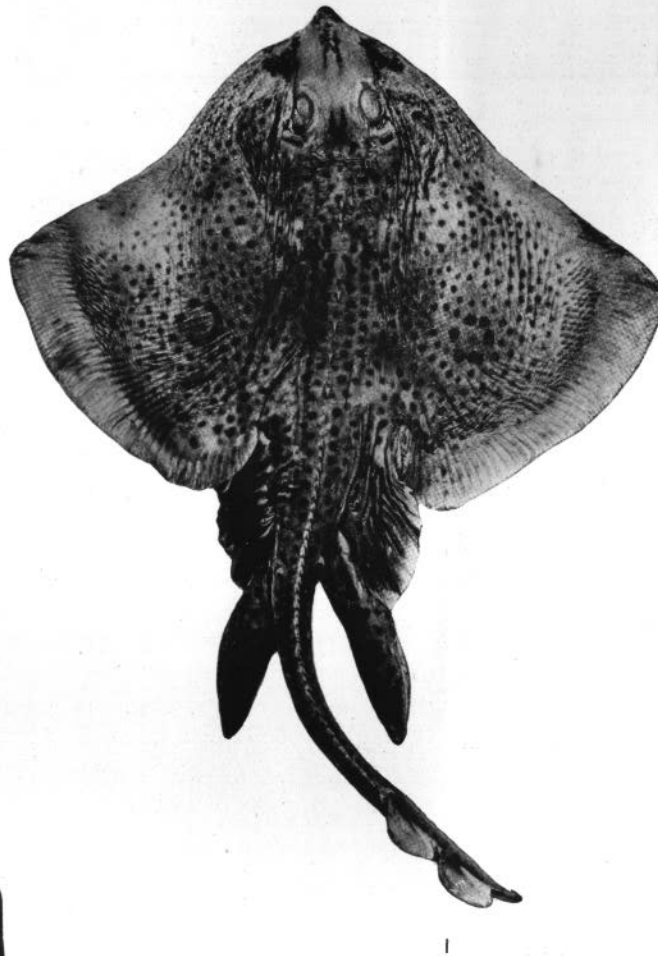




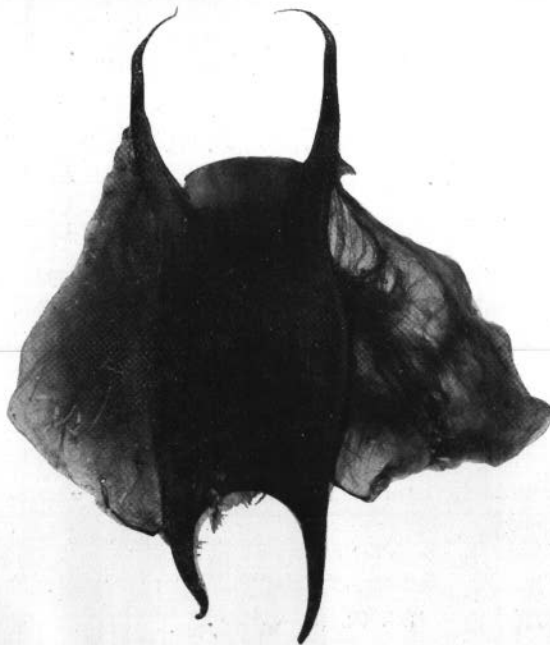
4



1



3



2

EXPLANATION OF FIGURES

1. Adult male. Orkneys. Width of disc 465 mm.
2. Egg Capsule. Length (without horns) 69 mm.  
Width (without attachment threads) 42 mm.
3. Teeth of adult male.
4. Teeth of adult female.

**DIAGNOSIS** — Maximal length 745 mm. and width 515 mm. Maturity reached at a small size. Males 420 mm. in width of disc. *Disc* broader than long, its width 60 to 70 per cent. in total length of fish; anterior margin undulated. Snout projects as a pointed process, its length about 5-6 times in width of disc and  $2\frac{1}{2}$ - $3\frac{1}{2}$  times the interorbital width which is roughly equal to the longitudinal diameter of the eye. Vent nearer tip of snout than end of tail. *Teeth* close set, acutely pointed in adult male, obtuse in adult females and in young of both sexes, 38 (young) to 60 (adult) rows in upper jaw. *Upper surface* smooth in young except for spinulae along anterior margin of disc and almost entirely spinulose or with a large bare patch on each pectoral in adults. Tip of snout, rostrum and interorbit strongly spinulose. Usually 2-3 praeorbital and 2-3 postorbital spines. A pair of scapular spines in young, generally absent in adults. Two median nuchal spines in young and 0-5 in adults. A median series of 20-30 spines in young, 40-50 in adult, extending from the shoulder to the first dorsal and one or two spines between the dorsal fins. Tail spines closely packed, those on the body spaced and reduced in number in older fish. Lateral row on the tail prominent in young, less pronounced in adults, often as a complete series in adult females or represented in males by one or more large spines proximally. Adult males with 4 rows of alar spines and a patch of malar spines. Colour brownish with black spots which as a rule do not reach the margin of the disc or pelvics. Occasionally also with a few pale spots on both areas. Generally one large pale spot is accentuated into the form of an ocellus with or without a dark centre and surrounded by a broken ring of elongated black spots. *Lower surface* smooth at all sizes, except for spinulae on the tail margins, occasionally on the gill arches and abdominal region and rarely in adults on the snout and anterior margin of disc. *Egg capsule* small, narrow in proportion to length, bi-convex. One side smooth, the other covered with a close network of fibres. No lateral keel. Range in length (without horns) 64-77 mm. and in greatest breadth (without attachment filaments) 37-46 mm. Ripe females occur in the English Channel chiefly from April to July. Period of incubation of the embryo five to six months.

**DISTRIBUTION** — Coastal, in shallow to moderate depths. Atlantic coast of Europe from Morocco to the Shetlands. Enters the Mediterranean, English Channel, Southern North Sea, Irish Sea, East of Shetlands and Orkneys, Moray Firth (rare). Absent from Scandinavian waters.

**COMMON NAMES** — British, Spotted Ray, Homelyn. French, Raie douce. German, Gefleckter Roche.

**SYNONYMY** — *R. maculata* Montagu, 1815. *R. maculata* Day, 1880-4. *R. asterias* Moreau, 1881. *R. maculata* Holt and Calderwood, 1895. *R. punctata* Le Danois, 1913 (non. syn.).

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