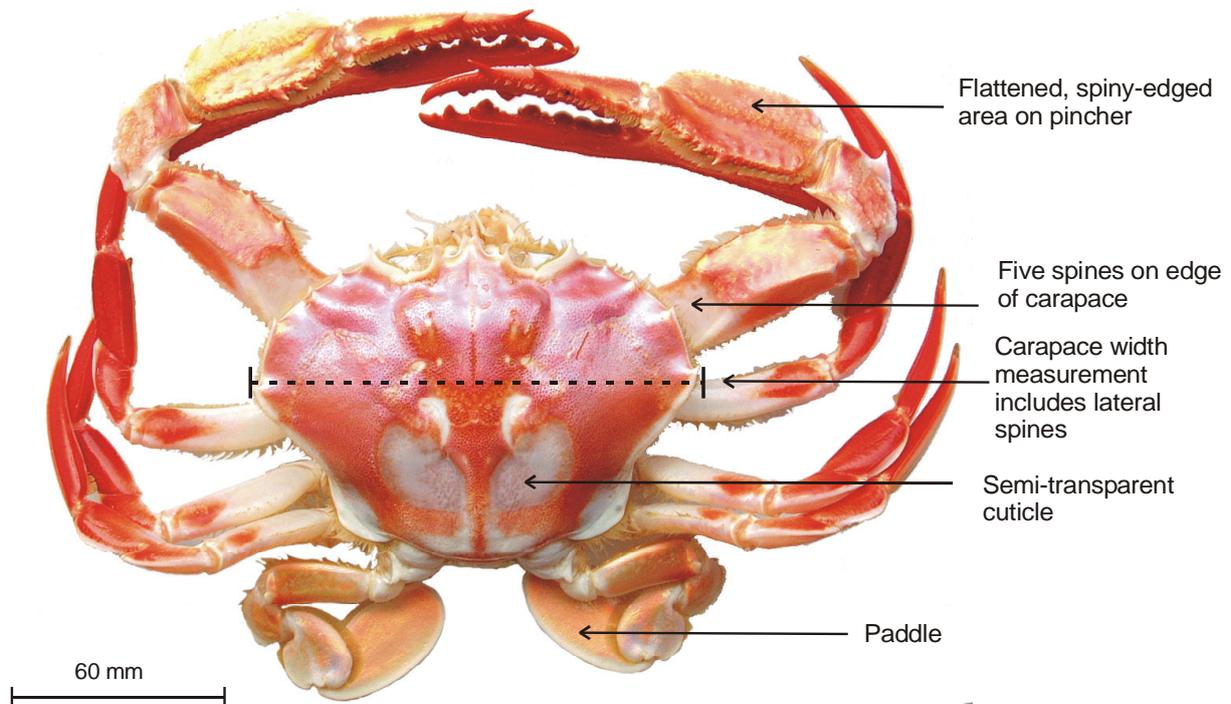
- only 4 spines on each lateral edge of carapace
- carapace covered with fine hair, no dark-brown speckling

**PAD Quota Management Areas**



**Phylum** Arthropoda  
**Class** Crustacea  
**Order** Decapoda  
**Family** Portunidae

### *Ovalipes mollerii* (Swimming crab) (OVM)



**Distinguishing features:** All upper surfaces highly iridescent. Sharp spines on carapace between eyes. Five spines on each edge of carapace. Two semi-transparent areas of shell near back of carapace in mature specimens. Flattened, spiny-edged area on pincher behind movable finger. Last pair of legs flattened into paddles.

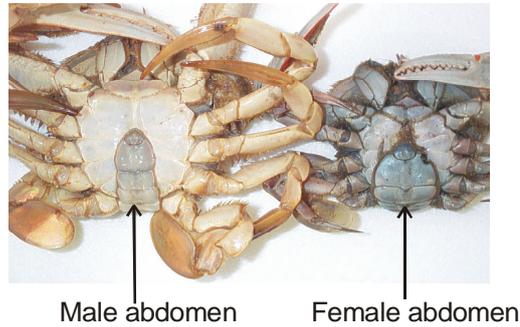
**Colour:** Carapace iridescent red, but may be much brighter than in the image above and refracts the entire spectrum on rotating in bright light (fades quickly after death).

**Size:** Carapace width to about 120 mm in males, less in females.

**Distribution:** Northern North Island, south to the Chatham Rise. On sandy and muddy bottoms. Caught in pots, occasionally in trawls.

**Depth:** 70 to 600 m.

**Sex determination:** Abdomen much narrower in males. Colour in specimens below may be different from colour in fresh specimens.



**Similar species:**

The paddle crab (*Ovalipes catharus*) is similar, but

- dark-brown speckling on carapace, no iridescence on carapace or legs
- flattened, spiny-edged area on pincher less pronounced

The smooth red swimming crab (*Nectocarcinus bennetti*) is similar, but

- 4 spines on each lateral edge of carapace
- spines on carapace between eyes short and blunt

The hairy red swimming crab (*Nectocarcinus antarcticus*) is similar, but has

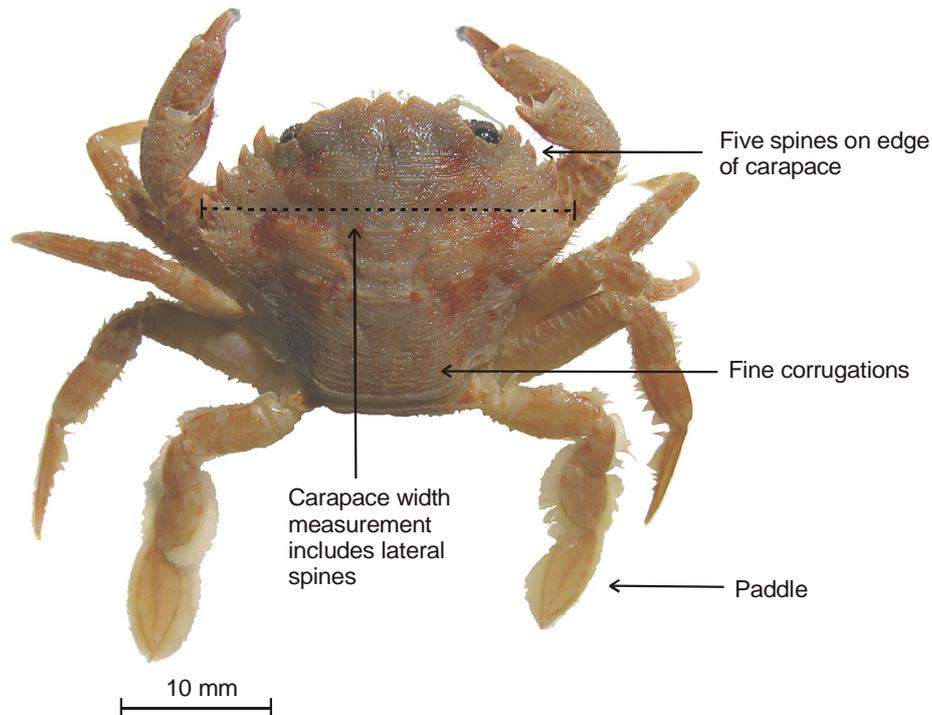
- 4 short, blunt spines on each lateral edge of carapace
- no iridescence on carapace
- fine hair on carapace

The dwarf swimming crab (*Liocarcinus corrugatus*) is broadly similar, but

- series of corrugations over much of carapace
- is much smaller

**Phylum** Arthropoda  
**Class** Crustacea  
**Order** Decapoda  
**Family** Portunidae

### ***Liocarcinus corrugatus* (Dwarf swimming crab) (LCO)**



**Distinguishing features:** Five spines of about the same size on each lateral edge of carapace. Fine corrugations over much of carapace. Last pair of legs flattened into paddles.

