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ON PECULIARITIES IN THE BIOLOGY OF SOME LITTLE-KNOWN FISH SPECIES FROM THE NORTH-WEST AFRICAN COAST

In this paper some biological characteristics and peculiaritiss in the distribution of such species as Polimetme corythacola, Hoplostethus mediterraneus, Helicolenus dactylopterus, Beryx splendens, Beyx decadactylus are considered. The basic material was collected during the expedition of the AtlantNIRO R/V RTM BELOGORSK in September-November 1972 off the North-West Africa (fig.1). The series of hauls by a bottom trawl were fulfilled according to a previously constructed scheme each 20 miles at different depths (to 600 m). In sampling a routine method was used. The maturity stages of sexual products were determined by a six-grade scale.

Polimetme corythacola (Alcock, 1898)(Gonostomidae)

Bathypelagic schooling fish occurring to the north of 24°N at the depth below 370 m (fig.1); abundant southward of 30°N at the depths of 450-525 m (fig.2). It was also recorded on the Concepcion Bank.

The length reaches 24 cm. In the population the females predominate. The males are less numerous and of smaller size. Maximum length of males is 16 cm. The males are mature at the

length of 10-12 cm, while females at 10-15 cm (fig.3). Immature fish was available in the yield taken southward of 31°N (fig.4).

The sexual products were mainly in maturity stage IV (70-90%), in the northern area being found about 20% of spent fish. Around the Cape Juby the spawning was recorded at the depth of 400-550 m, where running females were caught (stages IV-V and V).

Hoplostethus mediterraneus C.V. (Trachichthydae, Beryciformes).

Widely distributed at the depths of 250 to 600 m (fig.5) (possibly deeper). In the south can be found in great numbers at lesser depths.

Though the fish of various length is found at different depths, it should be noted that the larger individuals keep to greater depths (fig.6).

The length reaches 26 cm (fig.7). The size of males and females is almost similar. The sex ratio is 1:1. The maturation period is prolonged. The males begin to mature at the length of 10 cm and females at 14 cm. Maturation is completed at the length of 22 cm.

Most dense concentrations were recorded to the south of 26°N (fig.8). Size composition considerably differs by areas. Smaller immature fish is more abundant in most cases. The producers were predominant in the south.

In November-December the sexual products in mature fish were mainly in stage IV. The spawning occurs in the area of Cape Ghir and Cap Blanc at the depths of 380-625 m. Spawning

fish was also caught individually at lesser depths of 150-160m.

Beryx splendens lowe (Berycidae, Berycifoformes)

Recorded in two areas (fig.9). Most numerous to the south of 25°N. Occurred at depths from 200 to 550 m (fig.10) and at lesser depths southward of 25°N.

The fish of 21-25 cm in length predominated (fig.11). Sexual products were in maturity stage II.

Beryx decadactylus Suoier

Unlike the above species this fish was recorded only southward of 25°N (fig.9). It also occurred in the catches taken from the Concepcion Bank. Inhabits the depth range from 250-500 m. Less abundant as compared with B. splendens The catches included fish from 23 to 43 cm (fig.12). The sexual products were in maturity stage II.

Helicolenus dactylopterys (Delaroche)(Scorpaenidae)

Widely distributed. The largest concentrations recorded in the Cap Blanc area (fig.13). Occurs at depths from 100 to 600m (possibly deeper). In the southern area keeps to lesser depths (fig.14). No dependence of size upon depth is marked (fig.15). The males begin to mature at 18 cm and females at 21 cm. The maturation is fully completed at 24 cm. The spawning was observed in the Cap Blanc area at the depth of 480 m.

LIST OF FIGURES

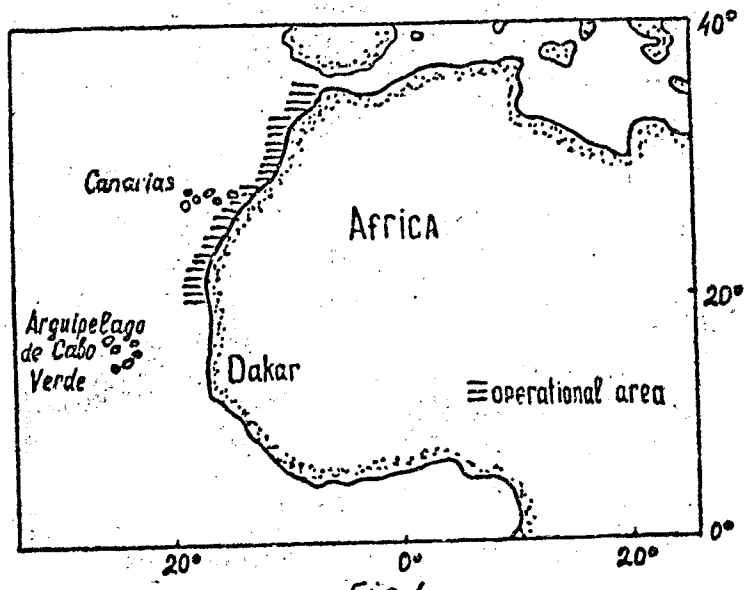
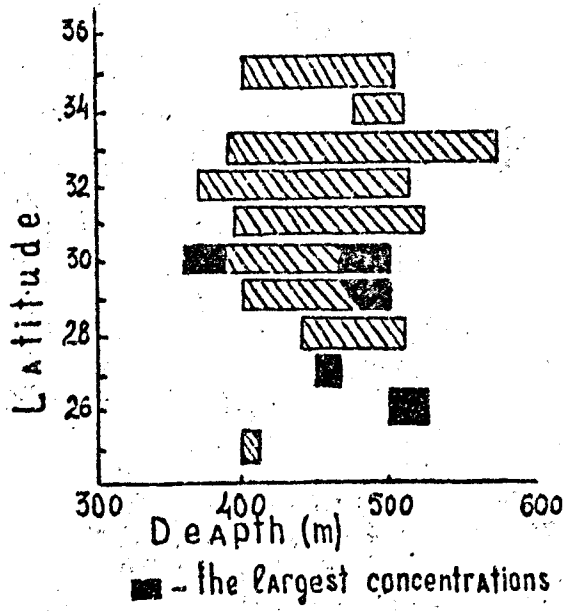


