4 ft. The young, about twelve in number, are brought forth alive in November. It is comparatively harmless and feeds on shells, crustaceans and decomposing animal substances.

The dogfishes proper *(Scyllium, Chiloscyllium,* &c.) are spread over nearly all the temperate and tropical seas. Their teeth are small, in several series, with a longer pointed cusp in the middle, and generally one or two smaller ones on each side (figs. 3 and 5). They are all oviparous, their oblong egg-shells being produced at each corner into a long thread by which the egg is fastened to some fixed object. Some of the tropical species are ornamented with a pretty pattern of coloration. The two British species, the lesser and the larger spotted dogfish (Sc. *canicula* and Sc. *catulus),* belong to the most common fishes of the coast and are often con­founded with each other. But the former is finely dotted with brown above, the latter having the same parts covered with larger rounded brown spots, some of which are nearly as large as the eye. As regards size, the latter exceeds somewhat the other species, attaining to a length of 4 ft. Dog- fishes may become extremely troublesome by the large numbers in which they congregate at fishing stations; they are rarely used as food, except in the Mediterranean countries, in China and Japan, and in the Orkneys, where they are dried for home consumption. The black-mouthed dogfish *(Pristiurus melanostomus)* is rarely caught on the British coasts, and is recognized

by a series of small, flat spines with which each side of the upper edge of the caudal fin is armed.

The tiger-shark *(Stegostoma tigrinum)* is one of the commonest and handsomest sharks in the Indian Ocean. The ground colour is a brownish-yellow, ornamented with black or brown transverse bands or rounded spots. It is a littoral species, but adult specimens, which are from 10 to 15 ft. long, are met far from land. It is easily recognized by its enormously long bladelike tail, which is half as long as the whole fish. The teeth are small, trilobed, in many series. The fourth and fifth gill-openings

are close together.

The genus *Crossorhinus,* of

which three species are known from the coasts of Australia and Japan, is remarkable as the only instance in this group of fishes in which the integuments give a “ relative ” rather than a “ protective ” resem- blance to their surroundings. Skinny frond-like appendages are developed near the angle of the mouth, or form a wreath round the side of the head, and the irregular and varied coloration of the whole body closely assimilates that of a rock covered with short vegetable and coralline growth. The species of *Crossorhinus* grow to a length

of 10 ft.

The so-called Port Jackson shark *(Heterodontus=Cestracion)* is likewise a littoral form. Besides the common species (H. *philippi),* three other closely allied kinds from the Indo-Pacific are known. This genus, which is the only existing type of a separate family, is one of special interest, as similar forms occur in Primary and Secondary strata. The jaws are armed with

small obtuse teeth in front, which in young individuals are pointed, and provided with from three to five cusps. The lateral teeth are larger, pad-like, twice as broad as long and arranged in oblique series (fig. 7). The fossil forms far exceeded in size the living, which scarcely attain to a length of 5 ft. The shells of their eggs are found thrown ashore like those of our dogfishes. The shell is pyriform, with two broad lamellar ridges each wound edgewise five times round it (fig. 8).

The spiny or piked dogfish *(Acanthias)* inhabits the temperate seas of both the N. and S. hemispheres. For some part of the year it lives in deeper water than the sharks already noticed,

but at uncertain irregular times it appears at the surface and close inshore in almost incredible numbers. Couch says that he has heard of 20,000 having been taken in a seine at one time; and in March 1858 the newspapers reported a prodigious shoal reaching W. to Uig, whence it extended from 2o to 30 m. seaward, and in an unbroken phalanx E. to Moray, Banff and Aberdeen. These fishes are distinguished by each of the two dorsal fins being armed in front by an acute spine. They do not possess an anal fin. Their teeth are rather small, placed in a single series, with the point so much turned aside that the inner margin of the tooth forms the cutting edge(fig, 9). The spiny

dogfish are of a greyish colour, with some whitish spots in young specimens, and attain to a length of 2 or 3 ft. They are vivi- parous, the young being produced throughout the summer months.

Finally, we have to notice among the littoral sharks the “ angel-fish ” or “ monk-fish ” *(Rhina squatina),* which, by its broad flat head and expanded pectoral fins, approaches in general appearance the rays. It occurs in the temperate seas of the S. as well as the N. hemisphere, and is not uncommon on sandy parts of the coast of England and Ireland. It does not seem to exceed a length of 5 ft., and is too rare to do much injury to other fish. It is said to produce about twenty young at a birth.