

# NORTH PACIFIC GROUND FISH OBSERVER PROGRAM

## CRAB IDENTIFICATION



# The Key Contains 20 Species or Species Groups

- Eight Prohibited Species of Crab
  - Must be measured and sexed by groundfish observers if found in species composition sample
  - May not be consumed or retained on vessel
- Twelve Non-Prohibited Species

# Prohibited Species Crabs

## Tanner Crabs

### Shallow Water Tanner Crabs

- Bairdi Tanner crab
- Opilio Tanner crab

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### Deep Water Tanner Crabs

- Tanneri Tanner crab
- Angulatus Tanner crab

## King Crabs

### Shallow Water King Crabs

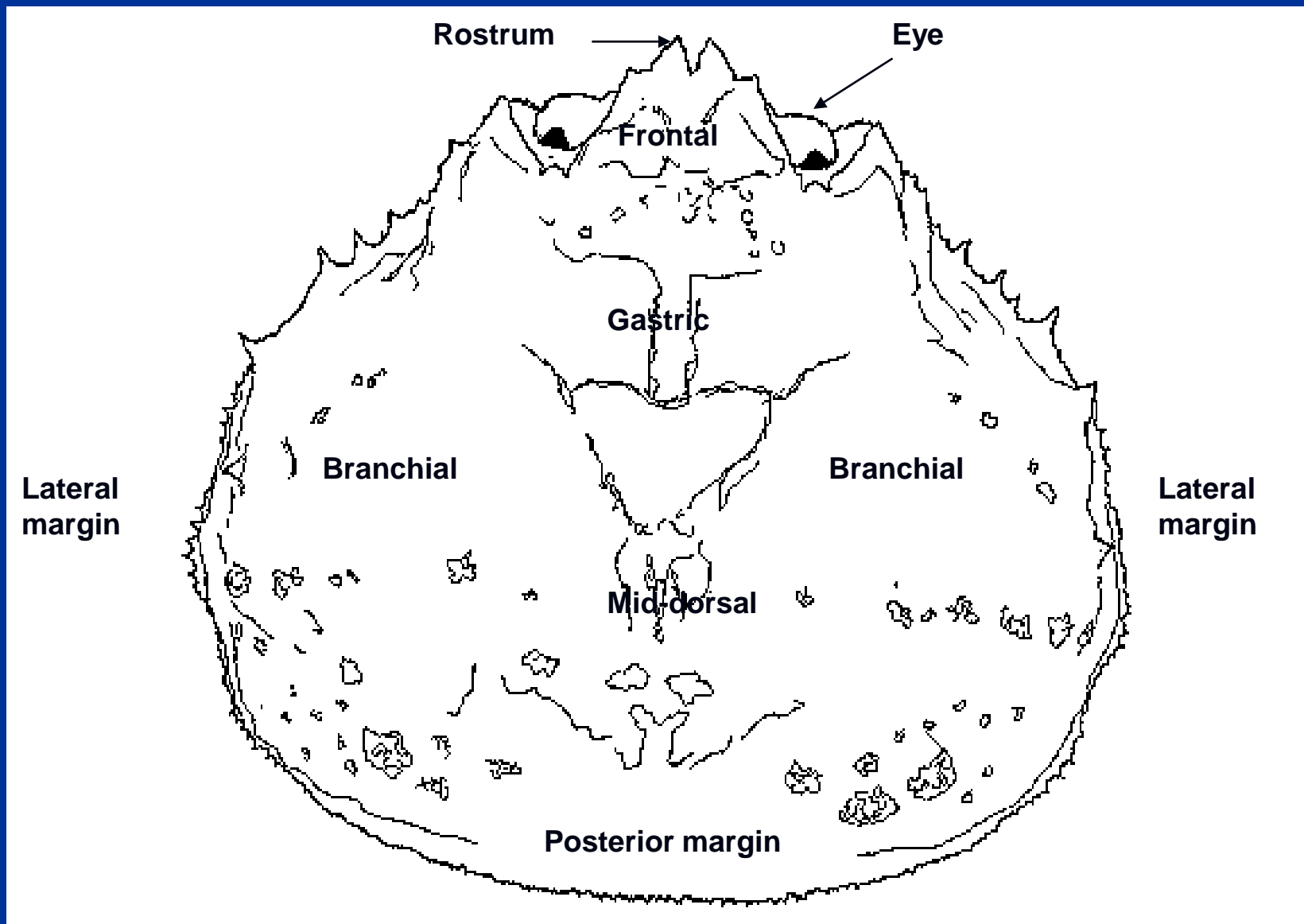
- Red King crab
- Blue King crab

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### Deep Water King Crabs

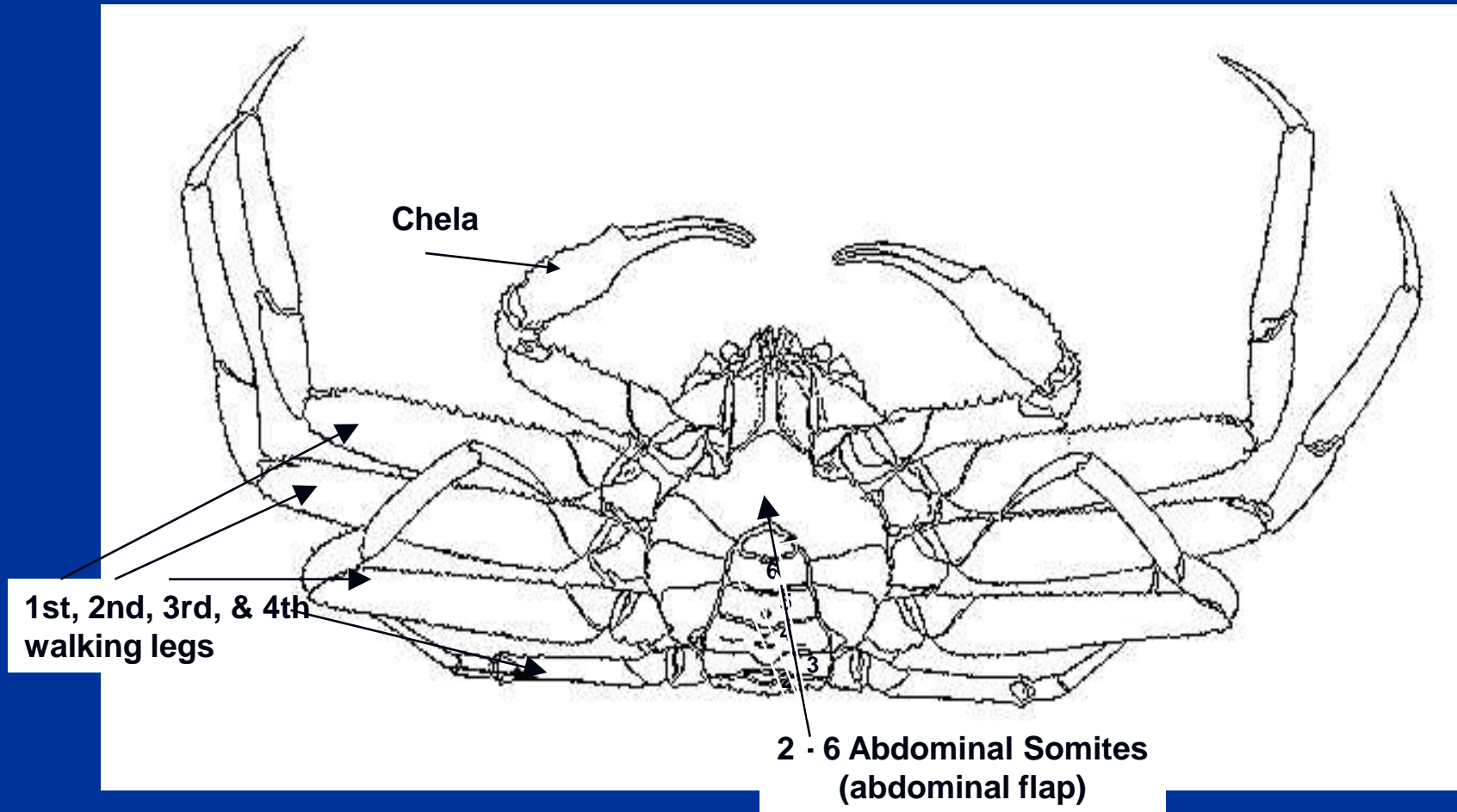
- Brown King crab
- Couesi King crab

