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Nr. 5. ANTON FR. BRUUN: QUANTITATIVE INVESTIGATIONS OF THE 0-GROUP AND I-GROUP OF THE PLAICE, TURBOT, BRILL AND SOLE IN THE SKAGERRAK, KATTEGAT AND BELT SEA

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Material.

THE material on which the present work is based was collected by the Danish Commission for Investigation of the Sea during the years 1905—1926.

Its arrangement generally is designed to afford an annual survey of the quantities of first-year specimens of flatfishes living in shallow water on sandy shores, i. e. primarily the Plaice (*Pleuronectes platessa*), and thereafter the Turbot (*Rhombus maximus*) and Brill (*Rhombus laevis*), with the Sole (*Solea vulgaris*).

In actual practice, the quantitative investigation has been carried out with the use of the same implement at the same localities under as far as possible uniform conditions from year to year.

The implement used is the so-called Young Plaice Trawl, which was introduced and described by A. C. JOHANSEN (1908 p. 5).

The Young Plaice trawl was used only in calm weather and at the slightest depths accessible in the craft employed (a motor boat); as a rule abt. 1-2.5 m. Furthermore, the localities fished were always chosen with as pure a sandy bottom — i. e. as free from stones and vegetation — as possible.

A general survey of the fishing experiments made with the Young Plaice trawl up to the year 1913 inclusive is given by A. C. JOHANSEN (1915).

In 1914, these investigations were continued with fishing experiments in the Sound and the Great Belt, from the 3rd July to the 5th August, at 31 stations in all, i. e. 31 localities fished.

The outbreak of war put a stop to further investigations in 1914 and the following years. It was not until 1920 that they were resumed; since then, they have been carried out on a more or less extensive scale, as will be seen from the table below:

Table 1. Fishing experiments made with the Young Plaice trawl 1920—1926.

Year	Period	Localities	No. of St.
1920	7. July—17. Aug.	Kattegat, Skagerrak & North Sea	97
1921	3. July—22. Sept.	Belt Sea, Kattegat, Skagerrak & North Sea	160
1922	24. June— 4. Sept.	All Danish coasts except Isls. S. of Sealand and Bornholm	168
1924	14. July—15. Aug.	Sound, Belt Sea, Kattegat and Skagerrak from Skagen to Hirshals	101
1925	13. July—22. Aug.	Belt Sea	37
1926	3. Aug.—14. Aug.	Round Fyn and the South-Funen Islands	29

Part of this material has already been dealt with by A. C. JOHANSEN (1922) but only as far as regards the North Sea, Skagerrak and northern Kattegat.

As regards the division of the various waters, I have, like A. C. JOHANSEN (1915) taken somewhat larger units than does that same writer in his work dated 1922; the material is thus rather more easily viewed as a whole.

The Skagerrak is taken as one unit, extending from Hanstholm to Skagen.

The Kattegat on the other hand is divided into a northern and a southern portion.

The Northern Kattegat extends from Skagen northward to a line drawn from Mariager Fjord round the north of Anholt to Tylö in the south.

The southern Kattegat extends from this line in the north to Hasenøre-Gniben and Dragør-Limhamn in the south, and thus includes the Sound.

This boundary line between the northern and southern Kattegat is in the main drawn so as to correspond with the boundary between the two areas inhabited by the Northern and the Baltic race of plaice respectively as far as the 0-gr. is concerned.

The Belt Sea extends from Hasenøre-Gniben, embracing the entire area of waters as far as Gedser-Darsserort.

Finally, the Baltic comprises the area east of Gedser-Darsserort and south of Dragør-Limhamn.

With regard to the value attaching to these investigations in quantitative respects, I will mainly refer to A. C. JOHANSEN'S work of 1922 (p. 21—22) where this question is discussed with particular reference to the case of the plaice.

In the tables and charts following at last the results of the coast investigations have been given in details to show, especially to the 0-Gr. plaice, the actual distribution of the young fish, here dealt with, in continuation with the publications of A. C. JOHANSEN (1915, 1922).

A. The Plaice. (*Pleuronectes platessa*).

I. Frequency and Distribution of the 0-Gr. and I-Gr. Plaice off the Danish coasts of the Skagerrak, Kattegat and Belt Sea.

Table 2 shows the numbers of 0-Gr. and I-Gr. plaice off the Danish coasts of the Skagerrak, Kattegat and Belt Sea throughout a period of years.

This table however, includes only the results of investigations made during the months of July, August and September, as it has long since been shown, by similar investigations (A. C. JOHANSEN 1913 p. 26, A. C. JOHANSEN 1915 p. 4) during the remaining portions of the year, that the plaice are to be caught in greatest numbers, and thus most representatively, in these three months of the after-summer at the depths with which we are here concerned.

It will be noticed that the numerical material is of quite considerable extent: firstly as regards the number of years embraced, this being 9 except in the case of the Baltic, where investigations have only been carried out for 5 years. And further, as regards the number of stations within the individual areas, the material is extensive, though here again least in the case of the Baltic.

Table 2. Average numbers of 0-gr. and I-gr. Plaice per fishing hour in different Danish waters throughout some years.

Year	Skagerrak			Northern Kattegat			Southern Kattegat			Belt Sea			Baltic		
	Number of			Number of			Number of			Number of			Number of		
	0-gr.	I-gr.	Stations	0-gr.	I-gr.	Stations	0-gr.	I-gr.	Stations	0-gr.	I-gr.	Stations	0-gr.	I-gr.	Stations
1905.....	206.4	56.9	14	..	..	0	..	..	0	..	..	0	..	..	0
1907.....	..	..	0	63.7	33.9	9	(6.0	15.0	1)	..	..	0	0.0	0.0	2
1909.....	14.0	8.2	9	28.9	16.3	14	..	..	0	..	..	0	..	..	0
1911.....	90.3	7.6	20	226.2	13.4	16	82.2	0.8	29	44.3	1.8	40	12.6	0.0	5
1912.....	406.6	5.5	22	145.7	6.7	18	11.5	5.9	20	2.8	12.1	48	0.0	0.1	7
1913.....	94.8	28.3	18	23.2	221.3	16	11.4	4.3	26	19.0	0.0	2	..	..	0
1914.....	..	..	0	..	..	0	1.5	36.8	4	5.3	3.5	25	0.0	0.0	2
1920.....	36.8	2.2	25	55.6	39.3	17	58.0	3.3	3	..	..	0	..	..	0
1921.....	166.8	19.1	16	194.0	87.7	18	1.5	3.6	30	4.9	6.3	38	..	..	0
1922.....	218.9	9.0	16	54.4	58.4	17	1.0	8.2	22	18.5	7.8	50	0.0	4.0	7
1924.....	34.8	6.8	5	207.4	41.9	20	15.5	5.1	30	16.8	8.5	45	..	..	0
1925.....	..	..	0	..	..	0	..	..	0	20.4	4.6	37	..	..	0
1926.....	..	..	0	..	..	0	..	..	0	3.9	8.7	29	..	..	0
Average	141.0	16.0	9 Years	111.0	57.7	9 Years	22.8	8.5	8 (9) Years	15.1	5.9	9 Years	2.5	0.8	5 Years

A calculation of the average annual yield per hour thus gives a very good idea as to the distribution of the young fish in the different areas.

