

## The objectives of this booklet

The booklet includes many of the shrimps found in the intertidal zone by members of the Marine Research Group of the Field Naturalists Club of Victoria over the past few years. It is hoped that the booklet will be useful in assisting the determination of live shrimps in the field, or from photographs taken in the field.

The intention is to record the distribution of these shrimp species, observing them in their habitat and releasing them unharmed. Shrimps should be returned, as precisely as possible, to the place where they were found. Most shrimps are fragile and easily damaged by handling, so minimal, gentle handling, in water, is recommended. A household sieve and/or a small paint brush can be useful.

Often shrimps are best viewed and photographed when submerged. For photography, sometimes it is possible to contain a shrimp in a small pool. A small transparent container is useful when examining a shrimp. Much patience is needed and shrimps frequently escape before they can be photographed or examined!

## Limitations of this booklet

Distinctive body shapes, colour and patterns on the body can be very useful in determination of live shrimps in the field. Some shrimps are able to change colour according to their surroundings.

Many of the descriptions are of the adult male. In some species, the characteristics described are less pronounced in females and/or in juveniles.

This booklet does not include all shrimp species that might be found. A problem with this is that a similar species, but one which is not covered in the booklet, can be misidentified.

Many of the characteristics referred to by biologists are visible only under magnification, requiring the shrimp to be stationary and to be viewed from appropriate vantage points. This is often not possible with a live shrimp in the field.

## **Taxonomic Tree**

The shrimps included in this booklet are placed in order of the alphabetic taxonomic tree in the *World Register of Marine Species*, http://www.marinespecies.org/, July 2018. No attempt has been made to reflect a timeline of the evolution of these crustaceans. The term 'shrimps' has been used loosely, to include a range of crustaceans that are often referred to as shrimps.

## Recommended reading

Shrimps, prawns and lobsters. Gary C.B. Poore, Museum Victoria, 2014

Marine Decapod Crustacea of Southern Australia: A Guide to Identification. Gary C.B. Poore,

Museum Victoria, CSIRO Publishing, 2004. Those involved in preparing this booklet are most
grateful that this comprehensive work is available. It was the major reference in preparing this
booklet.

Margaret Rowe, who prepared this booklet, is grateful for contributions of images, and for assistance, suggestions and encouragement from a number of members of the Marine Research Group of the Field Naturalists Club of Victoria.

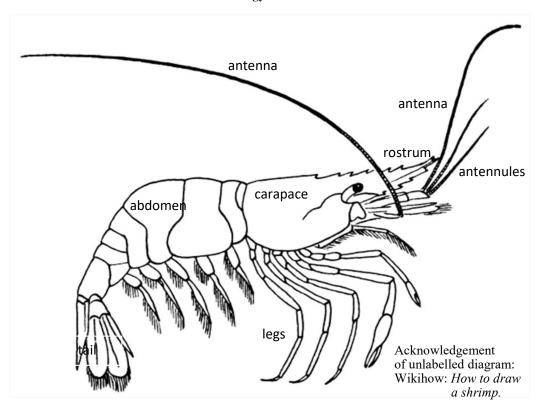
In particular, thanks are due to Barbara Hall who provided images and commented on a series of drafts, offering helpful suggestions which assist in describing the shrimps and their habitats.

Thanks are also due to John Eichler who provided many of the images, and offered helpful comments during preparation of the text. Also to Joan Hales who provided images for the booklet and a range of additional images that assisted with descriptions of some species.

Thanks are also due to Leon Altoff who provided some of the images, and worked on the technical side of preparing and producing this booklet.

The MRG would also like to thank the staff of the Museum of Victoria for granting permission to access the collection to view preserved specimens and to photograph some of these for inclusion in this booklet.