# Key Features of Tanner Crab Carapace





# Key Features of Ventral Side of Tanner Crabs



# Who's Who among Tanner Crabs? Deep Water? Shallow Water?



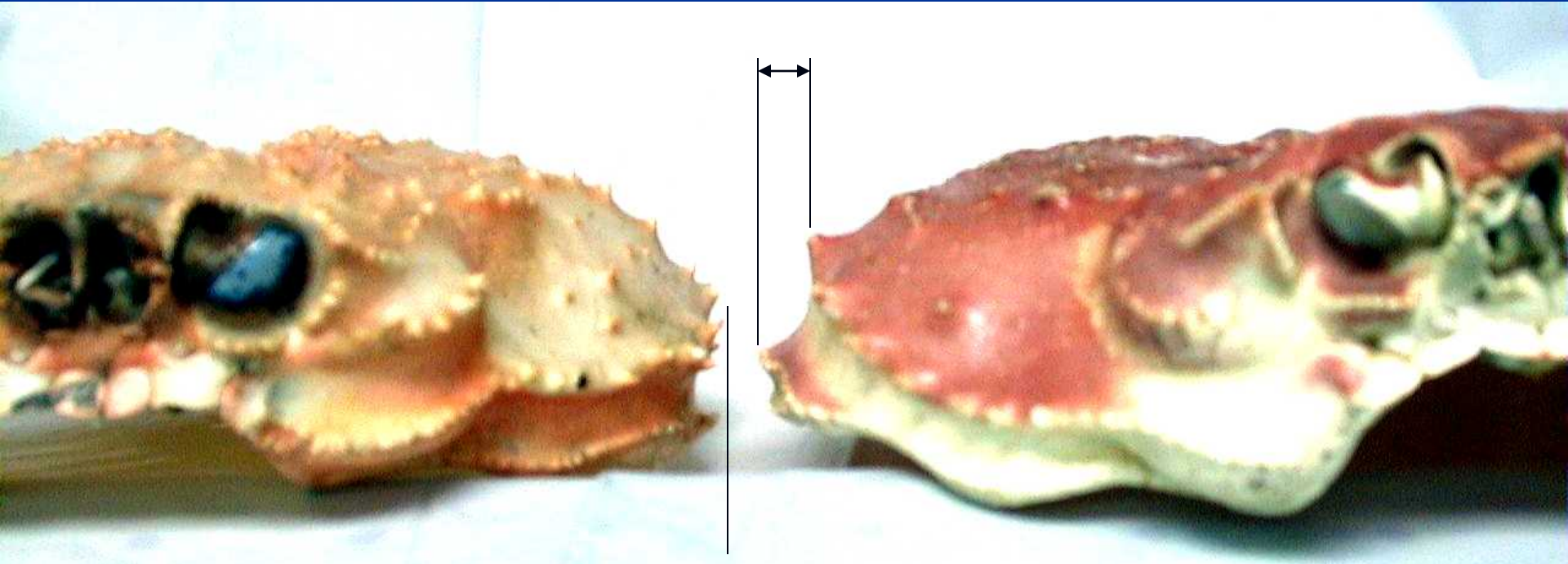
# Shallow Vs. Deep Water Tanners

	<b>Deep Water</b>	<b>Shallow Water</b>
<b>Lateral Margin</b>	<b>Does NOT protrude beyond Branchial region</b>	<b>Does protrude beyond Branchial region</b>
<b>Branchial Ridges</b>	<b>Prominent branchial ridges</b>	<b>Not prominent</b>
<b>Coloration</b>	<b>Coloration Uniform</b>	<b>Ventral coloration light</b>

# Lower Lateral Margins

Deep water

Shallow Water





# Branchial Regions & Ridges

Deep water

Shallow Water



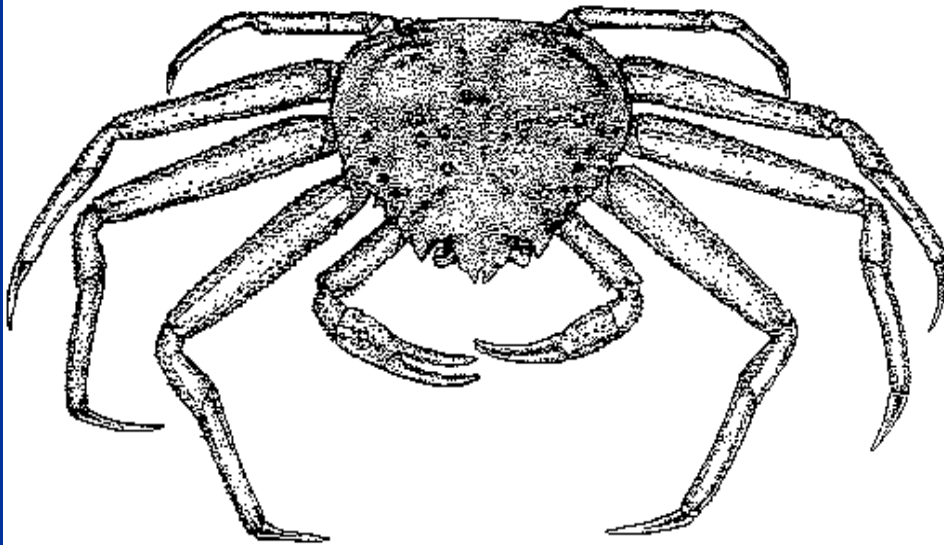
# SHALLOW WATER TANNER





# Bairdi Tanner Crab

1. 4 pairs of walking legs

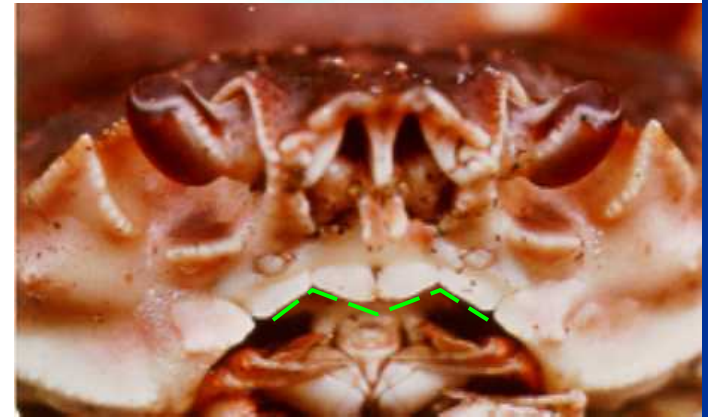
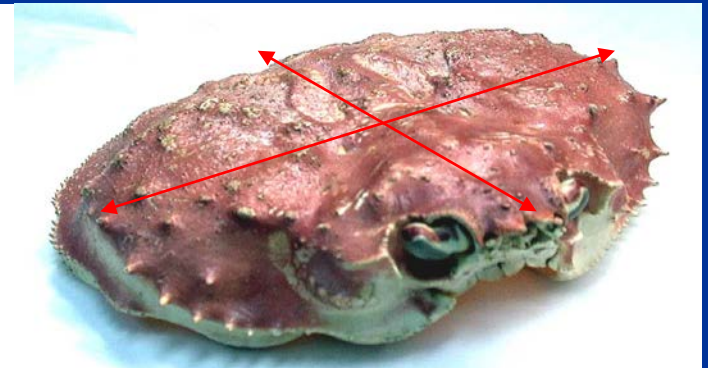


