

# Crayfish Anatomy Lab

## Classical Conversations, Week 10

Look carefully in the muddy bottom of a stream or pond and you might see a crayfish. During the day he hides out, but at night he emerges to feast on dead and decaying plants, yummy insect larvae, and wiggly worms!.

The crayfish is in a very important animal family called **arthropods**. Did you know that — of the million kinds of animals God designed are arthropods. That's a big family! Millipedes, centipedes, spiders, scorpions, horseshoe crabs, and insects are all relatives of the cool crayfish.

Strange but true, the crayfish has a fused head and thorax, which is called the **cephalothorax**. The segmented tail portion is called the **abdomen**. His brain is right behind his eyes. His stomach is in a handy spot, just a short distance from his mouth. He has a heart with two blood vessels leaving it, taking blood to capillaries in his body.

The crayfish has a strange way of breathing. He just walks! He has gills that can get oxygen right out of the water, like fish. Since his gills are attached to his **walking legs**, they wave in the water as he walks along! The oxygen is absorbed by the blood vessels in the gills. What a clever Creator the crayfish has!

His **exoskeleton** is like a suit of armor on a knight, protecting him from predators who want to eat him for lunch. Too bad his exoskeleton fits him so tightly. He can't grow! He solves this problem by molting. He just splits his exoskeleton and wriggles out. Ahh, nice and soft for awhile until he grows a new suit of armor. But wait! That means he better hide carefully until his armor grows back!

Crayfish use their antennae and antennules to taste, smell, and touch. Armed with two large claws, or **chelipeds**, and two small feeding appendages, or **maxillipeds**, the crayfish captures its prey, and passes the food to its mouth, where two jaws, or **mandibles**, crush the food by moving side to side.

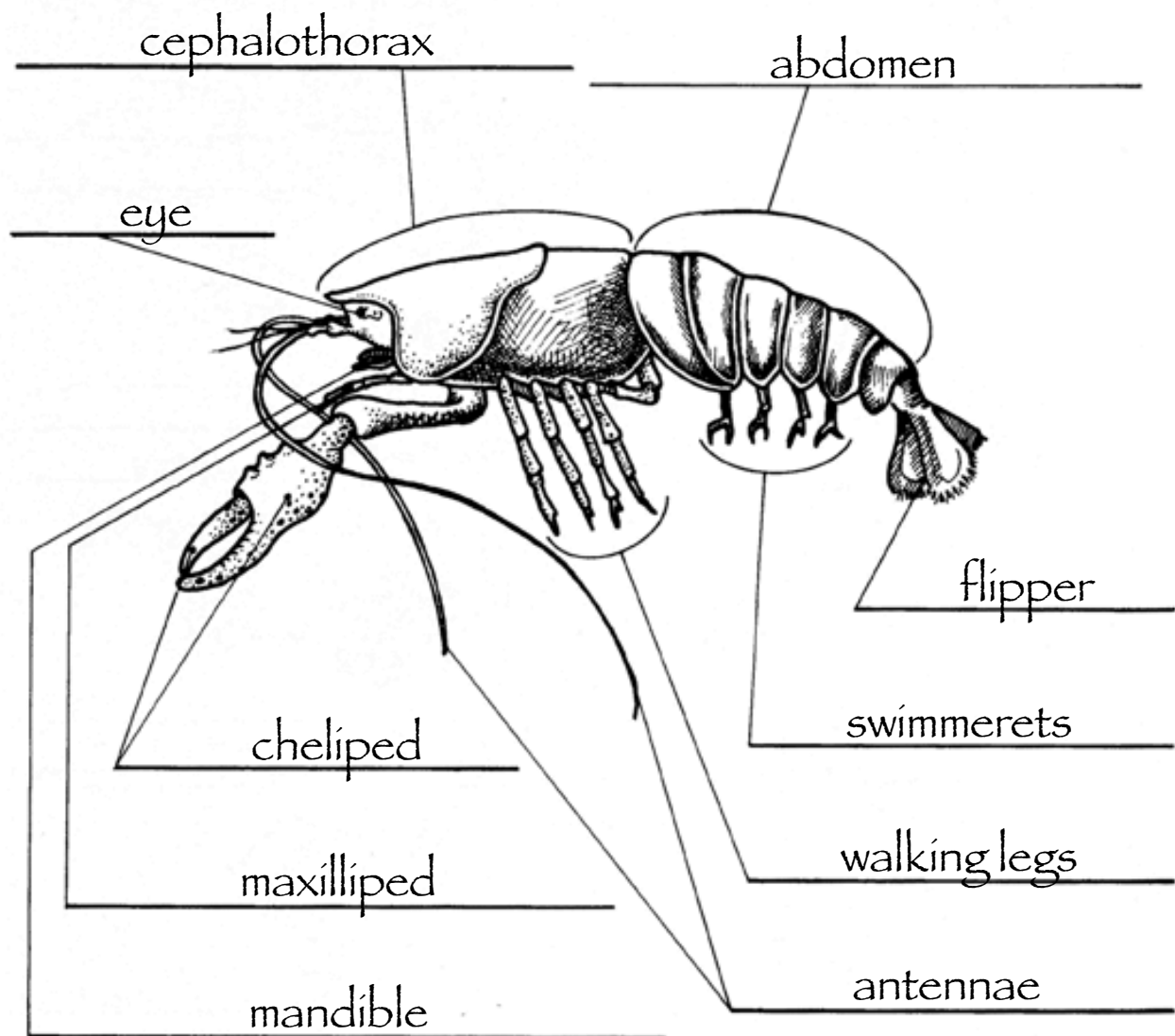
Crayfish use their **swimmerets** to swim and their fan-like tails to flip themselves and dart backward. This **flipper** makes such a splash that the muddy water becomes cloudy and hides his quick escape! Looks like God thought of everything the little crayfish would need to survive!