Fig.1



■ - the largest concentrations

Fig.2

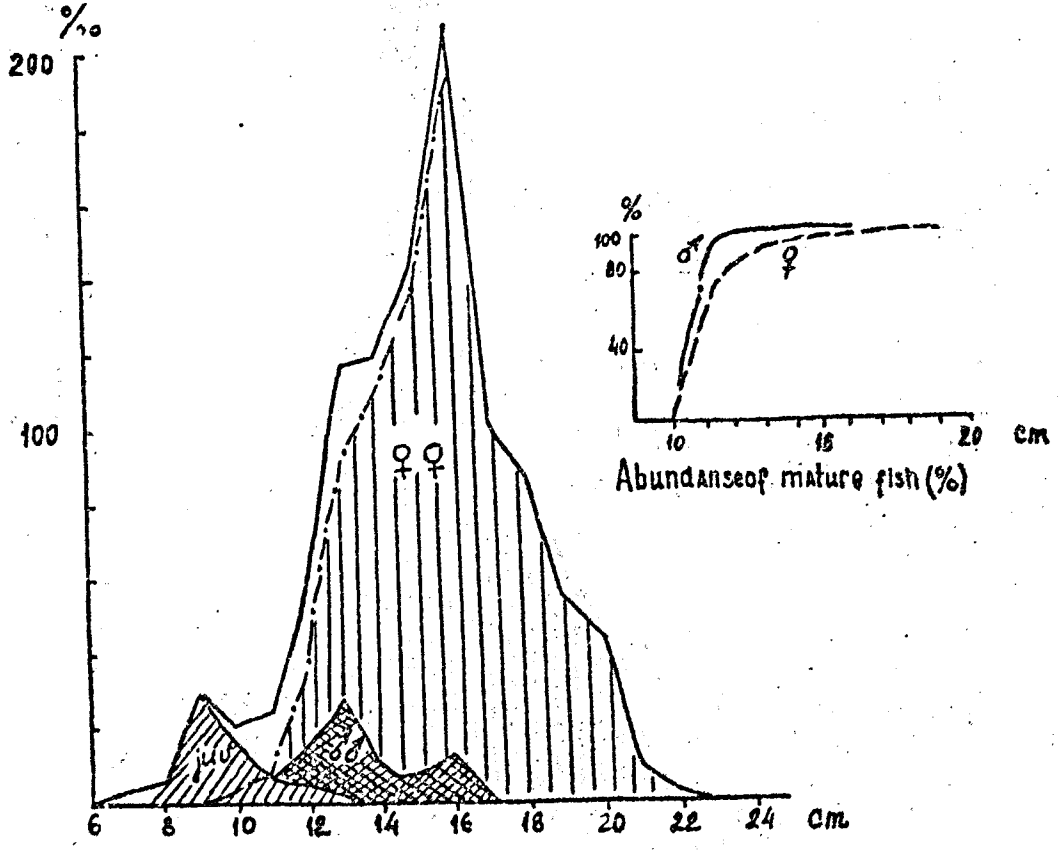


Fig 3

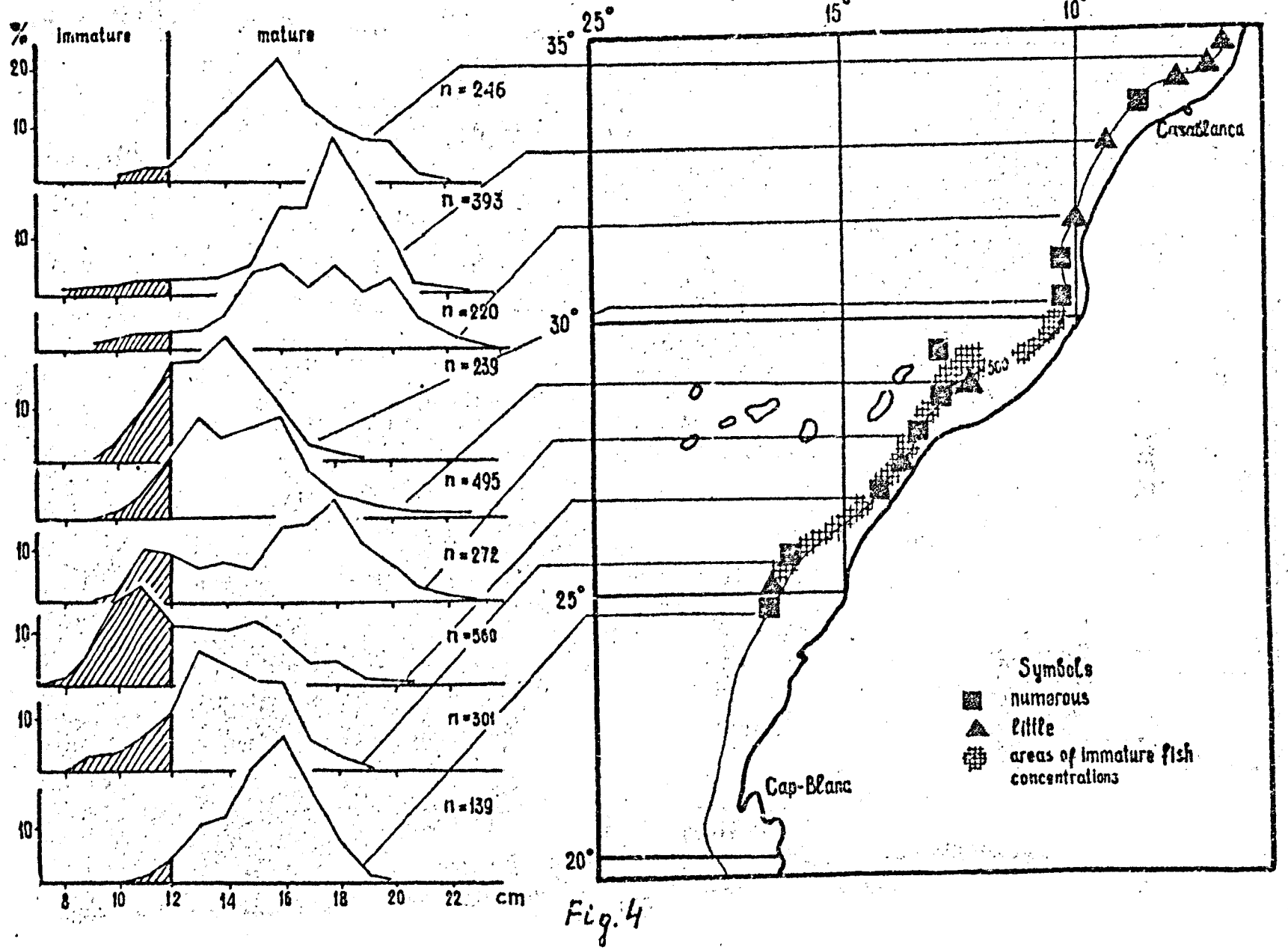

%
Immature
mature
20
10
n = 246
n = 393
n = 220
n = 239
n = 495
n = 272
n = 568
n = 301
n = 139
8
10
12
14
16
18
20
22
cm
35°
30°
25°
20°
25°
15°
10°
Casablanca
500
Cap-Blanc
Symbols
numerous
little
areas of immature fish concentrations