2. Lower lateral margin protrudes beyond branchial region  
3. Carapace wider than it is long



Eyes usually **RED**

4. Prominently notched epistomal margin "M"  
5. Tips of rostrum sharply pointed  
6. Rostrum pointed upward



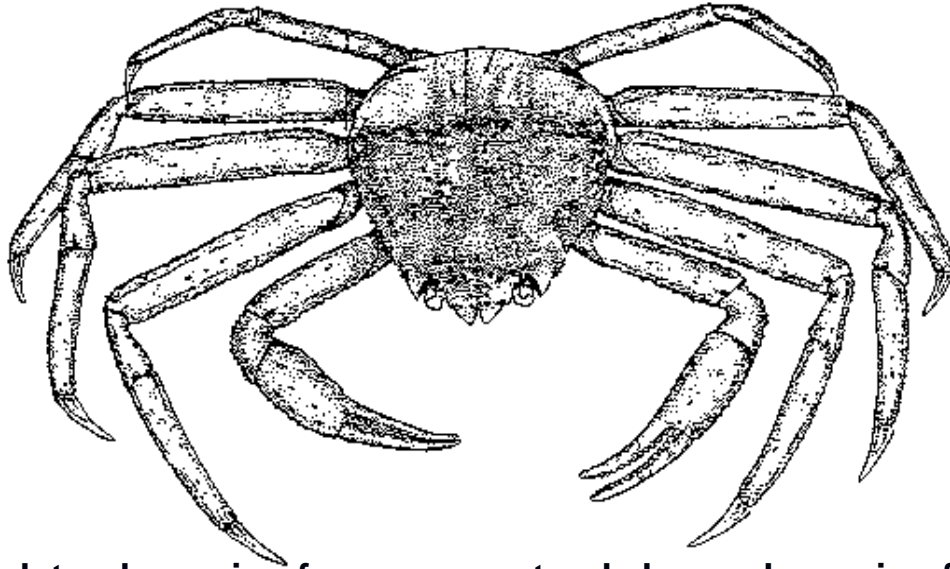
# Bairdi Tanner Crab





# Opilio Tanner Crab

1. 4 pairs of walking legs



2. Lower lateral margin of carapace extends beyond margin of branchial region

3. Carapace width & length about equal

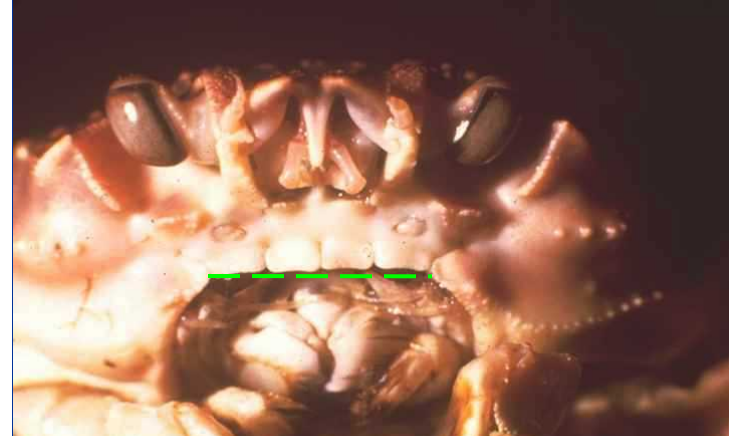
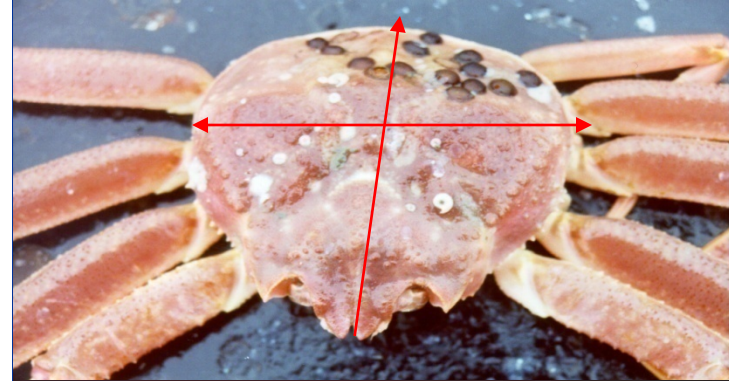