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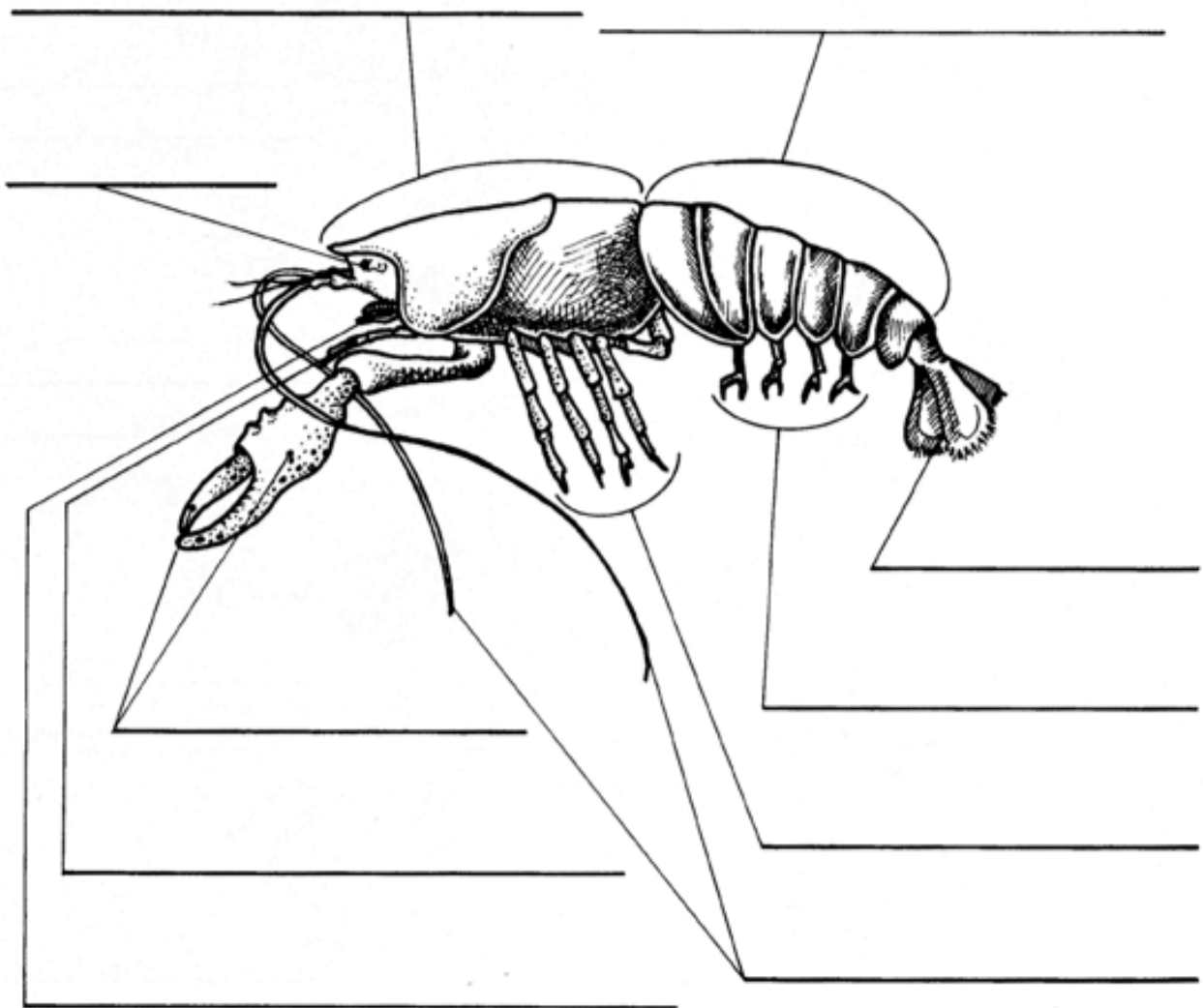
Journal Entry for \_\_\_\_\_

