## The Natural History of Sex

in fishes) are liberated near the laid eggs (the spawn in fishes) fertilisation occurs. For within a short distance the sperms are attracted (in a way that is imperfectly understood) to enter the eggs. When a spermatozoon enters an ovum, the latter usually becomes non-receptive to others. The state of affairs that we have just sketched may be spoken of as the first grade on the ladder of sex-the sexes are superficially alike, and the fertilisation of the eggs, on which the beginning of new lives depends, is more or less haphazard. This implies huge numbers of both eggs and sperms, and we may venture to say that this over-production of both lasts long after the necessity for it is past. Perhaps even man has also thus to pay for his long pedigree.

It can be readily understood that haphazard fertilisation is wasteful, and that any improvement upon it would be likely to be rewarded by survival. This consideration leads us to recognise the second step on the ladder of sex—where the two sexes are still very like each other externally, but where the presence of the one attracts the other. In this way, fertilisation is more likely to be secured; a step has been taken towards economy. We may illustrate this second grade in sex-evolution by reference to the familiar case of the salmon. The female makes a furrow in the gravelly bed of the river and lays her eggs there; the attendant male is stimulated, by the presence of the eggs, to liberate the