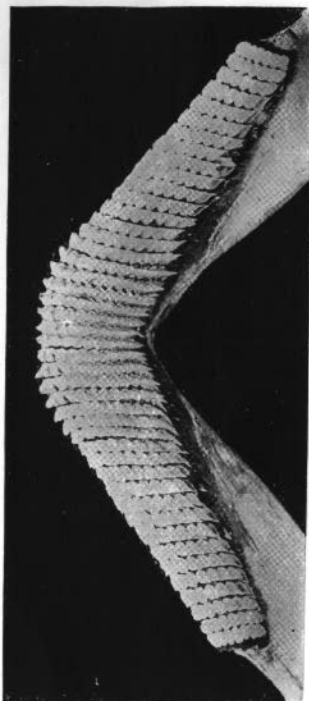


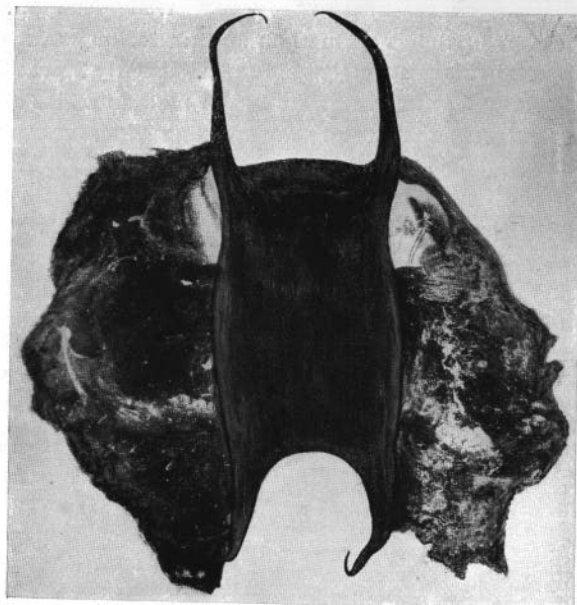
SELACHII
Hypotremata Raiidæ

Raia undulata

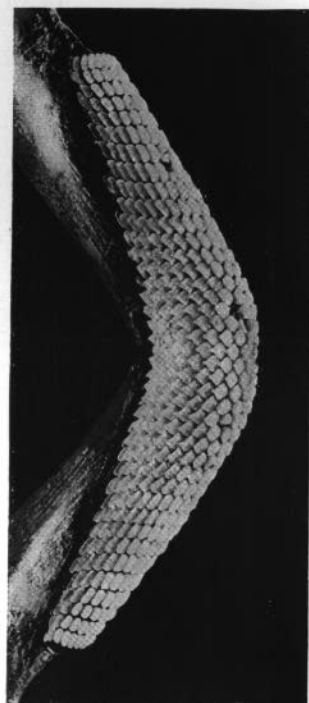
LACÉPÈDE 1802



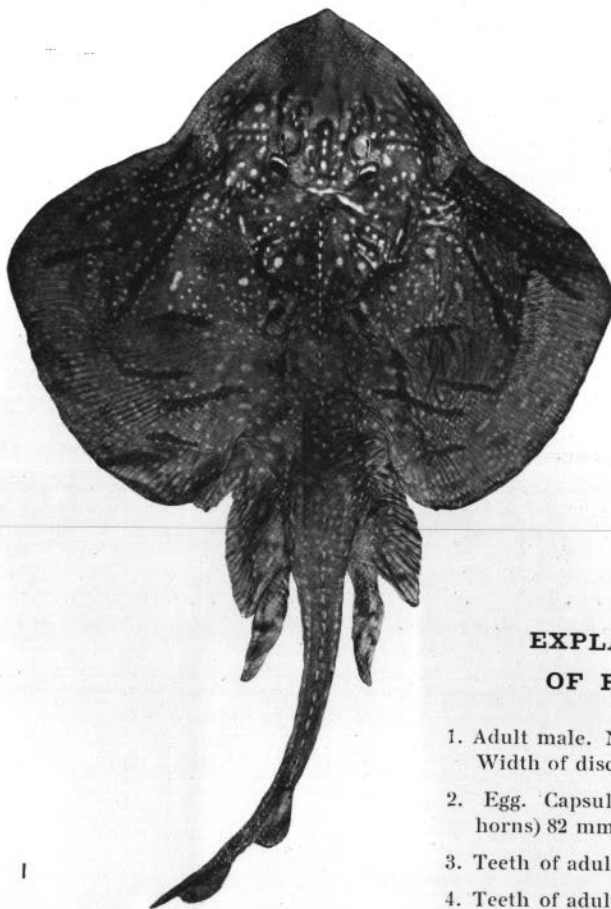
3



2



4



1

**EXPLANATION
OF FIGURES**

1. Adult male. N. coast of Cornwall. Width of disc 531 mm.
2. Egg. Capsule. Length (without horns) 82 mm. Width 52 mm.
3. Teeth of adult male.
4. Teeth of adult female.

DIAGNOSIS — Maximal length 1040 mm. (1200 *Moreau*) and width 660 mm. *Disc* — length 50 per cent. and width 60 per cent. in total length of fish; anterior margin strongly undulated; outer angle rounded; posterior margin broadly convex. Snout blunt, its length 5 — 5½ times in width of disc and 2 — 2½ times the interorbital width. *Teeth* 40-50 rows in upper jaw; close set, middle series longer and more acutely pointed in males; outer series in both sexes chisel-edged and wedge-shaped. *Upper surface* entirely spinulose or with bare patches on median and posterior parts of disc and pelvics. Snout, interorbit and orbital ridges strongly spinulose. Usually 2 prae and 2 post-orbital spines, which, however, may be single or wanting. A median series of 6-8 scapular spines with or without a few extra spines close to the median line, continued along the body and tail, irregularly spaced and of varying size to the first dorsal. Two spines or none between the dorsals. Tail with a single irregular row of spines on each side for most of its length in males or with the number of spines considerably reduced. Females with two irregular rows and a few marginal spines. Colour yellowish-brown or greyish-brown with undulating dark brown bands and with numerous circular or oval white spots. Smaller white spots usually aggregated along the margins of the dark lines. Snout flesh coloured. *Lower surface* mostly