



# The bug guide

An identification and information guide  
for Moreton Bay and Balmain bugs



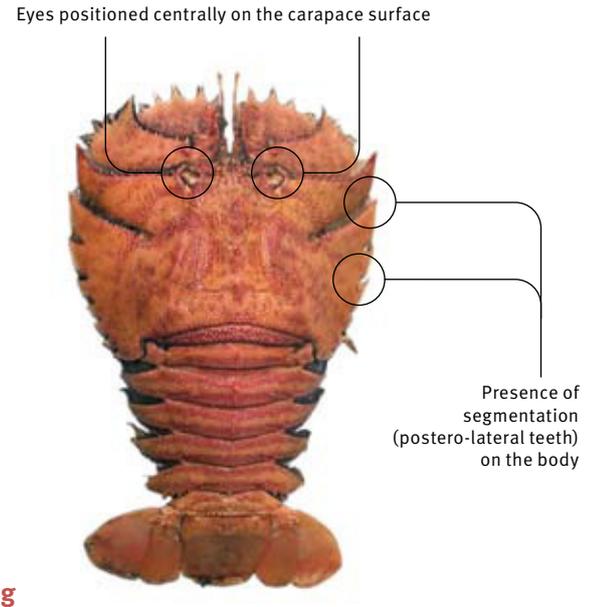
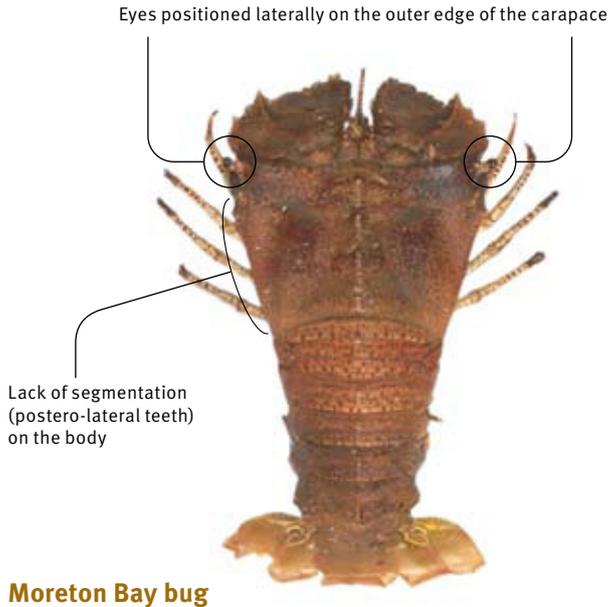
Queensland  
Government

## Key differences between **Moreton Bay bugs** and **Balmain bugs**

The key differences between Moreton Bay bugs and Balmain bugs relate to eye position and the presence (or absence) of postero-lateral teeth on the 'head'.