Fig. 4

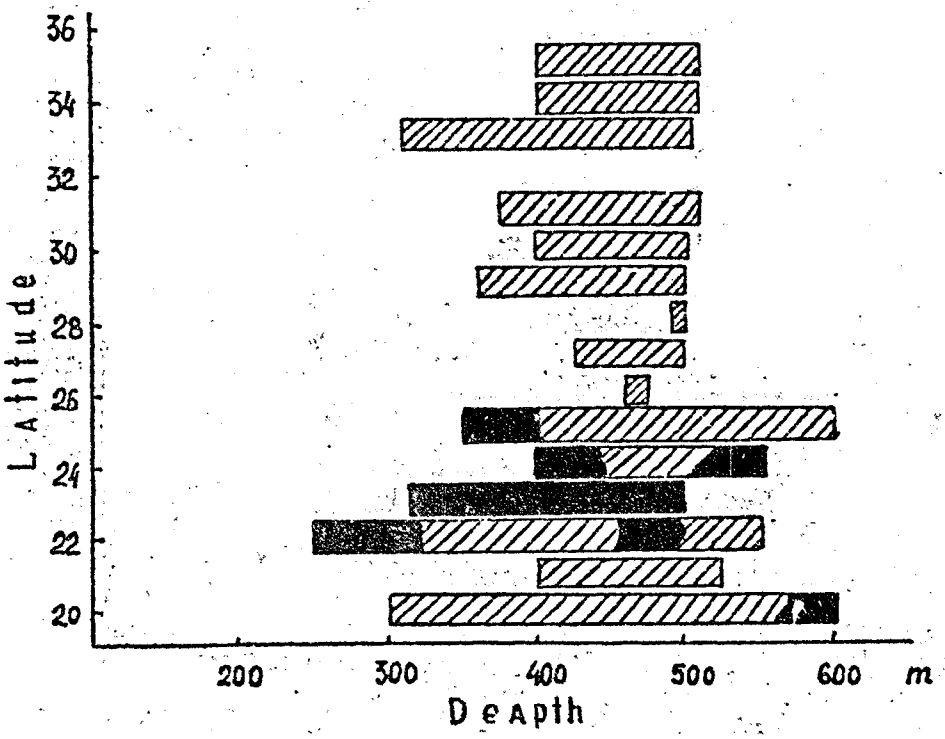

36
34
32
30
28
26
24
22
20
Latitude
200
300
400
500
600
m
Deapth

Fig. 5

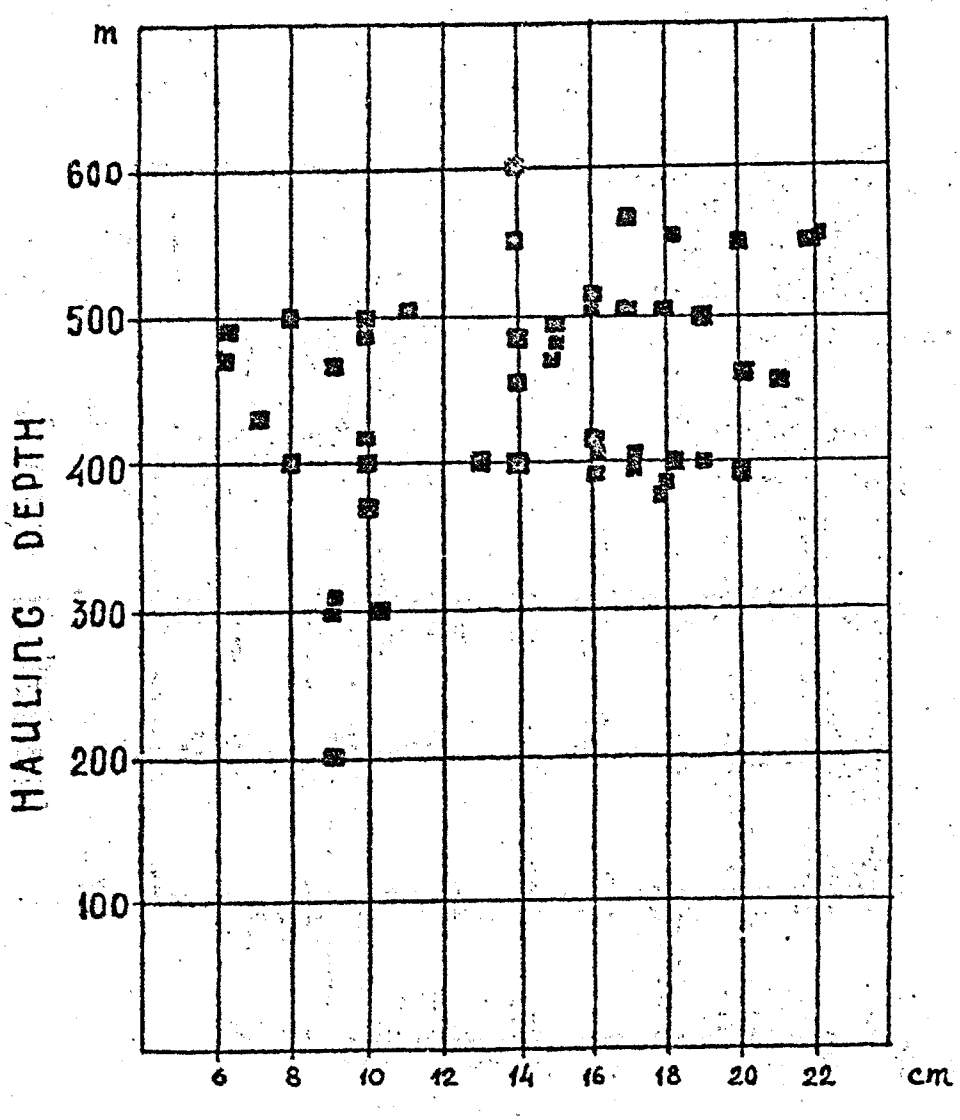

m
600
500
400
300
200
100
HAULING DEPTH
