

> OVER THE PAST TEN YEARS I HAVE BECOME COMPLETELY ADDICTED TO AN ODD SOUNDING TYPE OF DIVING. IT IS UNGLAMOROUSLY NAMED MUCK DIVING, BUT IT'S NOT AS DISGUSTING AS IT SOUNDS! I FIND MYSELF TALKING ABOUT IT WITH DIVERS AND NON-DIVERS ALIKE AS IF THEY KNOW WHAT I'M TALKING ABOUT. USUALLY THEY DON'T, SO I GET SOME RATHER BEMUSED LOOKS! DESPITE THE NAME THIS TYPE OF DIVING CAN BE EXTREMELY REWARDING AND IF YOU WANT TO SEE SOME OF THE OCEAN'S ODDEST CREATURES THIS IS DEFINITELY THE BEST PLACE TO START.

# MUCK DIVING

back to basics

**T**he term 'muck dive' was coined by the famous scuba pioneer Larry Smith, who is sadly no longer with us. The jargon associated with muck diving, such as the name 'critters' for animals encountered during muck dives, mostly come from the vernacular of Larry's home state of Texas. Muck diving itself refers to dives that take place in protected bays and reefs often with soft sediment, leaves or black sand. It's become very popular throughout Southeast Asia, but excellent muck dives are popping up around the world in the most unexpected of places.

My first experience of muck diving was in Milne Bay, Papua New Guinea 10 years ago. I'd been diving for five years but had never heard of muck diving and I was a little reticent. After the first dive I was instantly hooked on this underwater treasure hunt, where every rock or piece of leaf may actually be an animal. The art of muck diving doesn't come immediately and practice definitely makes perfect. I've found that with time your brain becomes used to seeing the hidden creatures and the search image formed in your mind helps with spotting even the most cryptic of animals.

#### Technique ::

Muck diving requires a completely different set of skills and techniques than most other types of diving. The two main things to bear in mind are that very fine sand and silt are extremely easily stirred up and secondly, that virtually all muck creatures are amazingly well camouflaged and many venomous. Basically these two factors mean that muck diving is most rewarding when you have good buoyancy control. Don't be put off if you're new to diving, I've made a list of dos and don'ts to help make your first muck dives less stressful.

#### DO

- Approach slowly, paying close attention to your buoyancy prior to arriving at the animals.
- Hold on to your guide's tank if you're feeling a little unsteady.
- Double check before you put your finger down to steady yourself that it's not actually a stonefish!
- Carefully lower your fins onto the sediment for balance. This is not always necessary, and you should always check there are no animals beneath, but it stops sand and debris from being agitated by moving fins and hands.

: RICHARD SMITH  
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*Main: The bottletail squid is a close relative of the bobtail. Bottom left to right: Harlequin shrimp can be common on some muck sites but rare as hen's teeth on others; A displaying demon stinger (Inimicus); The white eye moray is a common species on muck dives.*



Top left: An unusual association between a Xeno crab and a seapen. Top right: Wunderpus octopus are very flamboyant when moving around and are fascinating to watch if undisturbed. Bottom left to right: The long finned waspfish is a stunning yet exceedingly rare resident of muck dive sites; Ambon scorpionfish are identified by long cirri above each eye. They can be found in pairs on some muck dives; A stunning red pair of robust ghost pipefish; Hairy frogfish mimic the soft corals found on some sites; Cockatoo waspfish are one of the more common muck dive residents but are generally a drab brown colour, rather than this bright colour form found in Lembeh; Some of the ugliest creatures seem to inhabit muck dives such as this humpback scorpionfish.

“ DURING A MUCK DIVE YOU WILL FIND THAT CERTAIN AREAS ARE MUCH RICHER THAN OTHERS. IT'S TEMPTING TO KEEP SEARCHING, AS THE THRILL OF THE CHASE TAKES OVER, BUT IT'S WORTH NOTING THESE AREAS AND SPENDING SOME EXTRA TIME SEARCHING FOR HIDDEN GEMS. ”



• Be very careful when viewing and photographing marine life. Many animals are easily disturbed or damaged by touching or moving them.

