## Safety first
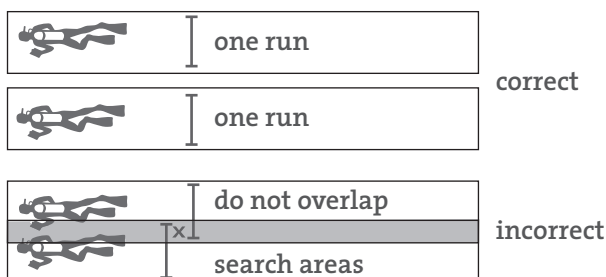
Sometimes it is not possible to complete the survey as you had planned, e.g.,when the weather turns bad or nightfall is approaching. At these times, do not continue with the survey and leave the area! **Some data are better than no data.**

## Starting surveys

- Each swim or walk in which you record start and end points and look for seahorses is considered one survey **run**. You can do more than one run per site; just **fill in a separate datasheet for each run**. Be sure that the runs do not overlap so that the same areas are not searched twice (i.e. double counting).



- Fill in the **site description** portion as completely as you can. Record your general observations, e.g., did you see anyone fishing? Is there pollution or construction work going on nearby?

## More than one surveyor?

If you have a dive buddy searching the same area, both of you have searched one run. Only fill in one datasheet.

## Measuring "effort"

Always include your **effort** expended in your data submission. Here we are using **distance traveled** and **active search time** while searching for seahorses as measures of effort. Here are a few suggestions for how you can measure distance traveled:



- Use an actual measuring tape or a rope with marked sections. Attach it to a nonliving anchor point (such as dead coral) and reel it out as you search. Take note of the distance when you stop. Don't forget to reel in the tape or rope!



- If you are snorkeling or walking at low tide, tow or carry a GPS unit with you as it tracks your movement.
- Take GPS coordinates at your start and end points.
- Make note of the start and end points relative to prominent landmarks on shore or fixed points on the water, such as mooring buoys. You can then extract the GPS coordinates from Google Maps or Google Earth and measure the distance between start and end points.
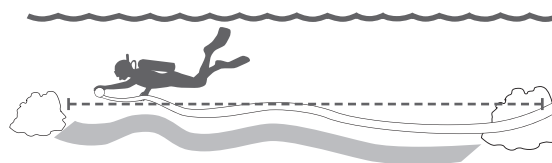
### Reminder

Seahorses are well-camouflaged and very difficult to spot in the field. You will need to practice looking for seahorses before starting to collect data. Go slowly and search the sea bottom thoroughly!
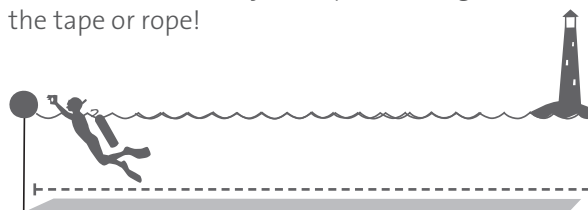


**Photo:** Jeffrey Low

### Remember to bring

☐ **Clipboard or underwater slate with attached pencil**

☐ **Survey datasheets**

☐ **Ruler or measuring grid**

☐ **Laminated Seahorse ID Guide**

☐ **Hand-held GPS***

☐ **Underwater camera***

☐ **Compass***

*Optional, but recommended*

## Recording seahorse data

- **Do not** touch or handle the seahorse to avoid stressing it.
- Refer to your Seahorse ID Guide to identify the seahorse species.
- Record all information requested on the datasheet for seahorses.
- Place your ruler behind the seahorse to measure **torso length** to nearest 0.5 cm. You can also photograph the side profile of the seahorse with a ruler to calculate torso length.
- Take a photo of the side profile of the seahorse alongside your ruler. Make sure the **facial spines** and the **coronet** are clearly visible in the photo.

Record the photograph number on your datasheet. Record data and take a photo for each seahorse you encounter.

## Sexing seahorses

**Male seahorses** have a brood pouch under the belly, so the belly meets the tail at a tapered angle and extends beyond the base of the dorsal fin. Male seahorses with a swollen brood pouch are **pregnant**.