**Colour:** Variable, white, grey to reddish brown; chelipeds and walking legs may have red bands.

**Size:** Carapace width up to 20 mm in males, 25 mm in females.

**Distribution:** Widely distributed around the world, in northern and central New Zealand. On sandy and gravel bottoms, sandy tidal flats, and rock pools. Caught in set nets and dredges.

**Depth:** Intertidal to 140 m.

**Sex determination:** Abdomen much narrower in males.

#### **Similar species:**

The paddle crab (*Ovalipes catharus*) and the swimming crab (*O. mollerii*) are similar with five spines on lateral edges of carapace, but

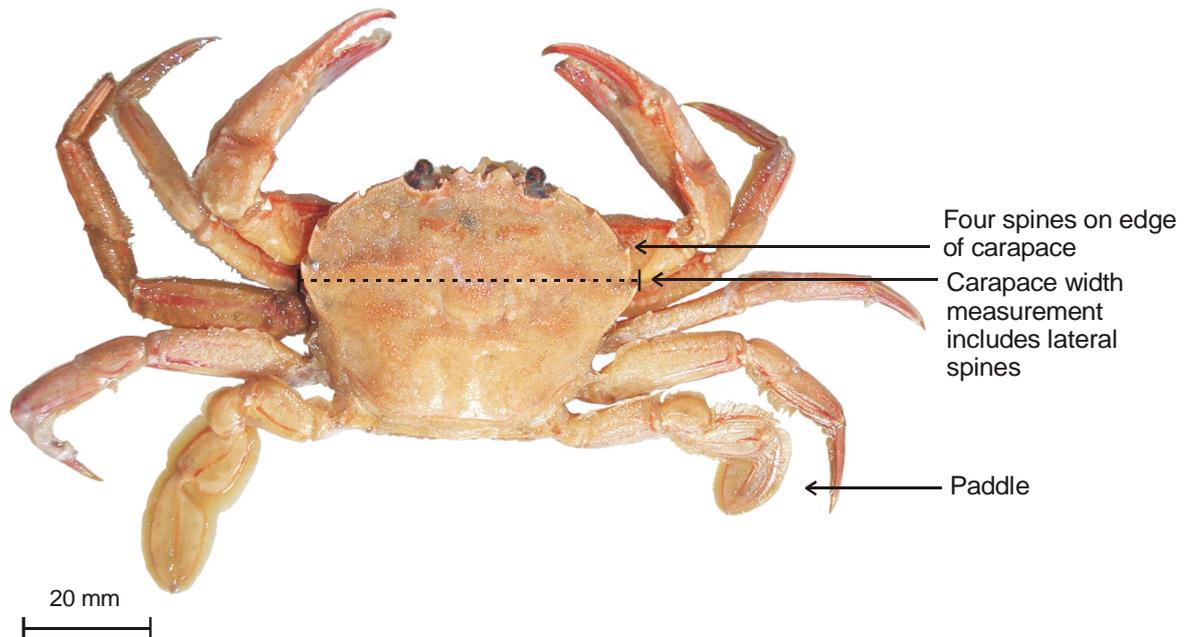
- no corrugations on carapace
- much larger

The smooth red swimming crab (*Nectocarcinus bennetti*) and the hairy red swimming crab (*N. antarcticus*) are similar, but

- 4 spines on each lateral edge of carapace
- no corrugations on carapace
- much larger

**Phylum** Arthropoda  
**Class** Crustacea  
**Order** Decapoda  
**Family** Portunidae

### *Nectocarcinus antarcticus* (Hairy red swimming crab) (NCA)



**Distinguishing features:** Four spines on each lateral edge of carapace. Last pair of legs flattened into paddles. Surface of carapace and legs with matted woolly hairs.

**Colour:** Carapace and upper surface of legs speckled with dark red, and red over pinkish red. Small white marks on ridges and spines. No iridescence.

**Size:** Carapace width to 90 mm in males, smaller in females.

**Distribution:** New Zealand mainland, Chatham, Stewart, Bounty, and Auckland Islands, and possibly Campbell Island. On sand, rock, gravel, mud, and shell bottoms. Caught in trawls and pots.

**Depth:** Intertidal to 550 m.

**Sex determination:** Abdomen much narrower in males (See illustration for *Nectocarcinus bennetti*, p. 30).

**Similar species:**

The smooth red swimming crab (*Nectocarcinus bennetti*) is similar, but

- may have iridescence on carapace
- has no matted woolly hairs on carapace or legs
- has more prominent lateral spines at front of carapace

The paddle crab (*Ovalipes catharus*) is similar, but has

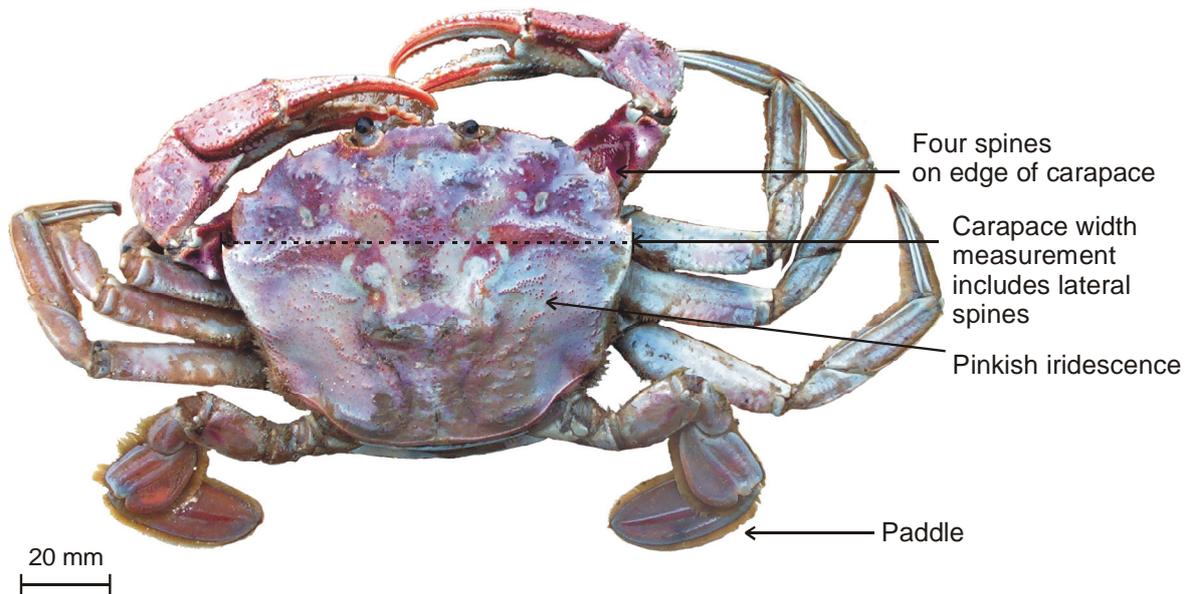
- 5 spines on each lateral edge of carapace
- dark-brown speckling on carapace

The swimming crab (*Ovalipes molleri*) is similar, but has

- 5 spines on each lateral edge of carapace
- iridescence on the carapace, pinchers and legs
- flattened, spiny-edged area on pincher

**Phylum** Arthropoda  
**Class** Crustacea  
**Order** Decapoda  
**Family** Portunidae

### *Nectocarcinus bennetti* (Smooth red swimming crab) (NCB)



**Distinguishing features:** Four spines on each lateral edge of carapace. Carapace and legs smooth, except for small granular areas. Areas of pinkish iridescence on carapace. Last pair of legs flattened into paddles.