### Sketch of external features with terminology used



## **INDEX**

| ORDER    | FAMILY         | GENUS SPECIES  | PAGE |
|----------|----------------|--|------|
| Decapoda | Callianassidae | Biffarius arenosus<br>(Poore, 1975)                  | 1    |
|          |                | Biffarius ceramicus<br>(Fulton & Grant, 1906)        | 2    |
|          |                | <i>Trypaea australiensis</i><br>Dana, 1852           | 3    |
|          | Strahlaxiidae  | Strahlaxius waroona<br>(Poore & Griffin, 1979)       | 4    |
|          | Alpheidae      | Alpheus australosulcatus<br>Banner & Banner, 1982    | 5    |
|          |                | Alpheus novaezealandiae<br>Miers, 1876               | 6    |
|          |                | <i>Alpheus parasocialis</i><br>Banner & Banner, 1982 | 7    |
|          |                | <i>Alpheus richardsoni</i><br>Yaldwyn, 1971          | 8    |
|          |                | Alpheus villosus<br>(Olivier, 1811)                  | 9    |
|          |                | <i>Athanas granti</i><br>Coutière, 1908              | 10   |
|          |                | Synalpheus tumidomanus<br>(Paul'son, 1875)           | 11   |
|          | Hippolytidae   | Alope orientalis<br>(de Man, 1890)                   | 12   |
|          |                | <i>Hippolyte australiensis</i> (Stimpson, 1860)      | 13   |
|          |                | <i>Hippolyte caradina</i><br>Holthuis, 1947          | 14   |
|          |                | Latreutes compressus<br>(Stimpson, 1860)             | 15   |
|          | Crangonidae    | <i>Crangon uritai</i><br>Hayashi & J.N. Kim, 1999    | 16   |
|          |                | Philocheras intermedius<br>(Spence Bate, 1863)       | 17   |
|          |                | iii  |      |

## **INDEX**

| ORDER       | FAMILY             | GENUS SPECIES   | PAGE |
|-------------|--------------------|---|------|
| Decapoda    | Crangonidae        | Philocheras obliquus<br>(Fulton & Grant, 1902)        | 18   |
|             |                    | Philocheras victoriensis<br>(Fulton & Grant, 1902)    | 19   |
|             | Rhynchocinetidae   | Rhynchocinetes australis<br>Hale, 1941                | 20   |
|             | Palaemonidae       | <i>Palaemon atrinubes</i><br>(Bray, 1976)             | 21   |
|             |                    | <i>Palaemon dolospinus</i><br>Walker & Poore, 2003    | 22   |
|             |                    | Palaemon intermedius<br>(Stimpson, 1860)              | 23   |
|             |                    | Palaemon litoreus<br>(McCulloch, 1909)                | 24   |
|             |                    | <i>Palaemon serenus</i><br>Heller, 1862               | 25   |
|             | Pandalidae         | Chlorotocella spinicaudus<br>(H. Milne Edwards, 1837) | 26   |
|             | Processidae        | <i>Processa australiensis</i><br>Baker, 1907          | 27   |
|             | Laomediidae        | <i>Laomedia healyi</i><br>Yaldwyn & Wear, 1970        | 28   |
|             | Upogebiidae        | Acutigebia simsoni<br>(Thomson, 1893)                 | 29   |
| Mysida      | Mysidae            |   | 30   |
| Stomatopoda | Nannosquillidae    | <i>Austrosquilla osculans</i><br>(Hale, 1924)         | 31   |
|             |                    | <i>Hadrosquilla perpasta</i><br>(Hale, 1924)          | 32   |
|             | Squillidae         | Distosquilla miles<br>(Hess, 1865)                    | 33   |
|             | Credits for images |   | 34   |
|             |                    | iv  |      |

## Callianassidae Ghost Shrimps Biffarius arenosus



Length to 43 mm

### **Distinctive features**

- Body pale/translucent, legs white
- Front claws white, flushed with pink, unequal in size
- Blade-like lobe on the 'wrist' of the larger front claw is hooked and finely serrated (image 3) - diagnostic feature
- In adults, each section of the large claw is longer compared with its depth than is found in the equivalent parts of *B. ceramicus* (p.2).

Habitat: Constructs elaborate burrows in Intertidal sand flats, including in estuarine

## Callianassidae Ghost Shrimps Biffarius ceramicus



Length to 80 mm



## Distinctive features

 Abdomen and front claws flushed with bright pink, carapace and legs translucent,

## white

- The two front claws are unequal in size
- Blade-like lobe on 'wrist' of the larger front claw is rounded and finely serrated (image 3)
   diagnostic feature
- In adults, each section of the large claw is deeper compared with its length than is found in the equivalent sections of *B. arenosus* (p.1).



**Habitat:** Burrows in intertidal sandy beaches and mudflats.

## Callianassidae

## Trypaea australiensis Australian Ghost Shrimp, Bass Yabby



Length to 63 mm

## Distinctive features

- Front claws mauve or pink, body translucent pale brown
- The two front claws are unequal in size
- 'Wrist' of the larger front claw has a sharp hook (circled in image 2) diagnostic feature
- A curtain of soft hairs hangs from the antennules (the shorter pair of antennae) (image 3) - diagnostic feature.

