An aerial photograph of Ningaloo Reef in Western Australia. The image shows a vast, shallow lagoon with crystal-clear turquoise water. In the foreground, a snorkeler is visible, floating on their back. The reef's edge is marked by a line of white, porous limestone rock formations. Beyond the reef, the water transitions to a deeper blue. In the background, a wide, sandy beach stretches across the frame, leading to rolling sand dunes covered in sparse green vegetation under a clear blue sky.

A Snorkeller's Guide to Ningaloo Reef

Fishes, Corals & Snorkel Spots

by Keith & Vlasta Ross-Jones
Second Edition 2017

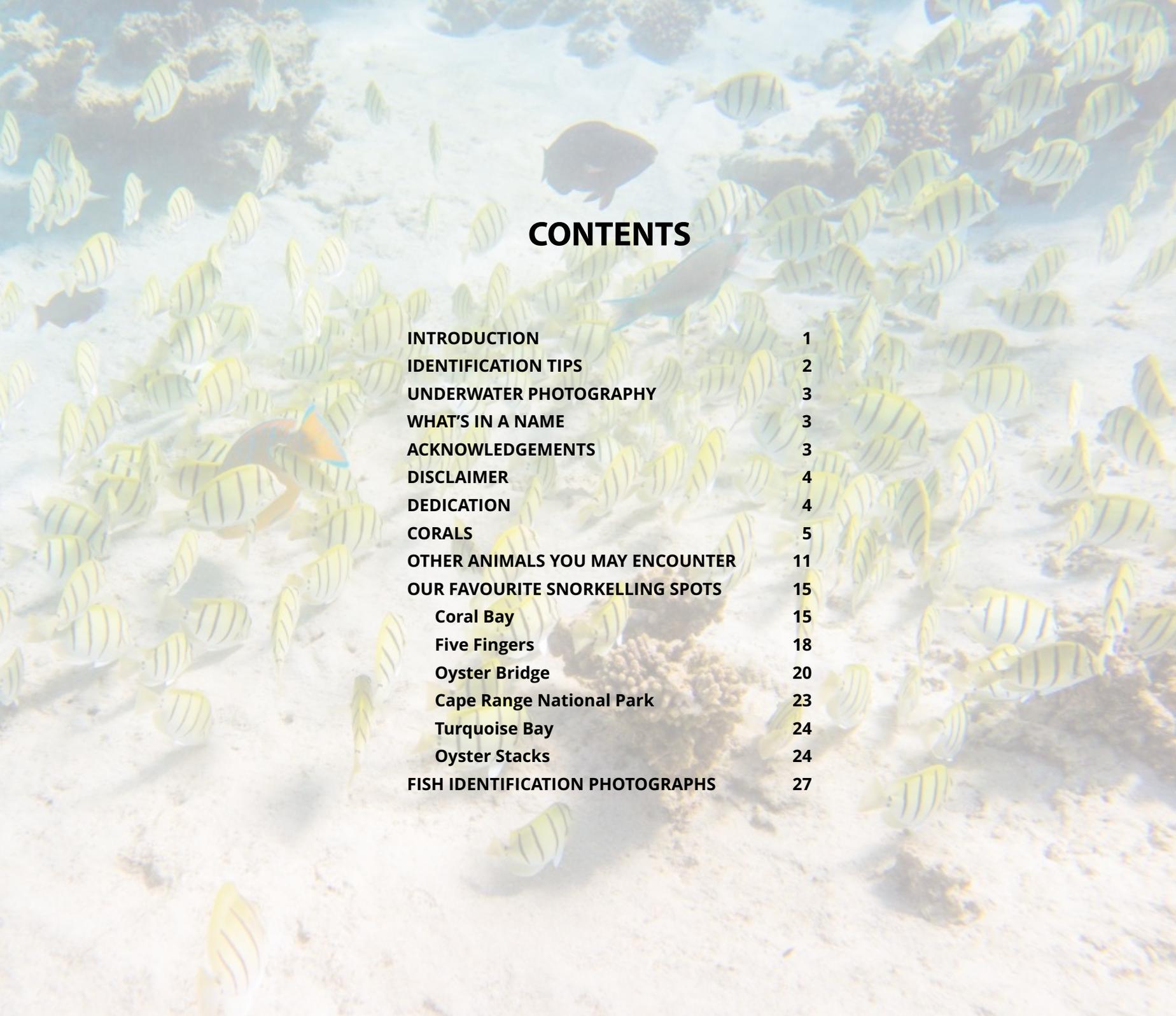
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Coral Bay