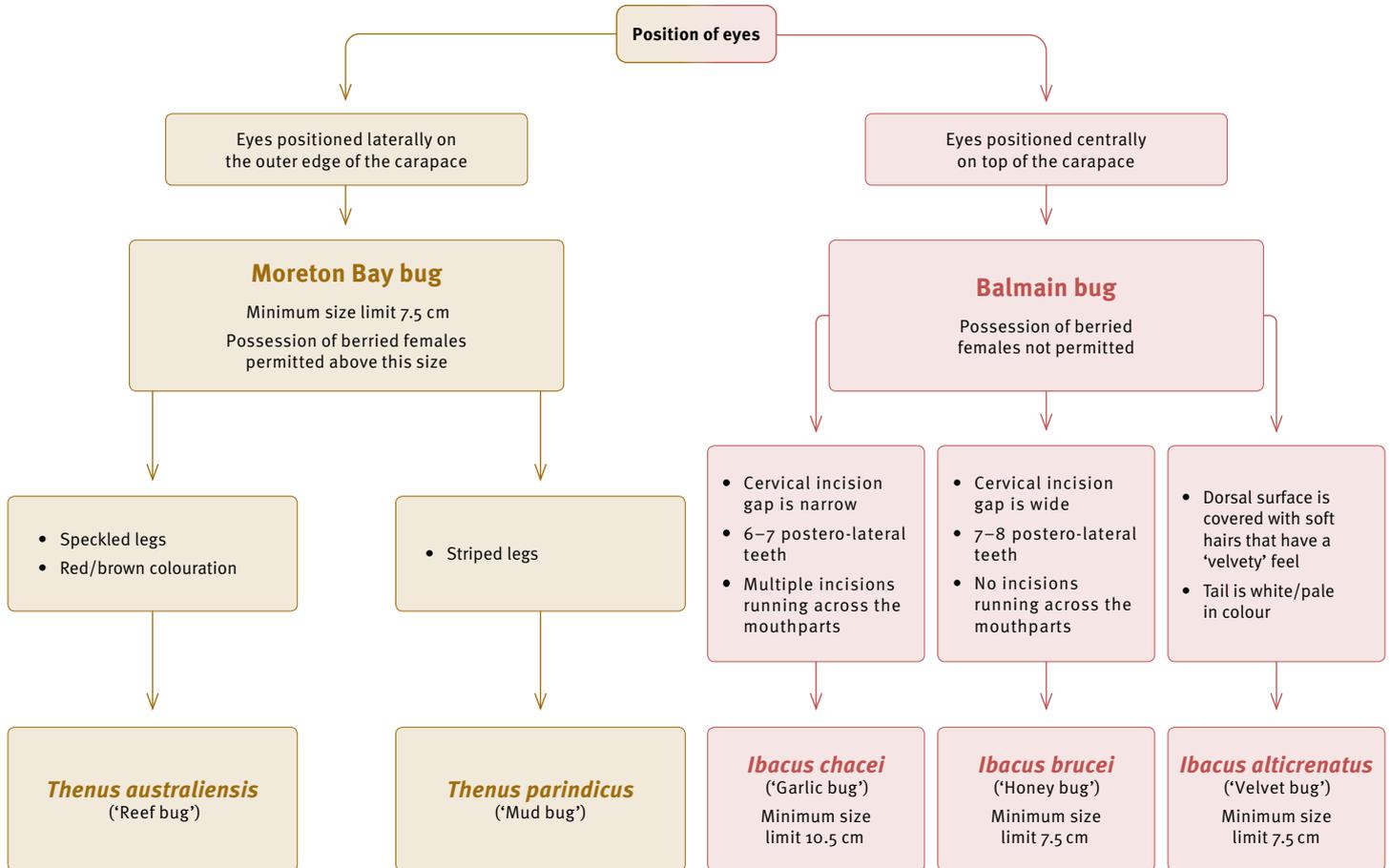
Moreton Bay bugs have their eyes positioned laterally on the outer edge of the carapace, while Balmain bugs have eyes positioned centrally on the dorsal surface of the carapace (Figure 1).

In addition, Moreton Bay bugs have no postero-lateral teeth on the head, while Balmain bugs have 6–8 individual teeth on each side of the head (Figure 1).



**Figure 1.** Distinguishing features of Moreton Bay and Balmain bugs (dorsal view)

# Bug classification key



## Moreton Bay bugs

Moreton Bay bugs live in muddy or sandy bottoms up to a depth of 100 m. They belong to the genus *Thenus* of which there are two main species—reef bugs (*Thenus australiensis*) and mud bugs (*T. parindicus*).

### *Thenus australiensis*

(Reef bug)

The reef bug is distinguished by its reddish-brown colour and the presence of speckling on its walking legs (Figure 2).

Reef bugs live on sandy substrates in offshore waters in depths of 30–100 m and are associated with scallop and redspot king prawn fisheries. They are distributed from northern Australian coastal waters from northern New South Wales to Shark Bay in Western Australia.