**Habitat:** Intertidal sand and mud flats, often estuarine. Constructs burrows.





## Strahlaxiidae Strahlaxius waroona Waroona Mud Shrimp







Length to 36 mm

### **Distinctive features**

- Colour pale yellow/green or red/brown
- The two front claws are equal in size
- Viewed from above, the rostrum partly covers the black eyes (images 1 and 2)
- The margin of the rostrum is toothed about 10 teeth (image 2)
- There is only one spine at the base of the rostrum, in the mid-line
- The endopod of uropod is triangular as in image 3 (circled).

Habitat: Under rocks in the intertidal zone.

## Alpheidae Snapping Shrimps Alpheus australosulcatus



### Length to 65 mm

### Distinctive features

- Body red-brown
- Narrow, pale, broken stripe along mid-back is typical (image 1)
- Front claws with small blue spots and sparse bristles (images 1 and 4)
- Antennae blue-tinged (images 1, 3 and 4)
- Rostrum conical (image 2).





## Alpheidae Snapping Shrimps Alpheus novaezealandiae



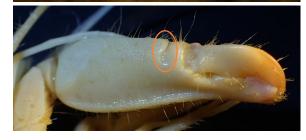
Length to 68 mm

### **Distinctive features**

- Body dark red-brown, or paler pinkish brown, mottled with pale blotches and spots
- Large front claw with scattered stiff hairs and with a transverse slit near the base of the moveable finger (circled in image 3)
- Rostrum relatively long and sharp (outlined in image 2)
- A groove on each side of the rostrum between the rostrum and the eye (image 2)
- Tail fan sometimes with blue markings and orange fringes.

Habitat: Shelters under rocks.





## Alpheidae Snapping Shrimps Alpheus parasocialis



## Length to 35 mm

#### Distinctive features

- Body and claw colour varies - dark brown to pale greenish brown
- Large and smaller front claws always with typical zigzag pattern diagnostic feature (images 1 and 2)
- Rostrum small, narrow and sharp (outlined in image 3)
- Sharp point on the hood over each eye (outlined in image 3).

Habitat: Shelters under rocks.





## Alpheidae Snapping Shrimps Alpheus richardsoni



Length to 65 mm

### **Distinctive features**

- Body olive green and brown
- Six sets of green or brown bands across the abdomen - diagnostic feature
- Greatly enlarged front claw usually dark green and, viewed from above, has a distinct 'waist' (image 1)
- Rostrum small, short and sharp (outlined in image 2).



Habitat: Shelters under rocks, often in muddy areas.

# Alpheidae Snapping Shrimps Alpheus villosus



Length to 67 mm

### **Distinctive features**

- Body bright or pale orange
- Long and short stiff hairs over entire body
- Large and smaller front claw covered with long stiff hairs
- Antennae banded, red and white
- The only very hairy shrimp in southern Australian waters.

Habitat: Shelters under rocks.



## Alpheidae Snapping Shrimps Athanas granti



### **Distinctive features**

- Upper body red with pale dorsal stripe along abdomen (image 2)
- Lower body and legs pale (image 1)
- Large front claws red and usually similar in size
- Rostrum narrow and sharp (image 3)
- Often found in association with the sea urchin, *Heliocidaris erythrogramma*, where it is well camouflaged against the spines.

Habitat: Shelters under rocks or with Heliocidaris erythrogramma.

## Alpheidae Snapping Shrimps Synalpheus tumidomanus



### Length to 25 mm

### **Distinctive features**

 Body colour varies, usually greenish with fine red spots, but may take on pale orange or brown appearance

resembling the colour of the background

- Front claws green tip of the greatly enlarged front claw dark green
- Large front claw: smoothness, barrel shape and almost circular in cross section are diagnostic features (image 2)
- Rostrum narrow and sharp (outlined in image 3).