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We have also extended this book to include other animals you may encounter while snorkelling or taking a tour to swim with the Whale Sharks or Manta Rays. You are very likely to encounter turtles and may be lucky enough to spot an octopus, shoal of squid or even a Cuttlefish. We have also included photographs of some of the corals you may see while observing your favourite fish.

The fishes presented in this book are in alphabetic order of Common Family Name (Family) followed by Common Name (Species). The only exception to this ordering is the grouping of Rays and Stingrays, which makes for a more logical ordering. The Scientific Name (Species) for each fish is also provided to help cross-reference other books where you can get more detailed information. As you become more familiar with identifying fishes you will quickly notice the difference between Families, such as Wrasses, Butterflyfish, Parrotfish etc. which will guide you to the appropriate section of this book. Finally, each Family of fishes will start with the Family name above the first fish in that Family. To make searching the book easier, the Family name is also provided above the top outside fish on each page. Below each fish will be its full Common Name, Scientific Name and any further relevant details. The details provided are purely from our observations and may not necessarily be scientifically correct.

IDENTIFICATION TIPS

The process of identifying fish begins with trying to identify what Family of fish you are seeing, such as wrasse, parrotfish, butterflyfish, rabbitfish, boxfish or one of the many other Families of fish. With practice you will begin to notice that you can place a fish in one of these Families by mostly looking at the shape of the fish. Shape is one of the most important aspects of identifying fish.

Once you have categorised the fish you start looking at other characteristics such as colour, fin shape & placement and habitat. Look at all the pictures you can find because many fish change with age and differ just as we differ from each other. Behaviour is also useful as often a fish will change colour depending on what they are doing or if they are feeling threatened; for example, many rabbitfish change colour pattern when resting or feeding.

The identification process we go through is something like this:

1. Categorise the fish based on shape and any other identifying characteristic such as beaks in parrotfishes.
2. Try and match shape and colour patterns to the fish illustrated in this book or any other book.
3. Look closely at placement, shape and size of all fins and the tail as these often help distinguish similar fishes.
4. Look at juvenile or immature fish too as they can be very different to the adult.
5. Males and females are often very different, especially the parrotfishes.
6. Look at distribution as the fish you are looking at in the reference book may not even be found in the region where you found your fish.



Identification can be very difficult and we still have pictures of fish we just have not been able to identify. I have contacted the WA Museum for assistance and they have been very helpful, so don't be afraid of looking elsewhere for assistance. We wish you happy and successful fish viewing and identification.

UNDERWATER PHOTOGRAPHY

Underwater photography is very tricky and throws up many challenges before you produce decent photographs. By far the most challenging thing to get right is colour balance. Water absorbs different wavelengths of light the deeper you go and your photos will appear bluer and greener with greater depth. Fortunately as a snorkeller you probably won't be going too deep, but you will still need to adjust the white balance by adding varying amounts of red, orange or yellow when adjusting photos on a computer. The other most challenging thing is movement; not only will you be trying to photograph a moving subject but you will be hand-holding the camera while being moved around by the sea. It requires patience, practice and disappointment before you start taking good underwater photographs. Perseverance is the key as well as taking as many photos as you can of your subject.

We started taking photos using point-and-shoot cameras and so always set the camera white balance to the Underwater setting. We have now progressed to the Canon G1X Mk II and always shoot using RAW so that we can best adjust the white balance on the computer later. Even when taking RAW photos, we set the camera's white balance to the Underwater setting because when taking video the camera uses this white balance setting. All our photos, RAW and JPEG, have been adjusted on a computer to get the correct colour back into them.