**Legal size:** Minimum carapace width 7.5 cm. The possession of berried (egg-bearing) females above this size is permitted.

### *Thenus parindicus*

(Mud bug)

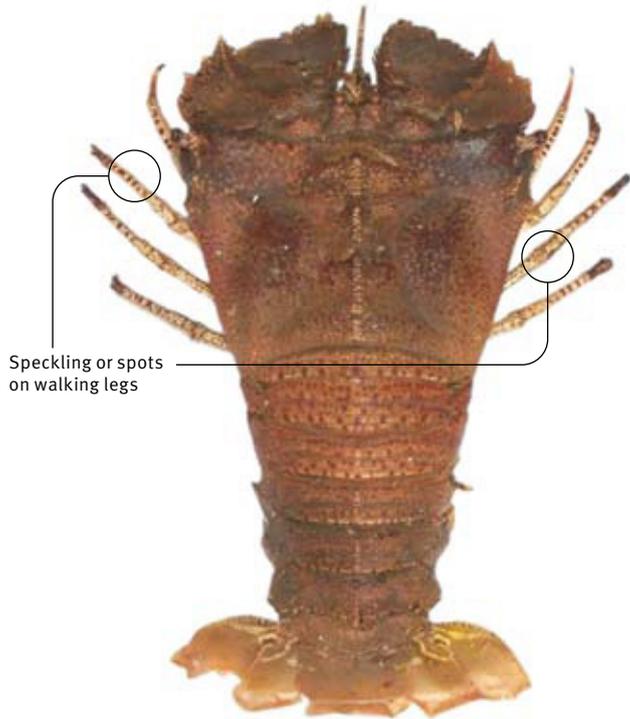
The mud bug differs from the reef bug by the presence of stripes on its walking legs (Figure 2).

Mud bugs live on muddy substrates in depths of 10–50 m. While mud bugs have a similar distribution to reef bugs, they are more commonly associated with commercial catches of tiger, banana and endeavour prawns.

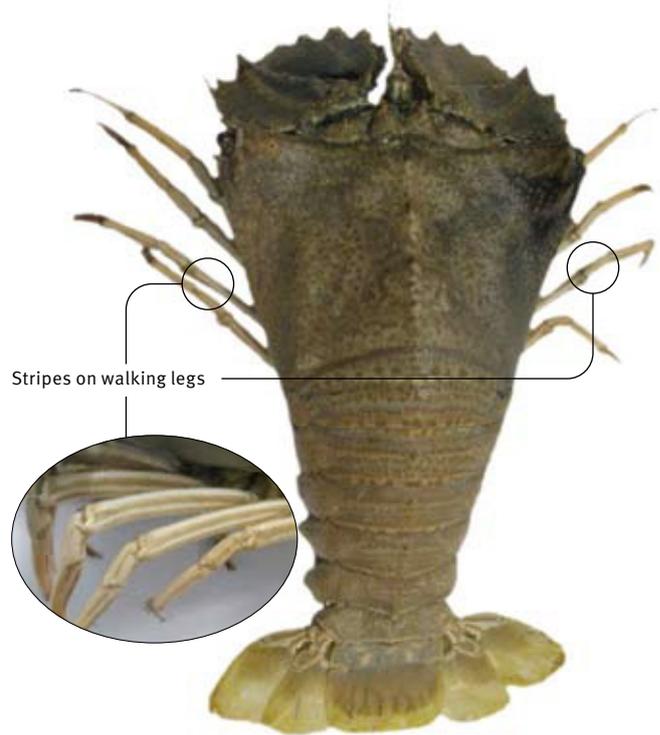
**Legal size:** Minimum carapace width 7.5 cm. The possession of berried (egg-bearing) females above this size is permitted.