**Habitat:** Shelters among algae in rock pools and under rocks.



# Hippolytidae Hippolytid Shrimps Alope orientalis Bald Shrimp



Length to 27 mm

### **Distinctive features**

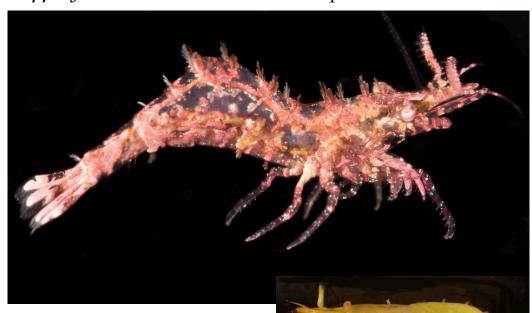
- Body translucent greenish, red, red-brown, brown or combination of these
- Stripes or bands across the body green, brown and/or white
- Pale bands on legs
- Single white glistening stripe across the base of the tail fan diagnostic feature.

**Habitat:** Rock pools, among algae or seagrass.





## Hippolytidae Hippolytid Shrimps Hippolyte australiensis Weed Shrimp



Length to 38 mm, usually smaller.

#### Distinctive features

- 'Hunch-backed' shape in profile (images 1 and 2)
- Colour varies: green, brown, red or mottled, matching the algae in the pool where it lives
- Some appear 'hairy' (image 1)
- Rostrum, viewed in profile, is slightly 'drooping' and has no teeth along the upper edge (image 4) - diagnostic feature

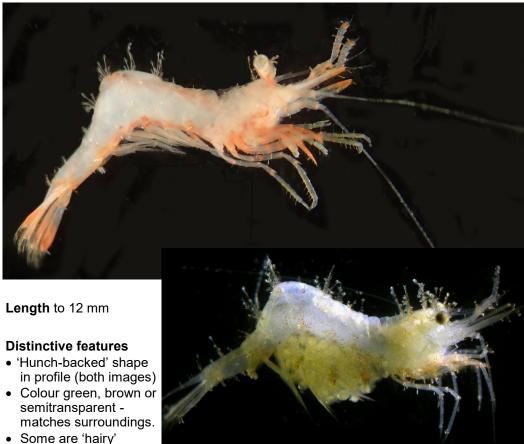
**Note:** This common and widespread shrimp is similar to *Hippolyte caradina* (p.14). *H. australiensis* is more elongated than *H. caradina* and usually larger. The rostrum of *H. australiensis* can usually be observed in the field.

**Habitat:** Often abundant among algae in pools on the rocky shores of relatively exposed coasts.





## Hippolytidae Hippolytid Shrimps Hippolyte caradina Little Shrimp



- (image 2)
- Antennules (the shorter pair of antennae) are held high above the head (image 1)
- Rostrum, viewed in profile, is slender, almost transparent, with two or three teeth
  along the upper margin and sometimes one or two on the lower margin near the tip a diagnostic feature, but difficult to see in the field
- The individual shown in image 2 is carrying eggs.

**Note:** It is similar to *Hippolyte australiensis* (p.13). *H. caradina* is always small, is less elongated than *H. australiensis* and has a slightly more pronounced 'hump'. The rostrum must be observed to be certain of correct determination.

**Habitat** Sheltered waters, among seagrass in areas of soft sediment, or among algae in sheltered pools.

## Hippolytidae Hippolytid Shrimps Latreutes compressus Blade-fronted Shrimp



Length to 20 mm usually smaller.

#### Distinctive features

- Colour varies, providing camouflage in the surroundings: green, red, brown or multicoloured
- The blade-like appearance of the head in profile is distinctive. The head of females, is a little deeper, shorter and more truncate (image 2) than the head of males (images 1 and 3)
- Viewed from above, this shrimp can be mistaken for a small fish.

**Habitat:** Rocky shores, among algae in rock pools and among seagrasses in more sheltered waters.



# Crangonidae Sand Shrimps Crangon uritai



### Length to 12 mm

This shrimp is a recent introduction to Australian waters and at this stage it has been recorded from only a few sites on the extreme northern shores of Port Phillip Bay (Greenwich Bay, Hobsons Bay and Jawbone). It is common in coastal waters of Korea, Japan and Russia.



#### Distinctive features

- Well camouflaged in the sandy/muddy substrate, it moves with its legs and lower body in the sand and the upper surface of the body flush with, or below, the surface
- Colour of dorsal surface sandy with dark brown and black pattern of spots
- Pattern of markings on the upper surface is diagnostic
- Second pair of legs are about the same length as the other legs (this is not so in the following three species) diagnostic feature
- Rostrum very narrow and sharp (outlined in black in image 2) diagnostic feature
- One spine in the mid-line of the carapace (viewed in profile under magnification).

