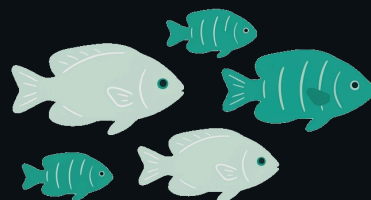


DIVR



FREE GUIDE FROM DIVR

Fish ID for divers

Why identification is genuinely hard, how to photograph for it, and the traps that catch everybody.



It is not that you are bad at this. It is **actually hard**

I teach diving for a living and I still cannot name plenty of what I photograph. That is normal, and nobody warns new divers about it.

Here is what you are up against. Many reef fish look nothing like their own juveniles, so the adult and the young of one species can appear to be two unrelated animals. Others are separated by a single fin ray, or a stripe that only appears when the fish is stressed or displaying. Water strips colour before it ever reaches your eye or your sensor, so the red or orange that would have identified something is simply gone by 10 metres.

And nudibranchs are their own problem. There are thousands of described species, plenty known from only a handful of sightings, and some still have no accepted name at all.

The goal is not to become a walking field guide. It is to bring back enough information that you, or somebody else, can identify it later on dry land.



Shoot for identification, not for the shot

A beautiful photograph and a useful photograph are often not the same image. Take both, in that order: the ID shot first, then the artistic one.

01 **Get the whole animal in frame**

Head to tail, including the fins. A gorgeous tight crop of an eye is unidentifiable. Fin shape and count are often the deciding feature.

02 **Shoot from the side, level with the fish**

The lateral profile is what almost every field guide illustrates. A photo from above or behind matches nothing you can look up.

03 **Get closer than feels necessary**

Water between you and the subject removes contrast and colour. Half the distance is worth more than twice the megapixels.

04 **Use light if you have it**

A strobe or torch puts back the red and orange the water absorbed. Without it, everything below 15 metres is a blue-grey silhouette.

05 **Take several frames**

Fish move, and the identifying feature may only show in one of them. Shoot a burst rather than trying to time a perfect single.

06 **Note depth and habitat immediately**

Sand, rubble, wall, seagrass, inside an anemone. Habitat and depth rule out most lookalikes before you open a single book.



The features that actually decide it

When you are comparing your photo against a guide, these are the things worth checking, roughly in order of how reliable they are.

01 **Body shape and proportion**

Deep and compressed, long and cylindrical, flattened. Shape is stable and survives bad colour rendition.

02 **Fin shape, position and count**

Where the dorsal starts, whether the tail is forked, rounded or square. This is what separates most similar species.

03 **Mouth position and size**

Pointing up, down or forward tells you how the animal feeds, which narrows the family fast.

04 **Markings, and where they sit**

A bar through the eye, a spot at the base of the tail. The position matters more than the colour, because colour is the least reliable feature underwater.

05 **Behaviour**

Hovering in the current, hiding in a hole, cleaning another fish, defending a patch. Behaviour is genuinely diagnostic and gets ignored.

06 **Depth and habitat**

Free information you already have. Many lookalike pairs simply do not overlap in where they live.



Start with the family, not the species

The single biggest improvement most divers can make is to stop trying to jump straight to a species name. Work down the levels instead.

Getting to "this is a wrasse" already puts you most of the way there, and it is a judgement you can make from body shape and swimming style alone. From a family you can flip to the right section of a guide and compare a dozen candidates instead of a thousand.

A confident family plus a photograph beats a guessed species every time. "Wrasse, 12 m, on the reef edge" is a usable record. A wrong species name is worse than no name at all, because it enters the data as a fact.

Families worth learning first

These cover a large share of what you will see on a tropical reef, and they are all recognisable by shape and behaviour rather than colour: wrasses, parrotfish, damselfish, butterflyfish, angelfish, groupers, snappers, surgeonfish, triggerfish, gobies and blennies.

Learn to place a fish in one of those eleven and you have made the hard part easy.



The lookalike traps that catch **everyone**

Juveniles that look like a different species

Many angelfish and wrasses change pattern completely as they mature. If it does not match anything, check whether you are looking at a juvenile.

Males, females and phases

Plenty of reef fish change sex and appearance during life. Terminal-phase males can look nothing like the females they swim with.

Colour that the water removed

Without light, red reads as black or grey by 10 metres. Never identify on remembered colour from a deep dive.

Regional variation

The same species can look noticeably different between regions. Always check a guide for the ocean you are actually in.

Things that are not fish

Crinoids, feather stars, hydroids and tunicates all get logged as fish surprisingly often.

When you are unsure, log the level you are sure of and keep the photograph. An honest "anemonefish" with an image attached can be refined later by someone who knows. A confident wrong answer cannot.

DIVR



NOW GO LOG SOMETHING

Name it. Log it. Make it count.

DIVR is a free dive log with citizen science built in. Log a dive in under 30 seconds, tag the species you saw from a catalogue of 4,400+, rate coral health, and find dive sites near you. Every log becomes a structured marine observation that researchers can actually use.

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