

III. *Description of a Species of Chætodon, called, by the Malays, Ecan bonna. By Mr. William Bell, Surgeon in the Service of the East India Company, at Bencoolen. Communicated by Sir Joseph Banks, Bart. P. R. S.*

Read January 17, 1793.

THE fish called *Ecan bonna*, by the Malays, is broad, flat, and of a lead colour; the belly is flat, white, and in places tinged with green. The eyes are a bright yellow. The body is covered with small semicircular scales.

Its length is generally about eighteen inches; its breadth thirteen, and, at the thickest part, it is nearly three inches thick.

It is frequently caught at Bencoolen, and several other parts on the west coasts of Sumatra, and is said to grow to a much larger size. Its flesh is white, firm, and well flavoured, and it is considered as a good fish for the table.

It has six fins: two pectoral, two ventral, one dorsal, and one anal fin. The tail is broad, and of a triangular form.

The pectoral fins are small, blunted at their ends, and placed a little behind the gills.

The ventral fins are placed on the sternum, and are longer, and more pointed.

The dorsal fin arises at the beginning of the spinous processes of the back, and is continued down nearly to the tail.

The anal fin arises a little below the anus, and is also conti-

nued on almost to the tail. It is strong and broad, like the dorsal, and projects a little farther backward than it.

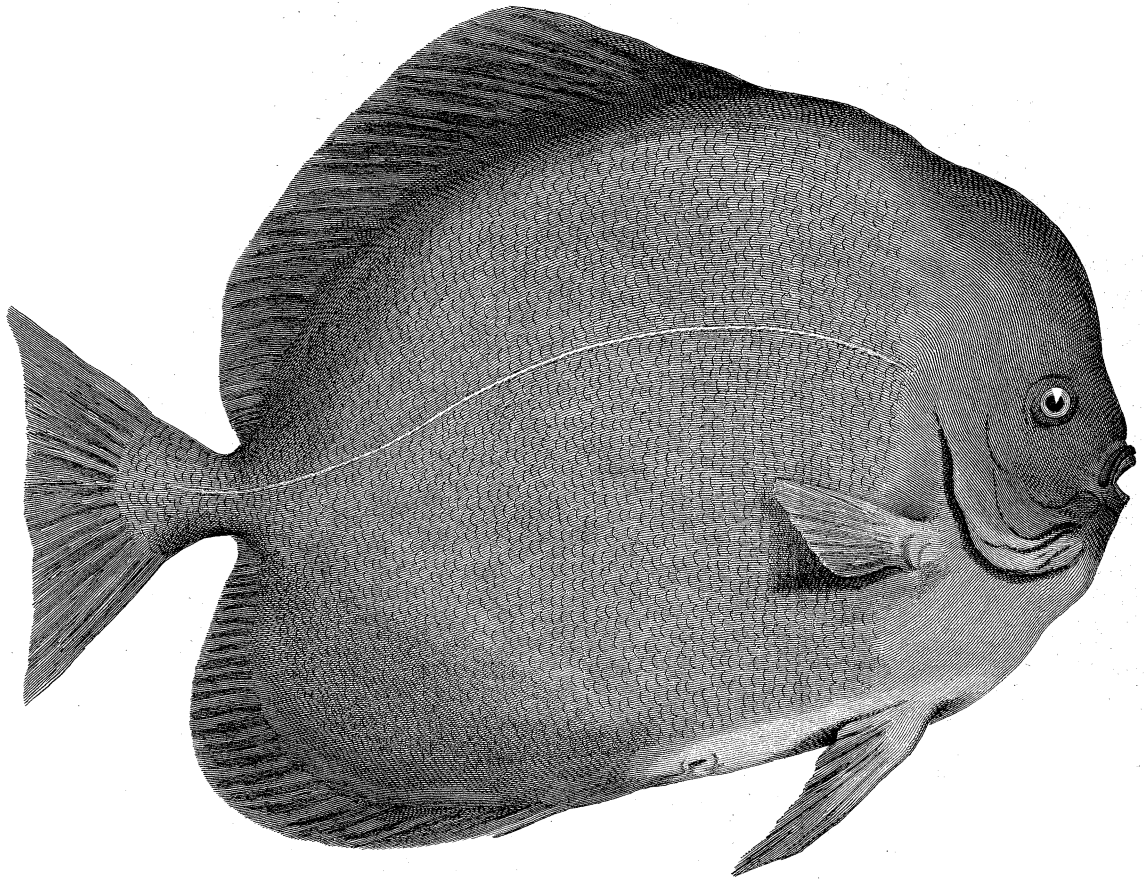
The mouth is small, and each jaw contains five rows of small teeth, about the thickness of hog's bristles, and of equal thickness throughout their length. The grinding, or cutting surfaces of the front, second, and third rows, in both jaws, are divided into three points. The two inner rows are pointed, and bent a little backward.