**Female seahorses** do not have brood pouches. The belly of the female meets the tail at a right angle and does not extend past the base of the dorsal fin.

In juvenile (young) seahorses, the brood pouch may not be apparent. If you are not sure, record sex as **unknown**.
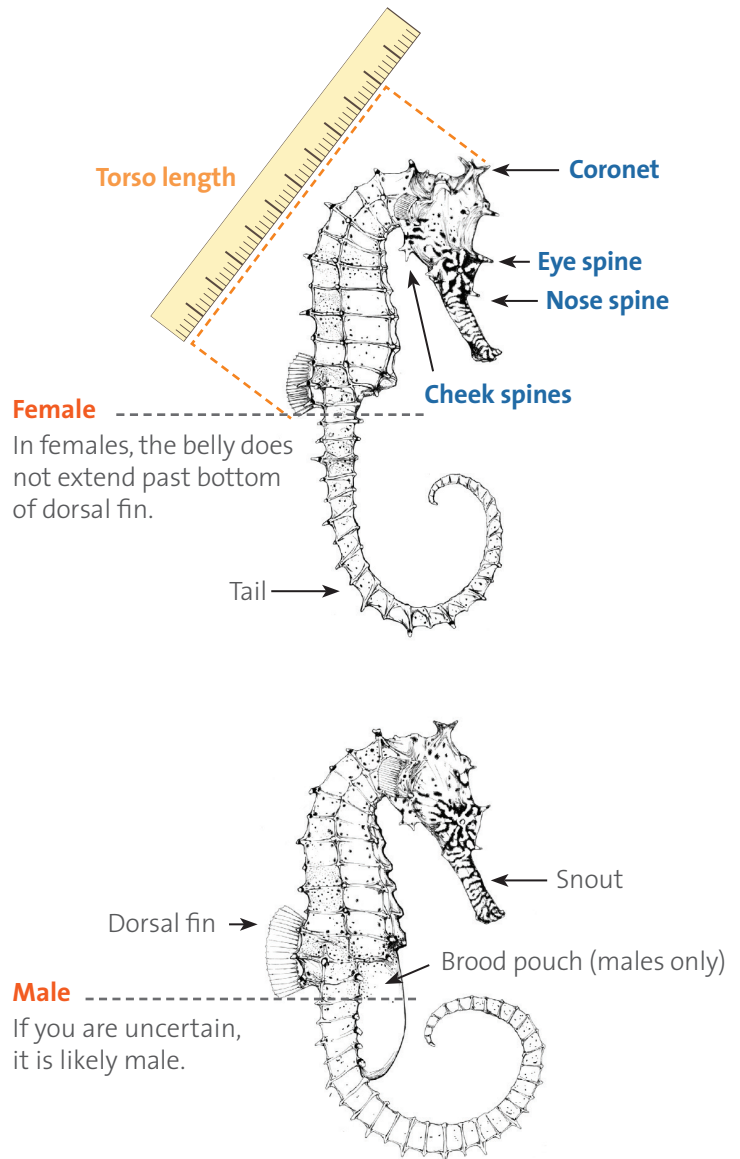
## Unknown seahorse species?

Mark **unknown** on your datasheet for species, and take at least two good photographs of the seahorse.

1. Photograph the side profile of the seahorse alongside a ruler. Include the entire upper torso so torso length can be measured.
2. Take a close-up of the side profile of the head, with clearly visible facial spines (especially cheek spines) and coronet.

## No seahorses?

Do submit your datasheet even if no seahorses were found in your run. It is useful for us to know where seahorses do not live as well as where they do live.

Torso length — Coronet — Eye spine — Nose spine — Cheek spines

**Female**
In females, the belly does not extend past bottom of dorsal fin.

Tail

Dorsal fin — Snout — Brood pouch (males only)

**Male**
If you are uncertain, it is likely male.

## Data upload

Don't forget to enter your data and submit your photos to iSeahorse!

**PROJECT SEAHORSE** advancing marine conservation

**iSeahorse** Saving seahorses together

**Shedd** AQUARIUM