6
8
10
12
14
16
18
20
22
cm

Fig. 6

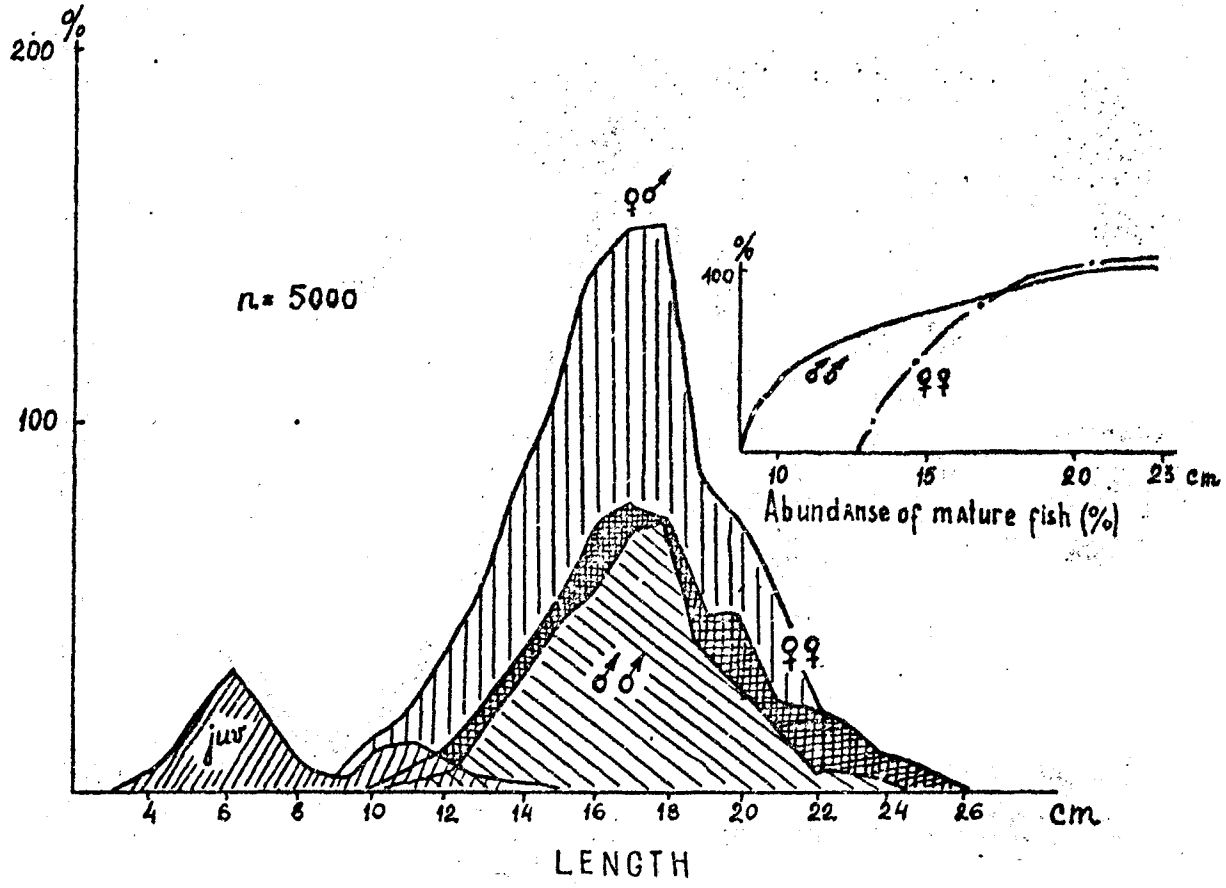

200 %
100
n = 5000
♀♂
♂♂
♀♀
juv
4 6 8 10 12 14 16 18 20 22 24 26 cm
LENGTH
%
100
10 15 20 25 cm
Abundanse of mature fish (%)