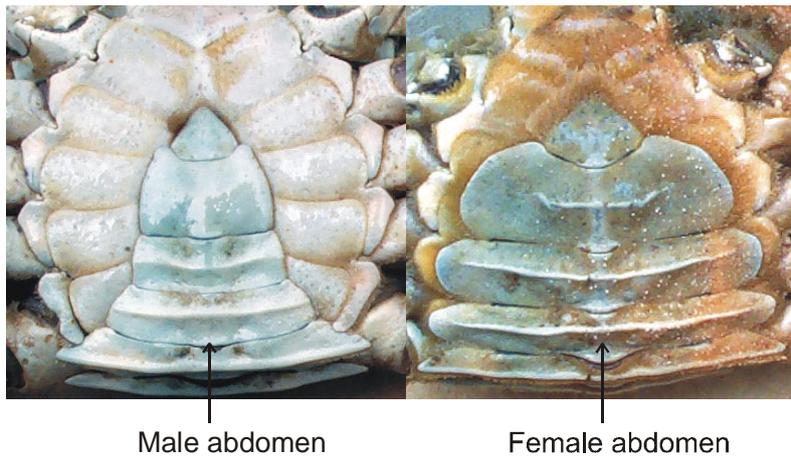
**Colour:** Colour of carapace and top of chelipeds variable, from tan to purplish red, areas of iridescence, especially in adults; some paler, regularly patterned areas near back of carapace.

**Size:** Carapace width to 85 mm in males, 70 mm in females.

**Distribution:** Chatham Rise and Pukaki Rise, southern South Island, Stewart, Snares, Auckland, and Campbell Islands. On sand, gravel, mud, and shell bottoms. Caught in trawls and pots.

**Depth:** 20 to 480 m, most common between 60 and 180 m.

**Sex determination:** Abdomen much narrower in males.



**Similar species:**

The hairy red swimming crab (*Nectocarcinus antarcticus*) is similar, but

- no pink iridescence on carapace
- matted woolly hairs on carapace and legs
- spines on lateral edges of carapace less prominent

The paddle crab (*Ovalipes catharus*) is similar, but has

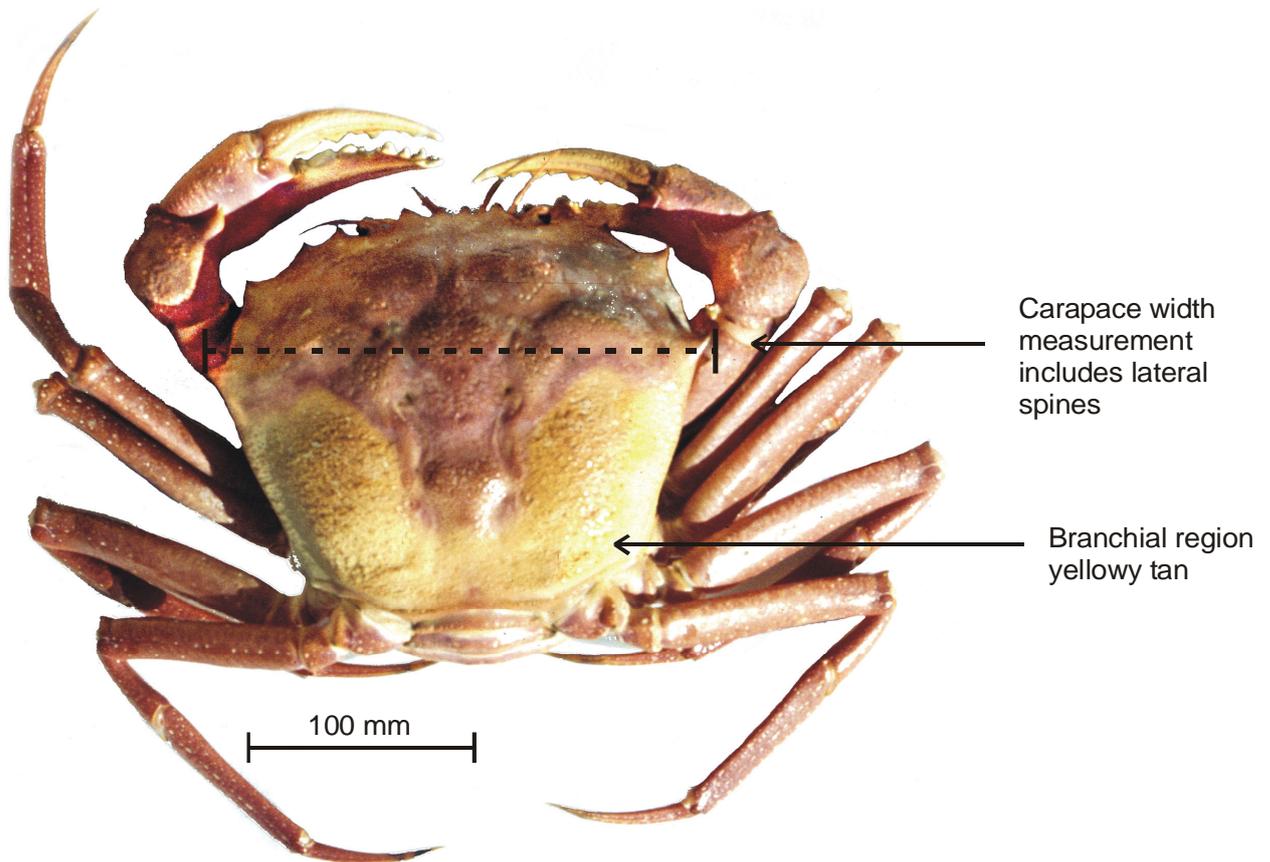
- 5 spines on each lateral edge of carapace
- dark-brown speckling on carapace

The swimming crab (*Ovalipes molleri*) is similar, but has

- 5 spines on each lateral edge of carapace
- reddish iridescence on the carapace
- a more flattened, spiny edged area on pincher

**Phylum** Arthropoda  
**Class** Crustacea  
**Order** Decapoda  
**Family** Geryonidae

### *Chaceon bicolor* (Red crab) (CHC)



**Distinguishing features:** Large. Distinctive carapace shape with 3–5 spines on each lateral edge of carapace. Tips of walking legs laterally flattened. Two-tone red-purple and tan colouring in most specimens.