smooth. Praeorar area strongly spinulose; spinulae extending as a narrow border along the anterior margin of disc half way to the outer angle. Tail usually smooth but sometimes with scattered spinulae. Colour white. Tail greyish-brown distally. *Egg capsule* similar to that of *R. montagui* but larger, bi-convex, one side smooth, the other covered with a close felting of fine fibres. Dense filamentous threads on the lateral keels at extrusion. Length (without horns) 82 mm. and width 52 mm. *Lo Bianco* gives 90×45 mm. for capsules observed at Naples. Ripe females observed in July in the English Channel.

DISTRIBUTION — Littoral to moderate depths. Mediterranean and neighbouring parts of the Atlantic, extending northwards (so far as our records go) to the Atlantic coast of France, English Channel, North coast of Cornwall and into the Southern North Sea.

COMMON NAMES — English, Painted Ray. French, Raie brunette. Portuguese, arraia corva.

SYNONYMY — *R. mosaica* Lacép. 1802. *R. fenestrata* Rafinesque 1810. *R. undulata vel mosaica* Moreau 1881. *R. picta* Garman 1913.

LITERATURE

1802. — LACÉPÈDE, B. G. E. Histoire Naturelle des Poissons. Tome IV. Paris.
1881. — MOREAU, E. Poissons de la France. Tome Premier. Masson et C^{ie}, Paris.
1907. — REGAN, C. TATE. Note on Raia undulata Lacép. *Ann. Mag. Nat. Hist., Ser. 7, No. 20.*
1913. — REGAN, C. TATE. Raia undulata Lacép. and its distribution on the British Coasts. *Ann. Mag. Nat. Hist., Ser. 8, Vol. XI.*
1913. — LE DANOIS, E. Contributions à l'Étude system. et biolog. des Poissons de la Manche occidentale. *Ann. Instit. Oceano., Tome V, fasc. 5.*
1926. — CLARK, R. S. Rays and Skates. A Revision of the European Species. *Fisheries Scotland, Sci. Invest., 1926. 1.*
1928. — REY, L. LOZANO. Fauna Iberica Peces. Tomo primero. *Museo Nacional de Ciencias Naturales. Madrid.*

R. S. CLARK — 1930.