Fig. 1 shows this distribution in the form of a graph.

The figure at once conveys a strong impression of the extraordinary quantities of young found along the coasts of the Skagerrak and northern Kattegat, showing clearly the enormous importance of these shores for the plaice fishery on the deeper grounds farther out.

It is further apparent that the accumulation of young fish on the coast is far more pronounced in the northern Kattegat than in the southern portion; numerically, this is indicated by the break from 111 spec. of 0-Gr. fish in the northern Kattegat to 22.8 in the southern; a drop to about one fifth of the former value.

The Southern Kattegat and the Belt Sea on the other hand, are hardly directly comparable in quantitative respects; the shallow coastal waters of the Belt Sea being of far greater extent relative to the deeper parts outside than is the case with the coastal waters of the Kattegat (see also A. C. JOHANSEN 1908 p. 30).

This feature is also apparent in the fact that the quantities by weight taken in the Belt Sea and the Kattegat per sq. nautical mile are about the same¹ whereas in the Belt Sea, fewer plaice of the 0-Gr. are taken per hour than in the Kattegat (see the Statistics table 8).

It is a debatable question, how far it is possible to make any quantitative investigation of the annual quantity of young plaice on the shores of the Baltic proper. The prevalent view has for many years been, that though the stock of plaice renews itself without any essential immigration, the great bulk of the young produced here, unlike what we find in all other waters, grow up as a rule in deeper areas. This view was first advanced in 1908, by A. C. JOHANSEN, and has since been further supported by his later researches (1912 and 1915). In contrast to this, H. BLEGVAD, (1926), maintains the old view held by C. G. JOH. PETERSEN (1894) and TH. MORTENSEN (1896) that the stock of plaice in the Baltic is renewed by the growth of young on the coasts, as in other waters, but only to any abundant extent in certain years. The present material offers no new contribution to this discussion; to do so would require a rational pursuit, throughout several years, of the youngest bottom stages of the plaice both in shallow and in deeper water, on the lines of the research carried out by the Biological Station in 1925, but more on a quantitative basis (compare p. 8.).

The distribution of the I-Gr. differs greatly from that of the 0-Gr., the greatest average number per hour being taken, not in the Skagerrak, but in the northern Kattegat, which shows 57.7 specimens against 16.0 for the Skagerrak, 8.5 for the southern Kattegat and 5.9 for the Belt Sea.

The I-Gr. is thus, not only in itself, but also numerically in comparison with the 0-Gr., predominant in the northern Kattegat.

We will now proceed to consider the average numbers of the I-Gr. in the different areas, reckoned in percentages of the average number of 0-Gr.

The southern Kattegat, the Belt Sea and the Baltic are here much alike, the respective percentages amounting to 37.3, 39.1 and 32.0 % whereas the corresponding values for the northern Kattegat and Skagerrak are so widely dissimilar as 52.0 and 11.3 %. The average of these two figures, 31.7 lies however,

¹ The results of marking experiments tend to show that the intensity of the fishery is about the same in both waters.

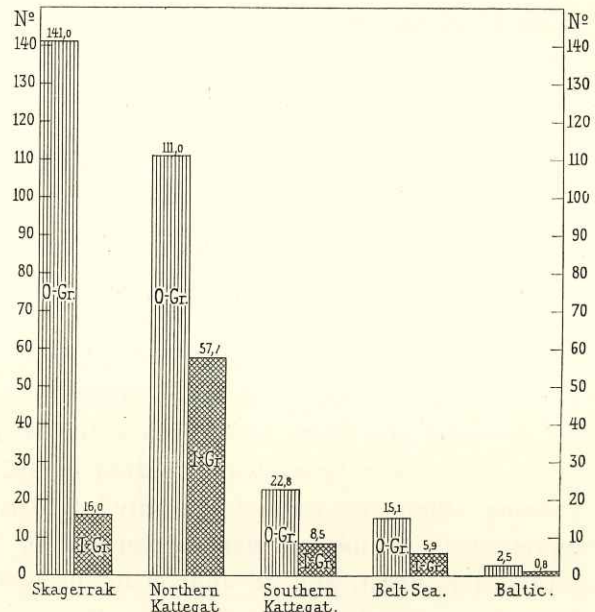


Fig. 1. Average catch per hour of 0-gr. and 1-gr. plaice in different Danish waters. Comp. Table 2.

so close to the other percentages for the inner waters, that it is natural to regard it as actually due to immigration of I-Gr. fish from the Skagerrak to the northern Kattegat.

That such immigration does take place has already been proved by an altogether different method of research, to wit, by racial investigations, as described by A. C. JOHANSEN (1910 p. 119—122). These studies at once suggested horizontal migrations on a large scale: A. C. JOHANSEN writes (l. c. p. 119) "durch Rassenstudien nachgewiesen ist, dass eine mächtige Einwanderung solcher jungen Fische vom Skagerrak nach dem Kattegat for sich geht".

The number of young plaice thus immigrating into the Kattegat varies greatly from one year to another, as will be seen by comparing the quantities of I-Gr. in the Skagerrak and northern Kattegat with those of the 0-Gr. for the previous year. An idea of the average magnitude of this immigration may be obtained by comparing the average percentage of I-Gr. with that of the 0-Gr. It will then be seen that the Skagerrak yields on an average only one third as many I-Gr. as the southern Kattegat and inner waters; in other words: about two thirds of the bottom stages in the Skagerrak will, in the course of their first year of life, move down into the northern Kattegat.

Corresponding horizontal movements of the 0-Gr. and I-Gr. fish on the coasts of the southern Kattegat and Belt Sea have not up to now been observed; there has however, in certain years, been a remarkably heavy catch of I-Gr. fish in these areas as compared with the yield of 0-Gr. in the previous year. In the southern Kattegat for instance, we may note the year 1914, where 4 stations yielded on an average 36.8 specimens, or abt. 4 times the average value, 8.5, for eight years, whereas the 0-Gr. had in the previous year been rather below the normal.

The same thing was observed in 1922 both in the southern Kattegat and in the Belt waters, both yielding about the normal quantity of I-Gr. fish, whereas the 0-Gr. the year before had been poorly represented. As fishing was carried out in 1921 and 1922 at 30 and 22 localities respectively in the southern Kattegat, and 38 and 50 in the Belt Sea, there can hardly be any question of experimental error here, the explanation being doubtless that in certain years, there is an immigration of 0-Gr. fish from the Skagerrak into the northern Kattegat, which makes itself felt right down in the southern Kattegat and the Belt Sea.

As an illustration of this we may take the following table showing percentages of the I-Gr. compared with the 0-Gr. of the previous year, in the different areas concerned, for the years 1913 and 1922.

Table 3. Percentages of I-Gr. compared with those of the 0-Gr. in the previous year.