Color the crayfish.



Crayfish Anatomy Lab  
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Journal Entry for \_\_\_\_\_

Label the parts of the crayfish.



**WORD BANK**

eye  
swimmerets  
cephalothorax  
mandible

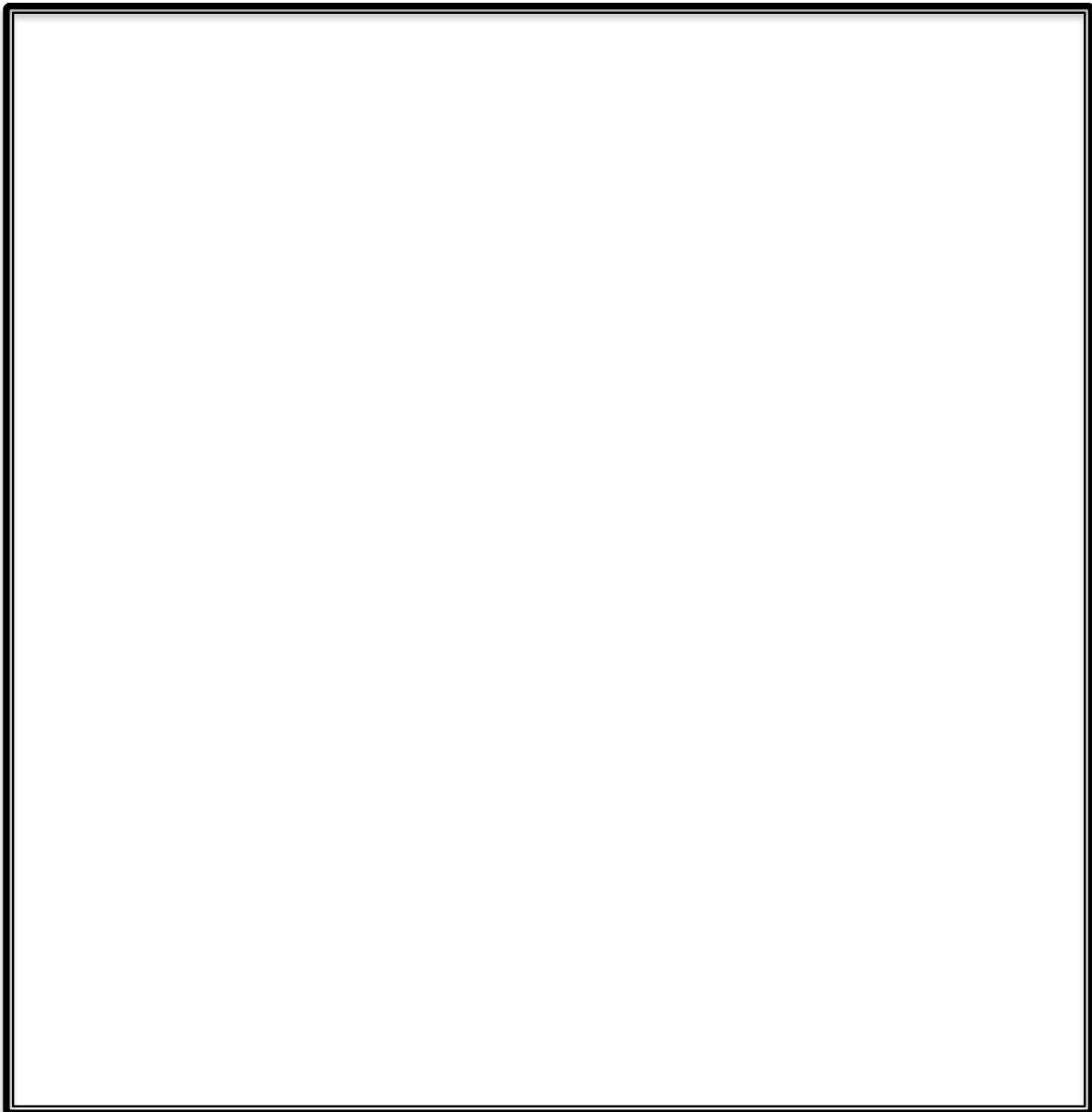
walking legs  
