



# CRAB FISHING PROTOCOL

Youth activity (about 60-90 minutes)

## Who is it for?

- School groups, youth groups
- Up to 20 students
- 5-14 years old. Activities must be flexible depending on age group.

## Materials:

- Monitoring sheet (day, water temp, location, weight, size, number, species, time, comments)
- Pencils
- Thermometer
- Accurate scale
- Large bucket
- Crab traps (should be put in water 2 days before activity)
- Measuring tools
  - One ruler for photos
  - One precise ruler for measurements

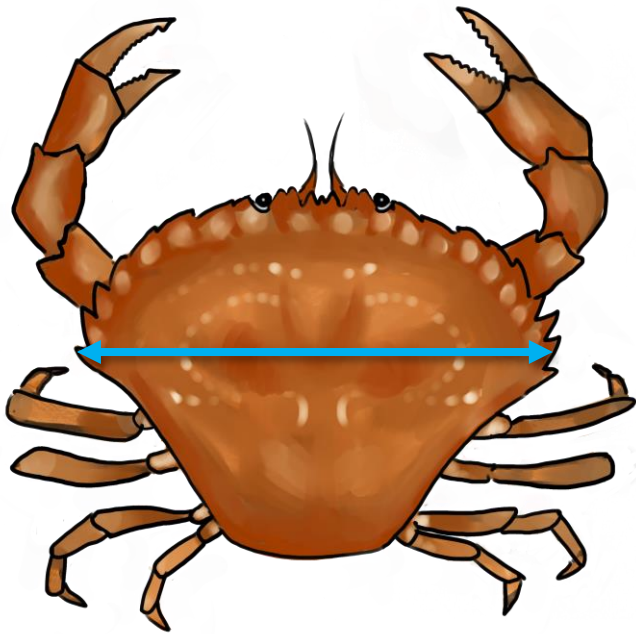
## Protocol:

1. **What are we doing today? Why? (10 minutes)**
2. **Record conditions (temperature, water temperature, weather)**
3. **Record GPS location of each trap**
4. **Fill bucket with sea water to store Atlantic rock crabs**
5. **Establish workstations and roles for participants**
  - Monitoring sheet writing
  - Taking photos with ruler
  - Determining species and sex if possible
  - Measuring catch
  - Weighing catch
6. **Get traps up one by one and go through the workstations for each animal. Release non-invasive species.**
7. **Conclusion discussion:**
  - What species did we catch today?
  - Are any species invasive?
  - What did we learn?
8. **Invasive crab (Atlantic rock crab) distribution between participants**

# What can we find in a crab trap?



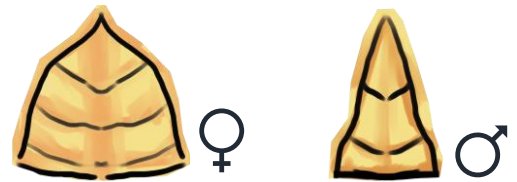
## Atlantic rock crab - Grjótkrabbi - *Cancer irroratus*



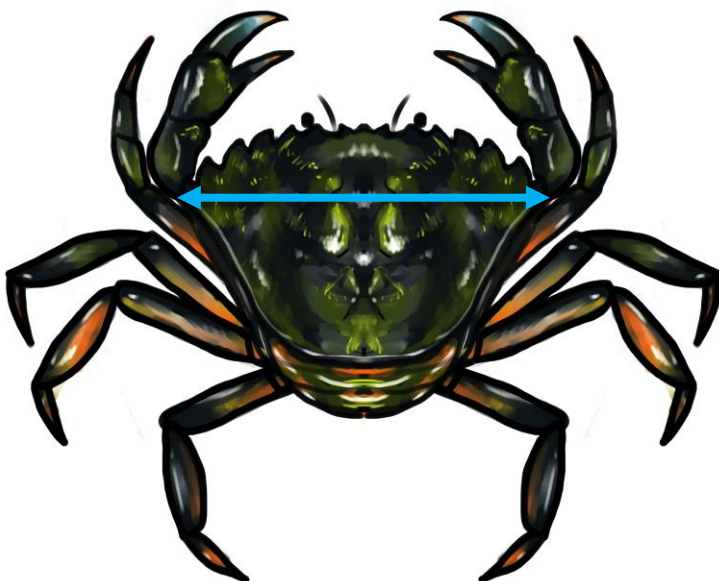
Measure size at the widest point of the carapace