Eyes usually GREEN

4. Epistomal margin fairly straight & even

5. Tips of rostrum rounded

6. Rostrum almost horizontal



# Opilio Tanner Crab





# Opilio or Bairdi





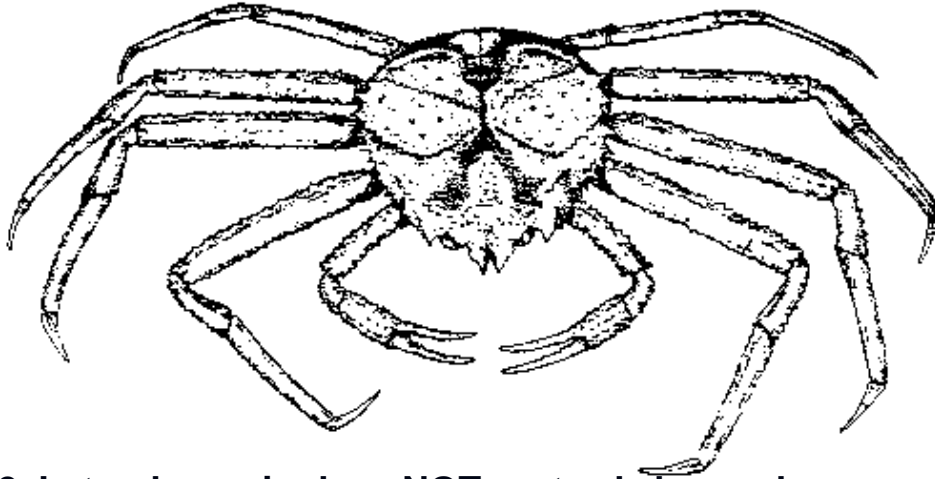
# Deep Water Tanner Crab





# Tanneri Tanner crab

1. 4 Pairs of walking legs



2. Lateral margin does NOT protrude beyond branchial region

3. Branchial region swollen with deep notch at mid line



4. Prominent branchial ridges form a “U” with 3 spines at intersection



5. Tips of rostrum sharply pointed and pointed upward



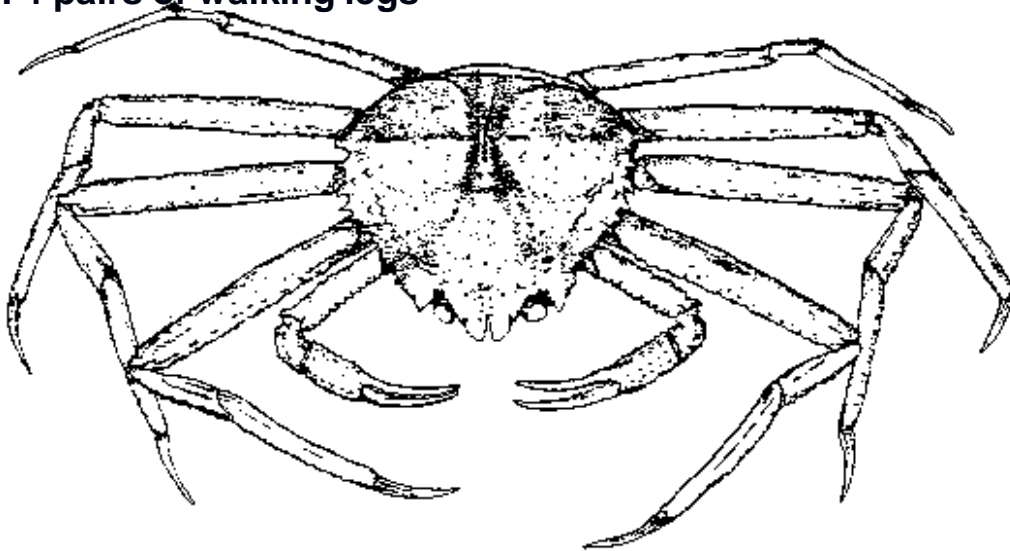
# Tanneri tanner crab





# Angulatus Tanner crab

1. 4 pairs of walking legs



2. Lateral margin does NOT protrude beyond branchial ridge

3. Branchial region slightly swollen with shallow notch at mid line



4. Prominent branchial ridges form triangular point or "V" with a single spine at the intersection

5. Tips of rostrum frequently rounded and usually horizontal

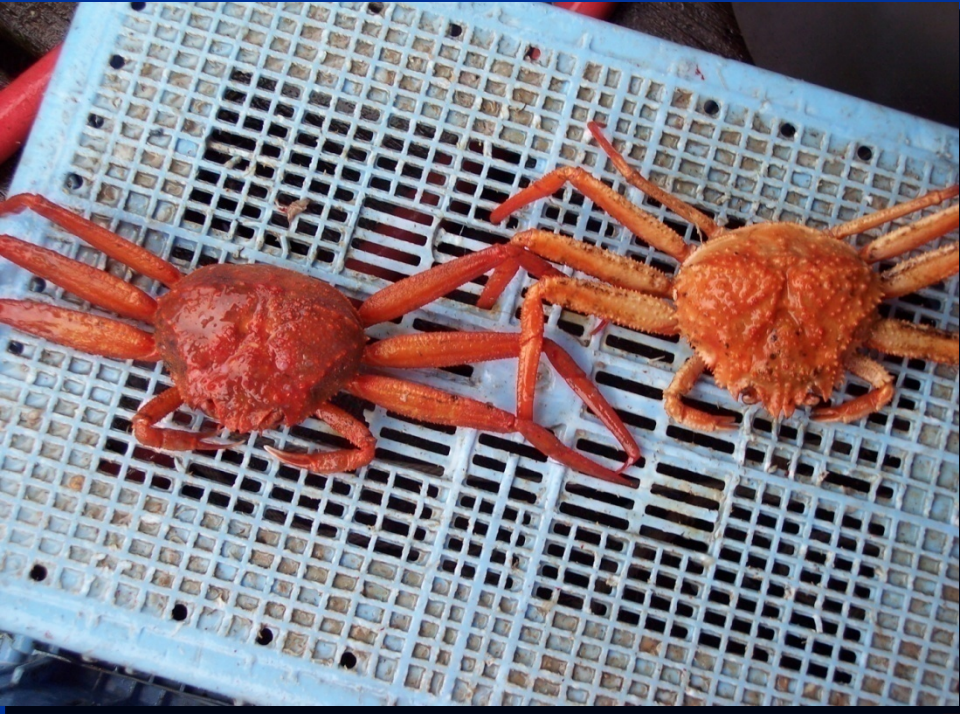


# Tanneri or Angulatus



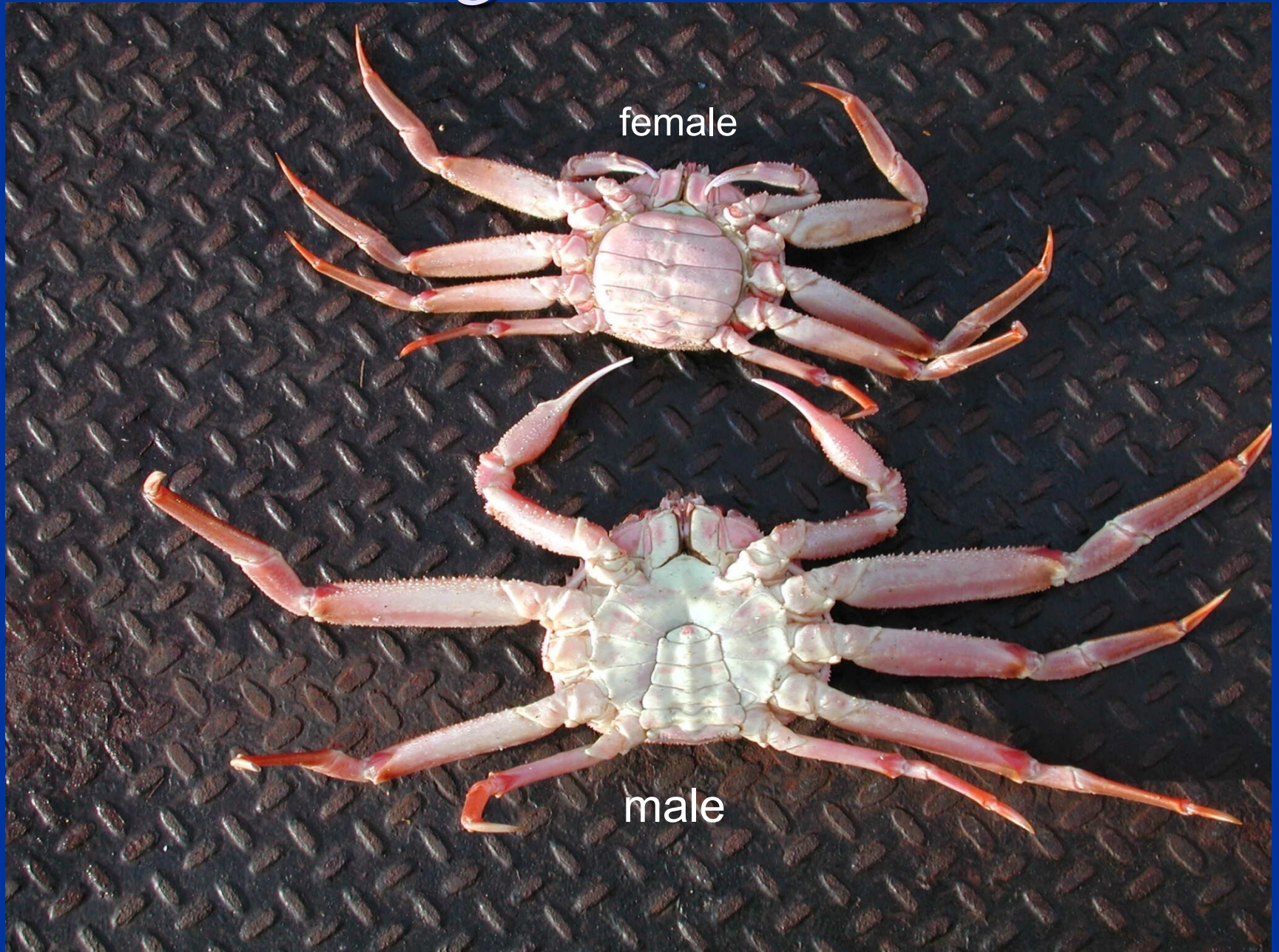


# Angulatus and Tanneri

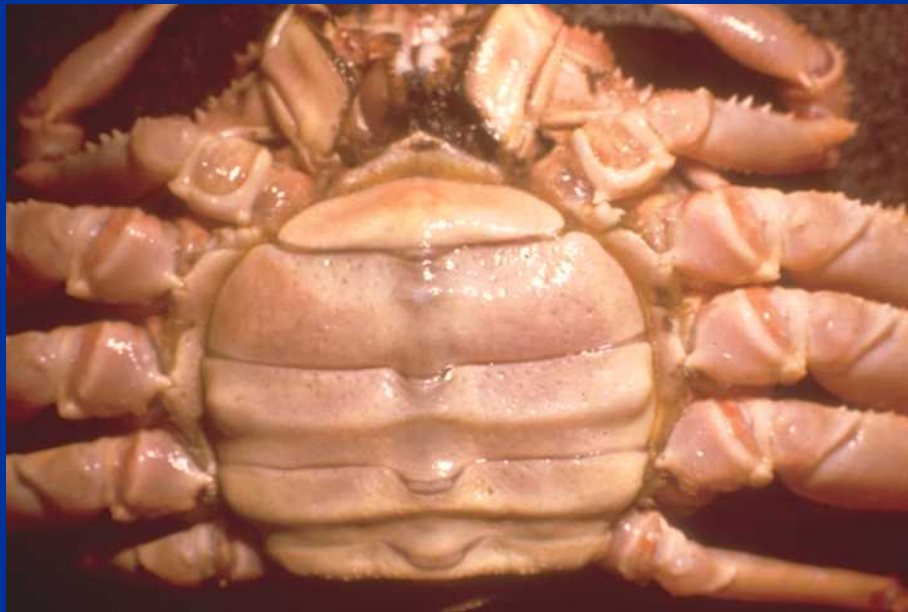




# Sexing Tanner crabs



# Female Tanner with Eggs



*Photo by L. S. Jadamec*



# King Crab



# Shallow Vs. Deep Water King Crabs

Page 3, couplet 9 of Crab Key

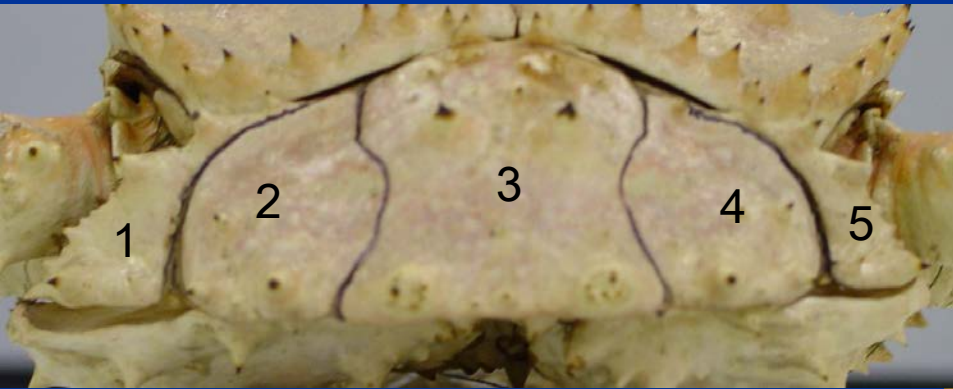
Deep Water Kings	Shallow Water Kings
3 Abdominal plates on 2nd abdominal segment	5 Abdominal plates on 2nd abdominal segment
Rostrum forked	Rostrum ending in a single thorn-like spine
Ventral rostrum spine	NO ventral spine
Dark ventral side	Light ventral side