WHAT'S IN A NAME

We are often asked why we use the term fishes. Firstly the word fish can be either singular or plural and the plural form of fish is used to describe many fish of the same species. So why fishes? Well, fishes is used to describe many fish of more than one species. So, if you see a school of fishes containing multiple fish of multiple species you would say you saw a school of fishes, but if you saw a school of many fish of only a single species you would say you saw a school of fish. Corals follow the same convention. So there you have it!

ACKNOWLEDGEMENTS

All photos in this book have been taken by us, our daughter Natasha Britz or her husband GP Britz on our many snorkelling excursions from 2008 through 2017.

We use a number of reference books to identify fishes we encounter while snorkelling the Ningaloo Reef. In writing this book, our intention is to simply assist snorkellers to identify fish so that they can then reference other books to obtain more detailed information. The reference



Top Row: Boulder Brain Coral, Spiky Corals. **Middle Row:** Foliose or Cabbage Coral. **Bottom Row:** Foliose Coral, Tube Corals



Top Row: Nudibranchs. **Middle Row:** Nudibranch, Spanish Dancer Nudibranch, Nudibranch egg mass. **Bottom Row:** Cowries

OUR FAVOURITE SNORKELLING SPOTS

Ningaloo Reef is a World Heritage-listed site and is the largest fringing coral reef in Australia. Ningaloo Reef is also the only large reef in the world found so close to a continental land mass. The reef is approximately 300km in length and is located between Carnarvon and Exmouth in Western Australia. The reef is home to more than 500 species of tropical fish and more than 200 species of coral, and being a fringing reef makes it easily accessible from the beach for snorkelling.

The two main areas for snorkelling are located in the Cape Range National Park and Coral Bay. Cape Range National Park has a large number of beaches from which to snorkel making it a very popular holiday destination. Coral Bay has a well-protected bay in which snorkellers with varying proficiencies can explore. As the name suggests, Coral Bay is one gigantic coral garden and is our favourite destination on Ningaloo Reef.

Snorkelling close to the shore is not the only place to snorkel. The outer reef provides a different snorkelling experience with deeper water in places and additional fish species. To get to the outer reef you need to hop on a snorkelling tour boat or kayak out to moorings provided specifically for such activities. Kayak moorings are provided at Coral Bay, Bundegi Beach, Osprey Bay and Tantabiddi.

Coral Bay



Bills Bay with the town of Coral Bay visible in the distance on the left

Coral Bay is situated towards the southern end of Ningaloo Reef and has a large protected bay in which to snorkel. The bay is ideal to learn to snorkel or for those who may be nervous and not confident to snorkel further from shore or in deeper water. The further out in the bay you go the better the coral gets and generally the clearer the water gets. The sandy patches near the shore have many fish that are not found elsewhere, so don't discount snorkelling these waters as you could even find a Flounder, Flathead or Sole.

There are a number of kayak mooring buoys which mark interesting snorkel locations. The Coral Bay Information Centre has more information on these buoys. One of our favourite locations is the large boulder coral known as 'Ayers Rock'. The location of Ayers Rock is approximately 60m west of Kayak Buoy 7 which is about 300m north north-west of the main beach. This coral is a porites bommie and is approximately 400 years old so please treat it with respect and do not touch it but feel free to explore its perimeter and view the many species

Oyster Bridge



Oyster Bridge viewed from directly above

Oyster Bridge is a spectacular rock formation jutting out from the beach which provides a sheltered lagoon in which to snorkel. On the outer side of the rock formation is deeper water for the more advanced snorkeller where you will find larger fish. In the lagoon the oyster-covered rocks create overhangs providing cover for many fish, so have a look under these overhangs. We have even spotted Wobbegongs here as well as turtles and the occasional reef shark.

It is highly advisable to snorkel at the lowest tide possible as this reduces the amount of wash that comes over the rock into the lagoon, obscuring your view with bubbles.