abdomen  
cheliped

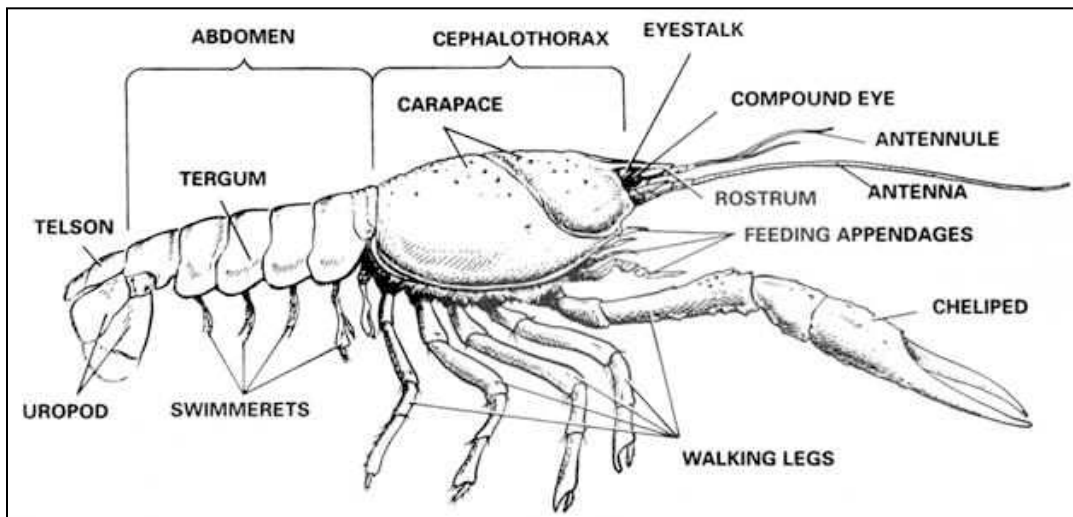
flipper  
antennae  
maxilliped

Crayfish Anatomy Lab  
Classical Conversations, Week 10

Journal Entry for \_\_\_\_\_

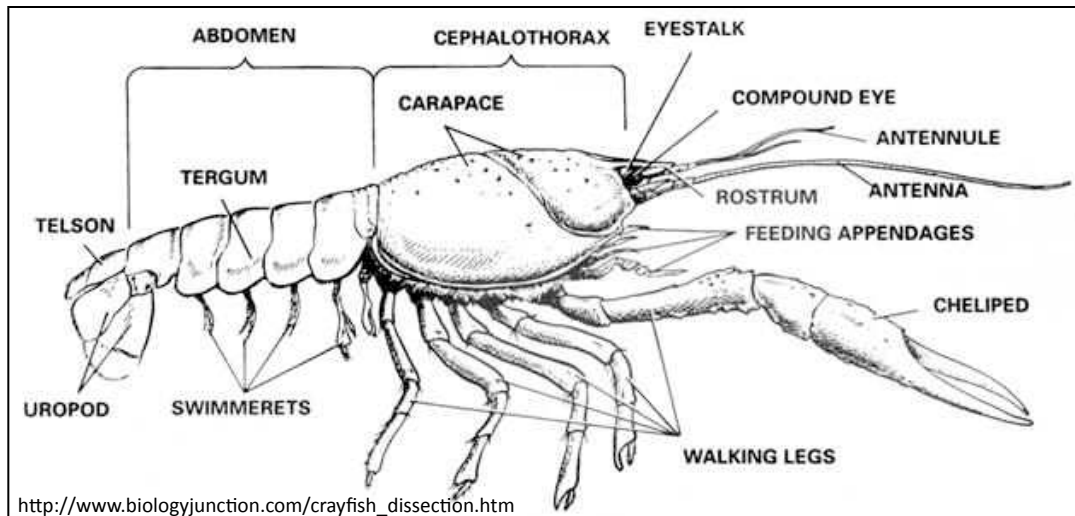
Draw and label the parts of the crayfish.