# KING CRAB

Shallow Water

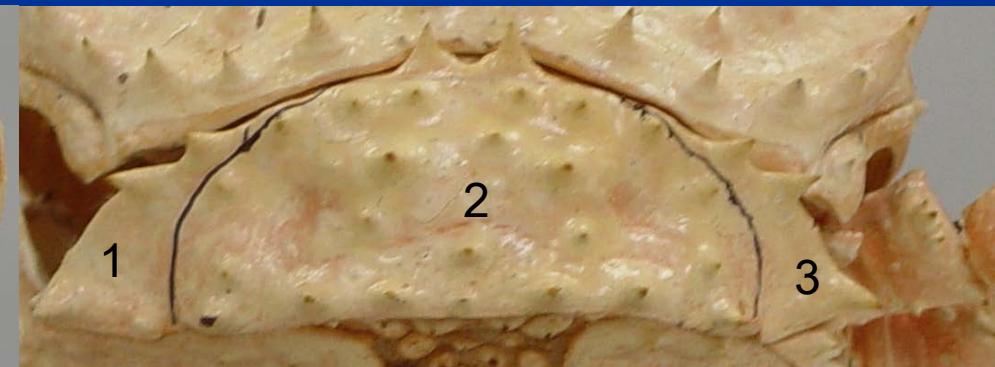
Deep Water



5 plates



3 plates



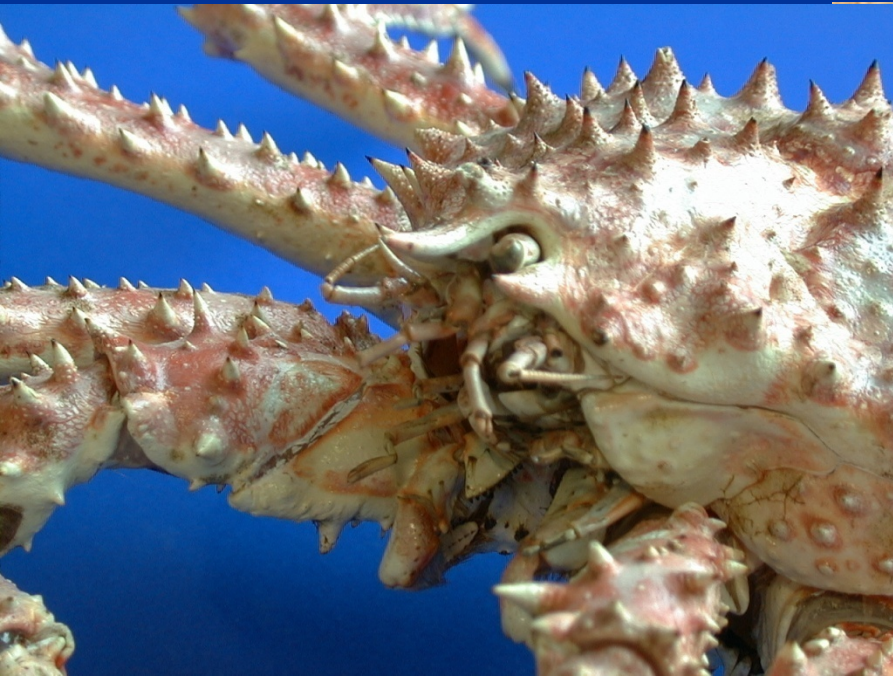
Second Abdominal Flap

# KING CRAB

Rostrum

Shallow Water

Deep Water





A large, brown, spiky crab shell (carapace) is the central focus of the image. It has a complex, jagged shape with many sharp, pointed protrusions. The shell is resting on a blue, textured surface that looks like water or a wet rock. The lighting is bright, highlighting the texture and color of the shell. In the bottom right corner, there is a stylized text overlay.

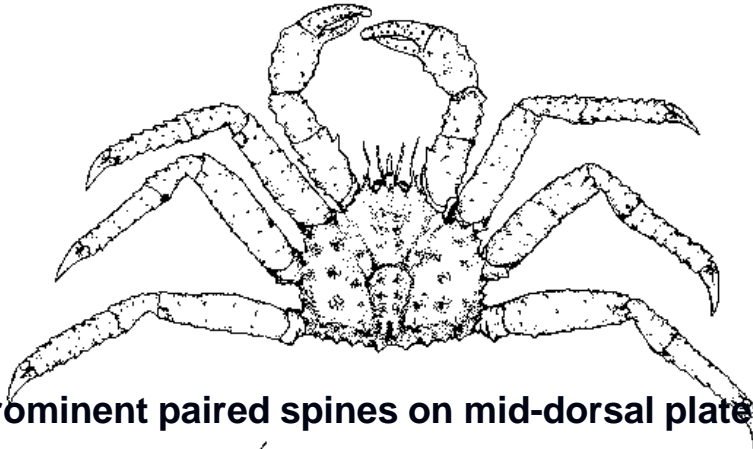
# Shallow Water King Crabs



# Red King crab

page 4, couplet 10, Crab Key

1. 3 pairs of walking legs
2. 5 separate abdominal plates



3. 6 prominent paired spines on mid-dorsal plate



TYPE 1

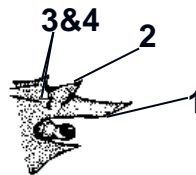


Side view



right antennae base

TYPE 2



Spine 2 may be double pointed



4. Rostrum: 4 - 5 spines
5. 1-2 spines at base of antennae





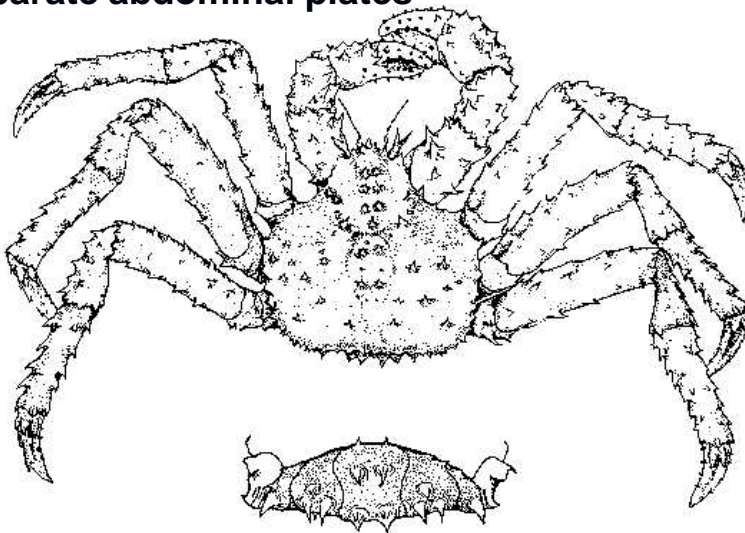
# Red King crab



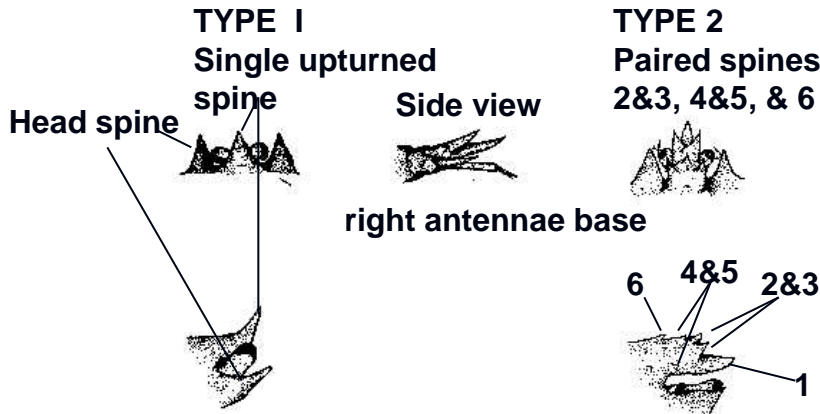
# Blue King crab

Page 4, couplet 10 Crab Key

- 1. 3 pairs of walking legs
- 2. 5 separate abdominal plates



- 3. 4 prominent paired spines on mid-dorsal plate



- 4. Rostrum: 1 or 6 spines
- 5. 3 spines at base of antennae





# Blue King





King crab... Red or Blue???





