

tion. All were in the same proportion as the one above described, and varied but little in size; but were generally much mutilated by attrition on the sand and shingly beach.

ART. XXVI.—*On a new Fish found at Hokitika.* By F. E. CLARKE.

Plate XIV.

[*Read before the Westland Institute, 8th January, 1879.*]

THE fish, hereafter described, and the occurrence of which on the West Coast of New Zealand I have the honour to bring under your notice this evening, is interesting on account of its being the first of its genus discovered in the seas of the southern hemisphere, or, in fact, in any other but European waters.

Hitherto they have been found off the coasts of Norway, Scotland and islands (very rarely), and the Mediterranean, in which sea a common variety occurs, which is notable as affording the silvery pigment formerly used in the manufacture of artificial pearls.

The first British specimen was noted by Yarrell in 1837, and was caught off Rothsay in the Isle of Bute, and British specimens have been but few in number since then. It is stated that all specimens obtained there, and off the coast of Norway, occur usually after severe and cold wintry weather, and this kind of weather ushered in the arrival of our species which was found washed on shore on the South Spit, Hokitika, 6th August, 1878, by W. Duncan, waterman, and was kindly brought under my notice by Capt. Turnbull, harbour master, under the impression that it was one of the young Californian salmon lately liberated in the river. It turned out to be one of the *Salmonidæ*, though not the one wished for.

As far as can be arrived at, by comparison with descriptions, etc., our specimen agrees very well, except some ill-defined peculiarities, with the Hebrides variety, and it would be of excessive interest to have more proof than mere imagination, that our antipodean species had gradually worked its way "sub mare" in those cold lower strata of water to our coasts.

The specimen has been forwarded as a "type" to the Colonial Museum, Wellington.

Argentina.

Scales rather large; cleft of mouth small; intermaxillaries and maxillaries very short, not extending to below the orbit; eye large; jaws without teeth, an arched series of minute teeth across the head of the vomer, and on the fore part of the palatines; tongue armed with a series of small curved teeth on each side (except in one species); dorsal fin short, in advance of the ventrals; caudal deeply forked.

Pseudo-branchiæ well-developed. Pyloric appendages in moderate numbers; ova small.

Marine fish which never enter fresh waters, and hitherto found only in some parts of European waters, *i.e.*, coasts of Norway, rarely coasts of Scotland and islands and the Mediterranean.

Argentina decagon, nov. sp.

D.10, 2nd adipose; P.14; V.12; A.11; C.19; B.5; L. Trans. $\frac{4}{2}$;
L. Lat. 51.

First dorsal situated in depression on back; adipose dorsal high; pectorals small, fragile; ventrals rather large, fragile, large axillary scale; caudal large, deeply forked; eye large, round; mouth very small, and protractile to some extent; anal fin very high anteriorly (this fin and adipose dorsal placed close to caudal; cheeks and head scaleless, top of head flat, head small, snout pointed; operculum, suboperculum and preoperculum covered with thick transparent (immaculate) glossy flesh (showing colouring pigment on bony plates in a very beautiful manner); lower angle of preoperculum and interoperculum free from fleshy substance; nostrils small, double, one placed before vertical of front of orbit, the other near tip of snout; back, belly and sides rather flattened, but body thick.

No teeth on superior or intermaxillaries or on inferior maxillaries, but the front edge of vomer is produced and bare and crenulated, forming dental apparatus; edges of palatines bared, forming cutting apparatus; tongue long, thin, narrow, and round, with four long recurved fangs at tip; gill-arches armed with long rakers; gills four and one pseudo-gill; upper jaw projects slightly over lower.

Head rounded under throat; eye large; gill-opening large, section through body shows same to be an irregular decagon in shape.

Scales (in beautifully arranged series) very large, thin, and covered with silvery pigment on lateral band, very bright, duller on series superior and inferior to same. Scales along lateral line high and narrow, with large core, the opening of which is directed towards head. At the angles of the irregular decagon the scales are large, squared in front, rounded at back, and bent in an angular form with an opening or slit extending some distance into scale. These scales overlap in the centres of the facets of the decagon, and over these, and extending nearly from angle to angle, are, on the dorsal, second, third lateral band and ventral facets superposed, large deep rounded scales filling up intervals between angles of decagon, and causing the ribbed appearance of body; the depression at lateral line is also caused by these large scales overlapping in unbroken marginal line, above and below same.



