

pigment is arranged in a chequered colour pattern, resembling the squares of a chess-board. So regular and characteristic are these stages that, once knowing them, we can separate a young cod from every other young fish, and define its stage of development or even its age.

Since Sars discovered the eggs of the cod to be pelagic, a great many other species have been found to possess floating eggs and larvæ, for example all the cod-species and flat-fishes, the sprat, the mackerel, and many others. A voluminous literature recording the investigations has accumulated, Agassiz,

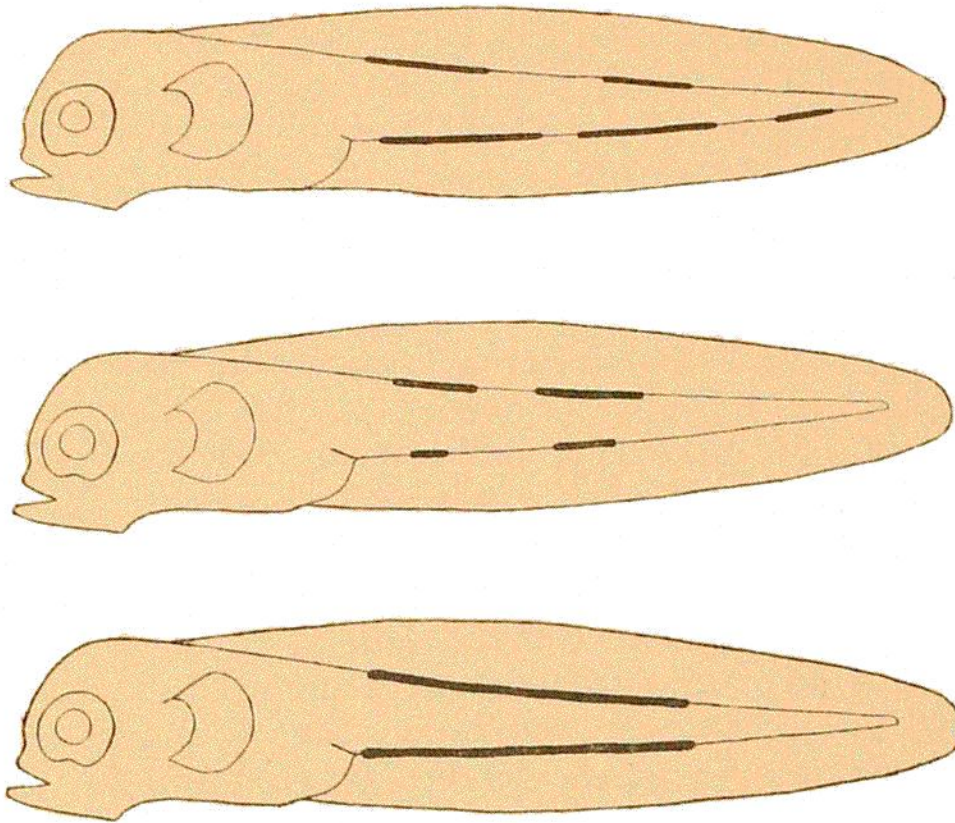


FIG. 521.

Diagrammatic figures to show the arrangement of the postanal pigment in the earliest stages of *Gadus callarias*, *G. virens*, *G. pollachius*. (After Schmidt.)

Ehrenbaum, Heincke, Hensen, Holt, M'Intosh, Masterman, Petersen, and Schmidt having made valuable contributions to our knowledge of the eggs and larvæ of various fishes.¹ From Schmidt² I reproduce some outline drawings (see Fig. 521) of the pigment arrangement in a corresponding larval stage of three closely related cod-species, viz. *Gadus callarias*, *G. virens*, and *G. pollachius* (the cod, saithe, and pollack). Although these larvæ closely resemble each other, the arrangement of the pigment is different.

¹ Ehrenbaum gives an excellent summary in "Eier und Larven von Fischen," *Nord. Plankton*, Lfg. 4, 1905, Lfg. 10, 1909.

² Schmidt, *loc. cit.*