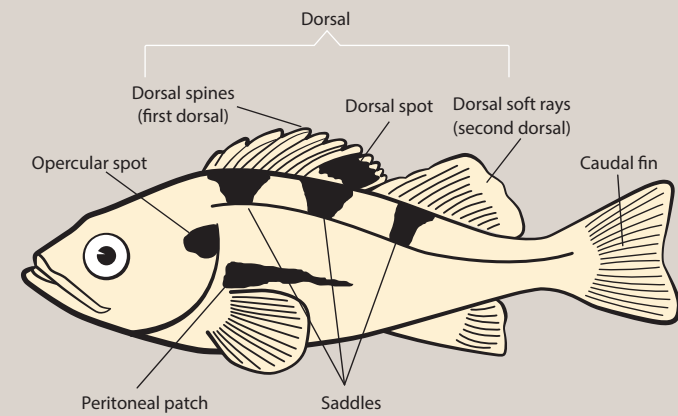
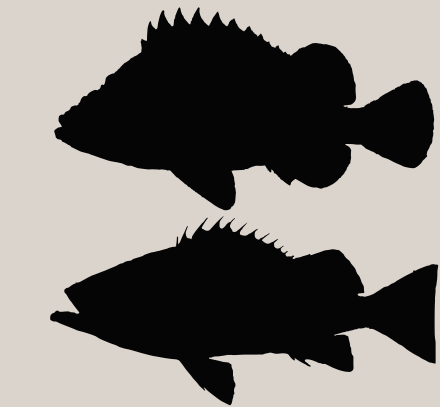


YOY IDENTIFICATION

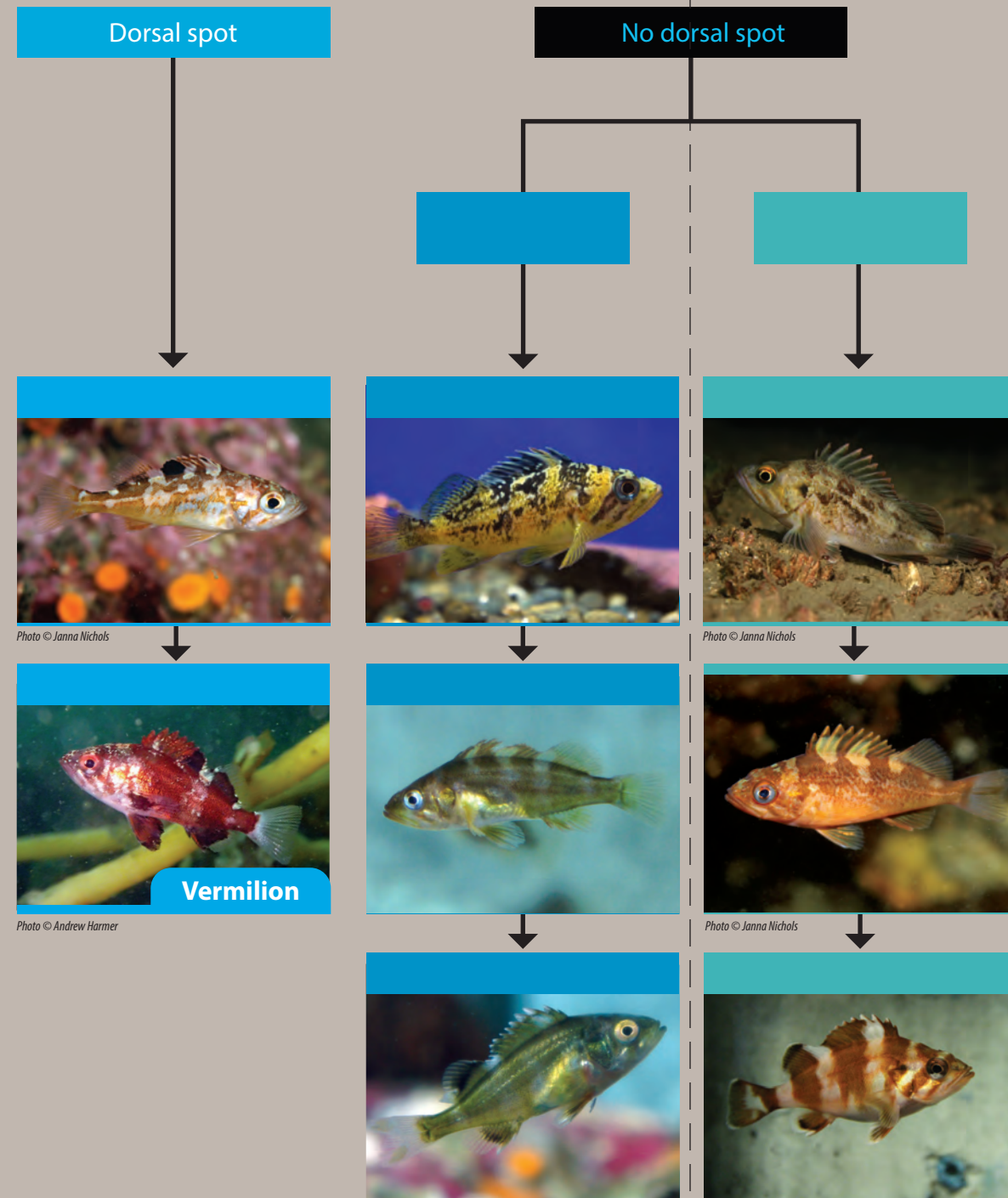
Use the two trees on the right to identify any YOY rockfish encountered during your survey. Record as much detail as possible. **It's not necessary to identify each fish to species, but do it if you can!**