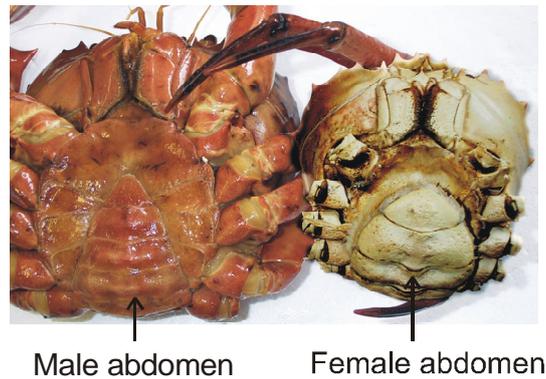
**Colour:** Apart from the branchial regions which are yellowy tan, carapace red-purple to yellowy tan. Legs coloured similarly to carapace.

**Size:** Carapace width in males up to 200 mm, 125 mm in females.

**Distribution:** Off northern North Island, south to Chatham Rise. On rock and rough bottoms. Usually caught in pots or trawls. QMS species.

**Depth:** 800 to 1100 m.

**Sex determination:** Abdomen much narrower in males. Adult females with shorter legs. Colour in preserved specimens (below) is not natural.



**Similar species:**

*Chaceon yaldwyni* is almost indistinguishable, but is

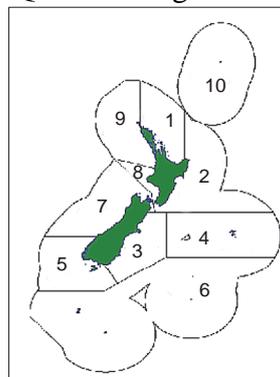
- rarely caught species from the eastern Chatham Rise

If in doubt, call it *Chaceon* sp.

*Carcinoplax* species look similar, but

- much smaller (< 40 mm carapace width)
- tips of pinchers are black

**CHC Quota Management Areas**



**Phylum** Arthropoda  
**Class** Crustacea  
**Order** Decapoda  
**Family** Homolidae

### *Dagnaudus petterdi* (Antlered crab) (DAP)

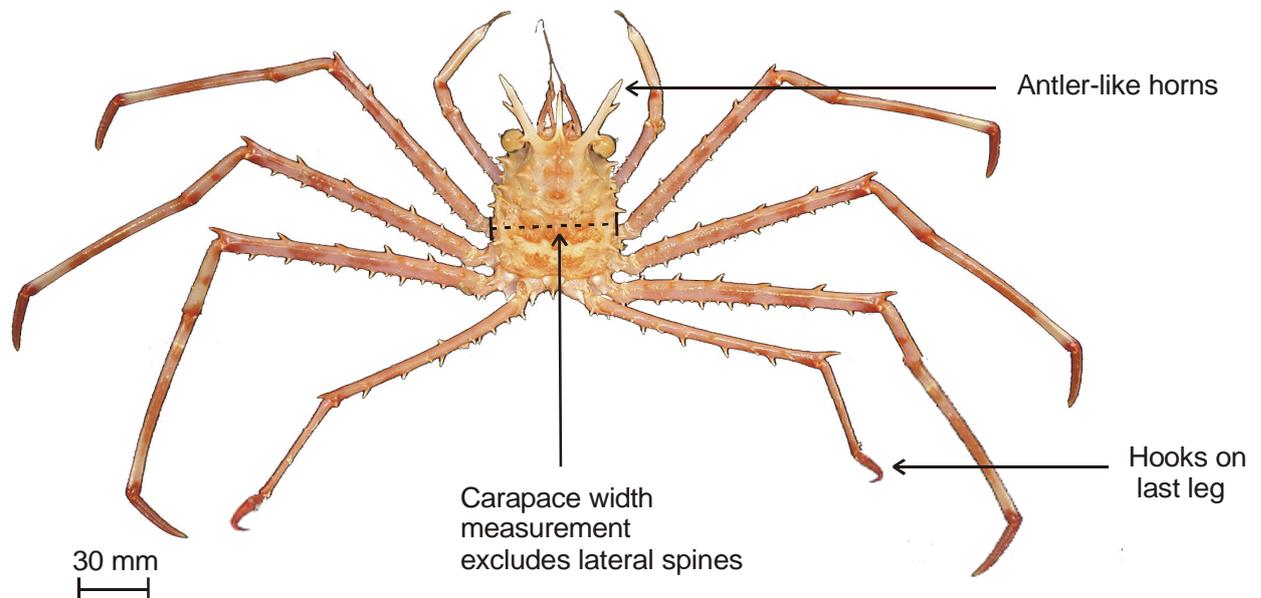


Photo NORFANZ

**Distinguishing features:** Antler-like horns to either side above eyes. Sharp, simple rostrum is a single spine. Pinchers with black tips. Pinchers bulbous in adult males. Long, thin walking legs. Last pair of legs with hooks, normally held above carapace.

**Colour:** Carapace and legs pale yellowish white, mottled with red. Red around joints, and elsewhere on legs.

**Size:** Carapace width to 70 mm.

**Distribution:** East coast, Northland to Fiordland and Snares Islands. Locally common (e.g., off Banks Peninsula). On soft mud bottoms. Caught in pots and trawls.

**Depth:** 180 to 540 m.

**Sex determination:** Abdomen much narrower in males.

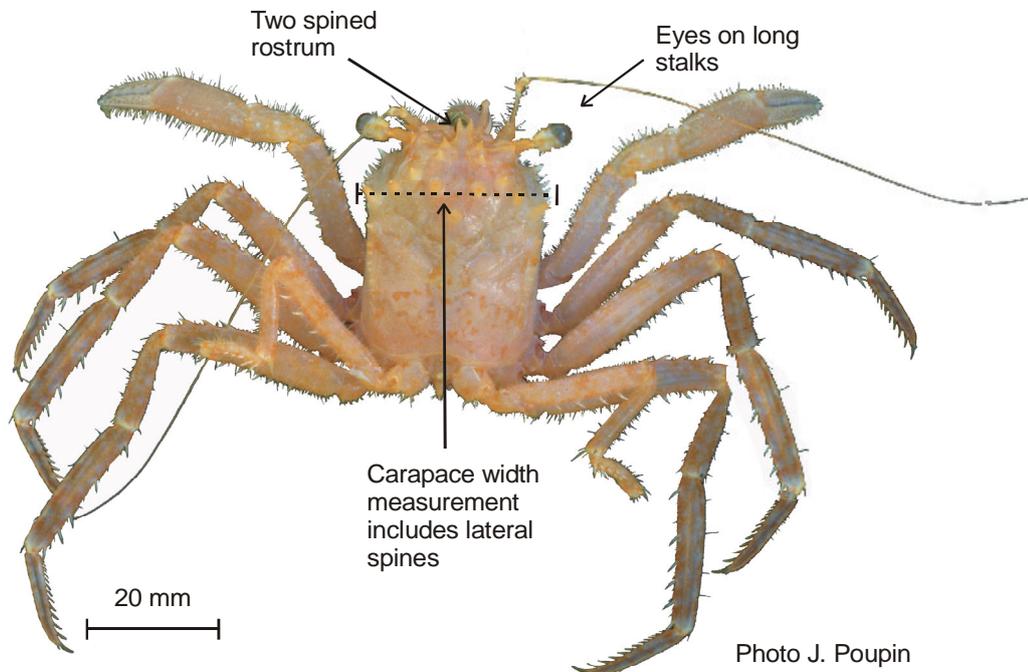
**Similar species:**

*Homola orientalis* and *Yaldwynopsis spinimana* are similar in overall appearance, but

- lack antlers

**Phylum** Arthropoda  
**Class** Crustacea  
**Order** Decapoda  
**Family** Homolidae

### *Homola orientalis* (Carrier crab) (HOO)



**Distinguishing features:** Carapace rectangular. Eyes on rather long, thin stalks. Short rostrum of 2 spines. Long antennae. Long, thin walking legs. Last pair of legs with hooked pinchers.