The Atlantic rock crab's carapace can be different shades of orange, red and brown, and it reaches up to 13.3cm across. Native to the Atlantic coasts of Canada and the US, it was found for the first time in Southwest Iceland (Hvalfjörður) in 2006 and has been spreading rapidly since then.

Males are typically larger than females, and if you turn them over, you can see that their abdomen is different: it is wider in females (see below).



## European green crab - Bogkrabbi – *Hyas Carcinus maenas*



Measure size at the widest point of the carapace

This crab is easy to recognize with its dark shell (orange to green) which can reach 8cm across. Its native range reaches from Norway to North Africa, but like the Atlantic rock crab, it has been introduced and is considered invasive in many parts of the world. This includes North America, Madagascar, Sri Lanka and Australia.

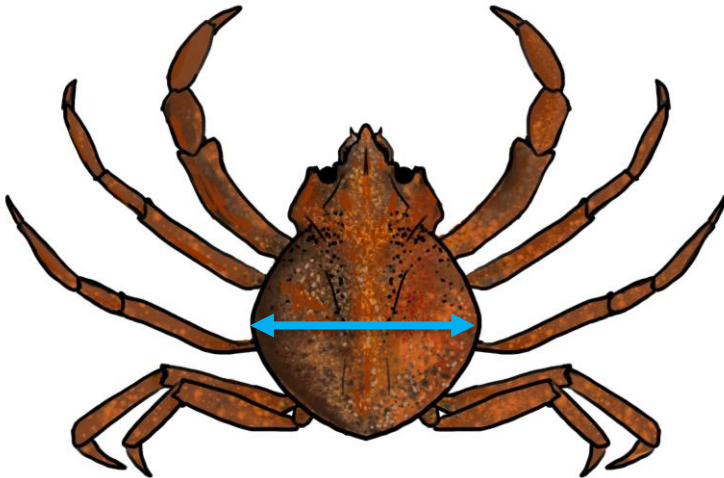
If you turn them over, you can see that their abdomen is different: it is wider and round in females (see below).



# What can we find in a crab trap?



## Toad crab - Litlitrjónukrabbi – *Hyas coarctatus*



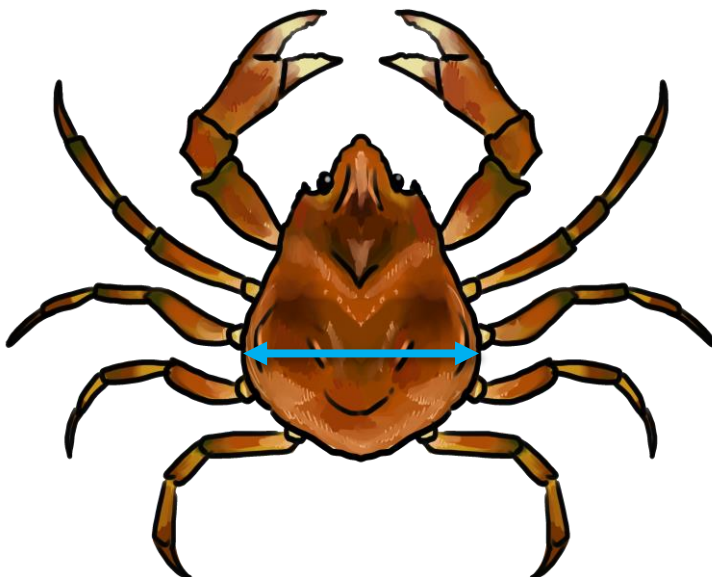
This crab's carapace can be different shades of grey, red and brown, and it reaches up to 6.1cm across. It has a characteristic head with horns next to the eyes that are far apart.

