

are of a rotatory, gyratory character; at times they turn about a point as upon a pivot; at other times they change place rapidly and traverse the field view in which they are observed.

The shell is formed about the sixth or seventh day after impregnation.

Artificial fecundation presents no difficulties, and results four times out of five in the formation of mobile embryos, if good spawn is used. Oviposition proceeds gradually in the Portuguese oyster, and sometimes for several weeks. When the genital gland becomes transparent at one point it shows that the sexual products are ripe, and that they may be used to advantage.

Because of what has just been said, and in view of the exceptional fecundity of the oyster of the Tagus* [*O. angulata*], we have attempted to make some practical applications. With this object, we have arranged at Verdon a claire of 100 square meters in area, into which we have poured the animated products of diverse artificial fecundations.

The difficulty to be overcome was to prevent the escape of the embryos and assure the renewal of the water. We have attained these ends by making the water pass in and flow out through a bed of fine sand.

After a month of repeated experiments our efforts were crowned with success. We have had the satisfaction to find some spat fixed upon each of the tiles placed in our experimental claire. This is all the more remarkable, since, up to this time, the past week, there has been no spat attached to the innumerable collectors immersed upon the oyster banks of the Gironde—that is to say, in the very center of the reproductive area.

A HYBRID PLAICE—*PLATESSA VULGARIS* WITH *RHOMBUS MAXIMUS*.†

By K. E. H. KRAUSE.

On the 21st day of August, of this year, a remarkable-looking plaice was shown to me, and the question arose whether it was not a turbot. It had been sold by the fishwoman Hävernick of Warnemünde together

* One cubic centimeter of the ovary contains:

	Eggs.
By the method of dissociation	2,500,000
By the method of sections.....	5,200,000
Mean	3,850,000

The volume of the ovary of an oyster, of medium size, varies between 6 and 8 cubic centimeters.

† *Ein Schollen-Bastard. Platessa vulgaris* × *Rhombus maximus*. K. E. H. Krause, in: *Archiv des vereins der Freunde der Naturgeschichte in Mecklenberg* (1881). May, 1882, pp. 119-120. Translated by H. G. DRESEL, U. S. N.

with other "Maischollen," *Platessa vulgaris* Cuv., and a small Kleist,* *Rhombus laevis* Rond. The vender asked me the name of the "Scholle," which was unknown to the fisherman who had caught it. The boats had gone out farther than usual, where at times they catch fish with which they are unacquainted. Her attention had been called to the *Rhombus*, because it was smooth and spotless, and because its head was like that of a Steinbutt, but less tuberculated, and the eyes were on the left side. The above-mentioned plaice, 32^{cm} long, had a head like that of the turbot; the eyes, also, on the left side, with the tubercles not so prominent as those of the ordinary plaice. The yellow spots common to the plaice were present; but on the head and upon the upper left side, especially along the curved lateral line, were small epidermal ossifications which were rather numerous just behind the gill coverings. These protuberances were not so large as to produce bony areas on the head, but they were considerably larger and more prominent than the small roughness of *Platessa flesus* L. The anal fin did not extend so close to the caudal fin as it does in the turbot; the body was also more elongated than that of the latter, or that of the plaice. The teeth were somewhat sharp, but not so sharply pointed as those of the turbot. The meat, in the firmness of the muscular tissue and in taste, approached that of the plaice.

There is no doubt but that the specimen, which unfortunately could no longer be obtained, was a bastard. The shape of the head and the curve of the lateral line totally exclude the possibility of a cross between *Platessa vulgaris* and *Platessa flesus*; accordingly there only remains the possibility of a cross between *Platessa vulgaris* and *Rhombus maximus*. Both of these parent forms are considerably smaller in size in the Baltic Sea than in the North Sea.

Several years ago a fisherman named Ritgart, of Warnemünde, spoke to me of a kind of flat fish, which he called Blender, which was caught farther out in the sea. At that time, from his incomplete description, I took this species to be *Rhombus laevis*, but perhaps it may have been a bastard like the above; at least, the name points that way.

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* Along the Elbe coast, in Stade and in Hamburg, *Rhombus laevis* is commonly called Kleis, m. Kleist f. Kleise; along the Weser (Bremen) it has received the name Tarbutt, probably from the English "turbot," which, however, is the name of the Steinbutt.

The fishermen of Travemünde name *Rhombus laevis* "Margretenbütt," while "Kleis," "Kleishe," and "Plattdisen" are their names for *Platessa limanda*, called "Shäning" by the Warnemünde fishermen. Compare Lenz in Wittmack, Beitr. zur Fischereistatistik, 1879.