**Colour:** Carapace and legs pale yellowish white, mottled with red.

**Size:** Carapace width to 30 mm.

**Distribution:** Bay of Plenty. On soft mud bottoms. Caught in pots. Only one specimen recorded from New Zealand waters.

**Depth:** About 40 to 550 m.

**Sex determination:** Abdomen much narrower in males.

**Similar species:**

Antlered crab (*Dagnaudus petterdi*) is similar, but has

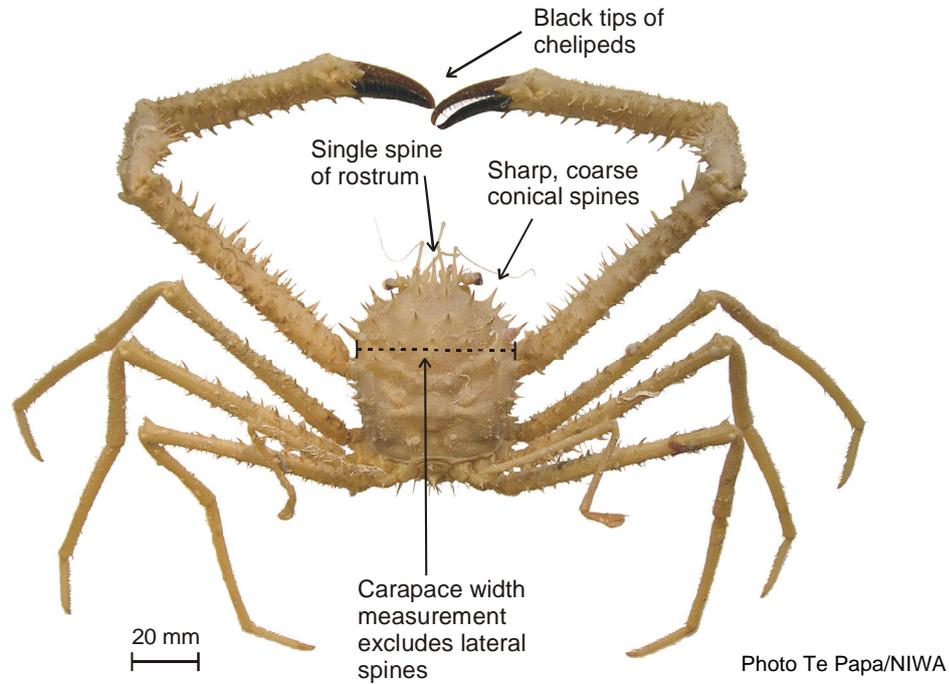
- antler-like horns to either side above eyes

*Yaldwynopsis spinimana* is similar, but has

- rostrum of only 1 spine
- sharp, coarse, conical spines at front and sides of carapace

**Phylum** Arthropoda  
**Class** Crustacea  
**Order** Decapoda  
**Family** Homolidae

### *Yaldwynopsis spinimana* (Yaldwyn's crab) (YSP)



**Distinguishing features:** Carapace urn-shaped, with sharp, coarse, conical spines at front and sides. Sharp, simple rostrum of a single spine, with spines above and below to each side of rostral spine. Eye stalks short, chelipeds long with rows of narrow, sharp spines, fingers black. Long, thin walking legs. Last pair of legs with hooks.

**Colour:** Carapace and legs uniform bright orange; tips of chelipeds black. (Specimen in photo preserved and faded.)

**Size:** Carapace width to about 40 mm.

**Distribution:** Off Three Kings Islands. On soft mud bottoms. Caught in pots. Only 2 specimens recorded.

**Depth:** About 90 to 100 m.

**Sex determination:** Abdomen narrower in males.

**Similar species:** Antlered crab (*Dagnaudus petterdi*) is similar, but has antler-like horns to either side above the eyes.

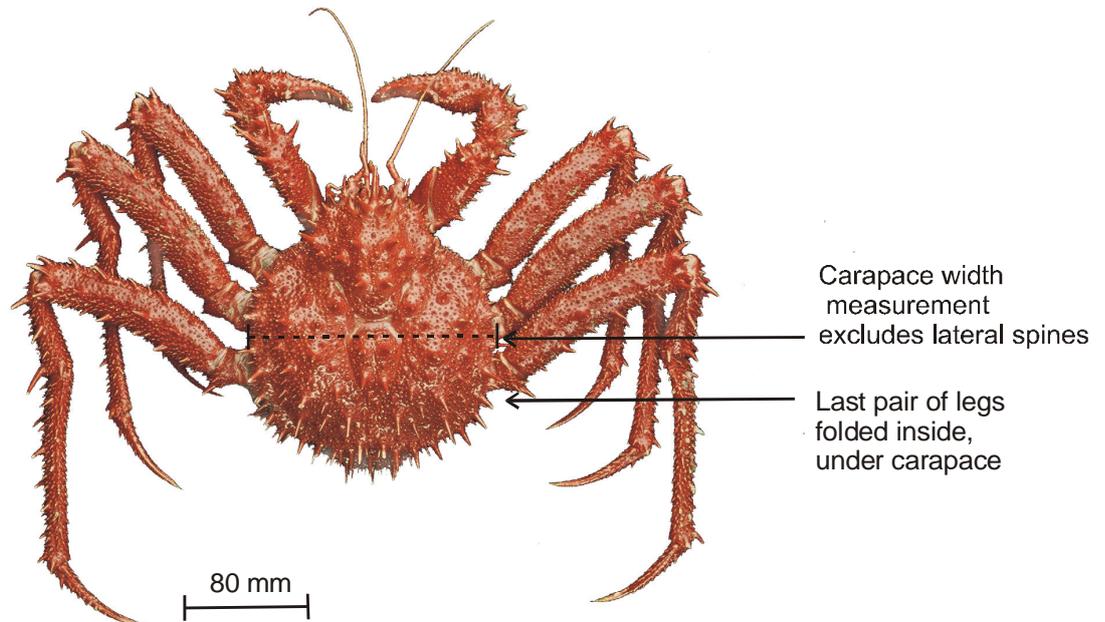
*Homola orientalis* is similar, but

- two-spined rostrum
- lacks narrow sharp spines on chelipeds and front half of carapace

**Phylum** Arthropoda  
**Class** Crustacea  
**Order** Decapoda  
**Family** Lithodidae

***Neolithodes brodiei* (Brodie's king crab) (NEB)**

(Note that this crab and *Lithodes murrayi* are also referred to as KIC)

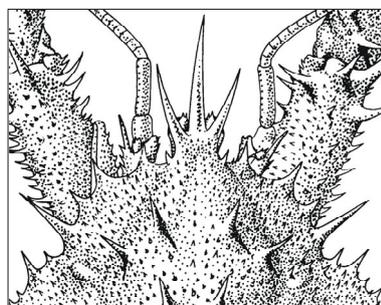


**Distinguishing features:** Carapace pear-shaped. Front of carapace bearing 3 forward-pointed spines (below). Carapace and legs very spiny, spines much longer in juveniles (as in photo above). Last (4th) pair of walking legs small and tucked inside gill chambers out of sight.