	Skagerrak	North. Kattegat	South. Kattegat	Belt Sea
1913.....	7.0	151.9	37.4	
1922.....	5.4	30.1	546.7	159.2

Further confirmation of the above is afforded by the fact that in the Belt Sea in 1922, it was more especially the northern portion, including the north coast of Fyn, which proved to be so largely stocked with I-Gr. fish.

II. Fluctuations in the annual quantity of 0-Gr. Plaice illustrated by quantitative fishing experiments for the bottom stages.

The quantitative investigations as to the stock of young plaice on the Danish coasts led, at a comparatively early stage, to the result that the number of the 0-Gr. fluctuated considerably from year to year.

The first results were published in 1908 by A. C. JOHANSEN. The same writer has carried on these investigations as to the publications of 1910, 1913, 1915 and 1922¹.

¹ The Causes of these fluctuations have been dealt with by A. C. JOHANSEN in Rep. XXXIII from the Danish Biological Station for 1927.

As regards the material here dealt with, that from the period after 1914 has not previously been described, save for that portion which is derived from the Skagerrak and northern Kattegat in 1920 and 1921.

For biological reasons, only the material from the months of July, August and September has, as mentioned, been here included. Consequently, part of the material, especially from before 1914, had to be discarded; Table 2 gives, as already noted, a view of the material thus selected; the value which can fairly be ascribed to the various figures will here of course depend first and foremost on the number of stations on which the investigations in the area concerned were based.

As regards the Skagerrak, the graph Fig. 2 shows that the fluctuations in the annual quantities of the 0-Gr. are remarkably great, the yield per hour varying from 14.0 specimens in 1909 to 406.6 in 1912.

Particularly rich years for the production of young fish are, first of all 1912 with the enormous yield of 406.6, and then 1922 with 218.9, and 1905 with 206.4 specimens per hour.

Particularly bad years were 1909, with only 14.0 and again 1924 with 34.8 and 1920 with 36.8. Finally, from the experience already acquired, we must reckon 1911 with 90.3, 1913 with 94.8, and 1921 with 166.8 as more or less approaching the normal, since the average yield for the nine years covered by the investigations amounts to 141.0.

In the northern Kattegat, the fluctuations are somewhat less pronounced than in the Skagerrak; the lowest average yield from here was 23.2 in 1913, and the highest 226.2 in 1911.

For the rest, the years in which great quantities of 0-Gr. were taken are 1924 with 207.4 and 1921 with 194.0; in 1913 on the other hand, the yield was, as mentioned, only 23.2, while 1909 also showed a very poor yield, viz. 28.9. Somewhat higher values, yet still below the average, 111.0, for the nine years, were noted in 1922, 1920 and 1907, with 54.4, 55.6 and 63.7 specimens per hour respectively. Finally, 1912 was a little above the average, with 145.7.

The year 1911 was, also in the case of the southern Kattegat, a record year, the yield per hour being 82.2, whereas the average for this area is only 22.8; in 1920, the yield was 58.0 which is likewise considerably above the normal.

The worst years in this area were 1914, 1921 and 1922, with only 1.5, 1.5 and 1.0. In 1907, it is true, only 6 specimens were captured, but this figure refers to only a single station, and cannot therefore be considered as of any value in this connection; for this reason also it has been omitted from the calculation in working out the averages.

In 1912 and 1913, the yield was somewhat below the average, being 11.5 and 11.4 per hour; finally, 1924, with 15.5, approaches the normal.

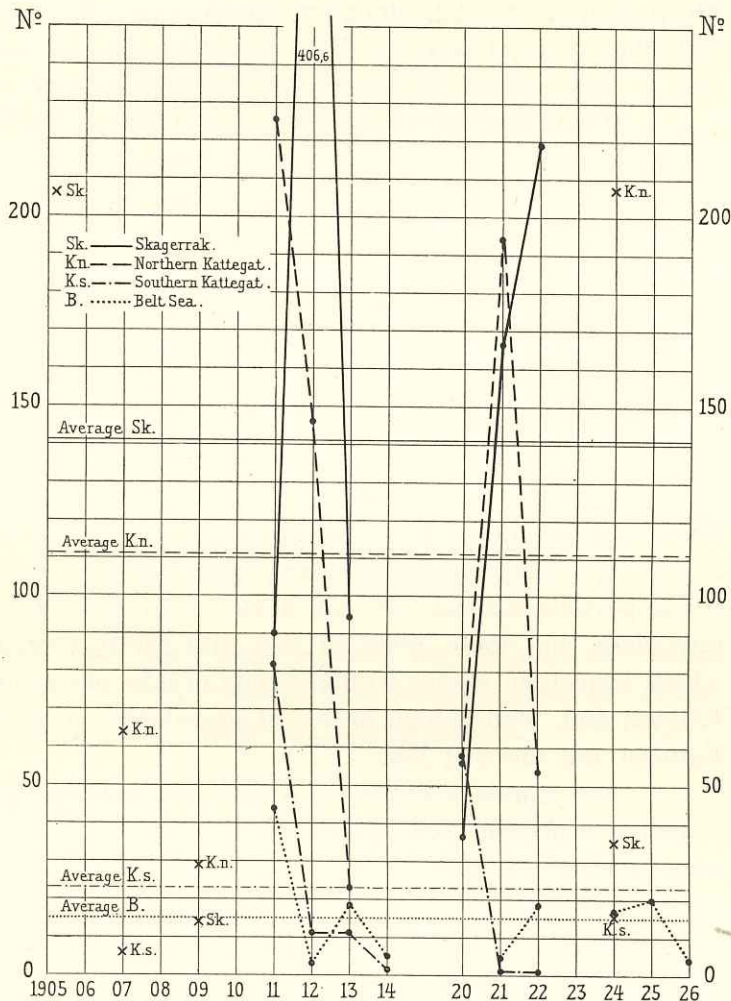


Fig. 2. The annual fluctuations of the average catch per hour of 0-Gr. and 1-Gr. plaice in different Danish waters.

In the Belt Sea we find 1911, as in the Kattegat (north and south) the best of the years under consideration, showing 44.3 as against the average of 15.1; then come 1925 with 20.4 and 1913 with 19.0.

The worst year was 1912, with only 2.8 specimens, thereafter 1926, 1921 and 1914, with 3.9, 4.9 and 5.3 specimens; 1924 and 1922 were close to the normal, with 16.8 and 18.5 respectively.

The biology of the 0-Gr. and I-Gr. plaice in the Baltic proper is, as above noted, a point on which writers are not altogether agreed. From the material procured by five years' fishing experiments with the Young Plaice trawl, it may be said, as regards the 0-Gr. that 1911 was an unusually rich year in these waters, as in the Belt Sea and Kattegat.

When therefore BLEGVAD writes (1926 p. 5) »1925 was the first year which showed, on the shores of the Baltic proper, a 0-Gr. of plaice sufficiently numerous to bear comparison with the adjacent waters«, it must be pointed out that the average yield for 1911, viz. 12.6, is high enough to be near the annual average for the Belt Sea (15.1 for 9 years). The absolute yield in 1911 was 61 specimens, from 5 stations, taken in September, as described by A. C. JOHANSEN (1915 p. 82).