Note: the two trees are divided between "deep body" fish and "elongate body" fish. Once you determine which tree to start with, follow the key with the characteristics of each fish.

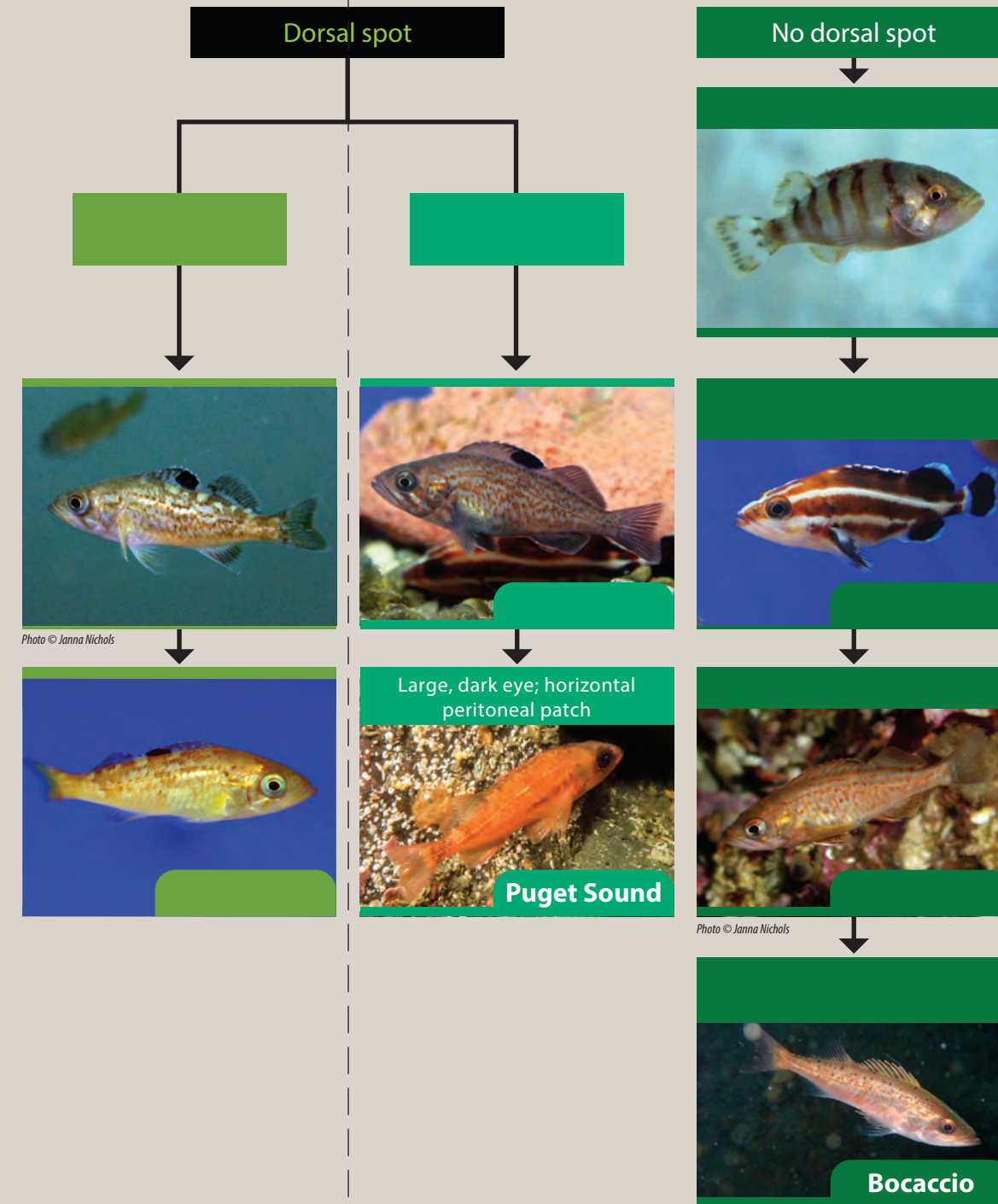
If you are unable to tell the species, just record deep/elongate body and presence or absence of a dorsal spot.