**Colour:** Typically uniform brick to bright red.

**Size:** Carapace width to 180 mm.

**Distribution:** Widely distributed from north of Three Kings Islands to Campbell Plateau. Found on calcareous sediment and rocky bottoms. Bycatch in deepwater trawls; also caught in pots. QMS species.



Front of carapace (adult) showing 3 spines of rostrum. (Drawing by W. R. Webber)

**Depth:** 800 to 1100 m.

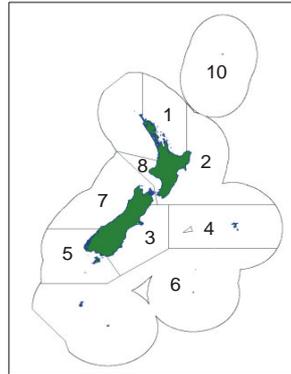
**Sex determination:** Abdomen in males triangular, symmetrical; in females round and asymmetrical (see illustration for *Lithodes murrayi*).

**Similar species:**

The king crabs *Lithodes murrayi* and *Lithodes cf. longispinus* are similar, but have

- single rostrum with forked tip
- 2 lateral spines on rostrum before tip

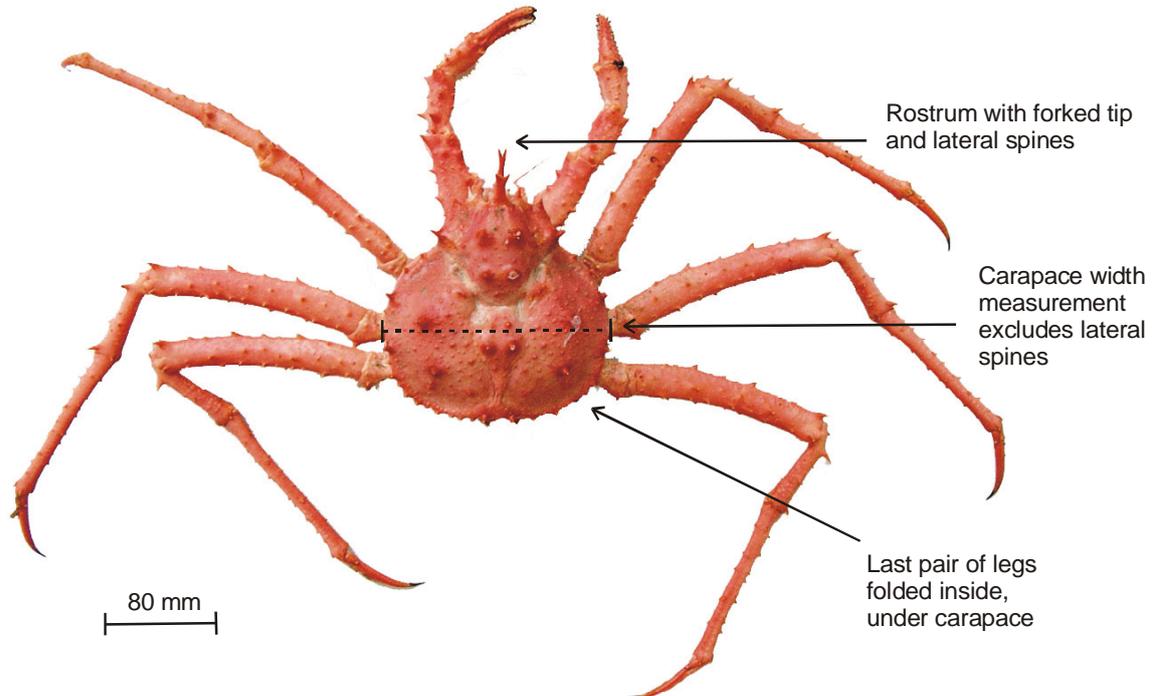
NEB Quota Management Areas



**Phylum** Arthropoda  
**Class** Crustacea  
**Order** Decapoda  
**Family** Lithodidae

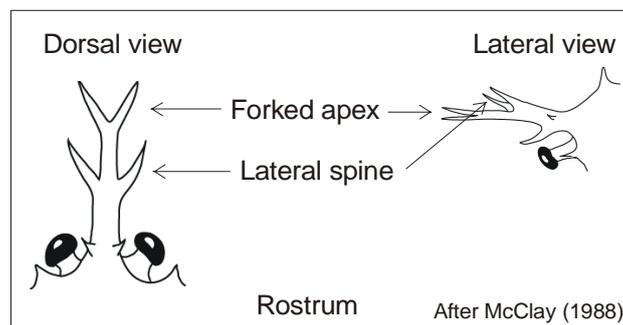
***Lithodes murrayi* (Murray's king crab) (LMU)**

(Note that this crab and *Neolithodes brodiei* are also referred to as KIC)



**Distinguishing features:** Large. Distinctive rostrum (below), with 2 strong lateral spines before the forked tip. Carapace pear-shaped. Short, stubby spines on carapace and legs, longer in juveniles. Last (4<sup>th</sup>) pair of walking legs tucked inside gill chambers.

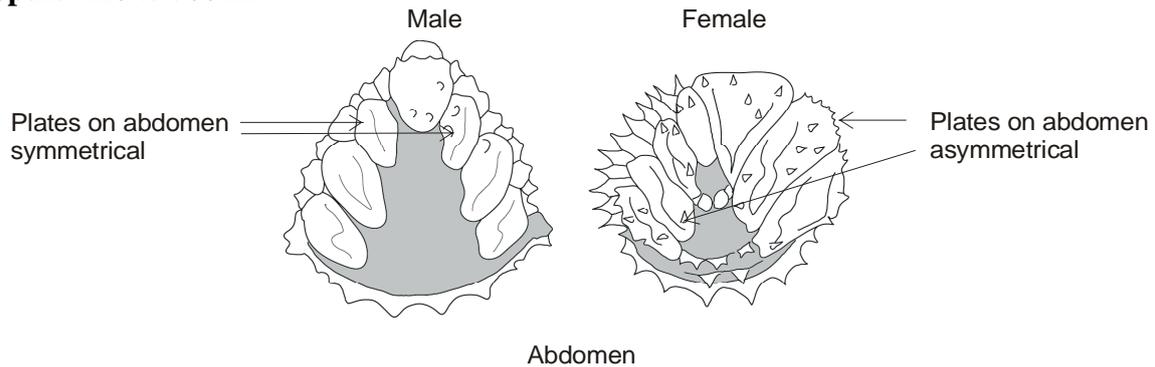
**Colour:** Dark wine red to brick red with paler patches.