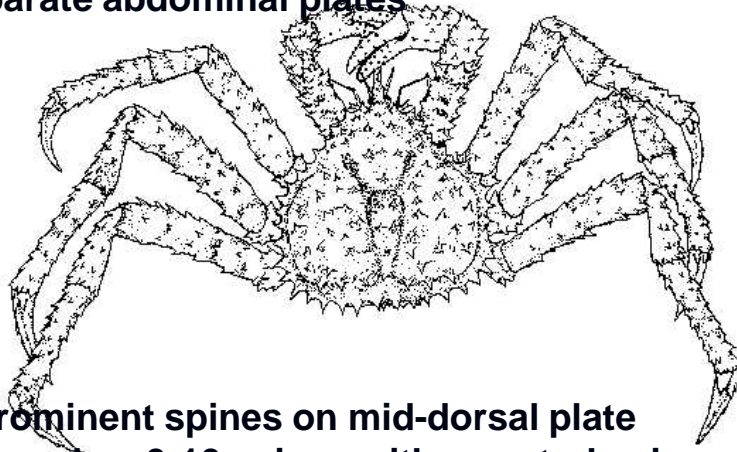


# Deep Water King Crab

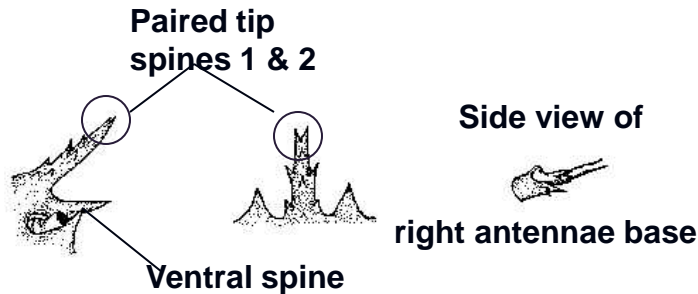


# Golden or Brown King crab

1. 3 pairs of walking legs
2. 3 separate abdominal plates



3. 5-9 prominent spines on mid-dorsal plate
4. Rostrum has 9-10 spines with a ventral spine



5. Transverse depression much longer than wide
6. Spines on lateral margin of carapace are about equal in length to those on carapace surface



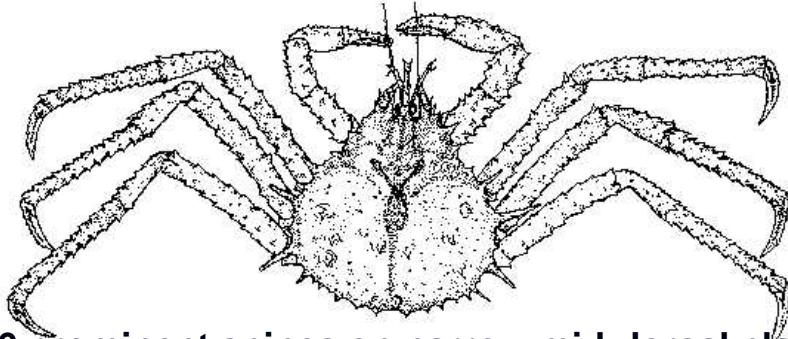


# Golden or Brown King Crab

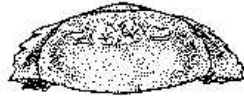


# Couesi King crab

1. 3 pairs of walking legs
2. 3 separate abdominal plates



3. 4-6 prominent spines on narrow mid-dorsal plate
4. 5-7 spines on rostrum, tip is usually double pointed, includes a ventral spine