**Habitat:** Soft sandy/muddy sediments in sheltered environments. Sometimes buried in muddy sand.

## Crangonidae Sand Shrimps Philocheras intermedius



Length to 45 mm

### **Distinctive features**

- Well camouflaged in the sandy/ muddy substrate, it moves with its legs and lower body in the sand and the upper surface of the body flush with, or below, the surface
- Colour and pattern on upper surface is diagnostic: mottled grey, white and golden brown with three black patches on the 5th ab-

#### dominal

### segment

- Orange marking on 4th segment and sides of tail fan
- Second legs shorter than the other legs
- Tip of rostrum rounded, not sharp (outlined in images 2 and 3)
- One spine, sometimes with a small second spine, along the midline of the carapace (outlined in black in images 2 and 3).

**Habitat:** Soft sandy sediments on sheltered to moderately exposed coasts. Sometimes buried in sand.



## Crangonidae Sand Shrimps *Philocheras obliquus*



#### **Distinctive features**

- Well camouflaged, buried or partly buried in fine sandy substrate
- Colour and pattern on upper surface is diagnostic - mottled golden brown, black, white with fourth segment of abdomen black
- Narrow black stripe across tail fan
- Eye colour mustard/yellow-brown
- Second legs much shorter than other legs
- Tip of rostrum truncate diagnostic feature (outlined in black in image 2)
- Two spines of equal size along the midline of the carapace (seen when viewed in profile under magnification).

Habitat: Soft, fine sandy (not muddy) sediments, in clear water, on sheltered coasts.

## Crangonidae Sand Shrimps Philocheras victoriensis



## Length to 24 mm

### **Distinctive features**

 Well camouflaged in the sandy/muddy substrate, it moves with its legs and lower body in the sand and the upper surface of the body flush

with, or below, the surface

- · Colour mottled browns and grey
- · Second legs are much shorter than the other legs
- Tip of rostrum rounded not sharp (outlined in image 3)

• Three similar spines along the ridge in the mid-line of the

carapace (viewed in profile, image 2) - diagnostic feature.

**Habitat:** Soft sandy sediments in sheltered environments such as Port Phillip Bay, Western Port and Corner Inlet.



# Rhynchocinetidae Hinge-beak Shrimps Rhynchocinetes australis Southern Hinge-beak Shrimp



Length to 57 mm

#### **Distinctive features**

- The pattern of dark brown or redbrown stripes is distinctive
- Longitudinal stripes along the top of the carapace
- Oblique stripes on the sides of the carapace
- Two prominent stripes cross the first two segments of the abdomen, with a white spotted area between these
- A yellow stripe each side of segments
   3 to 6 of the abdomen, and extending onto the tail fan.



**Habitat:** Shelters among algae in low intertidal and sub-tidal-pools and crevices. Sometimes found in sheltered places on relatively high energy coasts.

## Palaemonidae Palaemonid Shrimps Palaemon atrinubes



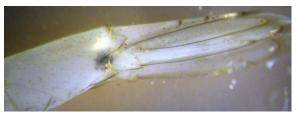
### Length to 40 mm

### **Distinctive features**

- Body colour translucent, pale, golden brown
- Broken black line across abdomen along posterior edge of third segment only, viewed from above (image 2) - diagnostic feature
- Blurred black spot on each side of the abdomen at the edge of sixth segment, near the tail fan (viewed in profile, refer to mage 3)
- Rostrum: the one-third of the upper edge nearest to the tip has no teeth (image 4) diagnostic feature.

**Habitat:** Soft sandy or muddy substrate and seagrass. Tolerates low salinity.







## Palaemonidae Palaemonid Shrimps Palaemon dolospinus



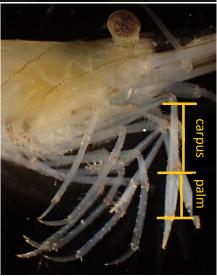
### Length to 40 mm

#### Distinctive features

- Body translucent light brown or almost colourless
- Oblique stripes on carapace
- Transverse brown or olive green stripes across each of the 6 segments of the abdomen
- Red spots might be visible on each side of the last three segments of the abdomen
- The joints of the legs, including the joints of the front claws, might be red as in some other palaemonid shrimps, but there is no wide red band on the wrists of the front claws
- **Note:** This is very similar to *Palaemon litoreus* (p.24). The front claw (actually the second leg) of *P. dolospinus* has the carpus longer than the palm (image 3) diagnostic feature. Typically, the two species are found in different habitats.

