Gulf Gobies

by Alex Tyrell

The small island of Koh Tao situated in the Gulf of Thailand is not really renowned for it's macro life. The general consensus amongst visiting divers is that they want to see the big stuff and swim along blissfully unaware of the smaller inhabitants of the reef.

Turtles, Groupers, huge schools of Barracuda or Trevally are high up on the wish-list of the majority and it doesn't take long for the word to get around the island when the coveted Whaleshark has been spotted on a dive site. These larger ocean denizens steal the limelight from the smaller creatures of the reef, which are simply not that appealing to a new diver that has been wowed with stories from their Instructor or Divemaster of encounters with a huge spotty fish.

I'm sure though, that some of the more experienced dive professionals would be interested in the macro life found here, but when you are swimming backwards and counting heads, the safety of your students being paramount, hunting out tiny creatures takes a back seat. And for the dive guides with divers fresh from their Open Water course, conducting a prolonged search a particular fish or crustacean that your divers are really not that interested in, will probably mean they do not ask for you to be their guide the following day!

But for those that know where to look, the Gulf of Thailand has more critters than you would first think, though not in the abundance of countries found a little further east that fall inside the boundaries of the coral triangle. It doesn't take too much searching to find Urchin Clingfish, Monofin & Threadfin Dartfish, Hingebeak Prawns, Highfin & Shorthead Fangblenny, Bicolor Blennies, Xeno Crabs and Whip Coral Shrimps, to name a few.

On occasions I have also seen mouth-brooding Cardinalfish of various species, Sawblade Shrimps, Cleaner Pipefish, Seahorses, Slender Seamoths, Spiney Devilfish, and a variety of elaborate Nudibranchs, though I have to admit there are probably about 10 species making up the common slug-sightings and the remainder are slightly more rare.

One fish that we do have in droves though, which are continually ignored are Gobies, especially Shrimp Gobies that can be found on every dive site that has course sand or rubble substrate. We may not have the more sort-after species that I have seen in the Philippines and Indonesia, like the Magnificent Shrimp Goby or Yellownose Shrimp Goby, but we do have quite a variety and a few of them in significant numbers.

Metallic Shrimpgoby (Amblyeleotris latifasciata) & Tiger Snapping Shrimp (Alpheus bellulus). Nikon D7000, Subal ND7000, Nikkor 105mm VR + Kenko 1.4x TC, Inon Z240 x 2. f/16 – 1/320th – ISO200

Gobies are the largest family of marine fishes with over 1700 species in 251 genera currently classified. Approximately 500 species in 212 genera inhabit the Indo-Pacific region, however many species still remain unclassified. A large group of gobies live on the open sand and due to the ever-present danger of predators some of these species will excavate an underground dwelling. However a large number of the species, known as Shrimp Gobies, live in a symbiotic relationship, sharing a burrow with Snapping Shrimp from the genus Alpheus. The nearly blind shrimp needs the sharp-eyed gobies to spot, and then warn, of danger whilst the goby utilizes the shrimp's ability to tirelessly construction a network of burrows under the sand

Red-Margin Shrimpgoby & Tiger Snapping Shrimp (Amblyeleotris Rubrimarginata & Alpheus bellulus) Nikon D7000, Subal ND7000, Nikkor 105mm VR, Inon Z240 x 2, f/16 – 1/320th – ISO100

for somewhere for them both to live, as well as providing a safe refuge when danger threatens.

Shrimpgoby Shooting Techniques

The key to getting close to Shrimpgobies for good shots, apart from having plenty of patience, is to understand how they interact with their symbiotic partners, the shortsighted Alpheid Shrimp. This enables us to read the warning signs of when they are about to disappear down the burrow, so we know when to stop our movements and allow them to settle back down before we carry on shooting.

When the goby perceives a threat of danger, it will back up so that the shrimp's antenna rests against its tail and will alert the shrimp by moving it in a rapid twitching motion. The shrimp will then quickly back off into the burrow, and if the treat continues, will be swiftly followed by the goby.

Banded Shrimpgoby (Cryptocentrus cinctus) Nikon D7000, Subal ND7000, Nikkor 60mm, Sea & Sea YS-250 Pro & Saga Optical Snoot, f/10 – 1/320th – ISO200

The burrow opening will then collapse on the pair, trapping them both safely beneath the sand.

After a period of time, and this can vary greatly from species to species, and even within individuals of the same species, the goby will reemerge from the burrow to check if the coast is clear. If it is, the goby will once again signal to the myopic shrimp, albeit under the sand and out of sight, who will then reemerge to commence clearing the burrows opening, moving sand and rubble out of the way, leaving the opening clear and ready for the next dash to safety. As both Shrimp and Goby benefit from this relationship, it is known as mutual symbiosis.