DEEP BODY



ELONGATE BODY



YOUNG-OF-YEAR ROCKFISHES CITIZEN SCIENCE SURVEY GUIDE



You can help save endangered rockfish!

NOAA is trying to learn about long-term trends in juvenile rockfish and needs the help of citizen divers to collect data.

You can help in one of two ways:

- Report any sightings of bocaccio, yelloweye or canary rockfish to rockfishID@noaa.gov and include picture, location and date information.
- Participate in the broader monitoring program outlined in this pamphlet and collect data during your regular dive trips in Puget Sound.

SAFETY FIRST! Participation is purely voluntary and not affiliated with the NOAA dive program.

SAMPLING METHOD:

Surveys are completed using a timed roving dive survey: Divers swim through a single habitat type and record young-of-year (YOY) rockfish by two morphological traits (body shape and dorsal spot presence/absence), basic habitat information and the survey duration.

A more detailed methods document and datasheets are available on the NOAA website at westcoast.fisheries.noaa.gov/protected_species/rockfish/citizen_science_yoy_rockfish_photo.html, or scan the QR code on the back.

SURVEY ZONE:

One habitat type and depth bin.

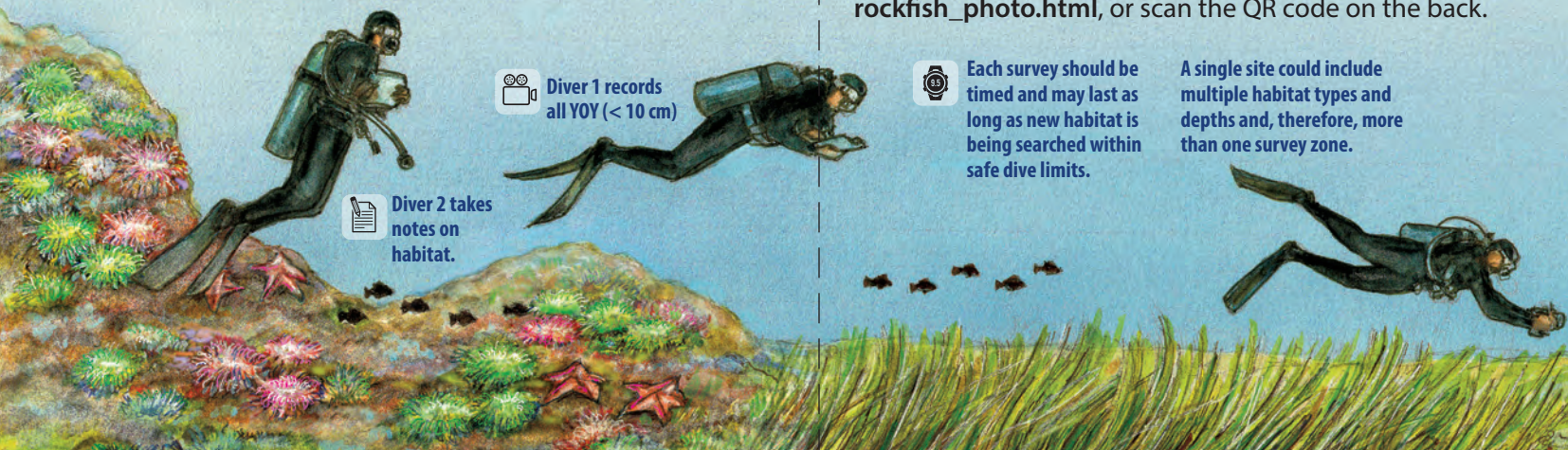
SURVEY PATH:

