

SESSIONAL PAPER No. 38b

These differences in the different types are so characteristic that the mere inspection of the scales in many cases will suffice to distinguish individuals belonging to one

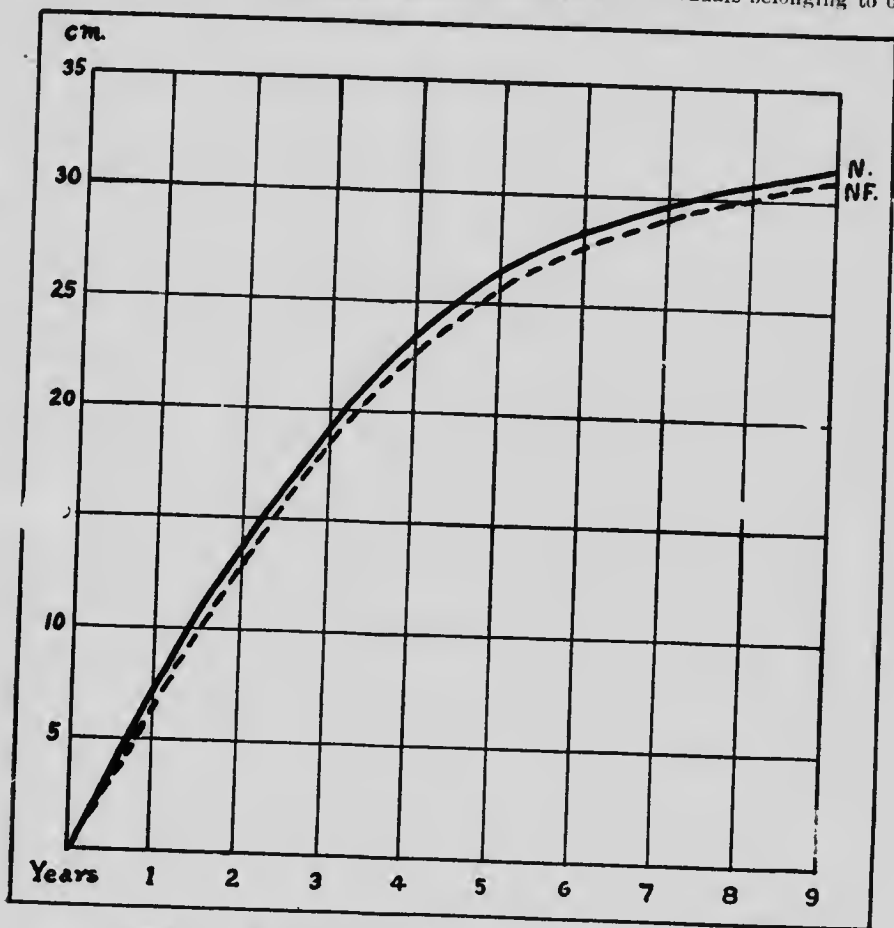


Fig. 9. Curves for the average lengths in different years of herrings from
West Coast of Norway (N.)
West Coast of Newfoundland (N.F.)

type from those of other types. To demonstrate this I have drawn the two series of normal scales of fig. 11. The series A, C, and E on the left side of the figure give the three types from the European side; the series to the right B, D, and F, from the American side. All these normal scales are drawn according to the rule, described above (text to fig. 5), that the vertical distances, from the centre of the basal line to the margin of the scales in all the drawings, correspond to the average length of the fish when nine years of age, while the growth zones represent the average growth of the types in the respective periods (years) of growth.

A comparison of these normal scales will clearly show a marked difference in rate of growth and in manner of growth between the different types of each series and, further, the great resemblance between the two series. Most marked is the difference between the Newfoundland herring and the Magdalen Island herring. This circumstance is very important as both these types of herring occur in the same sea (the gulf of St. Lawrence), though not in the same areas of that sea. In the sample of