I.D. Antarctica

Week 2 Dichotomous Identification Key
Common zooplankton of the Western Antarctic Peninsula

Always start with the first question, Q1. In this case, the questions are worded as statements. Choose the statement that best describes the organism in the photo, and then follow the instructions which will tell you which Question to go to next. Don't worry if that means you skip over a question – just follow the directions and you will get to an identification when you are done. Good luck!

Question 1 (Q1)

1a – The zooplankton is long, skinny and tube-like. It may have many legs or no legs……Go to Q2

1b – The zooplankton is <u>not</u> long and skinny and tube-like. It may have many legs or no legs……Go to Q3

Q2

2a – It has a long body with many legs, over 15 pairs. It has two red bands of color going across its body……***Tomopteris* spp. (bristle worm**)

2b – It has an arrow shaped head and wing-like structures near the tail. No legs present……**Chaetognatha (arrow worm**)

Q3

3a – The organism is gelatinous, transparent, or totally soft tissued. May have tentacles, but no legs are present……Go to Q4

3b – The organism is not transparent or gelatinous; it appears to have hard external body parts such as an exoskeleton or shell. May have legs, no tentacles are present……Go to Q9

Q4

4a – Tentacles are present……Go to Q5
4b – Tentacles are not present……Go to Q6

Q5

5a – There are obvious eyes and eight or fewer tentacles…….
……**Cephalopoda (squid**)
5b – No eyes present. The organism is completely round and has more than eight tentacles……**Cnidaria (jellyfish**)

Q6

6a – The body is mostly clear or cloudy white. There may be a single reddish spot present……Go to Q7
6b – The body is mostly colored, normally orangish or black……..Go to Q8

Q7

7a – There is a single, large reddish spot……***Salpa thompsoni*** **(salp**)
7b – The body is round and it has rows of cilia (they look like small hairs)…….
……**Ctenophora (ctenophore**)
7c – The body is boxy with no cilia…….**Siphonophorae (siphonophore**)

Q8

8a – The body is mostly orange……***Clione limacina*** **(sea angel**)
8b – The body is mostly black……...***Spongiobranchaea australis*** **(also a sea angel**)

Q9

9a – The organism has no legs……Go to Q10
9b – The organism has legs……Go to Q11

Q10

10a – The organism's shell is round and twisted…….
……***Limacina helicina*** **(sea butterfly**)
10b – The organism's shell is shaped like a cone……...***Clio pyramidata*** **(also a sea angel**)

Q11

11a – There are no eyes visible……Go to Q12

11b – There are obvious eyes visible. (Zooplankton eyes can be many different shapes, sizes, and colors. Some species have small black dots, some have orange eyes, and some resemble the compound eyes of insects)……Go to Q13

Q12

12a – The organism looks like a spider and has eight legs……
……**Pycnogonida (sea spider**)

12b – The organism looks like a grain of rice with antennae at one end……
……**Copepoda (copepod**)

Q13

13a – The organism looks like a shrimp. It has orange coloration or is totally orange with a greenish patch right behind its head……Go to Q14

13b – The organism is shorter and does not look like a shrimp. The body is sometimes curved. There is no green patch present……Go to Q15

Q14

14a – The eye is circular in shape and small compared to body.....
……***Euphausia superba*** **(Antarctic krill**)

14b – The eye is bean shaped and large compared to the body ……
……***Thysanoessa macrura*** **(krill**)

Q15

15a – The eye is large compared to the body, almost as big as the head. The surface of the eye looks bumpy……**Hyperiidea (hyperiid amphipod**)

15b – The eye is small compared to the body and smooth……
……**Gammaridea (gammarid amphipod**)