Girth, Length and Weight
Measurements from
Subarea 1.

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During June, July and September, 1962, the lengths, weights and girths of 750 exemplaires from Subarea 1 were taken.

All the observations were made on round, fresh fish, immediately after they were captured.

The lengths - from the snout to the midfork of the caudal fin - were read to the nearest centimetre using a standard board. The weights were recorded to the nearest gram. For the measurements of the girths, a flexible steel tape passed around the fish without constriction but including both pectoral and dorsal fins, was used. These measurements were recorded to the nearest millimetre for the following two sorts of girths:

    a) <u>opercular girth</u>, measured with the forward edge of the tape placed at the posterior margin of the operculum;

    b) <u>first dorsal girth</u>, measured on the middle of the first dorsal fin.

The 8 samples were separated into 5 groups according to the ICNAF divisions and the dates in which they have been collected, as follows:

Sample No	Date	Depth fathoms	Divisions	No. of ex.	Groups
9	19/.VI	35	1D	100	—— I
13	27/VI	40	1C	50	⟩ II
14	29/VI	40	1C	100	
19	8/VII	36	1D	100	⟩ III
21	11/VII	30	1D	100	
25	18/VII	30	1C	100	⟩ IV
27	21/VII	40	1C	100	
52	8/IX	35	1C	100	—— V

The regression lines, referred to the average weights and girths for each length-class of one centimetre, were calulated by the least squares method:

Groups	Weight/Length	r	Opercular girth /Length	r	Dorsal girth /Length	r
I	$P=0,025L^{2,75}$	0,98	$AA'=4,75L+38,50$	0,98	$BB'=4,66L+31,16$	0,99
II	$P=0,014L^{2,88}$	0,99	$AA'=4,52L+25,12$	0,99	$BB'=4,47L+35,57$	0,98
III	$P=0,014L^{2,89}$	0,99	$AA'=5,08L-4,24$	0,98	$BB'=5,02L+15,44$	0,98
IV	$P=0,031L^{2,71}$	0,99	$AA'=4,48L+22,40$	0,99	$BB'=4,19L+60,70$	0,99
V	$P=0,011L^{2,97}$	0,99	$AA'=5,22L-11,74$	0,97	$BB'=5,64L-13,88$	0,96

P - weight in grams
AA' - opercular girth in millimetres
BB' - first dorsal girth in millimetres
L - length in centimetres
r - correlation coefficient

In the forthcoming years, we expect to have more data available from other ICNAF divisions, and to be able to compare the resulted regression lines in order to see how statistically significant the differences can be.