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## ANNUAL MEETING - MAY 1957 <br> Conversion of tetal length to fork length for Subdivision 5 Z Haddock <br> by Robert Livingstone, Jr.

At the 6th annual meeting of ICNAF, the Research and Statistics Committee recommended that a standard method be employed by all member countries for measuring fish. The committee recommended: fork length (maximum length from tip of jaw to median ray of caudal fin) recorden to the nearest centimeter or milimeter.

The committee further recommended that all lengths should be submitted to ICNAF on the basis of the standard method, and that fish measurements recorded in any other way should be converted to the standard.

The purpose of this study is to present data for the Commission's use in converting total lengths of haddock (snout to end of caudal fin) to fork length. Our data, which were collected in 1930 aboard a commercial trawler fishing in Subdivision 5 Z , consist of measurements of fork length and total length of 330 fish from 25 samples. The two lengths were compared by regression analysis to obtain a conversion factor. Fork lengths have been calculated from total lengths for each centimeter interval by the regression formula ( $Y=0.944 x+0.58$ ) and listed in the table.

A similar study has been made for Grand Banks haddock in 1955, (Rojo, Doc. Ne. 13, ICNAF 6th Annual Meeting). Rcjo derived a factor of 0.965 for conversion of total length to fork length. Our calculations for Georges Bank yielded a factor of 0.944 . A fish of 50 cm 。 for example, would be converted to 47.8 cm . With our equation and 48.2 with Rojols factor. Whether this difference is significant can only be determined by further research.

| Total <br> Length <br> in cm 。 | Estimated Fork Leng th in cm. | Total Length | Ferk <br> Length | Total Length | Fork Length | Total Length | Fork <br> Length |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20 | 19.5 | 37 |  | 54 |  |  |  |
| 1 | 20.4 | 8 | 36.5 | 5 | 52.5 | 2 | 68.6 |
| 2 | 21.4 | 49 | 37.4 | 6 | 53.5 | 3 | 69.5 |
| 3 | 22.3 | 40 | 38.4 | $?$ | 54.4 | 4 | 70.5 |
| 4 | 23.2 | 2 | 39.3 | 8 | 55.4 | 5 | 71.4 |
| 5 | 24.2 | 2 | 40.3 | 9 | 56.3 | 6 | 72.4 |
| 6 | 25.1 | 3 | 42.2 | 60 | 57.3 | 7 | 73.3 |
| 7 | 26.1 | 4 | 42.1 | 1 | 58.2 | 8 | $7{ }_{7}$ |
| 8 | 27.0 | 5 | 43.1 | 2 | 59.1 | 89 | 75.2 |
| 9 30 | 28.0 | 6 | 44.0 | 3 | 60.1 | 80 | 76.1 |
| 30 | 28.9 | 7 | 45.0 | 4 | 61.0 | 1 | 77.1 |
| $\frac{1}{2}$ | 29.9 | 8 | 45.9 | 5 | 62.0 | 2 | 78.0 |
| 2 | 30.8 | 59 | 46.9 | 6 | 62.9 | 3 | 79.0 |
| 3 | 31.8 | 50 | 47.8 | 7 | 63.9 | 4 | 79.9 |
| 4 | 32.7 33.6 | 1 | 48.8 | 8 | 64.8 | 5 | 80.9 |
| 5 | 33.6 34.6 | 2 | 49.7 50.6 | 79 | 65.7 |  |  |