Fig. 7

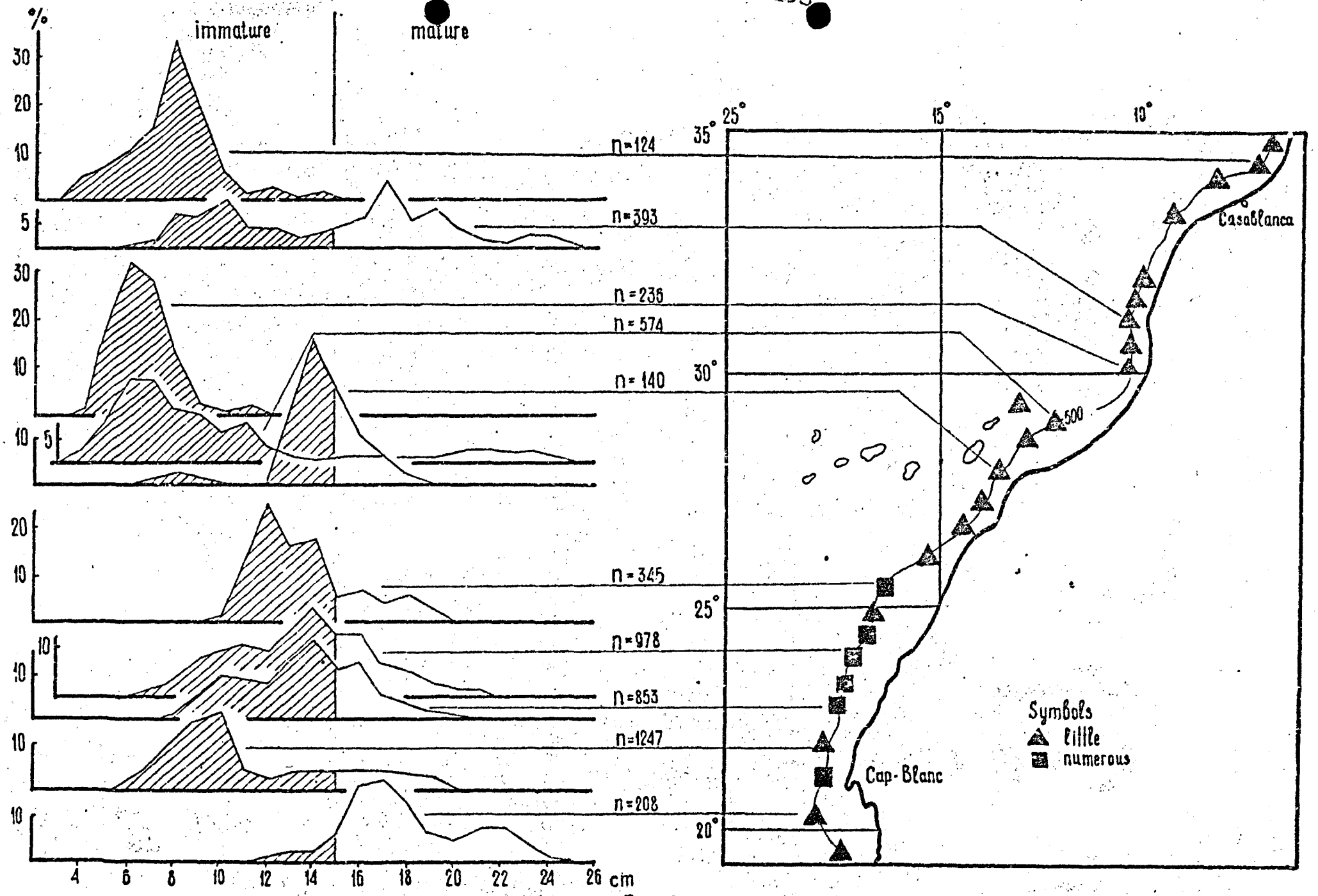

%
immature
mature
30
20
10
5
n=124
n=393
n=236
n=574
n=140
n=345
n=978
n=853
n=1247
n=208
4 6 8 10 12 14 16 18 20 22 24 26 cm
35°
30°
25°
20°
25°
15°
10°
Casablanca
500
Cap-Blanc
Symbols
little
numerous