It is found all over the Arctic and in the North Atlantic as far South as northern France and North Carolina. If you turn them over, you can see that their abdomen is different: it is wider in females (see below).



Measure size at the widest point of the carapace

## Common spider crab - Trjónukrabbi – *Hyas araneus*



This crab has a pear-shaped carapace measuring 4-9cm across. It can be confused with the toad crab *Hyas coarctatus* but can be recognized by its bigger size, and more triangle-shaped head with facial horns that are closer together. This crab is found in Greenland and North America, and from Svalbard to England, including all around Iceland.

Males are typically larger than females, and if you turn them over, you can see that their abdomen is different: it is wider and round in females (see below).



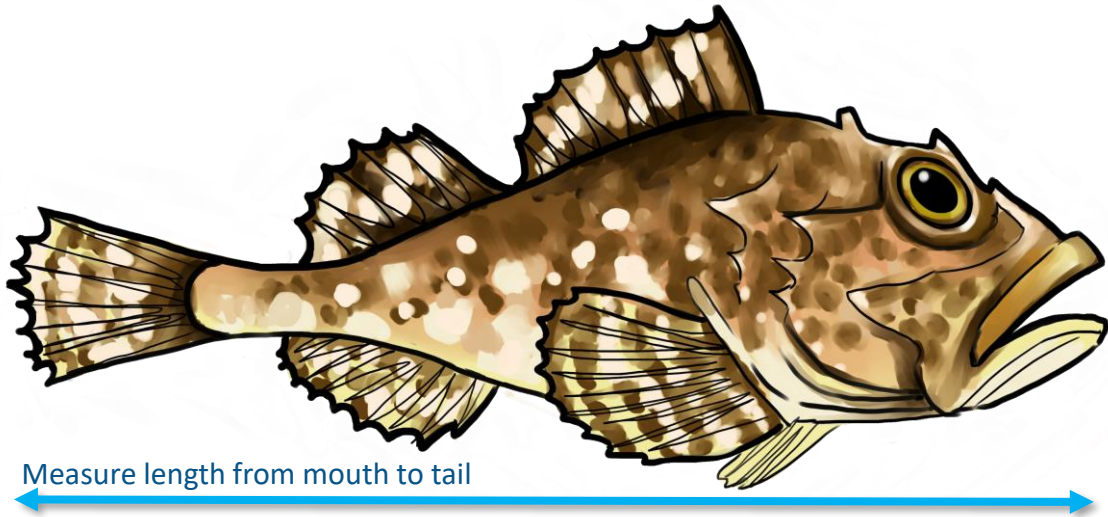
Measure size at the widest point of the carapace

# What can we find in a crab trap?



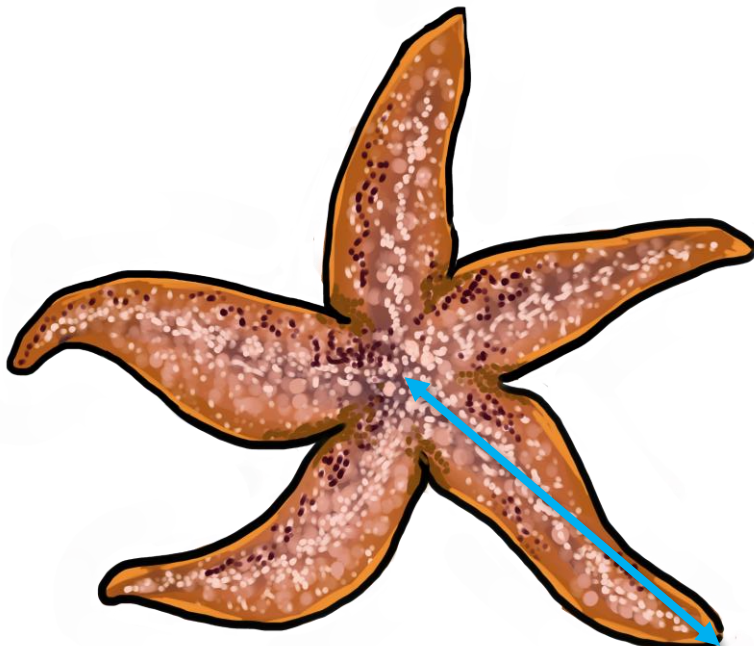
## Shorthorn sculpin - Marhnútur - *Myoxocephalus scorpius*