It therefore goes without saying that a calm approach is required. Any sudden movement of the camera, an overly swift repositioning of the strobe, a too quick hand movement to adjust strobe power or even just turning on a bright focus light can send

Banded Shrimpgoby Yawn (Cryptocentrus cinctus)
Nikon D7000, Subal ND7000, Nikkor 105mm VR + Kenko 1.4x TC, Sea & Sea YS-250 Pro x 2. f/14 – 1/320th – ISO100

Steinitz's Shrimpgoby (Amblyeyleotris steinitzi)
Nikon D7000, Subal ND7000, Nikkor 105mm VR, Inon Z240 x 2. f/16 – 1/320th – ISO100

them scurrying down their burrow in a cloud of sand. I have found that selecting the 'right' individual vastly improves the chances of a good shot. Some are very shy and will retreat well before you are within shooting range. Whereas others are a little more bold, allowing a much closer approach. I have also noticed that when there is a mild current (we do not get much in the way of currents on the majority of Koh Tao dive sites) it can promote feeding behavior.

As plankton drifts past the burrow, the Shrimpgobies will venture a little further afield than normal, enticed by an easy meal and seem to become a little preoccupied, ignoring the camera being inched towards them. This is when I have captured some of my favourite shots, as the whole fish is in view with mouth agape. So I normally start by observing the different individual gobies and then select one based on the behavior. I sometimes even test an individual's tolerance to me by getting the camera close without taking a shot, simply to see if it immediately darts into the burrow. If passes the test, showing potential for a close approach, I will settle down to shoot.

The most common of our Shrimpgoby species is either the Banded Shrimpgoby (Cryptocentrus cinctus) or the Steinitz' Shrimp Goby (Amblyeleotris steinitzi). The Banded Shrimpgoby is the more photogenic, coming in two colour variations, either bright yellow or dark brown. The yellow is the more striking colour morph, but both have vibrant electric blue spots over the facial region, dorsal and ventral fins, as well as the same coloured bands along the anal and second dorsal fins, which make for great images if you time your shots for when they splay their fins, which normally occurs when feeding. Juveniles of the species are a much brighter colour, but lack the blue lines and spots of the second dorsal and anal fins.

Another very common species that, at first glance, seems very similar in appearance to the Steinitz'

is the Red-Margined Shrimp Goby (Amblyeleotris Rubrimarginata). Both are coloured light creamy-white with slightly darker orangey-brown bands, but when lit up with strobes the bright red margins on the dorsal fins become visible and they also have much more ornate marking on the caudal fin, however lack the yellowy-orange stripes in between the bands of the Steinitz'.

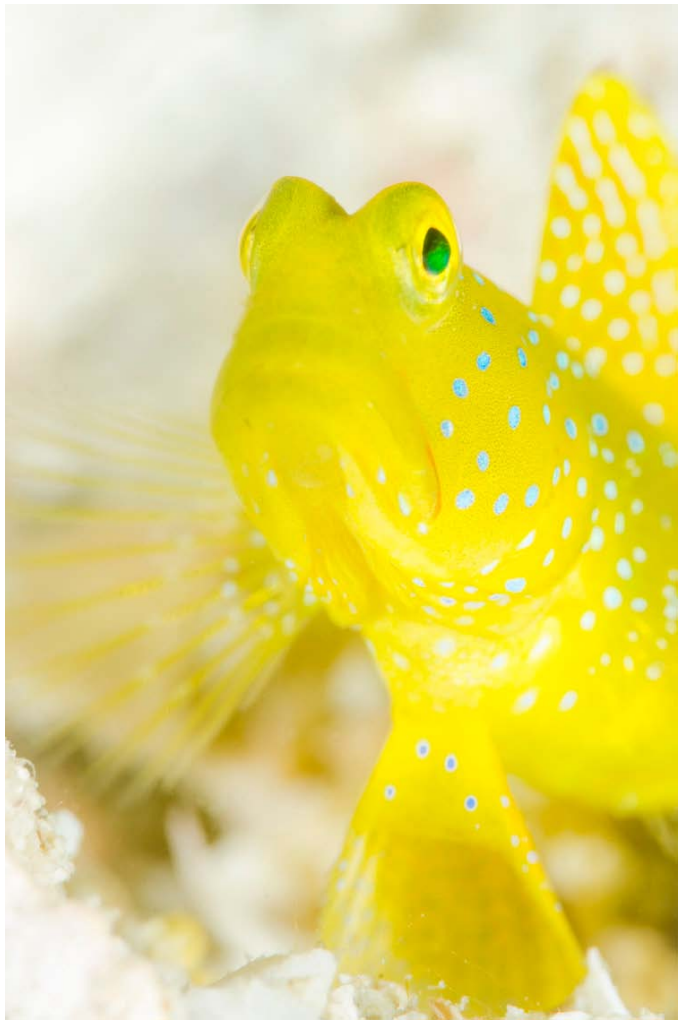
A favourite of mine is the Wide-Barred Shrimpgoby (Amblyeleotris latifasciata) also known as Metallic Shrimpgoby. These do not look that pretty when first observed, seeming to be a fairly dull, dark-brown hue, plus they are quite timid, usually backing into their burrow as soon as you approach leaving only their head protruding. But when lit up with a dive light or your strobes, the bright red, orange and blue markings become visible and if you get to see the whole fish, they have an extremely ornate pattern on the ventral, anal and caudal fins, accompanied by a shimmering metallic look, hence the alternate name.