The relatively high value for the I-Gr. in 1922 on the other hand agrees well with BLEGVAD's suggestion that 1921 must have been a good survival year for the Baltic proper.

The fact that in 1907, 1912, 1914 and 1922, no 0-Gr. plaice whatever were captured in the Baltic proper, is one that cannot be explained with any certainty at present. It must remain an open question whether these four years were more or less failures as regards the new generation, or whether the young of those years preferred, for some reason unknown, the deeper — and salter — water to the shallow coastal areas with lower salinity.

The foregoing estimates are based solely on the numbers of the 0-Gr. actually found; it is of course not impossible that the fish, albeit but a few months old as a bottom stage, may have made horizontal migrations, but these could in any case hardly compare with the migrations from one area to another which have been shown with certainty to take place among the I-Gr. from the Skagerrak to the northern Kattegat and, with a high degree of probability, also from the northern Kattegat down into the southern Kattegat and the Belt Sea.

For similar reasons, it is still less possible, by age investigations of older plaice, to procure certain information as to whether a given year was favourable as a survival year or not in any water, unless measures have been taken, by racial investigations or otherwise, to exclude any possible immigrants from the calculations.

Fig. 2 shows graphically the numerical values given in Table 2. It will be seen that good or bad years occur as a rule simultaneously in the Belt Sea and the southern Kattegat (cf. especially 1911—1914), whereas the Skagerrak fluctuates independently or occasionally together with the northern Kattegat (e. g. in 1921 and 1922) though this latter water ordinarily goes with the inner areas (e. g. in 1911 and 1912).

III. Influence of the fishery on the numbers of 0-Gr. bottom stages developed annually.

One of the most important, and most hotly debated questions among fishery biologists of the present day is, whether practical fishery has reduced, or can reduce, the stock of plaice capable of spawning to such a degree as to produce appreciable, or even disastrous effects on the renewal of the stock as a whole.

Authorities in favour of the view that there will always be sufficient quantities of mature fish to supply the sea, and especially the North Sea, with abundance of young, are, primarily KYLE (1926 a, 1926 b.) and GARSTANG (1926).

The opposite view: that the plaice of the North Sea are at present subjected to disastrous over-fishing, which must sooner or later be the ruin of the plaice fishery, is maintained e. g. by HEINCKE & BÜCKMANN (1926).

In order to arrive at a final decision on this point, it would be of the greatest importance if it could be directly demonstrated, whether the annual amount of young during a period of years showed a decrease more or less parallel with the yield of the fishery, or whether only such fluctuations could be discerned as must be attributed to natural causes, i. e. influences independent of any human intervention.

The Danish waters of the Kattegat and the Belt Sea can undoubtedly be taken as those with the most intensive fishery for plaice. Marking experiments have shown (A. C. JOHANSEN 1907 p. 98) that the percentage of recaptures among marked plaice in the Kattegat is about 60 % in the first year after liberation, while in several marking experiments it reached 70 % or even more.

As regards the northern Kattegat however, it must be borne in mind that an essential portion of the 0-Gr. fish found there do not originate from this area, but have drifted thither in the pelagic stage, for, as A. C. JOHANSEN writes (1910) "im nördlichen Kattegat wird keine grosse Anzahl laichreifer Schollen gefangen, im mittleren und südlichen Kattegat dagegen eine bedeutende Anzahl".

There should then, be good reason to assume that these areas, especially the southern Kattegat and Belt Sea, afford the best conditions for investigations of the question whether an excessively intensive fishery has any appreciable influence on the annual production of young, due to the reduction of the stock of spawning fish by the captures made.

The quantitative results of the coast investigations fall into two groups, divided by the period 1915—1920. Each of these groups comprises investigations covering 4 or 5 years in each of the four areas: Skagerrak, Northern Kattegat, Southern Kattegat and Belt Sea. Though this is not a great amount of material for calculation of mean values in each water for the years before and after 1915—1920, the figures are nevertheless of considerable interest, being the only ones based on quantitative investigation of the young fish covering more than a couple of years.

Table 4 gives the mean values in question. In all cases there is more or less of a downward tendency apparent, save in two instances, viz. the 0-Gr. in the northern Kattegat and the I-Gr. in the Belt Sea, which are somewhat higher than the corresponding figures for before 1915.

Table 4. Average numbers of 0-gr. and I-gr. Plaice per fishing hour in different Danish waters in pre-war and post-war years.

Year	Skagerrak			Northern Kattegat			Southern Kattegat			Belt Sea		
	Number of			Number of			Number of			Number of		
	0-gr.	I-gr.	Stations	0-gr.	I-gr.	Stations	0-gr.	I-gr.	Stations	0-gr.	I-gr.	Stations
1905.....	206.4	56.9	14	..	..	0	..	..	0	..	..	0
1907.....	..	..	0	63.7	33.9	9	(6.0	15.0	1)	..	..	0
1909.....	14.0	8.2	9	28.9	16.3	14	..	..	0	..	..	0
1911.....	90.3	7.6	20	226.2	13.4	16	82.2	0.8	29	44.3	1.8	40
1912.....	406.6	5.5	22	145.7	6.7	18	11.5	5.9	20	2.8	12.1	48
1913.....	94.8	28.3	18	23.2	221.3	16	11.4	4.3	26	19.0	0.0	2
1914.....	..	..	0	..	..	0	1.5	36.8	4	5.3	3.5	25
Average.....	162.4	21.3	5 Years	97.5	58.3	5 Years	26.7	12.0	4 Years	22.9	4.4	4 Years
1920.....	36.8	2.2	25	55.6	39.3	17	58.0	3.3	3	..	..	0
1921.....	166.8	19.1	16	294.0	87.7	18	1.5	3.6	30	4.9	6.3	38
1922.....	218.9	9.0	16	54.4	58.4	17	1.0	8.2	22	18.5	7.8	50
1924.....	34.8	6.8	5	207.4	41.9	20	15.5	5.1	30	16.8	8.5	45
1925.....	..	..	0	..	..	0	..	..	0	20.4	4.6	37
1926.....	..	..	0	..	..	0	..	..	0	3.9	8.7	29
Average.....	114.3	9.3	4 Years	127.9	56.8	4 Years	19.0	5.1	4 Years	12.9	7.2	5 Years

On looking into the details however, it seems as if the years 1911 and 1912 have been so exceptionally favourable for the young fish in the more southerly and more northerly parts of the waters investigated, that the higher averages from the period prior to 1915 may be ascribed exclusively to this; and in any case, the years after 1920 can show quite as good years as those before 1915. In the Belt Sea, the plaice fishery declines most, in proportion, during the later years, falling to something like half the yield by weight of the earlier years (see the survey — Table 8 — of the fishery) and here, the average catch of 0-Gr. fish has also fallen most; it is here however, that the influence of 1911 is most strongly apparent, and the fact that the average yield for the years after 1920 has only decreased from 22.9 (prior to 1915) to 12.9 must be attributed to the disproportionately large catches made in 1922, 1924 and 1925; the fluctuations are, as shown in Table 3, considerably less after 1920 than before 1915.

Similar conditions are apparent in the other areas (see Table 3).