**Habitat:** Shelters among seagrass; favours Muddy, sheltered bays and estuarine environments.





## Palaemonidae Palaemonid Shrimps Palaemon intermedius



Length to 40 mm

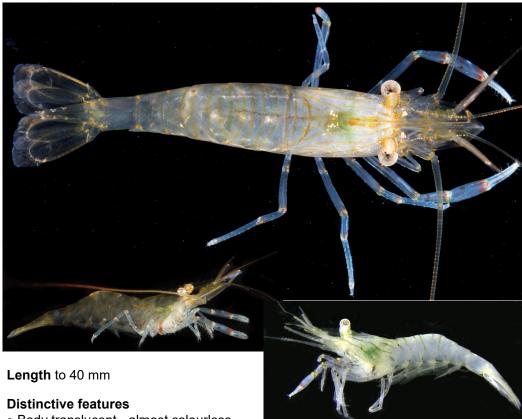
### **Distinctive features**

- Body translucent pale brown or almost colourless
- Viewed from above, a dark outline, as if sketched with a black pen, and suggesting a 'waist-coat 'or 'vest', can be seen on the carapace (both images)
- A few indistinct lines across the abdomen, each line consisting of many dark spots
- The joints of the legs, including the joints of the front claws, might be red, as in some other

palaemonid shrimps, but there is no wide red band on the wrists of the front claws.

Habitat: Shelters among seagrass, favours muddy, sheltered environments.

## Palaemonidae Palaemonid Shrimps Palaemon litoreus

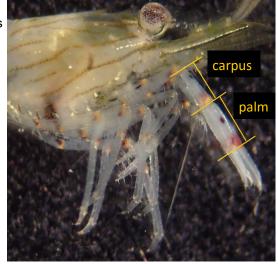


- Body translucent almost colourless
- The oblique red or green stripes on the carapace are sometimes inconspicuous
- Transverse red or green stripes on each of the 6 segments of the abdomen are often inconspicuous
- The joints of the legs are red and yellow
- No wide red band on the wrists of the front claws

**Note:** This is very similar to *Palaemon dolospinus* (p.22). The front claw (the second leg) of *P. litoreus* has the carpus shorter than the palm (image 4)

- diagnostic feature. Typically, the two species are found in different habitats.

Habitat: In rocky habitats—in algae.



## Palaemonidae Palaemonid Shrimps Palaemon serenus Rockpool Shrimp



Length to 60 mm

## Distinctive features

- Body translucent pale brown or almost colourless
- Longitudinal and oblique lines on the carapace
- Scattered spots on the abdomen
  - diagnostic feature
- Wide red 'wrist bands' and white 'fingers' on the two front claws
  - a diagnostic feature.

**Habitat:** Rocky shores, swims in rock pools and shelters among the algae lining the sides of the pools.



## Pandalidae Pandalid Shrimps

## Chlorotocella spinicaudus Slender-beaked Shrimp



Length to 25 mm

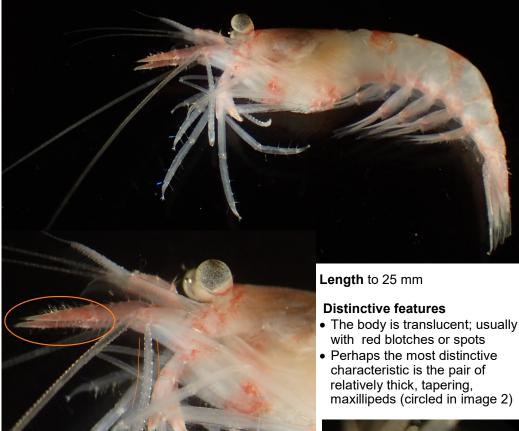
#### Distinctive features

- The live animal is semitransparent
- The body is very slender
- The 3rd segment of the abdomen is strongly humped, and the 6th segment is at least twice as long as wide
- Rostrum is long and very fine and fragile, with one or two small teeth on the upper edge near the eyes and three tiny teeth along the lower edge (circled in image 2 in which the rostrum is incomplete) diagnostic feature
- The second pair of legs have tiny 'pincer' claws (visible under magnification).

Habitat: Seagrasses on muddy or sandy sheltered coasts.