The shorthorn sculpin is an opportunistic predator. It has a large head and small body, with four short spikes on its head and more spikes around its gills. It is found in the North Atlantic from Svalbard and Greenland to western France, including all around Iceland, and in the North Pacific. In Iceland, it is usually 20-25cm long and reaches up 40cm, but it can be larger in other areas.



Measure length from mouth to tail

## Common starfish - Stórkrossi - *Asterias rubens*



Measure radius (center to end of one arm)

The common starfish has five thick arms and can measure up to 40cm in diameter, although it is usually smaller. It is often orange or red but can also be purple or bluish, or pale yellow in deeper water. It uses its four rows of suction feet found under each arm to hold on to the surfaces, move, and open shellfish to eat. It is found all around Iceland and the Northeastern Atlantic ocean.

If a common starfish loses an arm, the arm can regrow relatively fast. It has even been shown that a starfish can regrow even if it only has one arm left.



# Little guests in crab traps

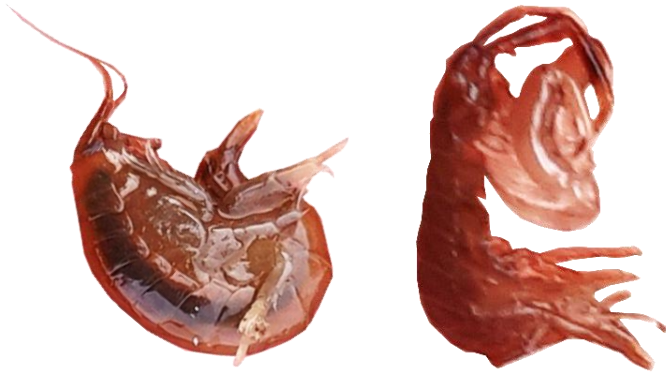


## Isopods – Jafnfætlur - *Isopoda species*



Like shrimps, lobsters, crabs, barnacles and amphipods, isopods are crustaceans. The most resemble amphipods, but they are wider and flatter. They can be found on land, in freshwater, and in the sea. Two species are regularly found around Icelandic coasts: *Idotea granulosa*, which can be seen here, and *Jaera albifrons*.

## Amphipods - Marflær - *Amphipoda species*



Like shrimps, lobsters, crabs, barnacles and isopods, amphipods are crustaceans. They are less flat and wide than isopods are but are generally in the same size range. The different species are difficult to identify, but there are many found all over Iceland. They are mostly marine, but some species are also present in freshwater.

## Bristle worms - Burstaormar – *Polychaete species*



Bristle worms have lots of little legs, and each leg has bristles (hairs). There are many species around Iceland with diverse sizes, looks, diets, and habitats. They can be big, colorful, with long legs, and some can be small and look like earthworms. If you see a worms on the shore or find one in the sea, it is most likely a bristle worm.

Photo by [Johan Kjær Prehn](#)

# Monitoring sheet



Date: \_\_\_\_\_

Time: \_\_\_\_\_

Area: \_\_\_\_\_

GPS

trap# 1: \_\_\_\_\_  
 trap # 2: \_\_\_\_\_  
 trap# 3: \_\_\_\_\_  
 trap# 4: \_\_\_\_\_

Temperature (°C) \_\_\_\_\_  
 Water temperature (°C) \_\_\_\_\_

Circle the right drawing:  
 Wind: Rain: Clouds:

ID #	trap #	Photo ID #	Species and sex	Size (mm)	Weight (g)	Comments
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2						
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