These investigations then do not afford any sure foundation for the assertion that the fishery should already have affected the stock of spawning plaice to such an extent as to reduce their numbers beyond the limit required for supplying the waters with young.

For the present, there is every reason to believe that the factors which determine whether the production of young in one year or another shall be great or small are quite outside the range of human activity.

On the other hand, the fishery is undoubtedly of great effect in determining what proportion of the young produced shall be allowed to attain economical value as an article of food; an arrangement of the implements used so as to reduce to a minimum the capture and consequent destruction of the young, and economically valueless, fish would unquestionably improve the general yield of plaice fishery, both as regards weight and market value.

B. The Turbot (*Rhombus maximus*), Brill (*Rhombus laevis*), and Sole (*Solea vulgaris*).

I. General Observations.

Passing now to consideration of the results of the coastal investigations in the case of the three other flatfishes whose young live in more or less the same localities as those of the plaice, it must at once be pointed out that the actual investigations were designed to afford quantitative data as to the young of the plaice, and that the choice of localities was mainly determined by considerations relating to the biology of that species.

I would here quote from the investigations of A. C. JOHANSEN (1915 p. 5) "Die 0-Gruppen von Steinbutt und Glatbutt halten sich im ersten Sommer in ganz seichten Wasser auf: sie sind selbst im Herbst am häufigsten in Tiefen zwischen 0 und 1.5 m zu finden und gehen selten über die 3 m Tiefe hinaus. Selbst in der eigentlichen Ostsee kennt man sie nicht aus tieferem Wasser. Die 0-Gruppen der Scholle und der Seeszunge verbreiten sich im Laufe ihres ersten Sommers auf etwas grössere Tiefen als die anderen Arten". According to the same writer, the sole is the only one of the four species which is also found on mixed bottom, while it is also said to be met with most frequently in well sheltered localities, bays etc. but with water of some salinity (> abt. 15 ‰).

From these differences in the biological conditions it is likely that relatively smaller quantities of turbot and brill would be captured, as these species live at depths somewhat less than those fished, and relatively smaller quantities also of the sole, as the fishing was carried out mostly on open coasts; as regards the sole, however, we shall later see that quite considerable quantities were taken on the open shore of the northern Kattegat.

The later spawning season in the case of these three species of course involves their attaining the bottom stage somewhat later than the plaice. The tables for catches made in the course of the coastal investigations are therefore based on the hauls made in August, September and October.

The separation of the 0-Gr. and I-Gr. one from another, and of both from the II-Gr. and older stages has been mainly effected by the measurement system. This necessarily involves some uncertainty in the case of the largest soles (15—20 cm) here included as belonging to the I-Gr. (cf. E. МОНН 1918).

The numbers of these species found might appear rather small, but on comparing the yield of the fishery for them with the yield in weight of the plaice fishery (see Statistical tables of the Fishery) it will be found that the quantity of 0-Gr. taken is just about the order of magnitude which we should expect.

II. The Turbot (*Rhombus maximus*).

The frequency of turbot young in the different areas is shown in Fig. 3, the average catches for the different areas being here worked out as in the case of the 0-Gr. and I-Gr. plaice.

With the turbot also we find that its 0-Gr. occurs most frequently in the Skagerrak, with an average of 2.86 specimens per hour for 9 years; then comes the northern Kattegat with 0.83 (11 years), and then the southern Kattegat with 0.61 (10 years), and finally the Belt Sea with 0.26 specimens (9 years). In considering this last figure, it should be borne in mind that the Belt Sea has a relatively large extent of coast, and consequent slighter density of young fish. In the Baltic proper, investigations have only been carried out for 2 years, with a very small number of stations, during the three months already noted; the material is therefore not sufficient to afford an average value comparable with those for the other waters.

As regards the average percentage relations between the catches of 0-Gr. and I-Gr. we have not here, as with the plaice, any regularity apparent, the percentages for the 4 waters, Skagerrak, Northern Kattegat, Southern Kattegat and Belt Sea amounting to 67.8, 24.1, 16.3 and 19.2 respectively; in any case, we can hardly draw any conclusions as to horizontal migrations, more especially as the age determination of the I-Gr. by other methods might perhaps alter the figures.

The annual fluctuations of the 0-Gr. are, as shown in Table 5, quite considerable in all areas.

In the Skagerrak, as the table shows, the years 1905, 1910 and 1912 must probably have been exceptionally favourable years, while 1921 and 1924 were rather above the normal; 1906, 1909, 1911 and 1922 on the other hand must be described as bad years for the young generation.

In the Northern Kattegat, we find 1910 with a pronounced maximum in the number of young fish, whereas 1924 and 1906 are but little above the normal: in 1909, 1911, 1912 and 1913, only small quantities were taken, and in 1907, 1920 and 1921, no young fish were caught at all, though fishing was carried out in these years at 9, 16 and 18 localities respectively.

In the Southern Kattegat, 1905 shows the greatest number taken, and 1906 comes next, being

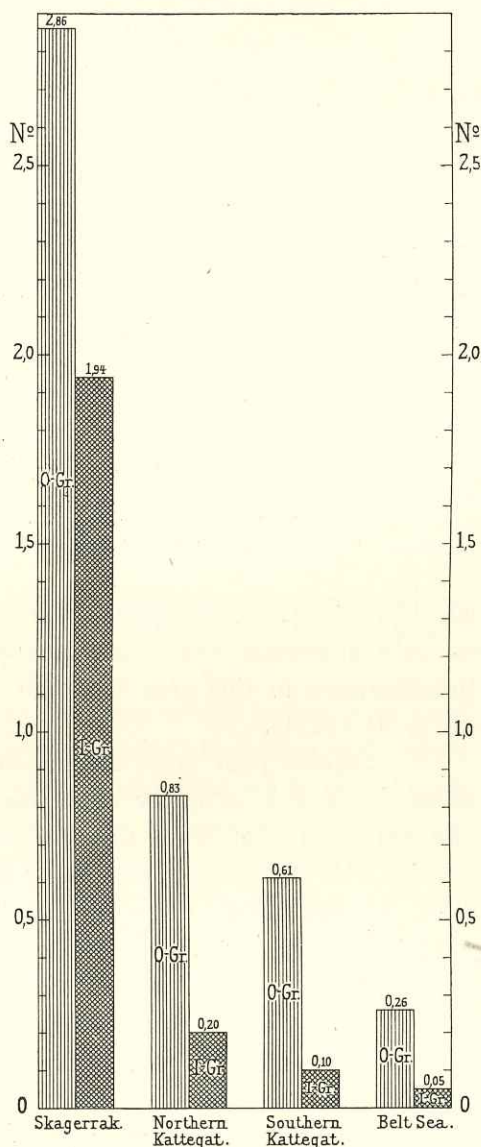


Fig. 3. Average catch per hour of 0-Gr. and I-Gr. turbot in different Danish waters.

Table 5. Average numbers of 0-gr. and 1-gr. Turbot per fishing hour in different Danish waters throughout some years.