## Distinguishing Moreton Bay bug features

Reddish-brown colour



***Thenus australiensis***  
(Reef bug)



***Thenus parindicus***  
(Mud bug)

**Figure 2.** Distinguishing features of Moreton Bay bug species (dorsal view)

## Balmain bugs

Balmain bugs belong to the genus *Ibacus* and are distributed in southern Australian coastal waters from central Queensland around to Geraldton in Western Australia. They are found in the deeper waters often associated with the eastern king prawn fishery.

### *Ibacus chacei*

(Garlic bug—referred to in legislation as smooth bug)

The garlic bug is distinguished from the other Balmain bug species by the presence of a narrow incision gap and generally 6–7 postero-lateral teeth (Figure 3). The garlic bug also has multiple incisions running across its mouthparts (Figure 4).

This is the main Balmain bug species caught in Queensland coastal waters.

**Legal size:** Minimum carapace width 10.5 cm. The possession of berried (egg-bearing) females is prohibited.

### *Ibacus brucei*

(Honey bug—referred to in legislation as shovel-nosed lobster)

The honey bug is distinguished from the other Balmain bug species by the presence of a wide incision gap and generally 7–8 postero-lateral teeth (Figure 3). Additionally, the honey bug has no incisions running across its mouthparts (Figure 4).

This bug is not as common as the garlic bug and is found in slightly deeper water.

**Legal size:** Minimum carapace width 7.5 cm. The possession of berried (egg-bearing) females is prohibited.

### *Ibacus alticrenatus*

(Velvet bug—referred to in legislation as deepwater bug)

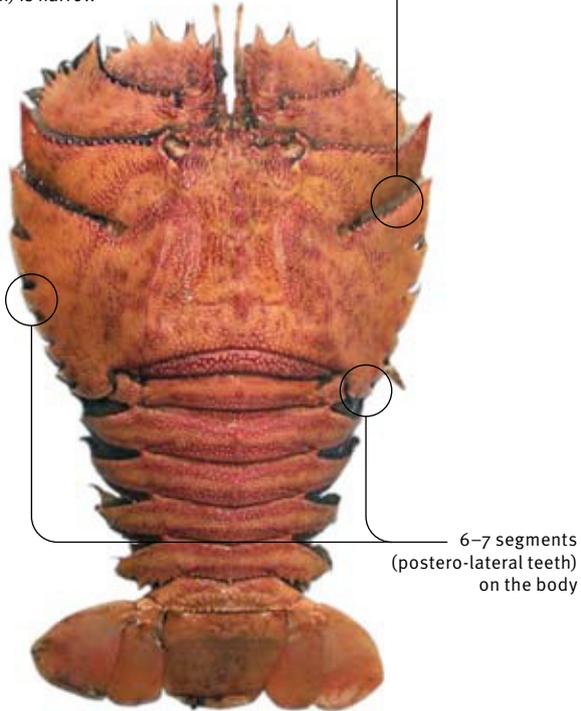
The dorsal surface of this bug is covered with soft hairs, which give it a ‘velvety’ feel. The tail is also sometimes white or pale in colour.

This bug is relatively uncommon compared to the garlic and honey bugs, and is usually found in much deeper water (>200 m).