Fig. 8

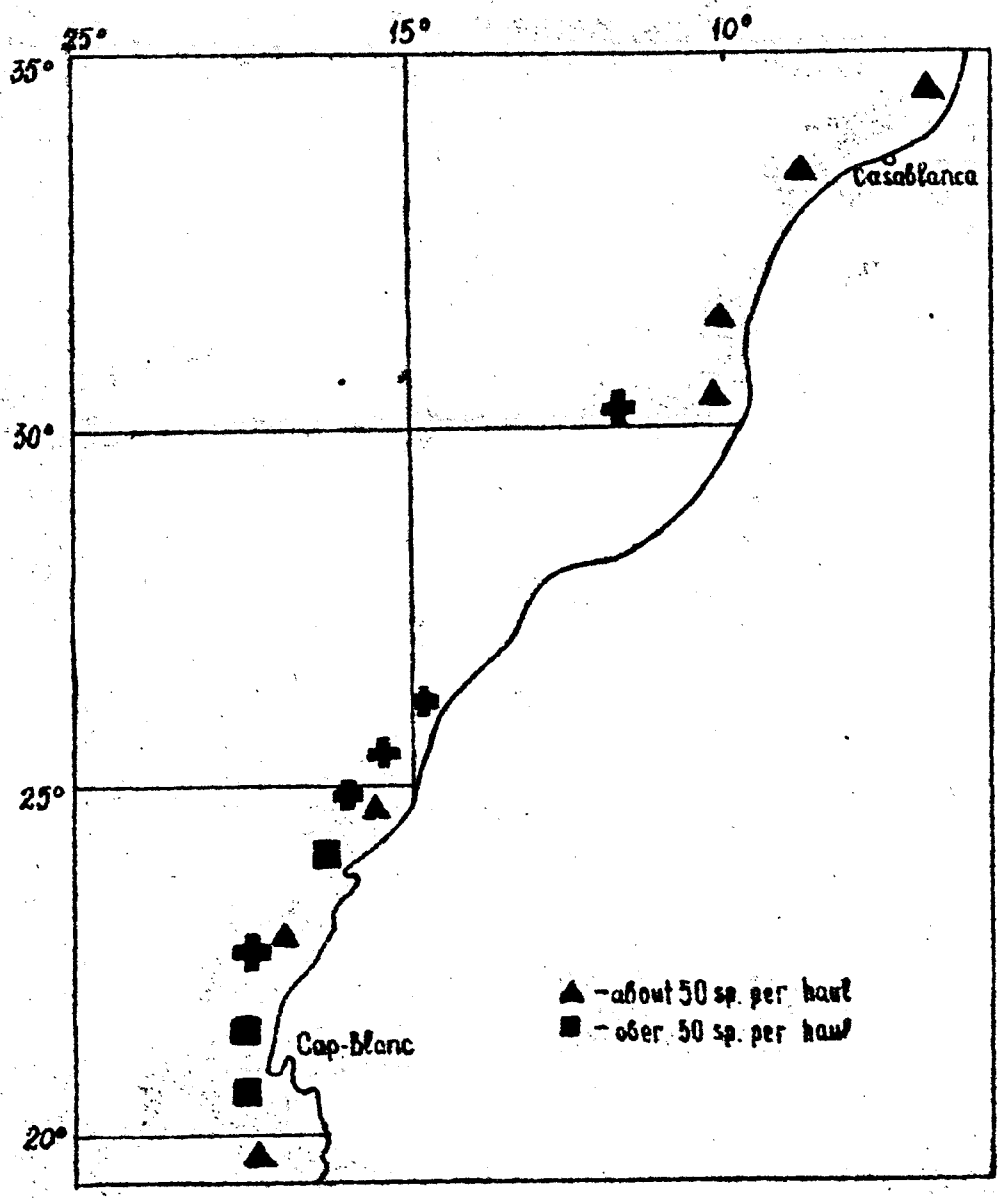

25°
15°
10°
35°
30°
25°
20°
Casablanca
Cap-Blanc
▲ – about 50 sp. per haul
■ – over 50 sp. per haul