Year	Skagerrak			Northern Kattegat			Southern Kattegat			Belt Sea			Baltic		
	Number of			Number of			Number of			Number of			Number of		
	0-gr.	1-gr.	Stations	0-gr.	1-gr.	Stations	0-gr.	1-gr.	Stations	0-gr.	1-gr.	Stations	0-gr.	1-gr.	Stations
1905.....	4.84	0.07	22	0.21	0.00	21	3.10	0.00	6	..	..	0	..	..	0
1906.....	0.90	7.80	5	1.03	0.32	19	2.65	0.81	13	1.13	0.38	4	..	..	0
1907.....	..	..	0	0.00	0.22	9	0.00	0.00	1	..	..	0	0.00	0.20	2
1909.....	0.44	1.44	9	0.06	0.06	16	0.00	0.07	27	0.00	0.00	5	..	..	0
1910.....	6.50	0.00	2	5.77	0.15	13	0.27	0.00	26	..	..	0	..	..	0
1911.....	0.95	5.10	20	0.13	1.31	16	0.07	0.07	29	0.46	0.05	39	6.20	0.20	5
1912.....	4.36	1.95	22	0.33	0.17	18	0.00	0.00	25	0.32	0.01	50	..	..	0
1913.....	..	..	0	0.11	0.00	9	..	..	0	0.00	0.00	2	..	..	0
1914.....	..	..	0	..	..	0	..	..	0	0.00	0.00	5	..	..	0
1920.....	..	..	0	0.00	0.00	16	..	..	0	..	..	0	..	..	0
1921.....	3.50	1.13	16	0.00	0.00	18	0.00	0.00	31	0.00	0.00	39	..	..	0
1922.....	1.07	0.00	15	..	..	0	0.00	0.00	9	..	..	0	..	..	0
1924.....	3.20	0.00	5	1.45	0.00	22	0.00	0.00	13	..	..	0	..	..	0
1925.....	..	..	0	..	..	0	..	..	0	0.44	0.00	32	..	..	0
1926.....	..	..	0	..	..	0	..	..	0	0.00	0.00	29	..	..	0
Average.....	2.86	1.94	9 Years	0.83	0.20	11 Years	0.61	0.10	10 Years	0.26	0.05	9 Years	..	..	2 Years

considerably above the normal: in contrast to what we find in the Northern Kattegat, we have here 1910 as only a normal year; 1911 showed but a poor yield, while no fewer than 6 of the 10 years of our investigations in this area have no young fish whatever to show, though the localities fished numbered up to 31 (1921).

Similar poor years are encountered in the Belt Sea where 5 of the years have no yield whatever to show, though as many as 39 localities were fished. 1906 has the maximum, then come 1911, 1925 and 1912, with catches a little above the normal.

The Baltic proper has only been investigated in two years; the catch of 6.2 spec. per hour 0-Gr. in 1911 shows however that there can, at any rate in some years, be as great an abundance of young fish here as in the other waters.

Both in the northern and southern Kattegat, the Belt Sea and the Baltic then, we find, in contrast to the Skagerrak, not a few years with no young turbot caught at all. This might seem to suggest that the turbot does not by any means always find conditions here sufficiently favourable for spawning, or at any rate, not favourable enough for any young produced to survive as far as the bottom stage.

As in the case of the plaice, so also with the turbot, the numbers of young fish in one and the same year may differ extremely in relation to the normal in the different areas; 1906 for instance, was below or about the average in the Skagerrak and northern Kattegat respectively, but above the average in the southern Kattegat and Belt Sea. Precisely the opposite is found in 1924, where it is the Skagerrak and northern Kattegat which show a yield of 0-Gr. turbot above the normal, whereas the southern Kattegat was extremely poorly stocked.

III. The Brill (*Rhombus laevis*).

The frequency of the 0-Gr. of this species in the different areas shows a distribution altogether different from that of the plaice and turbot (Fig. 4).

Both plaice and turbot showed a pronounced decrease in frequency from the coasts of the Skagerrak in towards the inner waters,

The brill on the other hand presents an entirely different aspect: the average yield of 0-Gr. fish per hour in the Skagerrak is only 0.68 specimens, whereas in the northern Kattegat it attains the relatively high value of 3.48, the figures for the southern Kattegat being 1.21 and for the Belt Sea 0.58. There is thus a conspicuous maximum in the northern Kattegat, but even the southern portion shows a higher yield than the Skagerrak.

This distribution agrees well with an observation made by A. C. JOHANSEN (1915 p. 41) to the effect that the fishery in the North Sea and Skagerrak gives greater quantities by weight of turbot than of brill, whereas in the Kattegat on the other hand, there are more brill than turbot caught. Numerically, the Fishery Statistics show that in the Skagerrak, the average yield is 0.72 tons of turbot and 0.41 of brill per 100 square nautical miles¹⁾ whereas in the Kattegat, the average is 0.55 tons of turbot and 1.23 of brill per 100 sq. naut. miles. A. C. JOHANSEN'S explanation of this is, that the brill is a fish whose main area of distribution lies south of the Danish waters, and consequently, it prefers the great low-watered parts of the Kattegat, which is comparatively warmer than the North Sea and Skagerrak on the one hand, and the Belt Sea and the Baltic on the other.

Fig. 4 shows, as plainly as could be wished, that it finds here also the most favourable conditions for development of the young.

The annual fluctuations in the number of young fish are, as in the case of the turbot, very considerable (Table 6); here also we have years in which no young fish were captured alternating with others

in which considerable quantities were caught. But while the Skagerrak is, as regards the turbot, the water in which it appears to spawn most regularly, the northern Kattegat is, in agreement with the foregoing, the area in which the brill spawns most regularly, only one of the 11 years concerned having no yield to show.

In the Skagerrak, fair quantities were only taken in 1911 and 1912, whereas 1905, 1924, 1906, 1921 and 1909 show yields ranging from a little above the average to a little below; in 1910 (when however, only two stations were taken) and 1922, no brill of the 0-Gr. were taken at all.

All the largest catches of young brill were made in the northern Kattegat; the years 1911 and 1924 were especially rich, showing figures approaching those for the 0-Gr. plaice in its poorer years in these waters; the years 1912, 1910 and 1913 also yielded quite good numbers, albeit a little below the average: 1906, 1920, 1921, 1905 and 1909 have only small catches to show, and finally, in 1907 none were caught at all.

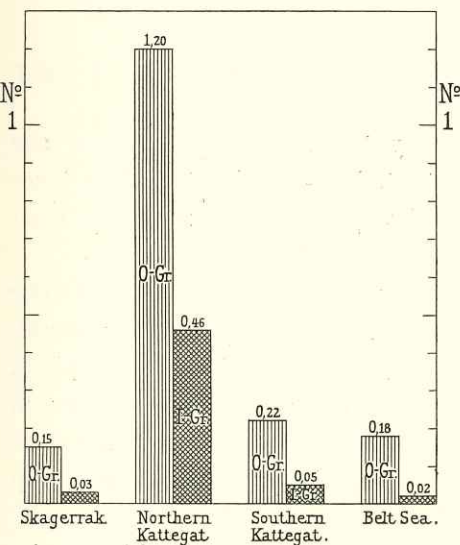


Fig. 5. Average catch per hour of 0-gr. and 1-gr. sole in different Danish waters.

