Scorpionfishes obtain their name from the numerous venomous spines found on the dorsal, anal and pectoral fins. Non-venomous spines are also found on the head, around the cheeks, and on the opercle. Venom is produced by glands located at the side of the spines, and is connected to the spine tip via a venom duct. Severity of wounds inflicted by the spines vary, depending on species, the amount of venom injected, and the victim’s (allergic) reaction to the venom. The pain can range from “beesting” sensation to “unbelievable” agony, and in the case of the stonafishes, even death. Treatment of mild injuries usually involves immersing the injured part in water as hot as the person can stand, while more severe cases should be treated by a physician with knowledge of such injuries.

Scorpionfishes, with over 300 species worldwide, range from the temperate to tropical waters and at a variety of depths. Reproduction varies from laying of large gelatinous balloons encasing the eggs to bearing live young. Found mostly around reef and rocky areas, the patterns on their body effectively camouflages them from both predators and prey. They catch prey with a swift lunging movement, combined with suction produced by the sudden opening of their large mouths. This sucking action is truly astonishing, resembling the effect of a strong vacuum cleaner. Two groups of scorpionfishes are well known especially to aquarists, namely the lionfishes (Pterois sp.) and the stonafishes (Synanceia sp.).
The lionfishes (also known as turkeyfishes or zebrafishes) are very beautiful, with long, colourful, filamentous dorsal and pectoral fins, which they spread out like a fan when confronting danger. They are hardy and live for a long time in the aquarium, provided sufficient space and live food are available. The stonelfishes are among the most ugly, and the most venomous of the scorpionfishes, producing a neurotoxin that is known to cause fatalities in humans. Their camouflage is especially effective, and they may remain still even when prodded. They are dangerous to waders, who may step on them unwarily.

We know of two colleagues who were victims of stonefish stings. One was stung while wading along a reef flat in flipflops and was hospitalised for a few weeks. The wound remained blue-and-black for months thereafter. The other colleague was also stung while reef walking. A stonefish “jumped” and landed on his foot, the spine penetrating his neoprene booties. While he did not require hospitalisation, he was limping for a couple of months. Waders are thus advised to wear thick-soled boots (or booties) and watch where they place their hands.

1. Scorpionfishes have numerous non-venomous spines on the head, as in this Scorpaenopsis sp.

2. The Lionfishes (Pterois sp.) are beautiful, but the spines on the dorsal, pectoral and anal fins are venomous.

3. The most venomous of the scorpionfishes, the stonefish (Synanceia sp.) is also the ugliest.