

FISHES.

As a general rule, fishes, when not too large, are best preserved entire in spirits.

Nevertheless, they may be usefully skinned, and form collections, the value of which is not generally appreciated. In many cases, too, when spirit or solutions cannot be procured, a fish may be preserved which would otherwise be lost.

There are two modes of taking the skin of a fish : 1. The whole animal can be skinned and stuffed like a bird, mammal, or reptile. 2. One-half of the fish can be skinned, and nevertheless its natural form preserved.

Sharks, skates, sturgeons, garpikes or garfishes, mudfishes, and all those belonging to the natural orders of *Placoids* and *Ganoids*, should undergo the same process as given above for birds, mammals, and reptiles. An incision should be made along the right side, the left always remaining intact, or along the belly. The skin is next removed from the flesh, the fins cut at their bases under the skin, and the latter inverted until the base of the skull is exposed. The inner cavity of the head should be cleaned, an application of preservative made, and the whole, after being stuffed in the ordinary way, sewed up again. Fins may be expanded when wet, on a piece of stiff cloth which will keep them sufficiently stretched for the purpose. A varnish may be passed over the whole body and fins, to preserve somewhat the color.

In the case of *Ctenoids*, *perches*, and allied genera ; and *Cycloids*, *trouts*, *suckers*, and allied genera ; one-half of the fish may be skinned and preserved. To effect this, lay the fish on the table with the left side up ; the one it is intended to preserve. Spread out the fins by putting underneath each a piece of paper, to which it will adhere on drying. When the fins are dried, turn the fish over, cut with scissors or a knife all round the body, a little within the dorsal and ventral lines, from the upper and posterior part of the head, along the back to the tail, across the base of the caudal fin down, and thence along the belly to the lower part of the head again. The dorsal, caudal, and anal fins, cut below their articulations. This done, separate the whole of the body from the left side of the skin, commencing at the tail. When near the head, cut off the body with the right ventral and pectoral fins, and proceed by making a section of the head and removing nearly the half of it. Clean the inside, and pull out the left eye, leaving only the cornea and pupil. Cut a circular piece of black paper of the size of the orbit and place it close to the pupil. Apply the preservative, fill the head with cotton as well as the body. Turn over the skin and fix it on a board prepared for that purpose. Pin or tack it down at the base of the fins. Have several narrow bands of paper to place across the body in order to give it a natural form, and let it dry. The skins may be taken off the board or remain fixed to it, when sent to their