These stunning little fish do however require a more patient approach than the aforementioned species, being infinitely shyer and are quick to vanish into their burrow, sometimes taking an extended period of time to re-emerge. These are not as common as other species, though I have found them on a number of dive sites around the island that have the preferred fine-rubble substrate. Strangely, there is one small area on a particular site that has quite a few individuals living in very close proximity to each other, that I have not encountered elsewhere.

Other species of goby that can be found include, but are certainly not limited to, Nakedhead Shrimpgoby (Amblyeleotris Gymnocephala), Barred Shrimpgoby (Cryptocentrus fasciatus),

Metallic Shrimpgoby (Amblyeleotris latifasciata) Nikon D7000, Subal ND7000, Nikkor 105mm VR + Kenko 1.4x TC, Inon Z240 x 2. f/16, 1/320th. ISO200

Saddled Shrimpgoby (Cryptocentrus leucostictus), Whitecap Shrimpgoby (Lotilia graciliosa), Signalfin Goby (Coryphopterus signipinnus) as well as Whip Goby (Bryaninops sp.) and Banded Goby (Amblygobius phalaena). My friend Alan from Koh



Banded Shrimpgoby (Cryptocentrus cinctus) Nikon D7000, Subal ND7000, Nikkor 105mm VR + Kenko 1.4x TC & SubSee +5, Inon Z240 x 2. f/25 ,1/320th ISO200

Phangan has 40+ different species in his catalogue, so I have plenty more to find.

A recent obsession of mine is the Five-Lined Coralgoby (Gobiodon quinquestrigatus) that lives within branching Acropora coral. These are tricky

Five-Line Coral-Goby (Gobiodon quinquestrigatus)
Nikon D7000, Subal ND7000, Nikkor 105mm VR, Inon Z240 x 2. f/22 – 1/320th – ISO100

Barred Shrimpgoby (Cryptocentrus fasciatus). Nikon D7000, Subal ND7000, Nikkor 105mm VR, Inon Z240 x 2. f/16 1/320th, ISO100

little fellas to shoot, apart from being quite small at a maximum size of 3.5cm, they are constantly on the move. But the more troublesome factor is the environment that they are found. The coral branches cause shadows in your lighting, create distracting out of focus elements in the foreground, sometimes over-expose being a lighter colour than the gobies, or simply obscure your view!

Once again subject selection is key, but you don't start with the fish. Choosing the 'right' coral comes first, as you need to find one that contains gobies and ideally has good access, so you can settle down without being in a too confined area that could result in inadvertent damage to other corals. Then you need to study the pattern of movement of the gobies, as they tend to have a route within the coral that they will continually follow.

This route needs to take in the edge of the coral, plus the fish needs to pause here, for the opportune shooting moment. So quite a few factors have to coincide, which has caused me to search in excess of 30mins before settling down to shoot, even though we have these Acropora corals all over our reefs, the majority containing the fish in question. I now have a few favourite corals that I will return to for productive photography of Five-Lined Coral Gobies, rather searching randomly. Expect to put quite a bit of time into capturing a good shot, as with the narrow field of view and magnification of near 1:1 of my preferred set-up of the 105mm, sometimes with a Kenko 1.4 Teleconverter to exceed 1:1, they are quite hard to find in the viewfinder. You really have to predict where they will pause for that moment and wait there with you eye glue to the viewfinder, ready to grab a single shot, when (and if) they come into frame. After lots of frustration, I now set my lens to maximum magnification and then rock in and out for focus, having missed too many shots with AF hunting. I have also found that searching around the coral or trying to follow the fish is

Shrimpgoby Sunset – Banded Shrimpgoby (Cryptocentrus cinctus)
Nikon D7000, Subal ND7000, Nikkor 60mm, Sea & Sea YS-250 Pro
f/20 – 1/25th – ISO100 – Backlit Red-Gelled Strobe

unproductive, as well as shooting when there is any surge, which just becomes annoying with the shallow DOF you get from shooting this close to a subject, making sharp focus truly a matter of luck.

My next quest is to look for other species of Coral Gobies that I think can be found in our waters. I have seen these in Indonesia and the Philippines, which are commonly grouped together as Hairy or Bearded Gobies. I am yet to find the correct host coral (Seriatopora hystrix) for the Yellow Coralgoby, but think we have the Cauliflower Coral (Pocillopora damicornis) that is the host for both the Blackfin Coralgoby (Paragobiodon lacunicolus) and Warthead Goby (Paragobiodon modestus). I also plan to check out some of the deeper dives sites for different Shrimpgoby species, as in the past I have always set up for wide-angle, shooting reefscapes in the clearer water or pelagic encounters that are more likely offshore, ignoring the smaller stuff. The search continues!

References:

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Thanks to Dive Point Koh Tao for supplying a great dive boat to work from and allowing extended dive times to search out the different species found in our waters.

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Alex operates Dive4Photos, Thailand's only dedicated underwater photography training facility, located on Koh Tao in the Gulf of Thailand. He also runs regular Photo Workshops & Photo Tours at various destinations around Asia.

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