**Legal size:** Minimum carapace width 7.5 cm. The possession of berried (egg-bearing) females is prohibited.

## Distinguishing Balmain bug features (head and body)

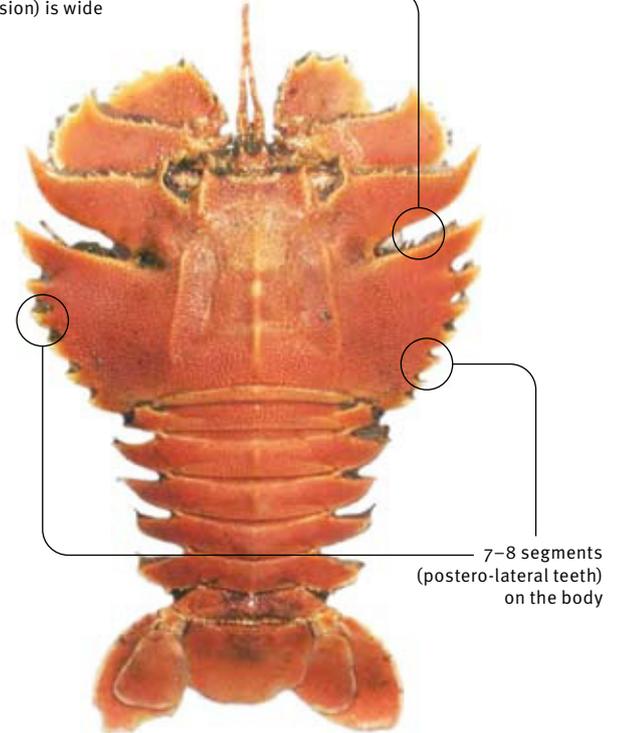
Gap between the head and the body  
(cervical incision) is narrow



*Ibacus chacei*

(Garlic bug—referred to in legislation as smooth bug)

Gap between the head and the body  
(cervical incision) is wide

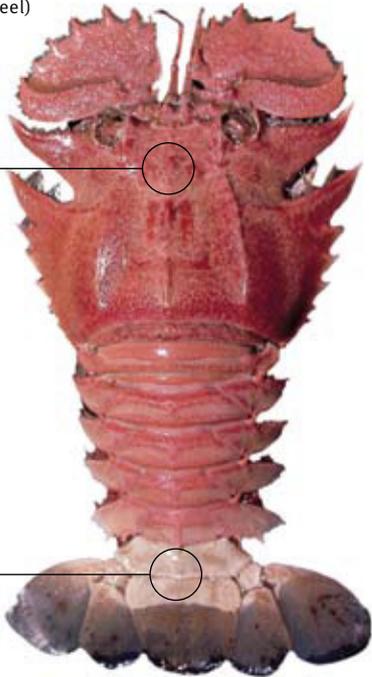


*Ibacus brucei*

(Honey bug—referred to in legislation as shovel-nosed lobster)

**Figure 3.** Distinguishing features (head and body) of Balmain bug species (dorsal view)

Dorsal surface covered with soft hairs  
(giving it a 'velvety' feel)



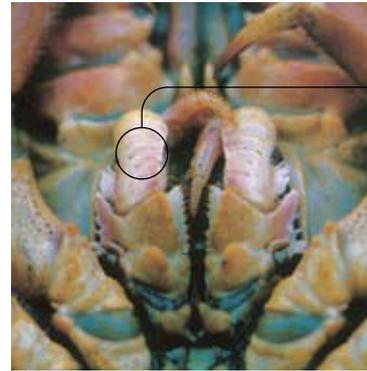
Tail sometimes white  
or pale in colour

***Ibacus alticrenatus***

(Velvet bug—referred to in legislation as deepwater bug)

**Figure 3 (cont.).** Distinguishing features (head and body)  
of Balmain bug species (dorsal view)

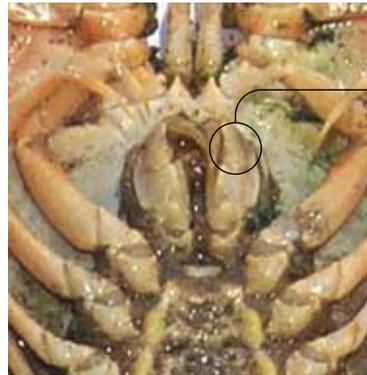
**Distinguishing Balmain bug features (mouthparts)**



***Ibacus chacei***

(Garlic bug)

Multiple incisions running across the  
mouthparts



***Ibacus brucei***

(Honey bug)

No incisions running across the  
mouthparts

**Figure 4.** Distinguishing features (mouthparts) of Balmain bug species