(*Communication présentée le 25 avril 1970.*)

THE PHYSIOLOGICAL CONTROL OF REPRODUCTION IN SCYLIORHINUS CANICULA L.

par Prof. J. M. Dodd

Scyliorhinus canicula is an oviparous elasmobranch which, in British waters, lays eggs over most of the year though, predominantly, in winter. The pituitary gland is subdivided into three clearly separate regions or lobes : — neurointermediate, rostral and ventral. We have shown, by removing each of these lobes separately that if the ventral lobe is removed, ovulation ceases and the ovaries become atretic; yolky eggs are resorbed and previtellogenic ova, although they are not resorbed, are prevented from developing further. In the testis of ventral-lobectomised fish a highly localized zone of breakdown occurs; this is located in the late spermatogonial — early spermatocyte ampullae; the exact region has not yet been determined. Spermatogenesis is apparently normal in the absence of the ventral lobe in those ampullae which have developed beyond the critical stage. It therefore seems that the ventral lobe of the pituitary is the gonadotrophin-secreting region in *S. canicula*.