Rostrum tip usually  
double pointed



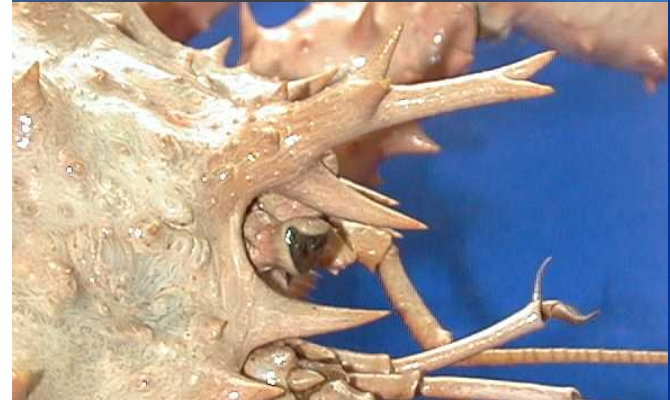
Ventral spine



Side view of antennae



5. Transverse depression length & width about equal
6. Long spines on lateral margin of carapace





# Couesi King crab



# Sexing King crabs



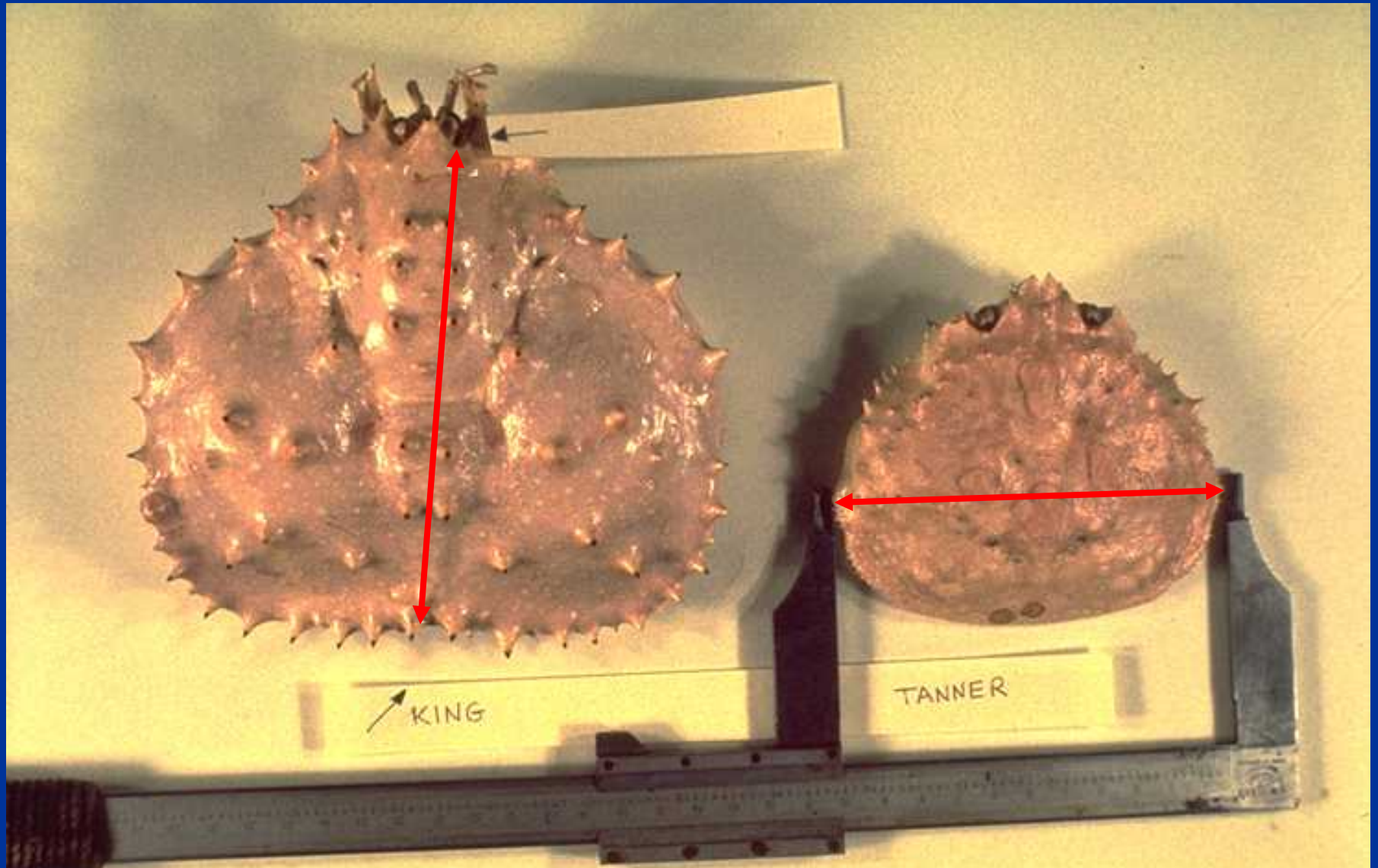
♀



♂



# Measuring crabs



# Measuring Tanner Crabs





# Measuring King Crabs



# Crab Measurement Form

Species name	Haul number	Species name	Haul number
<i>Opilio</i>	65	<i>Red King</i>	65
Males	Females	Males	Females
		208	
		203	
		198	
		193	
		188	
		183	
		178	
		173	
		168	
		163	
		158	
		153	
		148	
		143	
		138	
		133	
		128	
		123	
		118	
		113	
		108	
		103	
		98	
		93	
		88	
		83	
		78	
		73	
		68	
		63	
		58	
		53	
		48	
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		23	
		18	
		13	
		08	
		03	

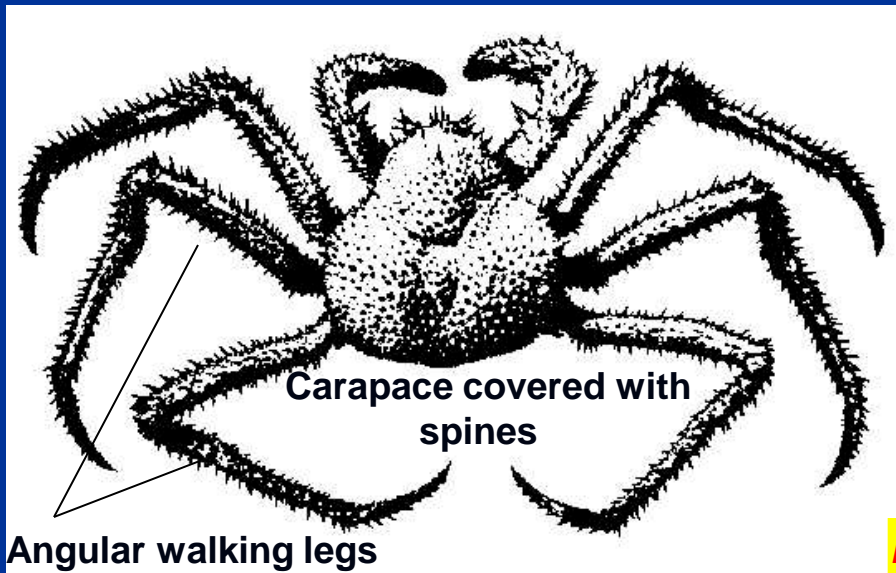
**Measured length is 93 mm.**



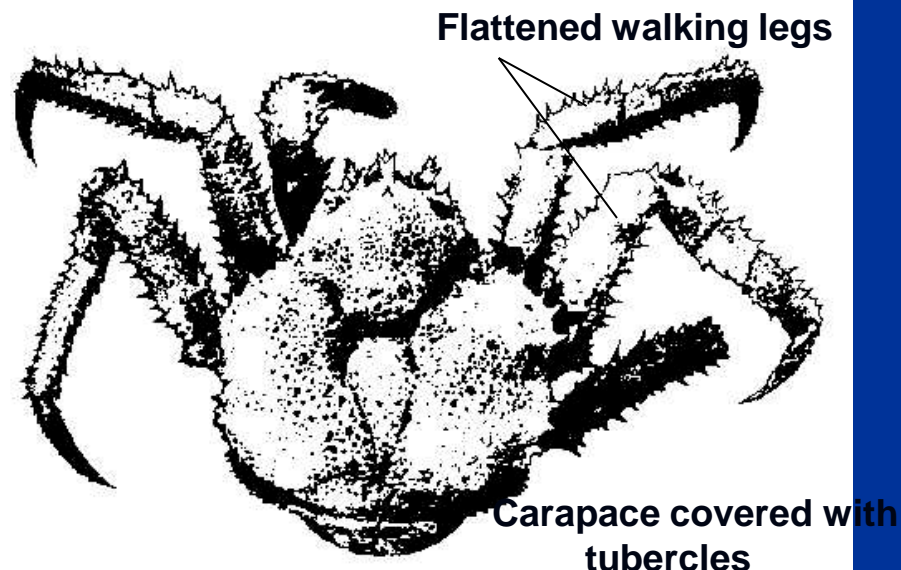
# Non Prohibited Species of Crab Found in Your Key

- *Paralomis multispina*
- *Paralomis verrilli*
- Dungeness crab
- Korean Horsehair crab
- Telmessus crab
- Lyre crabs & Toad crabs
- Scaled crab
- Box crab
- Decorator crab
- Hermit crab
- Fuzzy crab
- Rhinoceros crab