**Size:** Carapace width to 200+ mm in males, less in females.

**Distribution:** Around New Zealand, more commonly off Kaikoura Peninsula, west coast of Stewart Island, Solander Island, and in Foveaux Strait. On rocky bottoms. Bycatch in deepwater trawls and setnets, also caught in pots. QMS species.

**Depth:** 120 to 700 m.



**Sex determination:** Abdomen triangular and symmetrical in males; round and asymmetrical in females.

**Similar species:**

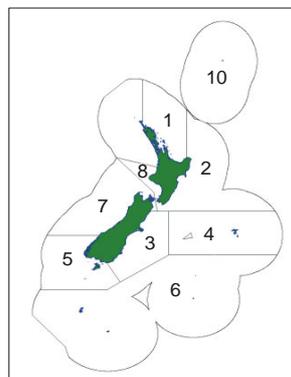
The king crab *Lithodes* cf. *longispinus* is similar, but has

- much longer spines of rostrum, carapace, and legs
- rostrum directed upwards more steeply from base

The king crab *Neolithodes brodiei* is similar, but has

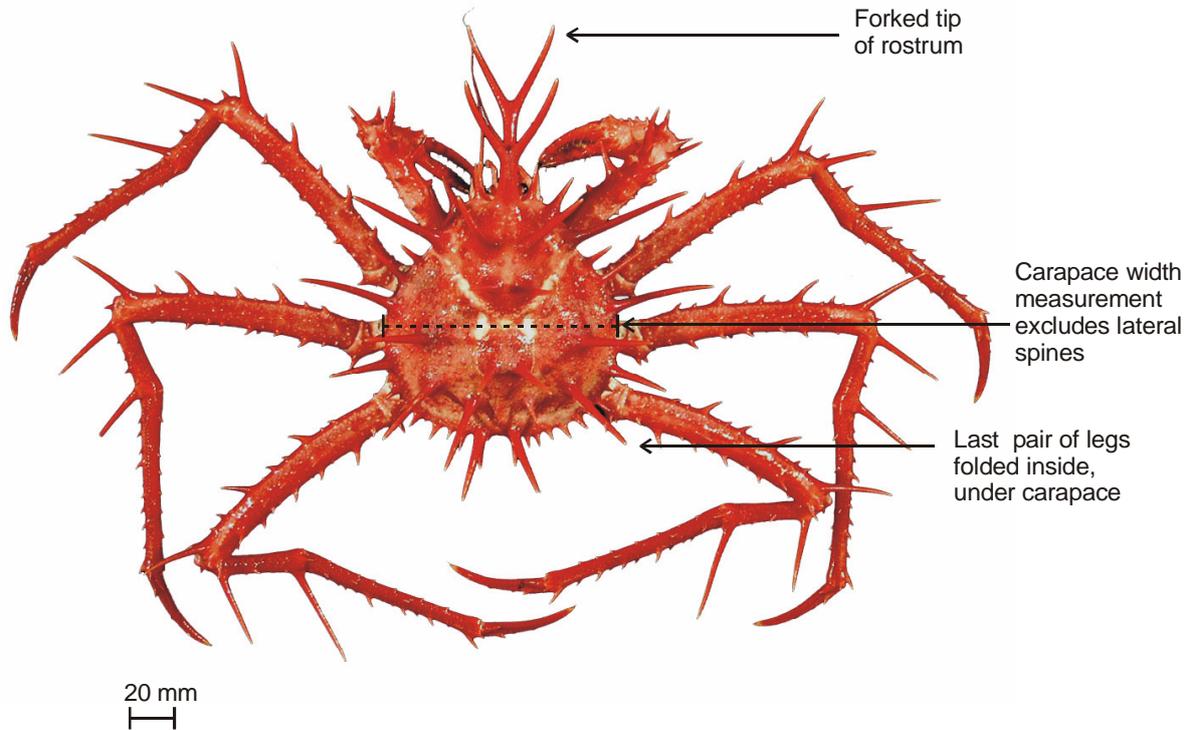
- rostrum of 3 spines, not a single spine with forked tip
- many more sharper spines on carapace, abdomen, and legs

**LMU Quota Management Areas**

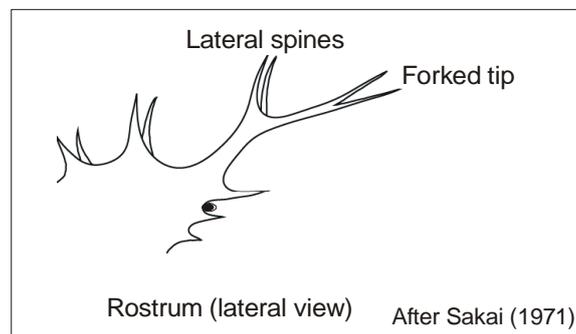


**Phylum** Arthropoda  
**Class** Crustacea  
**Order** Decapoda  
**Family** Lithodidae

***Lithodes cf. longispinus* (Long-spined king crab) (LLT)**



**Distinguishing features:** Rostrum (below) directed strongly upwards from base, directed more horizontally from lateral spines to tip. Tip of rostrum divided into 2 long, sharp spines. Very long, sharp spines on carapace and legs (longest in juveniles). Last pair of walking legs tucked into gill chambers.



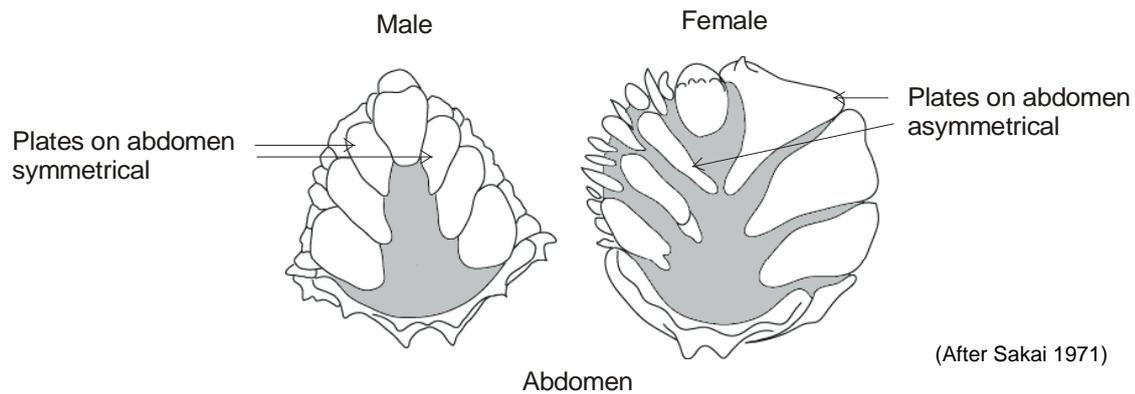
**Colour:** Uniformly deep red.