## Processidae Processid Shrimps

## Processa australiensis Odd-footed Shrimp



- The first, relatively short, pair of legs differ from each other as the right leg ends in a 'pincer-like' claw while the left has a simple finger (both circled in image 3)
- The second pair of legs is very long and slender, with many short joints and ending in a pincer-like claw (part of one of these legs is outlined in image 2).

Habitat: Seagrasses and algae.



## Laomediidae Mangrove Shrimps Laomedia healyi Pink Mangrove Lobster



Length to 70 mm

### **Distinctive features**

- Colour pink to brick red claws and upper surface, pale sides and legs
- Hairs on the wrist of the large front claws.

**Habitat:** Burrows in soft sandy mud around the roots of mangroves.

# **Upogebiidae Mud Shrimps** *Acutigebia simsoni* Spiny Mud Shrimp



Length to 40 mm

### Distinctive features

- Colour is pale orange/brown
- The two large claws are more or less equal in size
- The long, pointed moveable finger of the each large front claw closes onto a short tooth (image 3) - distinctive feature
- The rostrum is divided into three lobes, with the middle lobe being the largest (image 2)
- The rostrum is decorated with rows of many tiny spines (seen under magnification).

**Habitat:** Shelters among algae and sponges, and under rocks on rocky shores.



## Mysidae Opossum Shrimps

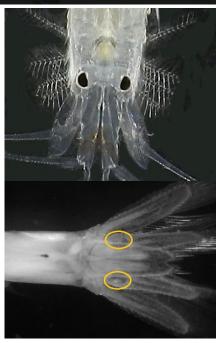


Length to 25 mm, mostly smaller

### **Distinctive features**

- Slender shrimps, body often transparent
- The first antennae (the middle ones) branch into two (image 2)
- Black eyes, on stalks
- One tiny statocyst on each side of the tail fan (circled in image 4)
- Identification of individual species requires a microscope.

**Habitat:** Mysids swarm just above the sea bed where they feed on fine particles of decomposing algae and seagrass.



## Nannosquillidae Mantis Shrimps Austrosquilla osculans Slender Mantis Shrimp





Length to 42 mm

#### Distinctive features

- Two large claws folded under the front of the body. These are used to spear prey
- Sand-coloured body with black patches along the sides of the body
- The last segment of the abdomen (the telson) has two areas of black pigment either side of a tiny, sharp, spine (image 2)
   diagnostic feature.

Habitat: Shallow areas with soft substrate. It shelters in burrows.



## Nannosquillidae Mantis Shrimps Hadrosquilla perpasta Plump Mantis Shrimp





Length to 55 mm

#### Distinctive features

- Two large claws folded under the front of the body. These are used to spear prey
- Well camouflaged against the substrate, the body is straw-coloured with scattered black and/or white spots (refer to images)
- A few larger dark spots on the thorax
- The surface pattern on the last segment of the abdomen (the telson) is similar to that of other abdominal segments (image 3).

Habitat: Soft sand or mud, often among sea grass, burrows or shelters under rocks.

# **Squillidae Mantis Shrimps** *Distosquilla miles* Martial Mantis Shrimp



### Length to 150 mm

### **Distinctive features**

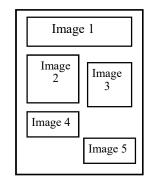
- Two large claws folded under the front of the body. These are used to spear prey
- Colour brown to orange
- Several raised ridges along the length of the abdomen
- Tip of the last segment of the abdomen (the telson) is very spiky.



**Habitat:** Soft sand or mud, shelters in U-shaped burrow or under rocks.

## Those who contributed images

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## **Species**

## Image details

(Photographer and locality)

Biffarius arenosus Biffarius ceramicus Trypaea australiensis

Strahlaxius waroona Alpheus australosulcatus Alpheus novaezealandiae Alpheus parasocialis Alpheus richardsoni Alpheus villosus Athanas granti Synalpheus tumidomanus

Hippolyte australiensis

Alope orientalis

Hippolyte caradina Latreutes compressus Crangon uritai Philocheras intermedius Philocheras obliquus Philocheras victoriensis Rhynchocinetes australis Palaemon atrinubes

Palaemon dolospinus Palaemon intermedius Palaemon litoreus Palaemon serenus Chlorotocella spinicaudus