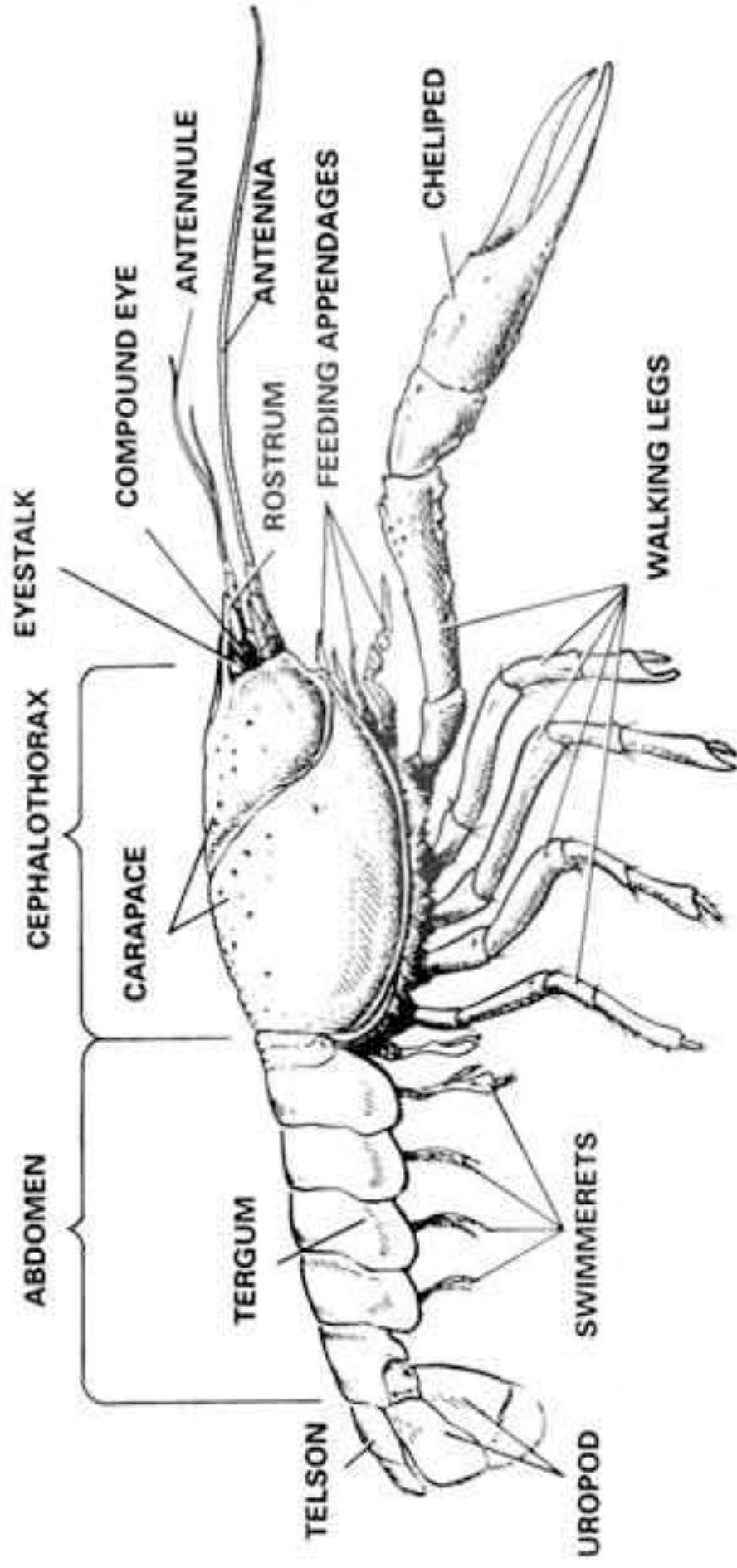


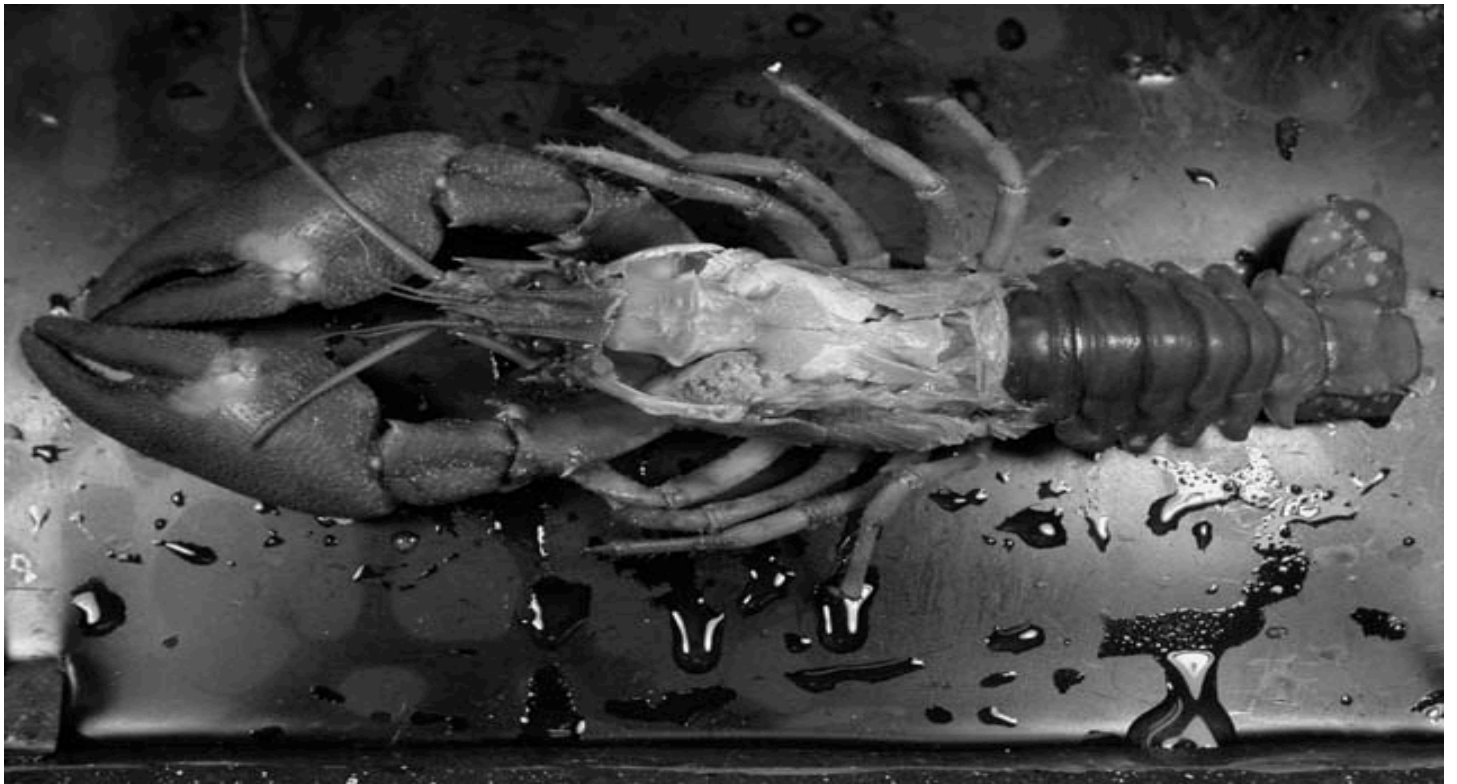
[http://www.biologyjunction.com/crayfish\\_dissection.htm](http://www.biologyjunction.com/crayfish_dissection.htm)

