I. Spawning in the Atlantic, in the North Sea, and in the Norwegian Sea.

A. On coast banks in depths less than 100 metres.

Gadus merlangus, Optimum 20 to 60 metres.
„ *callarias*,[1] „ 40 to 80 „
„ *aeglefinus*, „ beyond 60 „
„ *esmarki*, „ „ 80 „

B. On the slopes of the coast banks.

Molva molva, Optimum 60 to 200 metres.
Gadus virens, „ 100 to 200 „

C. On the edge of the coast banks.

Brosmius brosme, Optimum 100 to 500 metres.

II. Spawning entirely, or almost entirely, in the Atlantic.

A. On coast banks beyond 100 metres.

Gadus luscus.
„ *minutus.*
„ *pollachius.*[1]

B. On the slopes towards the edge.

Merluccius vulgaris, Opt. 100 to 200 metres.

C. On the edge of the coast banks.

Gadiculus argenteus,[1] *Gadus poutassou*, *Molva byrkelange*,[1] „ *elongata* — Optimum from 200 to 1000 metres.

From the point of view of general biology it is interesting to note from this table that species, which in shape and general anatomy are very similar, present such pronounced differences as to their habitat during this most important process of life (see the chart, Fig. 522, showing the spawning area of the three ling species).

Effect of currents on floating eggs.

C. G. J. Petersen[2] was one of the first to draw attention to the influence exerted by currents on pelagic eggs. After his investigations in the Lesser Belt (Faenoe Sund) he sums up as follows: "It is one of the facts that have astonished me most during these researches that the fry of pelagic eggs, which were sometimes found in such huge numbers in Faenoe Sund, was not hatched there, or at any rate was only to be found there quite exceptionally. This condition did not only apply to the cod, but indeed to all species which possess floating eggs, in contrast to the fishes which deposit their eggs on the bottom." It has proved very important to investigate the drift of pelagic eggs, and this study has yielded important results regarding the different species. The drift of the eggs depends on physical as well as biological conditions. The direction and velocity of the currents, the temperature, the duration of the hatching and development, the actual duration of the pelagic life which varies in different species, all these are important points. Finally, the specific gravity of the eggs and larvæ is of great importance in determining the depth at which they float. From my investigations on the distribution of cod eggs, larvæ, and pelagic fry in

[1] Also spawn in the Norwegian fjords.

[2] *Report of the Danish Biol. Station*, 1893.