One meter on each side of swimming path and one meter off the substrate.

Share your results at rockfishID@noaa.gov

For surveys in kelp habitats that reach the surface, a survey should be run through the canopy (<2m from surface) for every survey along the bottom.

If kelp doesn't reach the surface, do a second survey at that depth.



Diver 1 records all YOY (< 10 cm)

Diver 2 takes notes on habitat.

Each survey should be timed and may last as long as new habitat is being searched within safe dive limits.

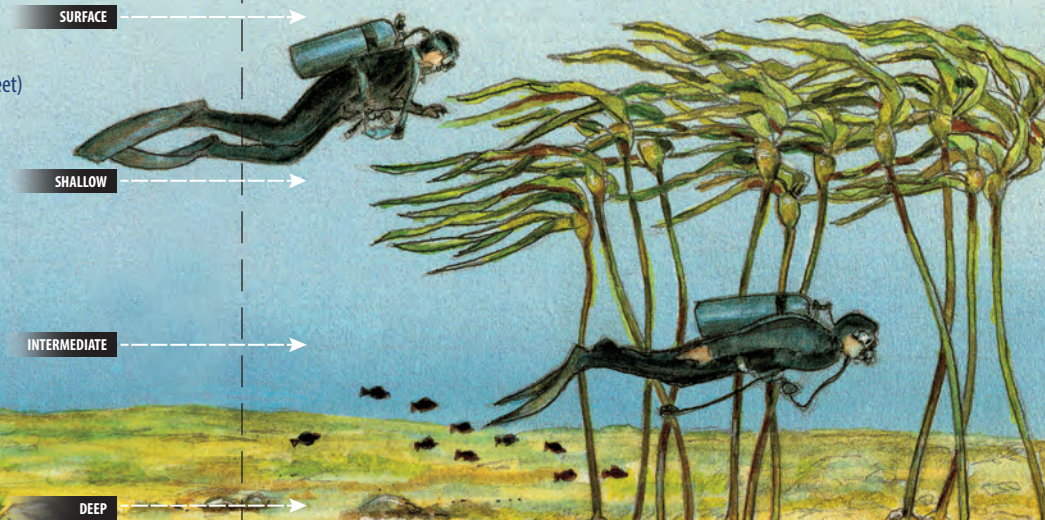
A single site could include multiple habitat types and depths and, therefore, more than one survey zone.

Zeroes are just as important as surveys with a lot of YOY rockfish.

A minimum visibility of eight feet is required to conduct surveys

Note depth bin:
 • Shallow (< 20 feet)
 • Intermediate (21–60 feet)
 • Deep (> 60 feet)

Not all habitats are present at all depths.



ROCKY REEF SURVEY ZONE



Record the following data:

- Relief:**
- >3 feet, 1–3 feet, or <1 foot
- Presence of bottom-growing kelp:**
- Common, sparse or rare to non-existent

EELGRASS SURVEY ZONE



Record the following data:

- Density:**
- High (greater than 10 shoots/square foot)
 - Medium (1–9 shoots/square foot)
 - Low (< 1 shoots/square foot)
- Approximate length of eelgrass in feet**

SOFT BOTTOM SURVEY ZONE



Record the following data:

- Sediment type:**
- Sand, silt or shell gravel

KELP FOREST SURVEY ZONE



Record the following data:

- Density per five-minute survey:**
- High (> 100 stipes)
 - Medium (20–100 stipes)
 - Low (<20 stipes)
- Canopy height in feet**



For information on reporting rockfish:



SEATTLE AQUARIUM

Visit us on the web:



Photo © Janna Nichols