# Paralomis Crabs

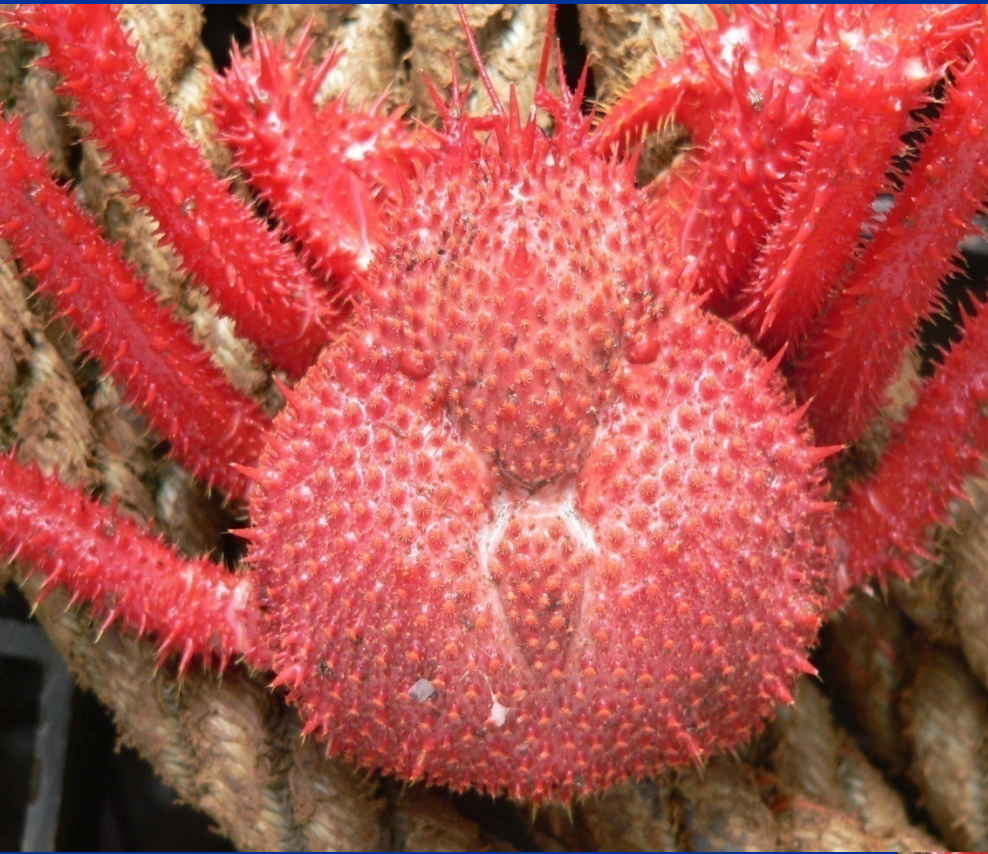


*Prominent Spine in mid-gastric area on both species*





# Paralomis *multispina*





# KING CRAB vs PARALOMIS

2<sup>nd</sup> abdominal flap

Shallow King

5 plates

Paralomis

1 plate



Deep King

3 plates





# *Paralomis verrilli*



Take Photos



# Dungeness Crab



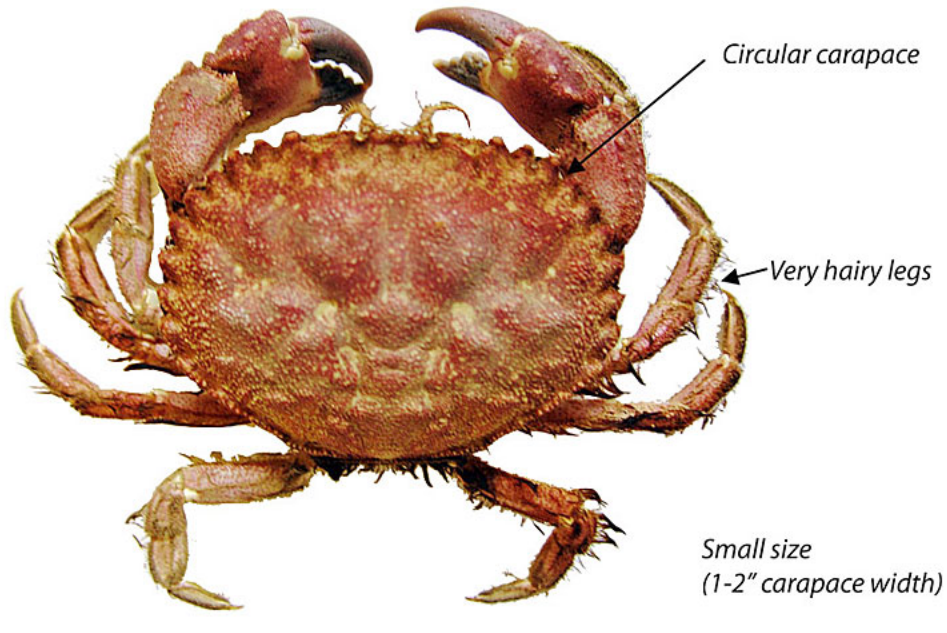
- 1. 10 spines on front margin of carapace.
- 2. Carapace smooth and oval shaped.
- 3. Mostly caught in SE Alaska.



# Pygmy Crab



Pygmy rock crab  
*Cancer oregonensis*



1. Tiny crab.
2. Black tipped claws.

# Korean Horsehair crab



- 1. 7 spines posterior of eye that point forward.
- 2. White tipped claws.





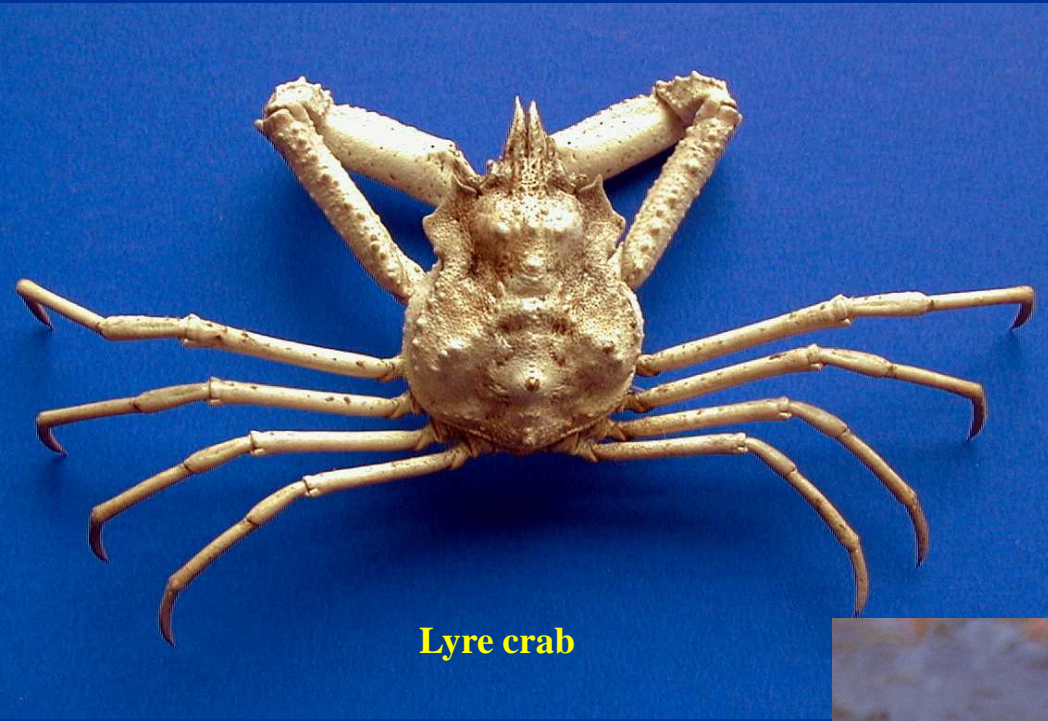
# Telmessus crab



- 1. Black tipped claws.
- 2. 6 spines posterior of eye that point laterally.

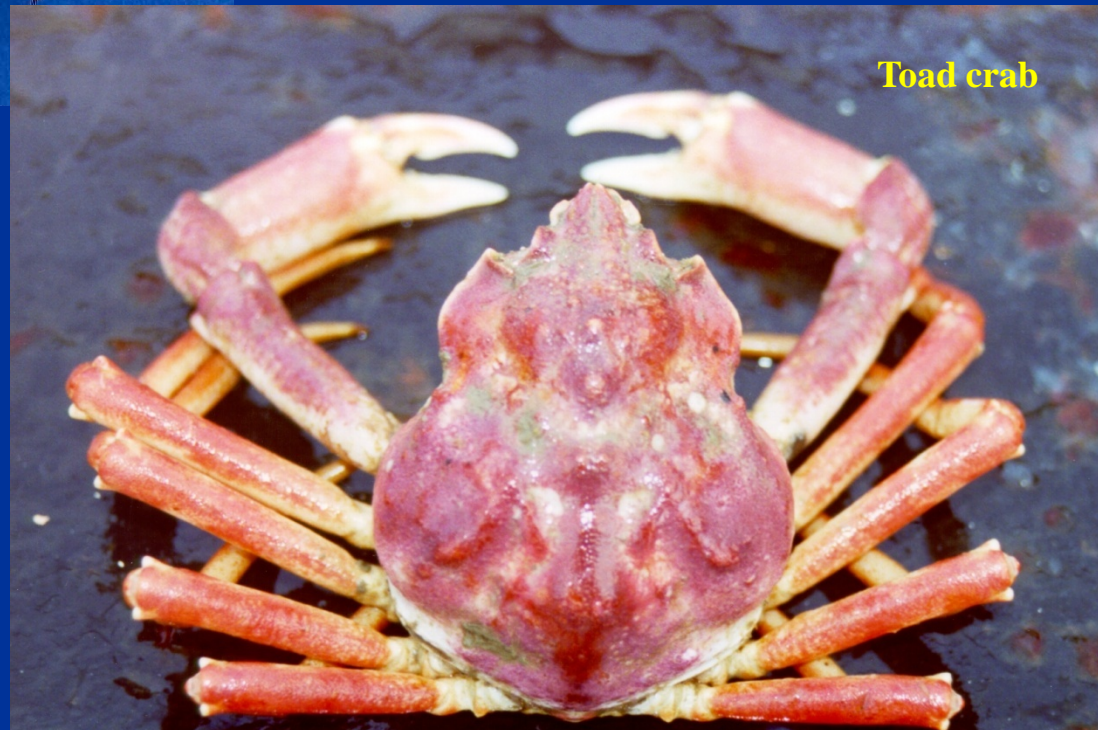


# Lyre crabs



Lyre crab

Genus *Hyas*



Toad crab



# Scaled crab



# Box crab



- 1. Box shaped and heavily calcified carapace.
- 2. Breathing ports on claws.





# Decorator Crab





# Hermit crab





# Fuzzy Crab



1. Abdomen not segmented or calcified.
2. Claws usually orange.

# Rhinoceros Crab

- 1. Triangular carapace.
- 2. Round ball surrounded by deep semicircular grooves.







**Lab Time!**

**Crab Identification**