YOUR
Guide
TO
COMMON CRITTERS OF
THE KWAZULU-NATAL
ROCKY SHORES

In partnership with Wilderness Leadership School
Sponsored by sappi
Inspired by life
**About Us**

*Tidal Tao Snorkeling Safaris* was established in 2013 with the sole purpose of exposing people to the wonderful array of intertidal life along KwaZulu-Natal’s Coast.

This guide, produced in collaboration with the Wilderness Leadership School and sponsored by SAPP, covers just a small percentage of what you could expect to find on the rocky shores along our coast. It is intended as an introduction to our marine life, to help you explore and appreciate this very special stretch of coastline.

Our website [www.tidaltao.com](http://www.tidaltao.com) has a range of resources and information to help you get started snorkeling if you have not done so before. Or give us a shout and take a snorkeling trip with Tidal Tao and we can show you the ropes.

**A few basic rules when visiting the rocky shores:**

- The ocean is one of the world’s greatest wilderness areas please treat it the same way you would a nature reserve.
- Take only photos. Never touch or disturb marine life.
- Many marine animals look like rocks or plants, especially corals and sponges, these are living creatures, please treat them the same way you would treat living creatures on land or in a game reserve.
- Be quiet and patient, fish, like most other animals dive for cover when humans arrive, be quiet, avoid splashing too much and move slowly, you will see a whole lot more.
- Finally, look, appreciate, and be amazed by what our special stretch of coast has to offer. We encourage you to get in there and explore, it’s an experience you won’t forget.

**Did You Know?**

Devil Firefish hunt at night and spend the day hiding in rocky caves, they tend to corner prey using their large fins and then use a lightning fast gulp to swallow it whole.

**Fish Species**

- **Geometric Moray**
  *Gymnothorax griseus*

- **Floral Moray**
  *Echidna nebulosa*

- **Salt and Pepper Moray**
  *Gymnothorax brunneus*

- **Yellow Margin Moray**
  *Gymnothorax flavimarginatus*

- **Yellow-spotted Scorpionfish**
  *Scorpaenopsis sp.*
Fish Species

- Catface Rockcod: Epinephelus andersoni
- Peacock Rockcod: Cephalopholis argus
- Natal Moonie: Monodactylus argenteus
- Sixstripe Soapfish: Grammistes se dinar dus
- Dory Snapper: Lutjanus fulviflamma
- Barred Flagtail: Kohlua mugi
- Vagabond Butterflyfish: Chaetodon vagabundus
- Raccoon Butterflyfish: Chaetodon lunula
- Threadfin Butterflyfish: Chaetodon auriga

Did You Know?

Catface Rockcod are considered near threatened on the IUCN red data list. They are restricted to the east coast of South Africa and very vulnerable to overfishing; the younger ones are often found in tidal pools.

There are over 100 species of butterflyfish, four of which are commonly seen in our rocky tidal pools. Butterflyfish are known to travel, hunt and mate with same partner for life.

Fish were well established in the oceans long before dinosaurs roamed the earth. There are over 25,000 identified species of fish and scientists estimate that there may still be over 15,000 fish species that have not yet been identified.

Scientists estimate that the world's fish stocks will totally collapse in the next 30 years if we do not stop overfishing. More than 50% of all our marine life has been destroyed in just the past 40 years.
**Did You Know?**

Many species of damselfish practice farming. They stake out a territory where there is growth of a certain algae species which they tend and defend from intruders. Snorkelers will often get nipped by damselfish defending their algae patch.

**Sergeant Major**
*Abudefduf vaigiensis*

**Spotted Hawkfish**
*Cirrhitichthys oxycephalus*

**Dusky Damsel**
*Abudefduf natalus*

**Spot Damsel**
*Abudefduf sordidus*

**Interesting fact!**

Hawkfish can often be found sitting on a piece of coral or rocky outcrop rather than drifting in open water. They do not have a swim bladder, so cannot control their buoyancy in the water like most other fish do.

**Surge Damsel**
*Chrysiptera hoveri*

**Birdfish**
*Gomphosus spp.*

**Goldbar Wrasse**
*Thalassoma hebraicum*

**Interesting fact!**

Research has proven that fish feel pain, have long memories, recognize individuals in a community and even individual human faces. Fish have a great sense of smell too. In dark ocean water, fish rely on their keen noses for survival. They are a lot more intelligent than most people mistakenly believe.