In the southern Kattegat, 1911 again appears as a record year, then comes 1905, which must likewise be called good; 1924 and 1906 were about the average, and 1912 and 1910 rather below; no fewer than 4 out of ten years had no yield whatever to show, these being 1907 (only one station fished) 1909, 1921 and 1922.

¹⁾ See tables 9 and 10 for yield of the fishery.

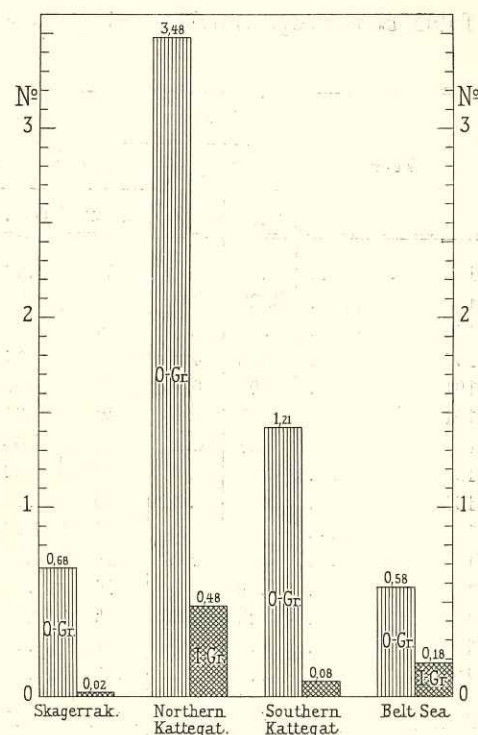


Fig. 4. Average catch per hour of 0-gr. and 1-gr. brill in different Danish waters.

Table 6. Average numbers of 0-gr. and 1-gr. Brill per fishing hour in different Danish waters throughout some years.

Year	Skagerrak			Northern Kattegat			Southern Kattegat			Belt Sea			Baltic		
	Number of			Number of			Number of			Number of			Number of		
	0-gr.	1-gr.	Stations	0-gr.	1-gr.	Stations	0-gr.	1-gr.	Stations	0-gr.	1-gr.	Stations	0-gr.	1-gr.	Stations
1905.....	0.89	0.00	22	0.43	0.00	21	3.50	0.00	6	..	..	0	..	..	0
1906.....	0.30	0.00	5	1.26	0.00	19	1.15	0.00	13	0.00	0.38	4	..	..	0
1907.....	..	..	0	0.00	1.44	9	0.00	0.00	1	..	..	0	0.00	0.00	2
1909.....	0.22	0.00	9	0.19	0.00	16	0.00	0.30	27	0.00	0.40	5	..	..	0
1910.....	0.00	0.00	2	2.77	0.08	13	0.23	0.15	26	..	..	0	..	..	0
1911.....	1.75	0.20	20	13.81	0.81	16	5.34	0.31	29	1.69	0.49	39	1.20	0.00	5
1912.....	2.27	0.00	22	3.00	0.17	18	0.60	0.00	25	0.64	0.28	50	..	..	0
1913.....	..	..	0	2.89	0.00	9	..	..	0	2.00	0.00	2	..	..	0
1914.....	..	..	0	..	..	0	..	..	0	0.40	0.00	5	..	..	0
1920.....	..	..	0	1.25	1.13	16	..	..	0	..	..	0	..	..	0
1921.....	0.25	0.00	16	0.33	1.67	18	0.00	0.06	31	0.00	0.10	39	..	..	0
1922.....	0.00	0.00	15	..	..	0	0.00	0.00	9	..	..	0	..	..	0
1924.....	0.40	0.00	5	12.32	0.00	22	1.23	0.00	13	..	..	0	..	..	0
1925.....	..	..	0	..	..	0	..	..	0	0.44	0.00	32	..	..	0
1926.....	..	..	0	..	..	0	..	..	0	0.07	0.00	29	..	..	0
Average.....	0.68	0.02	9 Years	3.48	0.48	11 Years	1.21	0.08	10 Years	0.58	0.18	9 Years	..	..	2 Years

As in the case of the Kattegat, 1911 was also the most favourable year for the Belt Sea; true, 1913 has a somewhat higher figure for the numbers taken, but only 2 localities were fished during that year. For the rest, the years 1912, 1925 and 1914 are close to the average for the 9 years concerned, 1926 showing but a poor yield and 1906, 1909 and 1921 none at all.

As in the case of the turbot, figures for the year 1911 show that the brill also can, in certain years, show a large 0-Gr. on the coasts of the Baltic proper.

IV. The Sole (*Solea vulgaris*).

Despite the fact that the sole, as already noted, is perhaps hardly the best represented of our four flatfishes in the localities fished, examination of the material shows that, just as with the other three species, the varying yield must be regarded as indicating fluctuations in the quantity of young fish from place to place and from year to year.

The average number of 0-Gr. fish per fishing unit in the different waters presents a similar view of the distribution to that noted in the case of the brill; in reckoning out the averages for the Skagerrak however, the disproportionate catch of 12.0 specimens in 1910 has been disregarded, as in the first place, only two stations were fished, and, more important still as a reason for exclusion, the two stations in question lie right up near Skagen on the boundary between the Skagerrak and the Kattegat, where experience has shown that the quantities of sole taken are the same as in the Kattegat (see survey map in A. C. JOHANSEN 1915 p. 43).

The distribution of the 0-Gr. then appears as follows: in the Skagerrak the average yield is 0.15, whereas in the northern Kattegat we have 1.20 and in the southern Kattegat 0.22, the Belt Sea having 0.18 (see fig. 5).

There can hardly be any doubt but that the cause of this distribution is the same as in the case of the brill.

The sole, like the brill, is a fish whose main area of distribution lies farther south than the Danish waters; it is not unnatural then, that the relatively warm water of the western parts of the Kattegat

gat should appear to offer the most favourable conditions for spawning and survival of the young among the areas here in question. The northern Kattegat is also the water where the 0-Gr. sole were taken most regularly; nevertheless, in three of the 11 years here considered, none were taken, though fishing was carried out at 21, 9 and 18 localities respectively, in 1905, 1907 and 1921.

In the Baltic proper, 0-Gr. and 1-Gr. soles have never been taken with the Young Plaice trawl, and are, indeed only known to have been captured there at all on two occasions, viz. in 1925 by H. BLEGVAD (1926 p. 15) at Stevns, (1 spec.) and off Møen (2 spec.).

The numbers of the 0-Gr. sole fluctuate, like those of the other species, considerably from year to year (Table 7).

In the Skagerrak, the quantity of young fish is always small, and the slight captures made are derived mainly from the northernmost part of the Skagerrak coast, between Spirbakken and Grenen, i. e. as above noted, on the boundary of the northern Kattegat.

In the Northern Kattegat there were considerable numbers of young soles in 1906, 1910 and 1920, whereas 1913 and 1924 were poor years; the yield varied from 5.92 per hour down to none at all, as in the years 1905, 1907 and 1912, with an average of 1.20 for the 11 years; the years 1909, 1911 and 1912 showed catches close about this average.

