Etymology: L - *balista* - military catapult.

	Worldwide	Arabian peninsula
Number of genera:	12	9
Number of species:	37	16

Distribution: Atlantic, Indian and Pacific Oceans

Arabian Triggerfishes

Species		Occurrence
Canthidermis macrolepis	Large-scale triggerfish	Red Sea to Gulf of Oman
Rhinecanthus assasi	Picasso triggerfish	Red Sea to Arabian Gulf
Sufflamen albicaudatum	White-tail triggerfish	Red Sea to Gulf of Aden

Triggerfishes are immediately recognisable by their unusual shape. They are rhomboidal in profile, very thick-set and somewhat oafish-looking. Their eyes, which can rotate independently, are high on the head and their snouts are robust with terminal, toothy mouths. Despite appearances, triggerfishes seem to be intelligent; it is a favourite aquarium species which is not aggressive towards other fish, can be hand fed and individuals can be taught to enjoy being stroked with a stick. In the wild, they are curious but nervous of divers, and the smaller species are quick to seek cover at any threat. The large species however, particularly those in *Balistoides* and *Pseudobalistes* which can grow to 75cm and 60cm respectively, can be very aggressive towards divers, especially when they are guarding eggs. There have been a number of occasions when the author and family have been attacked suddenly by *B. viridescens*, the Titan triggerfish, without provocation or apparent reason. This species has very strong, prominent teeth and will bite divers if allowed to come close (a camera housing has been a useful deterrent). If a diver observes an individual of these species with its trigger erect he should beware; triggerfishes seldom raise the trigger and when they do, they mean business! The Titan triggerfish is known to attack and devour the Crown-of-thorns starfish, complementing its usual diet of crabs, molluscs and sea urchins.

Triggerfishes are so-called for the presence of a stout spine forming the first of two dorsal fins. The spine can be locked in the erect position by the second much smaller spine. Triggerfishes have a small third dorsal spine which is largely redundant (filefishes, which have a similar first spine, lack the third). When a triggerfish is alarmed it will retreat into a crevice and secure itself in the crevice by using the locked erect spine. Triggerfishes have a characteristic swimming style; they undulate their second dorsal and anal fins to provide forward movement, using their tails only when sudden movement is required. When mating they build a nest in the sand by 'blowing' open a trough with mouthfuls of water and depositing their eggs in it. The eggs form an adhesive mass which is anchored to the bottom of the nest by rubble. The female usually guards the nest against intruders. Triggerfishes employ this blowing technique when searching for animals (crabs, molluscs etc) buried in the sand.

Most triggerfish species are solitary except when mating. There are exceptions and two species found around the peninsula are usually seen in large schools. One is pelagic and visits islands near the coast to breed; *Canthidermis macrolepis,* the Large-scale triggerfish is a large triggerfish (to 60cm), less rhomboidal in appearance than other species and silvery in colour like other pelagic species. It nests in well-spread colonies at about 30m depth on sand, and seems to prefer a current-swept area (probably because they feed mostly on zooplankton). The second schooling species is *Odonus niger*, the Red-tooth triggerfish (see the header photo), which is the most common of all the triggerfishes from the Red Sea to the Gulf of Oman. Large schools of this species are found over coral, and especially over coral drop-offs, feeding on zooplankton. The Red-tooth triggerfish has very broad fins and a highly lunate tail; when it hides in the reef the bluish fins appear like plants growing out of the coral. One other species, *Melichthys indicus*, the Indian triggerfish, which is a solitary species that occurs in the Arabian Sea and Gulf of Oman, also prefers to feed on zooplankton.

Identification

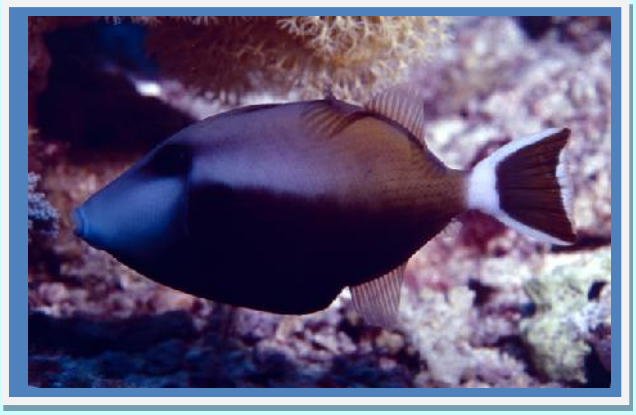
Triggerfishes are of such an unusual shape that they are readily identified. The rhomboid body shape, and their characteristic swimming style are prime characteristics for identification. The only confusion may arise with the filefishes; these have a somewhat similar shape and they also have a similar first dorsal. In filefishes however the first dorsal is always directly above the eyes, and is usually longer; the first dorsal fin of triggerfishes is positioned well behind the eyes.

Endemism

Three endemic species are listed above for the Arabian peninsula. It is perhaps surprising that the range the Large-scale triggerfish (*Canthidermis macrolepis*) is limited to the peninsula since it is a pelagic species. It may well occur elsewhere, but to date has not been reported other than from peninsula waters.

There is also doubt about the White-tail triggerfish (*Sufflamen albicaudatum*) since there has been a report from South Africa. This species is almost identical to the widespread Flag-tail triggerfish (*Sufflamen chrysopterum)* to the extent that it may be the same species or a sub-species. The only difference between them as far as appearance is concerned is that the White-tail has a white ring around the whole of the base of the tail fin, and the Flag-tail has only white edges and white margin to its tail.

The three endemics are shown below.



Above : *Sufflamen albicaudatus* (2 forms)
Below : *Canthidermis macrolepis*
Right & first page : *Rhinecanthus assasi*