**Did You Know?**

When snorkeling, you will often see many young fish. The rocky tidal pools are very important nursery areas for young fish. Many young fish spend their early lives in the protection of the shallows.

**Fourbar Damsel**
*Abudefduf natalensis*

**Sash Damsel**
*Micrargoxyodon labracoides*

**Cutribon Wrasse**
*Stethojulis interrupta*
**Fish Species**

**Interesting fact!**
Parrotfish spend up to 90% of their day eating algae off of coral reefs with their beak-like teeth. And they poop sand (up to 100kg’s of it per year!) helping keep beaches sandy.

*Crescent Tailed Wrasse*
*Thalassoma lunare*

**Convict Surgeonfish**
*Acanthurus triostegus*

**Brown Surgeonfish**
*Acanthus nigrofuscus*

**Did You Know?**
Pufferfish blow themselves up when feeling threatened, they do this by swallowing large amounts of water making their bodies appear much bigger than they actually are.

*Exquisite Toby*
*Cantigaster bennetti*

**Interesting fact!**
Surgeonfish get their names from the very sharp spines that they have at the base of their tails. These spines can literally cut like a surgeon’s scalpel when erected and are clearly visible on most surgeonfish, a useful feature to identify these species.

*Ember Parrotfish*
*Scarus rubroviolaceus*

**Did You Know?**
The male Ember Parrotfish is blue in colour and the female is pink in colour. The photo on this page is of a female Ember Parrotfish.

*Ring-necked Blenny*
*Parablennius pilicornis*

*Hollis Triplefin*
*Helcogramma hollisae*

*Emperor Blenny*
*Plagiotremus raja*

**Bluespine Unicornfish**
*Naso unicornis*

**Interesting fact!**
Pufferfish have tetrodotoxin in their skin and organs. This poisonous substance can paralyse and kill, there is enough poison of one single pufferfish to kill 30 people.

*Piano Blenny*
*Plagiotremus taeinocrisma*

*Whitespotted Puffer*
*Arothron hispidus*
A matter of life and breath.

Where does the air that we breathe come from? You may be surprised. Around 20% comes from indigenous forests like the Amazon. Almost 30% is generated by natural vegetation, urban forests and sustainable commercial plantations like Sappi’s (which cover almost half a million hectares in South Africa). The rest (more than half) comes from the ocean where tiny plants called phytoplankton release oxygen through photosynthesis. We take care of our trees but we all need to conserve our seas.

Visit www.sappi.com
Nudibranchs & Flatworms

Did You Know?
Some nudibranchs are poisonous while others pretend to be poisonous, which is evident by their vibrant colors and for this reason, some species of flatworms will often mimic the colours of a nudibranch for extra protection.

Did You Know?
There are over 3000 known species of nudibranchs around the world and probably a similar amount that are unknown.

Interesting fact!
The word nudibranch means “naked shell” – nudibranchs can easily be identified by the feather-like tuft on their backs which they use to breathe.

Interesting fact!
At least two species of nudibranchs can actually make sounds that humans can hear! It is unknown whether these sounds are for defense, attracting a mate, or other reasons.

Dotty Dorid
Jorunna funebris

Blue Spotted Nudibranch
Dendrodoris kruengi

Black Nudibranch
Dendrodoris nigra

Ruby Flatworm
Pterolobus barboreus

Fleshy Nudibranch
Hypselodoris armata

Gloomy Tambja
Tamja norosa

Dawn Flatworm
Pseudococara unilaborensis

Violet Nudibranch
Goniobranchus conchylatus

Inkspot Flatworm
Pseudococara indicus

Spanish Dancer
Hexabranchus sanguineus

Ringed Nudibranch
Goniobranchus annulatus

Fruity Flatworm
Pterolobus flabellus
Nudibranchs & Flatworms

Did You Know?
Seahares, like octopus are known for the colorful, sticky ink they let loose when threatened, this helps them escape from predators. This ink was used back in the day to dye clothing.