#### DON'T

- Use your hands to control buoyancy; the water currents you create are one of the main culprits of creating sand storms. It's better to use fins and BCD to fine-tune your position in the water.
- Fin heavily in an up and down motion as it stirs up the sediment. A better option once mastered is a frog style kick as the water eddies created by the fin go backwards into the water column rather than down into the sand.

#### Creatures ::

Considering that muck sites at first glance appear to be completely devoid of life, they harbour an amazing diversity of forms and types of animals. Some of the creatures would fit perfectly in a sci-fi movie and many are deadly poisonous! There are some commonalities between many of the creatures that inhabit muck dives. A large number are ambush predators and others are highly camouflaged to their surroundings to

avoid their predators. This explains why so many critters are hard to find.

There are certain critters you can almost guarantee on a muck dive and others for which a little luck and good eyes are required. Almost guaranteed sightings usually include cockatoo waspfish, demon stingers (*Inimicus*), frogfish and ghost pipefish. Some of the harder to spot species (requiring more than a little luck) are mimic and wunderpus octopuses, weedy and paddle-flap scorpionfish (*Rhinopias*) and flamboyant cuttlefish. The thrill of muck diving is that you can never see it all. Even after hundreds of dives dedicated to muck diving I recently saw for the first time a pitted stonefish (*Erosa erosa*) and long-finned waspfish.

#### Making the most of your Muck Diving ::

• **Find a Good Guide** – This makes a huge difference. For me one of the most important attributes of a good guide is an ability to find critters whilst not turning over every rock and prodding everything to find them. Guides are often trained to touch and manipulate the creatures for photographers to get the best shot. If your guide is too hands on and harassing the

animals it's better to have a quiet word with them explaining that you would prefer them not to touch anything. Apart from disturbing the animal, it also makes photography very difficult as the animal is immediately defensive rather than behaving naturally. Finally, it helps if your guide is well connected and can ask their mates for their last sighting of species on your wish list!

• **Know your Critters** – Spending some time flicking through identification books to look at muck dive critters will help your brain get used to seeing these animals and help you find them. Learning where to look and the habitats they are found are important if you want to find some of your own animals.

• **Colour profiling** – Commonly the colour of the algal, sponge or coral growth in the area will be the predominant colour of many resident animals. For example, where orange sponges abound frogfish and scorpionfish will mimic these, whereas in locations dominated by pinkish elephant ear sponges the animals will become this colour.

• **Night Critters** – At night a whole cast of new creatures emerge. An interesting feature of these animals is that many are

red in colour. As you may remember from your dive training, red is the first colour to be absorbed by the water. As a result, a bright red colouration, which appears gaudy to us under torchlight, actually provides some camouflage. Examples of such creatures are the starry night octopus, painted stingfish and Richardson's waspfish.

• **Find a Good Muck Dive** – Usually your guides will know the best muck dives in your area, but sometimes you might be searching for a new one of your own. Certain tricks can help find them. I've found that the point where small rivers feed into the ocean on a beach and deposit debris can be a good place to start, especially in bays. Piers and jetties are notoriously good muck dives as they are often in sheltered locations. Shelter from strong currents can be good too, but without some current flow sites can be just too silty to be a good muck dive.

• **The Sweet Spot** – During a muck dive you'll find that certain areas are much richer than others. It's tempting to keep searching, as the thrill of the chase takes over, but it's worth noting these areas and spending some extra time searching for hidden gems. Sometimes a relatively

small area seems to have more critters than the whole rest of the site.

• **Coral Bommies** – Any feature isolated in the middle of a sandy patch is a great place to hunt for critters. This may be a coral bommie, a felled tree, boulders, sponge patch or even a solitary feather star may well be the home of ghost pipefish or juvenile batfish! These patches needn't be large, it really depends on what else there is around. Sometimes even the smallest patch of algae is enough to attract a host of highly camouflaged creatures.

• **Not all Glamour** – Whilst in search of new sites or even on established ones, I've seen some decidedly mucky sights. Since many muck dives are around jetties or near villages, it's inevitable that sometimes you'll see rubbish. Rubbish isn't necessarily a bad thing as the creatures seem to weirdly relish it, but occasionally you may also see the unexpected. On one dive I saw mandarin fish, frogfish, nappies and a shark head. On another a blue-ringed octopus and a dead rat!