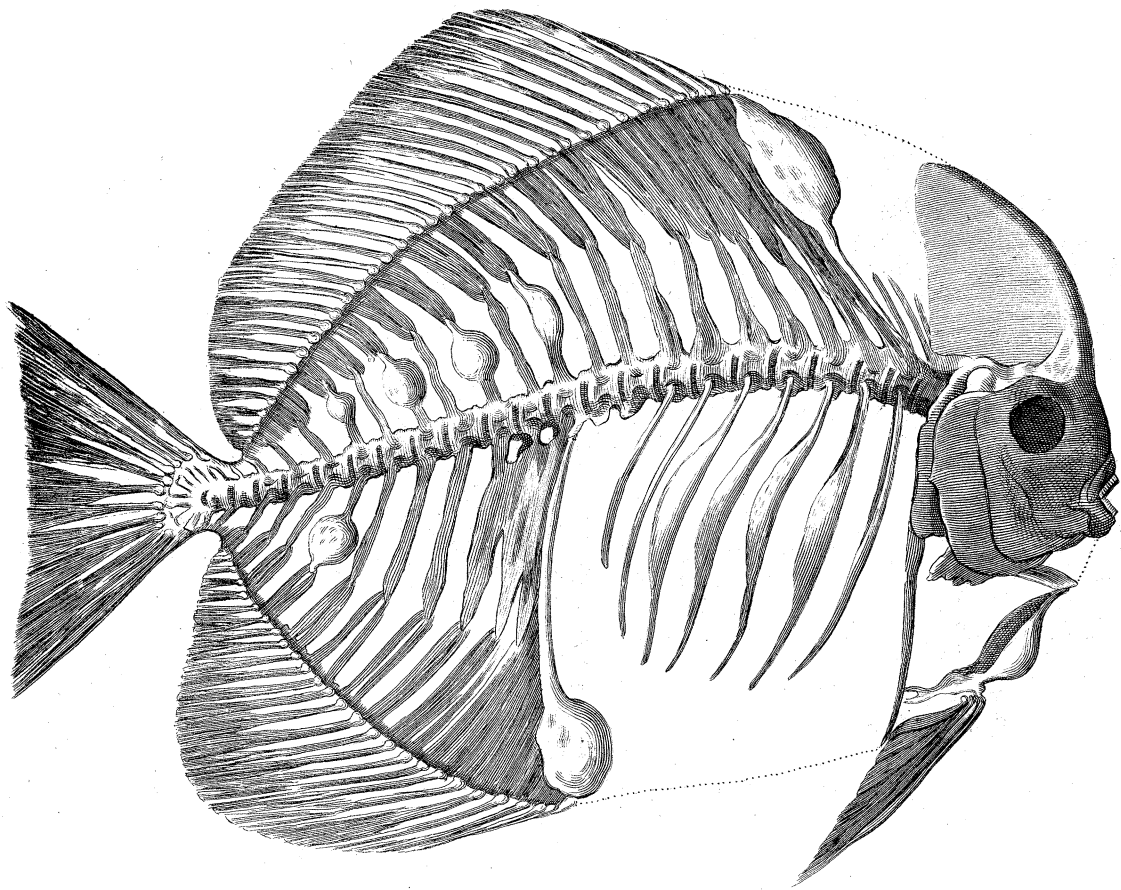
The stomach was empty, so that I had not an opportunity of ascertaining its food. The intestinal canal was long, like that of fish which feed on vegetables; and the œsophagus was thick set with pyramidal bodies, like the œsophagus of the turtle.

The skeleton is very singular, many of the bones having tumours, which, in the first fish I saw, I supposed to be exostoses arising from disease; but on dissecting a second, found the corresponding bones had exactly the same tumours, and the fishermen informed me they were always found in this fish; I therefore conclude them to be natural to it.

In Mr. HUNTER'S collection are two or three of these bones, but I never knew what fish they belonged to; they were supposed to be from the back of some of the large rays.

What advantage can arise from these large tumours is difficult to say. Those on the spines of the vertebræ seem to answer no evident purpose, nor those at the origin of the dorsal, and anal fins. The particular form of the sternum, to which the ventral fins are joined, seems to be intended to give greater surface for the attachment of the muscles, and to increase their action.





These tumours are spongy, and so soft as to be easily cut with a knife ; they were filled with oil.

The air-bladder is very large, for the size of the fish, probably to counteract the weight of the bony matter in the skeleton.

It is generally caught near the shore, where there are seaweeds, and the Malays say it is a dull swimmer.

Tab. V. Represents the fish herein described.

Tab. VI. The skeleton of the same.