

the spinal column; they are scarcely indicated in the smaller one (fig. D). An upper and lower membranous fold, bordering the upper and lower sides of the tail, represents the soft dorsal and anal. In both specimens the greater portion of the fold is striated, the rays being thus faintly indicated. In the larger specimen this fold is separated from the caudal fin and spinous dorsal by a distinct notch.

The spinous dorsal is extremely high, more so in the larger specimen than in the smaller one. It is composed of twenty simple spines, of which the six anterior are armed with numerous barbs; the barbs of the foremost spine point upwards and those of the following downwards. In the young specimen only the first spine shows the denticulation, and there are two very distinct black pigment-spots on the membrane connecting the anterior spines, which are missing in the larger example.

Only in the larger example a trace of pectorals is to be seen; the ventral consists of a strong-barbed spine, very long in the older example, shorter in the younger, in which, besides, three soft rays may be distinctly seen.

Spines and excrescences of the bones of the head can be seen especially in the larger example, but they are too indistinct to be exactly described, with the exception of a few short ones at the extremity of the snout and two slender spines on the præopercular margin.

*Seriolichthys bipinnulatus*, Q. G., young (Pl. I. figs. E, F).

The specimens, which I consider to be the young of this fish, were obtained in considerable numbers from driftwood, north of New Guinea, on February 21, 1875. They measure from  $\frac{1}{2}$  to 1 inch in length, and are in a perfect state of preservation.

The changes which this genus undergoes with age are somewhat less considerable than in the allied *Seriola*. As usual in young fishes the body is shorter and deeper than in those approaching the mature age, and in those of half an inch in length it is still shorter than in those of double the size. Also the head and the eye are comparatively larger. The fins are perfectly developed, showing the normal number of rays, viz., D. 5-6 | 27. A. 19. However, as in the young of other genera, in which the adult form possesses detached finlets, so here these rays are not yet differentiated from the remainder of the fin; and I may remark on this occasion that in the specimens of *Seriolichthys* which have attained to a length of 4 inches, these finlets are sometimes still connected by a delicate membrane to the preceding ray.

In the smallest examples the angle of the præoperculum is armed with two prominent spines, the remaining margin being simply denticulated. This armature has entirely disappeared in specimens of 1 inch in length.

Scales begin to be visible in the larger specimens. The coloration is uniform, without any of those blackish bands or markings by which young *Seriolæ* are distinguished.