Fig 9

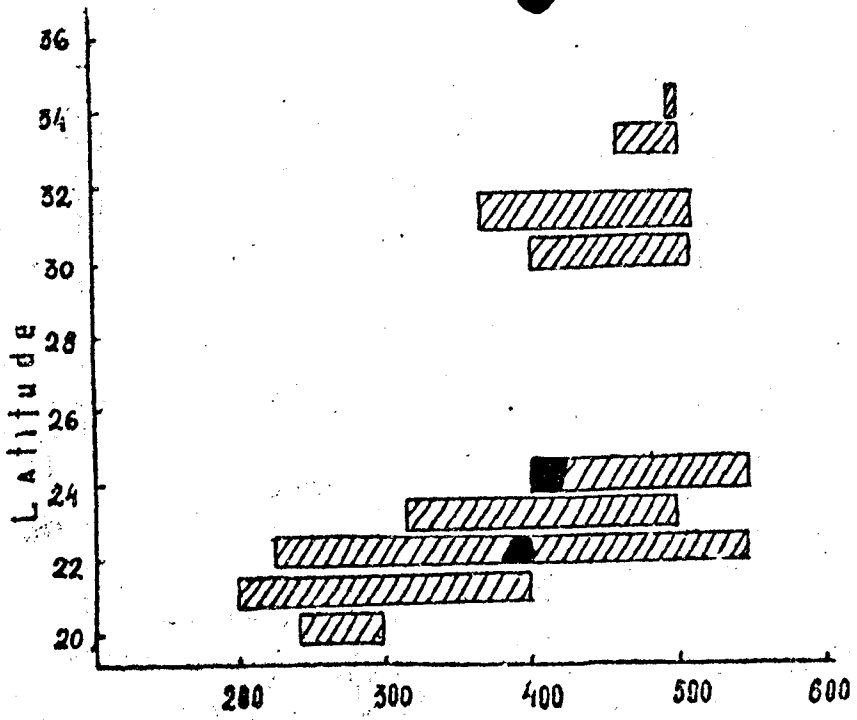


Fig. 10

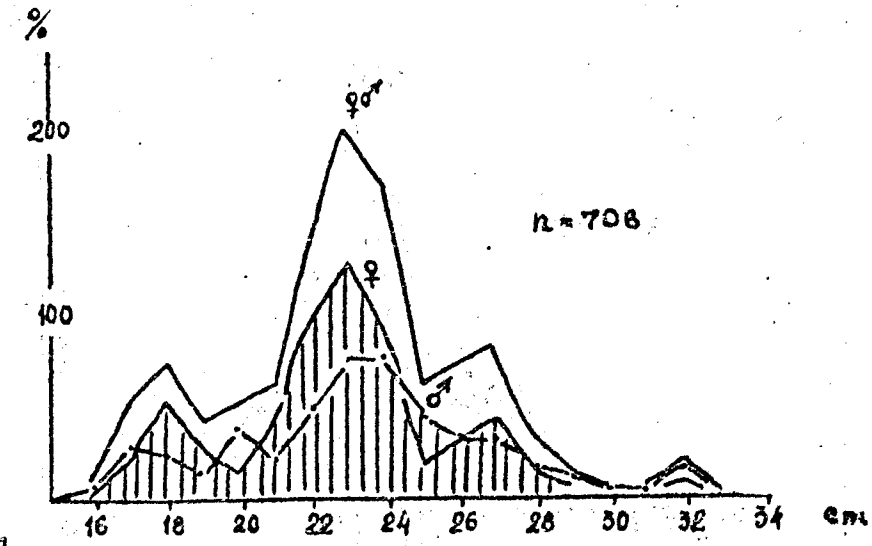


Fig 11

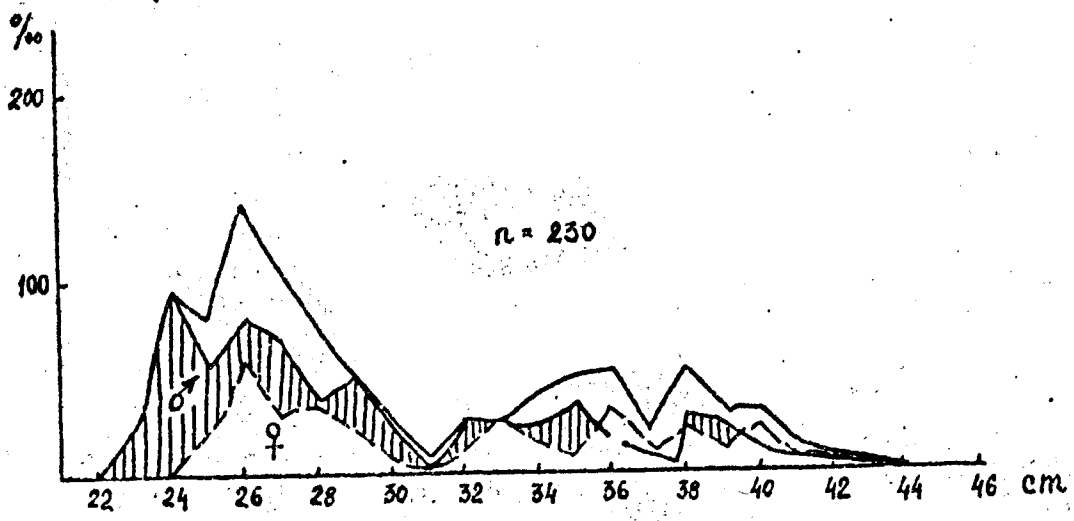
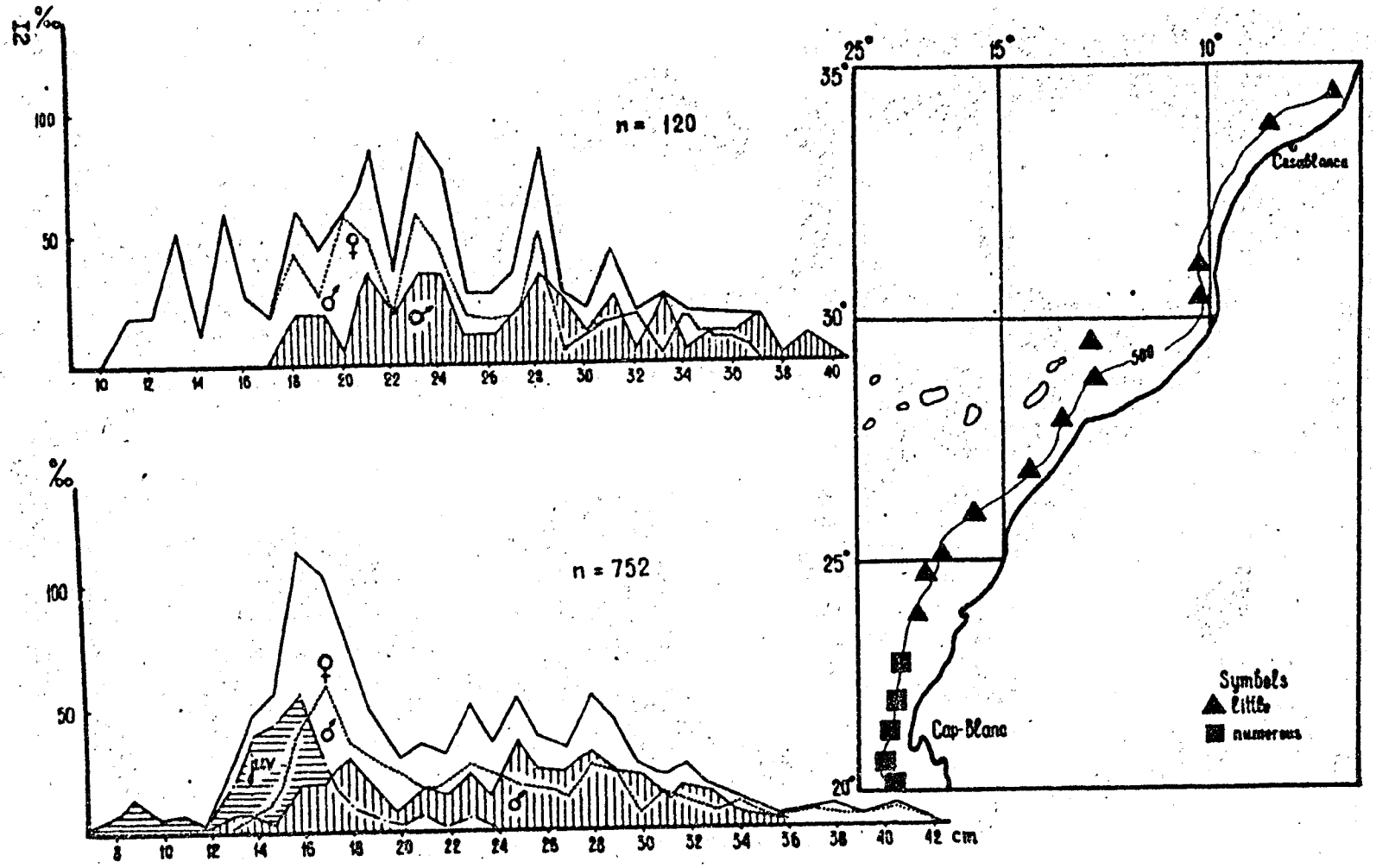


Fig. 12


%
100
50
n = 120
♀
♂
10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40
%
100
50
n = 752
♀
♂
prv
8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 cm
25°
15°
10°
35°
30°
25°
20°
Casablanca
500
Cap-Blanc
Symbols
Little
numerous