1. **Cephalothorax** The combined head and thorax which contains the heart, gills and stomach.
2. **Abdomen** The segmented tail region to which the swimmerets, telson and uropods are attached.
3. **Carapace** The protective shell (exoskeleton) of the cephalothorax.
4. **Cephalic Groove** An indentation in the carapace between the head region and the thorax region.
5. **Rostrum** The anterior prolongation of the carapace which extends above the eyes.
6. **Eyes** Compound structures which allow the crayfish to see.
7. **Antennae** Two, long sensory organs used for touch, taste, and smell.
8. **Antennules** Two, short sensory organs used for balance, touch, and taste.
9. **Mandibles** Two jaws that crush food by moving side to side.
10. **Maxillae** Two pairs of appendages that hold solid food, tear it and pass it to the mouth.
11. **Chelipeds** Two big claws used for defense and to capture prey.
12. **Walking Legs** Four pairs of long, jointed legs used for walking with gills attached to the top.
13. **Swimmerets** Five pairs of short appendages on the abdomen used for swimming.
14. **Telson** The single, hind-most extension of the tail fan.
15. **Uropods** Two pairs of appendages on the tail fan that surround the telson.
16. **Tail Fan** The telson and the four uropods; used for backwards swimming.

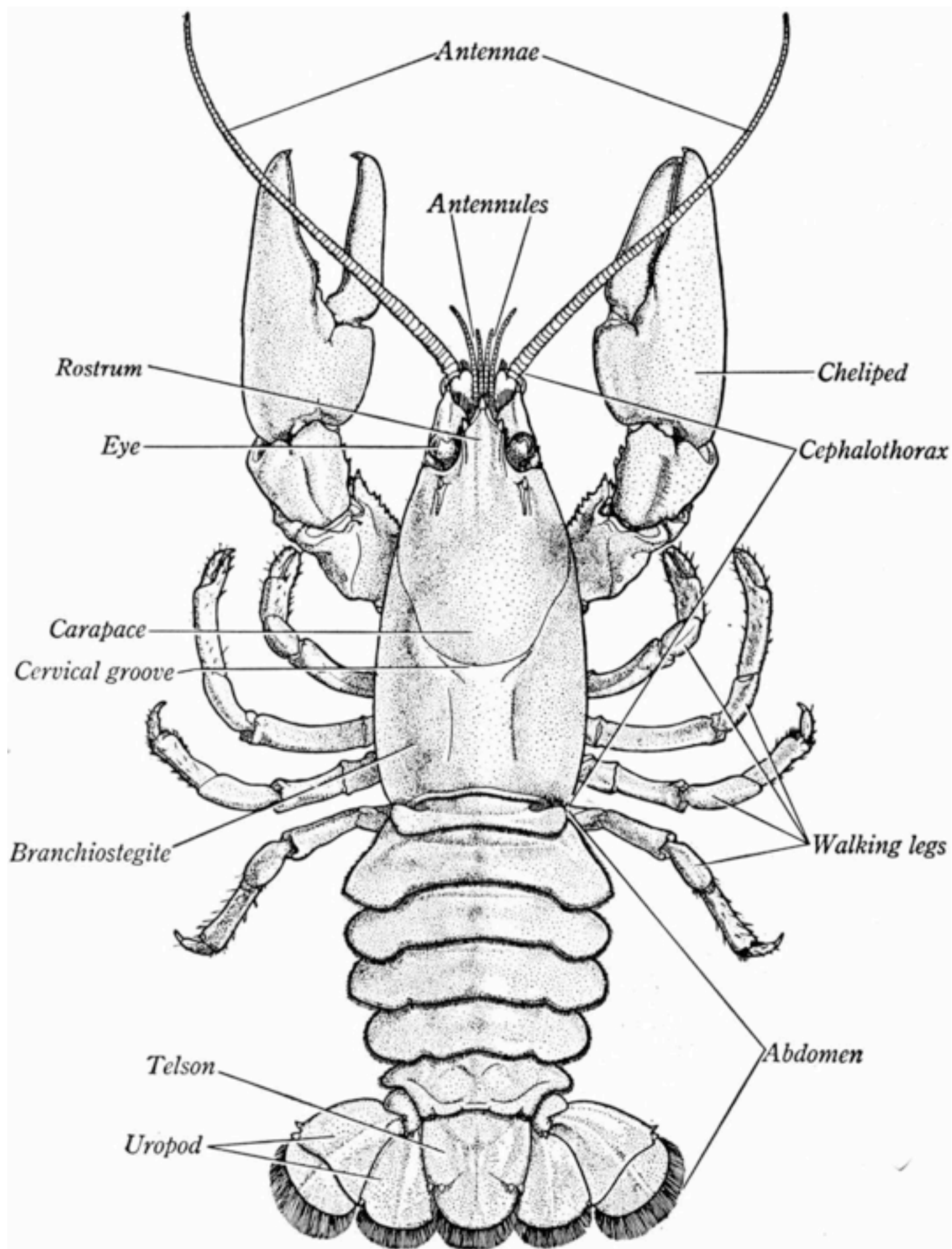


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14. \_\_\_\_\_ The single, hind-most extension of the tail fan.
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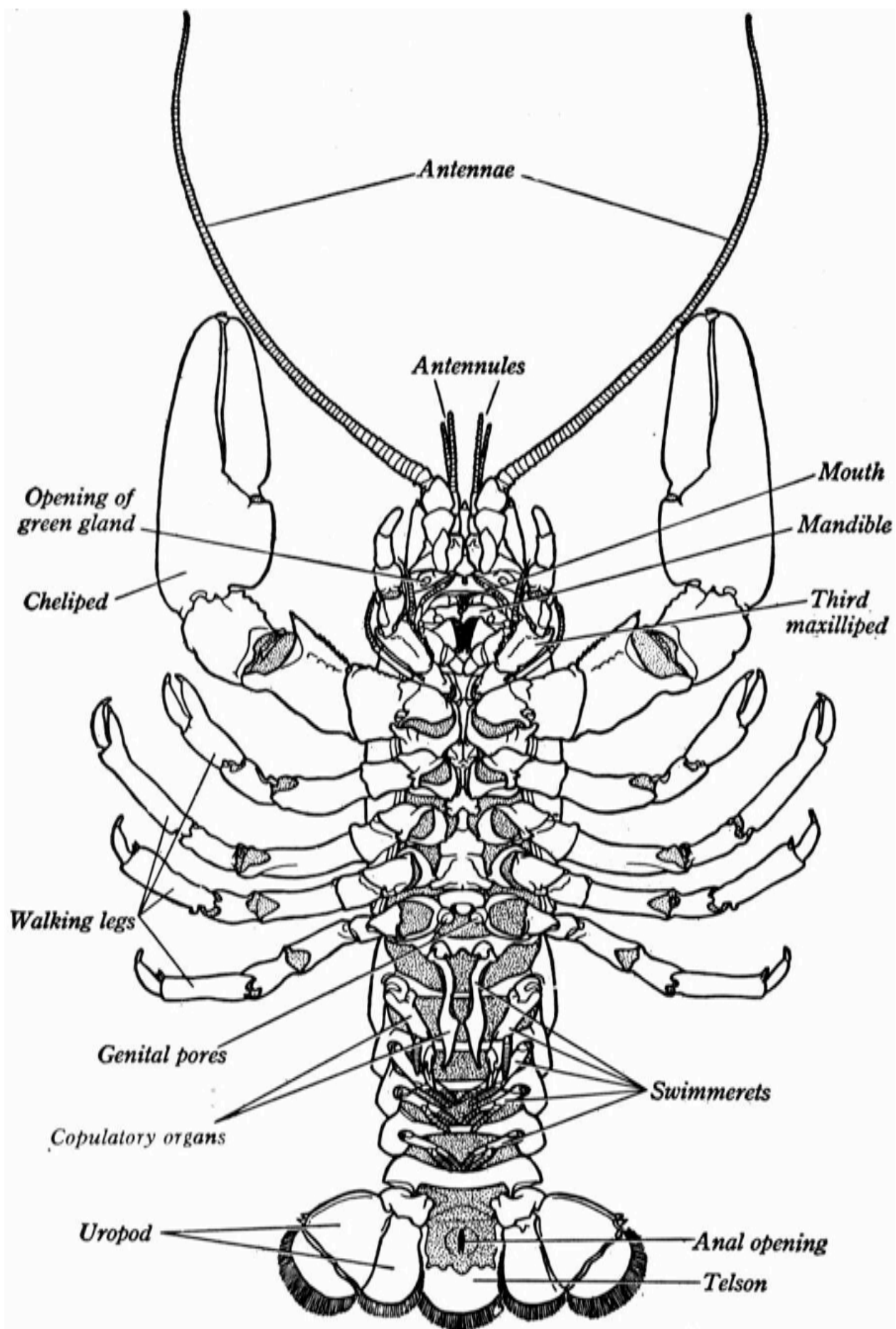


FIG. 245. *Ventral View of Male Crayfish, Potamobius trowbridgei*