Lightning-strike Flatworm
Pseudoblaerites fiviger

Rose Petal Bubble Shell
Hydatina physe

Minature Melo Bubble Shell
Micromelo melo

Interesting fact!
Bubbles are related to nudibranchs, their shells are often soft and they are unable to retract into their shells for protection like many other snail species can.

Pleurobranch
Pleurobranchus peroni

Interesting fact!
Sea Urchins are related to starfish, they have what is known as five-fold symmetry (equal parts). The symmetry is not obvious in water, but is easily visible in the dried shells you can often find on the beach.

Short-spined Urchin
Tripneustes gratilla

Arabic Cowrie
Cyprea arabica

Oval Urchin
Echinoconus mathaei

Interesting fact!
Sea urchins move using “tube feet” – they are surprisingly mobile, these tube feet work through hydraulic pressure, allowing the sea urchin to pump water into and out of the tube feet, enabling it to move.

Did You Know?
The name “urchin” is an old word for hedgehog, which sea urchins resemble. Some species of urchins are known to live for up to 200 years!

Shaggy Sea Hare
Bursatella leachii

Umbrella Sea Slug
Umbraclium umbrocatum

Bi-colored Urchin
Salmonis bicolor
**Other Invertebrates**

**Interesting fact!**
Due to their lack of blood, a typical central nervous system, and any sort of face, we might naturally assume that starfish also lack eyes. However, starfish do have eyes at the tips of their arms.

- **Cushion Starfish**
  *Parnacea ovigera*

- **Knob-horned Coral**
  *Pocillopora spp.*

- **Violet Zooanthid**
  *Zoanthus sibiaticus*

- **Plum Anemone**
  *Actinia mandalae*

- **Yellow Sea Spider**
  *Aequanus jameiensis*

- **Snake Arm Brittlestar**
  *Ophiocoma walecasea*

- **Portuguese Man O’ War**
  *Physalis physalis*

- **Honeycomb Coral**
  *Favia spp.*

- **Xanthid Crab**
  *Eriphia smithii*

- **Tufted Sea Cucumber**
  *Holothuria cinerascens*

- **Blue Eyed Hermit**
  *Calcinus laevimanus*

**Did You Know?**
Although corals often look like they are just hard rocks, they are actually made up of thousands of little animals called polyps. They take a very long time to grow, at a rate up to 2 cm per year.

**Did You Know?**
Portuguese man o’ war, also known as Bluebottles, are not a single animal like jellyfish but rather a colony of animals called zooids. They get their name from an 18th century sailing ship which they are said to resemble in full sail.

**Interesting fact!**
Hermit Crabs often have one claw that is bigger than the other; this claw is typically used as a protective covering to the opening of the shell when it hides inside.
Three quarters of the world’s fish stocks are being harvested faster than they can reproduce. 80% are already fully exploited or in decline. In just the past 50 years we have reduced large predatory fish - including tuna, sharks, swordfish and cod by 90%. This is a bleak situation for our oceans.

So what can you do?
Do not eat fish. If you must, keep it to a minimum. You are not eating a farmed animal like cows and chickens, fish are wildlife. It is not only fish but also fishing methods that are causing huge destruction of our coastal resources.

Fish and marine life in general are overlooked from an animal cruelty perspective. Fish have long memories, they feel pain and they have complex social systems. Treat fish and marine animals with the same respect you would treat birds or other land animals.

If you must fish, please catch for food only. Do not be cruel and leave fish out of water for long periods. Release the fish as soon as possible. A fish out of water experiences the same level of discomfort that you would experience when drowning. This is a scientifically proven fact.

Do not leave any litter and old discarded fishing line in the water. This just smothers and kills coral and a lot of other wildlife. In fact, when you are at the beach don’t just take your own rubbish. Why not pick up and remove some extra litter too?

Make sure you have a fishing license on you at all times and understand the conditions and laws associated with harvesting marine life.

You think that you’re only catching one crayfish for lunch or just taking a few mussels. But realise that you are one of thousands of people taking off this small stretch of coastline each year. Ask any fisherman what it was like 20 years ago and you will understand what we have lost and what our children will lose if we do not stem our own greed.

Report any poaching or suspicious activity.
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