Processa australiensis Laomedia healyi Acutigebia simsoni Mysidae

Austrosquilla osculans Hadrosquilla perpasta Distosquilla miles 1,2 JE Sandringham; 3 MR Sandringham, preserved specimen 1,2 JE Sandringham; 3 MR Sandringham, preserved specimen 1 JE Shallow Inlet; 2 MR Museum Vic preserved specimen; 3 BH

preserved specimen 1,2,3 MR Coronet Bay

1 LA Harmers Haven; 2 MR Flatrocks; 3,4 JE Fingal Beech, Anglesea

1,2 JE Shoreham, San Remo; 3 BH preserved specimen

1 JE Harmers Haven; 2, MR Harmers Hn; 3 TJH Harmers Haven

1 JE Beaumaris; 2 MR Inverloch

1,2 JE Beaumaris

1,2 MR San Remo, 3 MR Harmers Haven

1 JE Beaumaris; 2 MR Pt Welshpool; 3 BH Merricks Beach

1 LA McHaffies Pt; 2,3 MR Harmers Haven

1 LA Cat Bay; 2, MR Harmers Hvn; 3 JE Pt Lonsdale; 4 TJH Harmers Hvn

1,2 MR Kitty Miller Bay, Coronet Bay

1,3,4, MR Kitty Miller Bay; 2 BH; 5 MR Allestree 1 JE Newport; 2 MR Museum Vic preserved specimen 1 JE Phillip Is; 2,3 MR Museum Vic preserved specimens

1,2 BH Port Melbourne

1 MR McHaffie Bch; 2,3 MR Museum Vic preserved specimens

1,2 TJH Inverloch

1,2 MR, Jawbone, frozen specimens; 3,4 BH Jawbone, Tooradin, preserved specimens

1 JE Avalon; 2 MR West Head, Flinders, 3 MR Jawbone frozen specimen

1,2 MR Jawbone

1,2 LA Marengo; 3,4 MR Bunbury Pt, Apollo Bay 1 JE Pt Welshpool; 2 MR Stony Pt, frozen specimen

1 MR Coronet Bay frozen specimen; 2 MR Museum Vic preserved

specimen

1,2,3 MR Harmers Haven, 1,2, live and 3, frozen specimen

1,2 JE Tooradin

1,2 JE West Head, Flinders; 3 MR West Head, preserved specimen

1,2,3 MR Duck Pt., Duck Pt, Sandy Pt, Foster Bch; 4 BH

preserved specimen

1,2,3 JE Foster Bch, Foster Bch, Black Rock

1,2 JE Fingal Bch, Cape Paterson; 3 TJH Flatrocks

1,2 JE Stony Pt Westernport

## The Marine Research Group

is a special interest group within the Field Naturalists Club of Victoria. Our members study marine life, primarily intertidal invertebrates, though our interests are varied and we welcome new members who can expand our knowledge as much as we welcome beginners with a passion for marine life.

#### What we do

#### **Intertidal Marine Invertebrate Census**

During the warmer months, the MRG carries out a regular field program surveying intertidal marine invertebrate life around the Victorian coast. All are welcome, no expertise required. The group works closely with Museum Victoria.

#### Meetings

The MRG meets on the second Monday of each month at the Field Naturalists Club of Victoria hall in Blackburn. As well as general discussion on subjects raised by members and identification of animals a guest speaker each month covers topics as diverse as *Hydroids: The Feathers and Flowers of the Sea*, *The Ganglioneuritis virus currently affecting abalone in Western Victoria* and experts speaking on particular groups of animals.

#### Coastal Invertebrates of Victoria

The MRG has been involved in many surveys and projects over the years, the most enduring of these was the publication in 1984 of "Coastal Invertebrates of Victoria" which having been photocopied many times over the years was reprinted with revisions in 2006.

The Field Naturalists Club of Victoria offers a wide choice of natural history activities, events and learning experiences. The Club is organized into a number of smaller Special Interest Groups (SIGs), catering for beginners to experienced naturalists. These SIGs offer a great opportunity for all Club members to learn more about specific areas of our natural world. Members are welcome and encouraged to attend activities across all the SIGs.

Objectives: to stimulate interest in the study of natural history in all its branches and to preserve and protect the natural environment of Australia, in particular the flora and fauna of Victoria.

Meetings are held in the F.N.C.V. Hall, 1 Gardenia Street, Blackburn.

Visitors welcome to all activities. A small fee will be charged to non-members.

Office Hours: Monday and Tuesday, 9 am to 4 pm. Phone: 9877 9860

Email: admin@fncv.org.au Website: www.fncv.org.au