**Size:** Male carapace width to 100 mm, females less.

**Distribution:** Wairarapa to East Cape. On soft bottoms. Bycatch in deepwater trawls.

**Depth:** 600 to 900 m.

**Sex determination:** Abdomen round and asymmetrical in females; triangular and symmetrical in males.



**Similar species:**

The king crab *Lithodes murrayi* is similar, but has

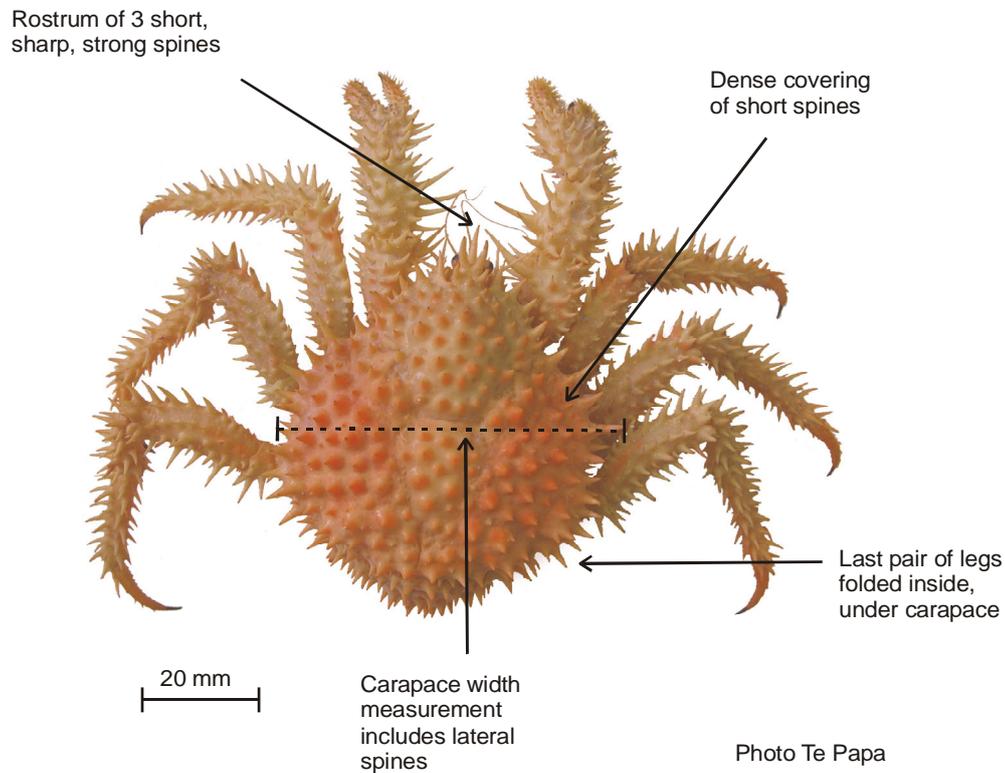
- shorter spines of rostrum, and of carapace and legs
- rostrum not directed upwards as sharply from base

The king crab *Neolithodes brodiei* is similar, but has

- rostrum of 3 spines
- many more sharper spines on carapace and legs

**Phylum** Arthropoda  
**Class** Crustacea  
**Order** Decapoda  
**Family** Lithodidae

### ***Paralomis zealandica* (Prickly king crab) (PZE)**



**Distinguishing features:** Carapace pear-shaped. Rostrum of 3 short, strong, sharp spines. Juveniles with longer curved spines; adult covered with short upright, strong spines (including abdomen). Last (4<sup>th</sup>) pair of walking legs reduced and tucked into gill chamber.

**Colour:** Red on creamy white.

**Size:** Carapace width to 130 mm.

**Distribution:** Eastern, central, and southern New Zealand and Campbell Plateau. On fine sandy and mud bottoms. Caught in pots.

**Depth:** 550 to 650 m.

**Sex determination:** Abdomen triangular and symmetrical in males (see illustration for *Lithodes murrayi*); round and asymmetrical in females.

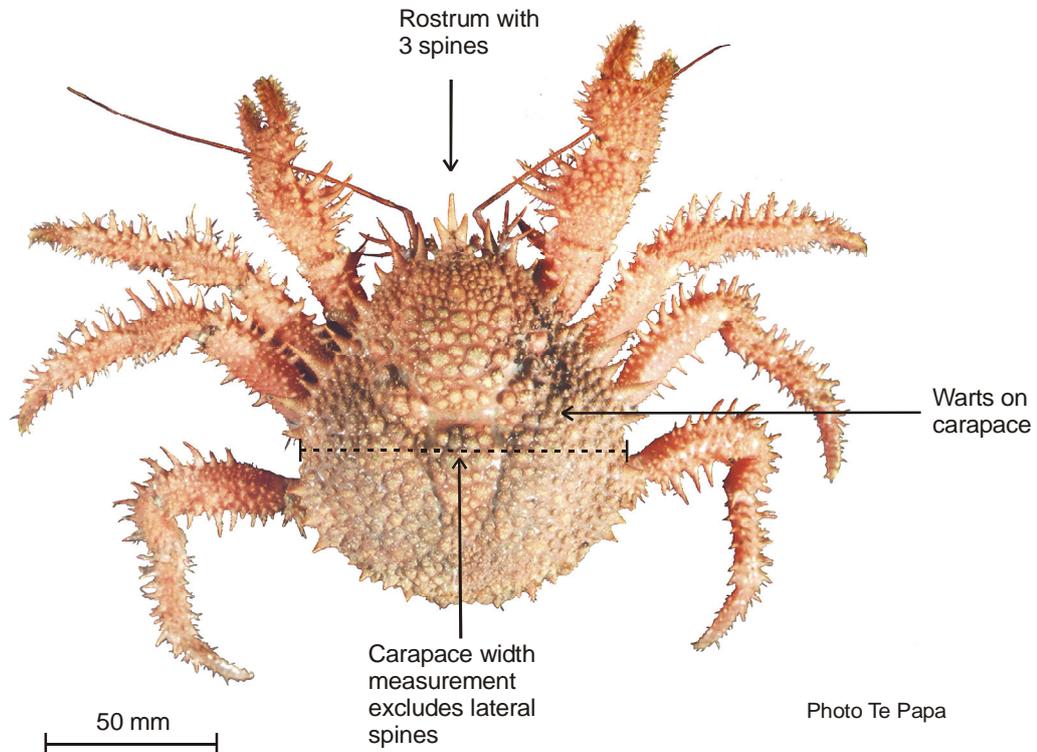
**Similar species:**

The king crab *Paralomis dawsoni* is similar, but has

- warts, not spines on carapace

**Phylum** Arthropoda  
**Class** Crustacea  
**Order** Decapoda  
**Family** Lithodidae

### *Paralomis dawsoni* (Warty king crab) (PDA)



**Distinguishing features:** Carapace broadly pear-shaped to hexagonal; surface warty. Short rostrum of 3 spines. Last (4<sup>th</sup>) pair of walking legs reduced and tucked into gill chamber.

**Colour:** Pinky red.

**Size:** Carapace width to 140 mm.

**Distribution:** North, east, and west of North Island, particularly Bay of Plenty. On soft mud bottoms. Caught in pots.

**Depth:** About 1000 m.

**Sex determination:** Abdomen triangular and symmetrical in males; round and asymmetrical in females.

**Similar species:**

The king crab *Paralomis zealandica* is similar in shape, but has

- uniform covering of short, strong, sharp spines, not warts

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