#### My top 5 muck dive locations ::

1 Lembeh Strait, North Sulawesi, Indonesia – Lembeh Strait is the muck

diving Mecca of the world. There are dozens of dive sites serviced by an equal number of resorts to suit all budgets. Despite the thousands of dives conducted here annually, new species are still being found year after year.

Highlights – Hairy frogfish, rhinopias, wunderpus, undescribed and rare species.

Operators – Diver's Lodge Lembeh, Kasawari Resort, Lembeh Resort, Paradise Dancer.

2 Blue Heron Bridge, West Palm Beach, Florida, USA – Muck dives were originally considered an Indo-Pacific speciality but this dive off Florida in the Caribbean has recently grown in fame.

Due to the Caribbean's isolation over millions of years the critters here are quite different from those in Asia. It is a brilliant dive but slightly off putting that it's located underneath a four-lane bridge!

Highlights – Red-lipped batfish, sea robin, Caribbean stargazer, Caribbean long-arm octopus and juvenile fish.

Operators – Shore Entry.

3 Horse Shoe Bay, Komodo, Indonesia – Horseshoe Bay is most well known for the dive site Cannibal Rock, but equally amazing in my opinion is the black sandy



Left to right: The starry night octopus (*Octopus luteus*); Coral outcrops are like an oasis for the life on muck dives; A painted frogfish hides against a sponge.

### top 5 muck sites



- 1 Lembah Strait
- 2 West Palm Beach
- 3 Komodo Island
- 4 Milne Bay
- 5 Surfer's Paradise

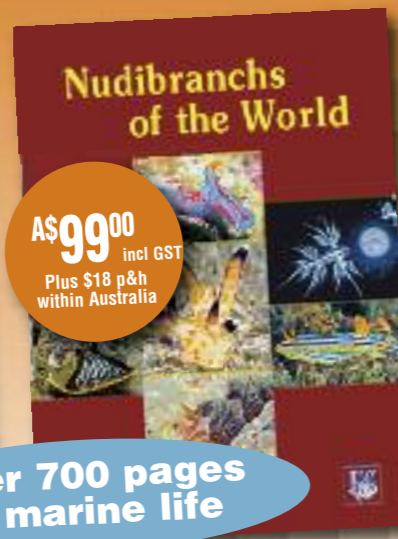
beach only a few hundred metres away called Torpedo Alley. It is named after the small electric torpedo rays that emerge at night by the dozen.  
**Highlights** – Ambon scorpionfish, torpedo rays, stargazers and bottletail squid.  
**Operators** – Liveaboard only - Komodo Dancer, Arenui.  
**4 Milne Bay, Papua New Guinea** – Milne Bay was one of the first areas to become famous for muck diving. Many of the creatures that have now been found throughout Asia were seen here for the first time.  
**Highlights** – Harlequin shrimp, imperial shrimp hitching a ride on nudibranchs, Pegasus seamoths and ghost pipefish.

**Operators** – Tawali Resort, Star Dancer, MV Golden Dawn.  
**5 Gold Coast Seaway, Surfer's Paradise, Australia** – This great shore dive is easily accessed from the huge tourist destination of Surfer's Paradise and is only an hour or so from Brisbane. The southwest wall at the inside tip of the spit is best dived at high tide and is a smorgasbord of amazing creatures.  
**Highlights** – High-crowned seahorse (*Hippocampus procerus*) is found only in southeast Queensland, slender seamoth, ornate and robust ghost pipefish, occasional hairy/striated frogfish and plentiful juvenile fish.  
**Operators** – Shore Entry.

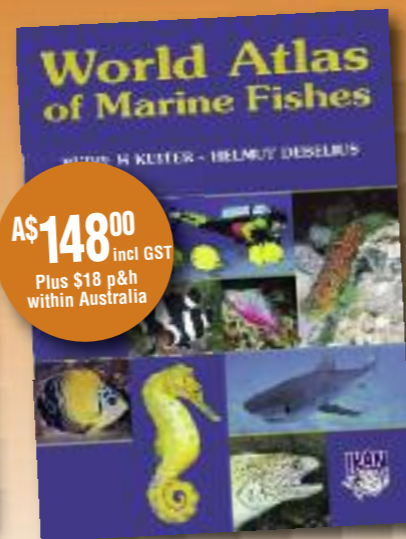
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