Oyster Bridge is located approximately 10.5km from Coral Bay if you drive past the airport and along the beach from Maud's Landing. Please note that the beach is closed to all vehicles between October and March because of the turtle nesting season. Oyster Bridge can also be reached via a sand track from the north. This track is accessed



Oyster Bridge - looking north

via the Coastal Access Road located approximately 8.5km along the main road leading out of Coral Bay.

When driving on the beach be very careful of washouts and high tide. We avoid this route and prefer the longer and safer inland route. The inland route is very sandy once you get into the dunes so it is imperative to deflate your tyres quite low - we recommend 14 PSI.



Oyster Bridge - looking south

Turquoise Bay



Turquoise Bay - looking south

Turquoise Bay is located in the heart of the Cape Range National Park and is known as one of Western Australia's best beaches. Not only is the beach stunning but the snorkelling is excellent. Great care must be taken as there are usually strong currents that exit the area towards the break in the reef opposite the sandy point. The best way to snorkel this beach is to enter the water south of the point and drift with the current and exit the water just before reaching the sandy point.

The snorkelling consists of sandy patches, coral gardens and a huge variety of marine life. Small reef sharks may be encountered here but do not be afraid as they are very shy and will avoid you. Explore the coral bommies and spend time looking at all the smaller fish that congregate near the corals.

Oyster Stacks

The Oyster Stacks is a fantastic snorkelling spot but is fairly shallow so the Department of Environment and Conservation have requested that you only snorkel at and around high tide. Entry into the water is from the rocks where care must be taken when entering and exiting the water. Take a look under the free-standing oyster stacks and explore the area as some larger fish can be found here.

The water is shallow in this lagoon which makes it is very easy to damage the corals so please take care and help preserve this wonderful site for others to enjoy.

Butterfish



Western Butterflyfish

Pentapodus vitta

Common in shallow sandy areas.

Butterflyfish



Blackback Butterflyfish

Chaetodon melannotus

Uncommon.



Bluespot Butterflyfish

Chaetodon plebeius

Common with distinctive blue patch.



Chevron Butterflyfish

Chaetodon trifascialis

Relatively common with chevroned lines on the body.



Citron Butterflyfish

Chaetodon citrinellus

Smaller than most butterflyfish.



Doublesaddle Butterflyfish

Chaetodon ulietensis

Uncommon but very distinctive double black saddle markings.



Headband Humbug

Dascyllus reticulatus

Distinctive small fish.



Threespot Humbug

Dascyllus trimaculatus

Identified by three white patches, one on each side and one on the forehead.

Humbug



Threespot Humbug

Dascyllus trimaculatus

Often found with anemones. Spots gradually fade with age.

Leatherjacket



Gillblotch Leatherjacket

Pervagor janthinosoma

Uncommon.



Harlequin Leatherjacket or Filefish

Oxymonacanthus longirostris

Small and difficult to photograph.



Honeycomb Leatherjacket

Cantherhines pardalis

Distinguished by a honeycomb pattern on the body.

Leatherjacket



Scrawled Leatherjacket

Aluterus scriptus

Uncommon.

Lionfish



African Lionfish

Pterois mombasae

Distinguished from the Common Lionfish by redder colour with wing-like fins.



Common Lionfish

Pterois volitans

Relatively common.

Lizardfish



Variegated Lizardfish

Synodus variegatus

Common and found on sandy patches. Top view.



Variegated Lizardfish

Synodus variegatus

Side view.

Longtom



Barred Longtom

Ablennes hians

Common and found in schools. Distinguished by dark bars on the body.

Parrotfish



Longnose Parrotfish

Hipposcarus longiceps

Juvenile.



Palenose Parrotfish

Scarus psittacus

Very distinctive yellow colour pattern.



Roundhead Parrotfish

Chlorurus strongycephalus

Very distinctive yellow patch under the head.



Schlegel's Parrotfish

Scarus schlegeli

Male - very distinctive purple colouring.



Schlegel's Parrotfish

Scarus schlegeli

Female - white and dark bars on body.



Sixband Parrotfish

Scarus frenatus

Male - common with very fine pattern on most of the body.