following manner: The envelopes, each containing the scales of a single fish, were arranged in the order of the standard lengths of the fish; the scales from every fourth envelope were examined and the number of rings counted. In this way, without examining scales from all the fish, scales from a representative sample of the catch were examined. The numbers of fish in each year class are shown in table 8. The mean standard length of the 5-year old fish of the class of 1910 was 63·9 cm., and that of the 6-year-old fish of the class of 1909 was 67·4 cm. The mode on the 1915 frequency curve is therefore seen to be due to the greater frequency of the 6-year-old fish of the class of 1909, or the same which gave rise to the most prominent mode in the 1914 frequency curve. The mean standard length of catches 1 and 2 is 67·5 cm., and the mean total length is 72·8 cm.

The material for the study of the pollock of three winters and over, in 1916, consisted of measurements of thirty-two catches made near Campobello island between July 10 and October 16. The first eleven of these catches, Nos. 2 to 18, were measured by the writer, both the standard and the total length being recorded and scale samples taken from each fish. The remaining catches were measured by Capt. Sheppard Mitchell of the Biological Station staff, and the total lengths recorded. The dates and locations of the catches and the number of pollock they contained are given in table 9.

The length frequencies of these catches have been tabulated and catches grouped according to the date of capture. Catches 2 to 12 were made betwen July 10 and 14; their standard length frequencies are given in table 10, columns I to X. From column IX it can be seen that the mode for these catches is about 66 c.m. The mode for catches 15 to 18 is seen from column XIV to be also 66 cm., although the frequencies of the 67 and 68 cm. classes are also large. Catches 2 to 18, which contain 567 fish, have been combined in columns XVI and XVII, which give the length frequencies in per cent. These columns show that the mode, in this case, is to be placed at 67 cm. The mode at 67 cm. is slightly in advance of the mode of the 1915 curve which is at 66 cm.

In the case of the remaining catches, numbers 41 to 62, the total length only was recorded. The catches are grouped according to the time of capture, July, August, first half of September, latter half of September, and October. In each of these groups the combined length frequencies of the separate catches, the per cent length frequency obtained by reducing the combined frequencies to per cent of the total number of fish concerned and the per cent frequency in classes of 2 centimeter intervals are given. The later percentages are each obtained by adding two of the percentages of the previous column. They are entered opposite the length of even number although they really correspond to a length which is the mean of the length of the two classes, the percentages of which were added, e.g. in column IV the per cent 8·0 corresponds to a length of 63·5 cm. The percentages in 2 centimeter classes are given because they make possible a more rapid inspection of the table. From table 11 it will be seen that the mode for catches 2 to 18 is 74cm., which may be taken to be the total length corresponding to 67 cm. The mode for catches 41 to 62 is at 80 cm. and it will be noted that this is approximately the mode of the separate groups of catches. The total length 80 cm., may be considered to correspond approximately to a standard length of $67/74 \times 80$ cm. or 72·5 cm.

During the summer of 1916, pollock were scarce around Campobello island, but they became more plentiful in the autumn. The catches 41 to 62 measured by Captain Mitchell are therefore regarded as more typical. It is these measurements which I have used in constructing the curve for 1916 in the graph. As these were measurements of the total length and the measurements for 1914 and 1915 were of the standard length the curve has been moved in the diagram so that its actual mode at 80 cm. comes at 72 cm. This has been done merely for the purposes of comparison. The form of the curve for total lengths is of course different from that for standard lengths. It is also to be considered that this curve represents fish caught later in the year than those used