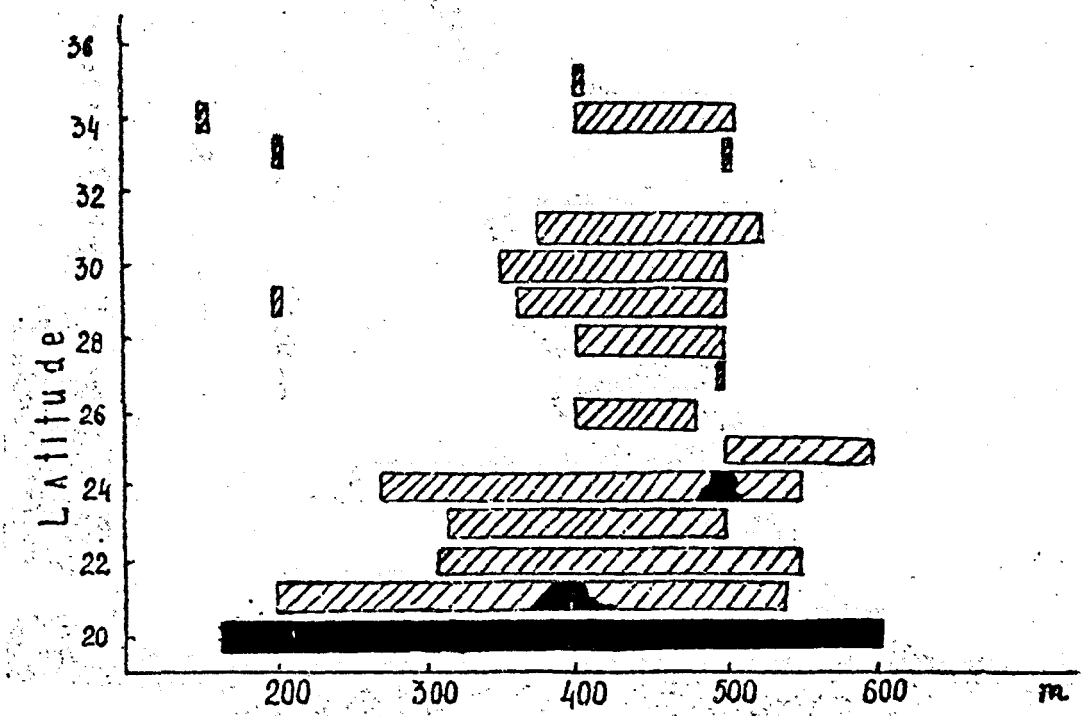


Fig. 14

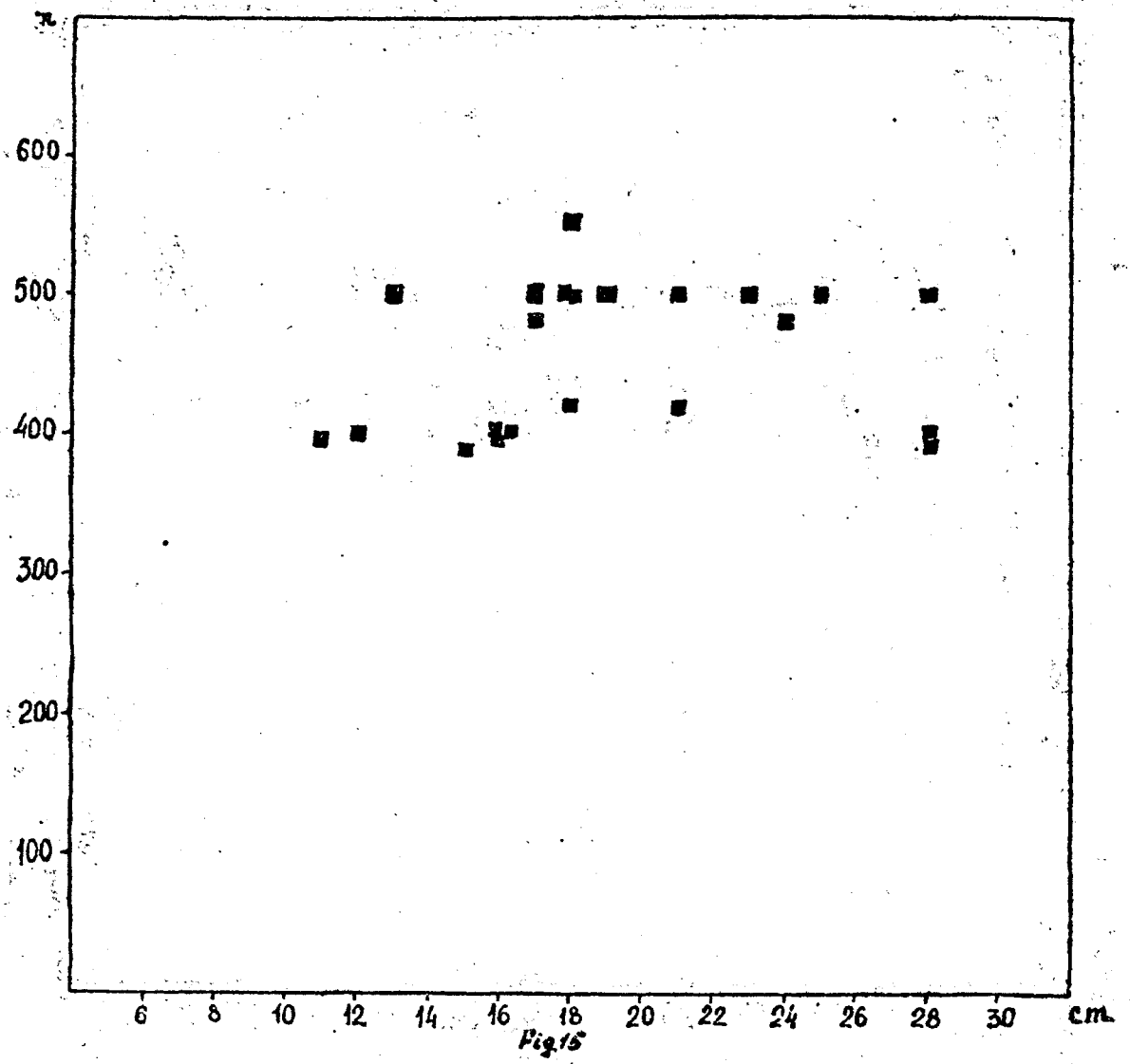


Fig. 15

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