In the southern Kattegat, the years 1910, 1911 and 1922 showed the highest figures, while in 1905, 1907, 1921 and 1924 no captures whatever were made; 1906, 1909 and 1912 fall somewhat below the average, 0.22.

Among the flatfishes here considered, the sole is, after the plaice, the one whose age and growth are best known.

The investigations of E. MOHR (1918) have shown that among the soles caught in the Kattegat and brought in to Hamburg, the greatest numbers belong to the V-Gr. and VI-Gr; there is a slight difference in the growth of males and females, the males being as a rule somewhat smaller than females of the same age. The table (l. c. p. 24) shows however, that the great majority are V-Gr. fish.

Fig. 6 shows graphically the quantities of 0-Gr. taken in the course of the coastal investigations

Table 7. Average numbers of 0-gr. and 1-gr. Sole per fishing hour in different Danish waters throughout some years.

Year	Skagerrak			Northern Kattegat			Southern Kattegat			Belt Sea			Baltic		
	Number of			Number of			Number of			Number of			Number of		
	0-gr.	1-gr.	Stations	0-gr.	1-gr.	Stations	0-gr.	1-gr.	Stations	0-gr.	1-gr.	Stations	0-gr.	1-gr.	Stations
1905	0.68	0.00	22	0.00	0.00	21	0.00	0.00	6	..	..	0	..	..	0
1906	0.00	0.00	5	1.89	0.00	19	0.15	0.00	13	0.86	0.00	4	..	..	0
1907	..	..	0	0.00	0.11	9	0.00	0.00	1	..	..	0	0.00	0.00	2
1909	0.00	0.00	9	0.75	0.00	16	0.11	0.04	27	0.20	0.00	5	..	..	0
1910	12.00	0.00	2)	5.92	0.08	13	0.65	0.00	26	..	..	0	..	..	0
1911	0.05	0.25	20	1.19	2.13	16	0.31	0.28	29	0.54	0.10	39	0.00	0.00	5
1912	0.09	0.05	22	0.94	0.17	18	0.08	0.08	25	0.06	0.00	50	..	..	0
1913	..	..	0	0.11	1.44	9	..	..	0	0.00	0.00	2	..	..	0
1914	..	..	0	..	..	0	..	..	0	0.00	0.00	5	..	..	0
1920	..	..	0	2.13	0.50	16	..	..	0	..	..	0	..	..	0
1921	0.00	0.00	16	0.00	0.61	18	0.00	0.06	31	0.00	0.00	39	..	..	0
1922	0.40	0.00	15	..	..	0	0.89	0.00	9	..	..	0	..	..	0
1924	0.00	0.00	5	0.23	0.00	22	0.00	0.00	13	..	..	0	..	..	0
1925	..	..	0	..	..	0	..	..	0	0.00	0.06	32	..	..	0
1926	..	..	0	..	..	0	..	..	0	0.00	0.00	29	..	..	0
Average	0.15	0.03	8 (9) Years	1.20	0.46	11 Years	0.22	0.05	10 Years	0.18	0.02	9 Years	..	..	2 Years

from year to year, together with the yield in weight of the sole fishery; the two curves have been given, according to the results of MOHR's investigations, a phase dislocation of five years between them.

In view of the fact that, as age analyses have shown, the fishery is based on more

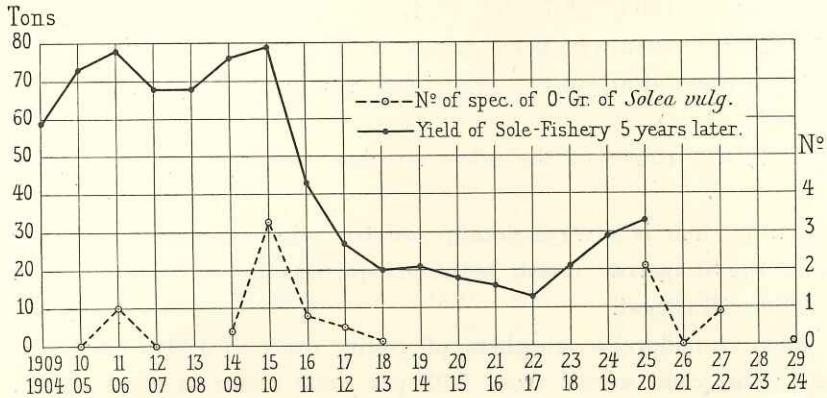


Fig. 6. Comparison between the annual catch per hour of 0-Gr. sole at the coast investigations and the yield of the sole-fishery 5 years later in the Kattegat. In the years 1913 and 1922 only the southern Kattegat has been investigated as to 0-Gr. sole, and in 1920 only the northern Kattegat.

than one year class, we could hardly expect to find better agreement than is here apparent in the fact that the three maxima in the number of young fish in 1906, 1910 and 1920 should be reproduced as three maxima in the curve for yield by weight, while the two curves rise and fall in the main parallel with each other. It is possible that there may have been an increase in the intensity of the fishery in the years since 1922, which might reduce the value of the relative maximum shown for 1925; this, however, will be seen from the yield by weight in the next few years.

Young soles are found but very sparsely in the Belt Sea, and only in certain years, which are few and far between. As in the Kattegat, 1905 and 1911 were particularly good years here.

Though the sole fishery in the Belt Sea is of but minimal importance, as the survey of the fishery shows (several years have no captures recorded at all) it would be well here to point out that the maximal yield of the sole fishery falls to the years 1910 and 1911, or 4—5 years after the good young-fish year 1906.

Table 8. Annual Yield of Danish plaice fishery; the areas have been calculated after A. C. Johansen & Neergaard-Møller (1912), and refer to depths from 0—80 m. (see the foot-note)

Year	Skager-rak	Kattegat with the Sound	Belt Sea	Baltic
1909	1094	2475	1044	59
1910	1044	2664	1467	61
1911	1309	2780	1900	58
1912	1244	2679	3494	28
1913	949	2573	2913	28
1914	673	3774	1614	28
1915	622	3397	1121	32
1916	451	2205	1073	42
1917	592	2222	1202	31
1918	303	2140	1354	33
1919	702	3330	2996	139
1920	759	2150	2380	179
1921	441	1999	2037	278
1922	662	2015	1904	322
1923	571	2022	1624	1006
1924	398	1858	1295	2009
1925	824	2187	1226	1639
Average for 1909—13 + 1921—25	853.6	2325.2	1890.4	548.7
Average per one square naut. mile	0.44	0.35	0.35	0.04

Table 10. Annual Yield of Danish brill fishery. The areas refer to the depths between 0 and 60 m.

Year	Skager-rak	Kattegat with the Sound	Belt Sea	Baltic
1909	3	80	0.50	0.03
1910	2	112	1.87	0.05
1911	3	109	6.43	0.20
1912	6	111	0.06	0.13
1913	6	112	3.29	0.10
1914	7	106	1.07	0.18
1915	8	133	1.09	0.25
1916	21	93	0.73	0.32
1917	24	48	0.10	0.00
1918	4	38	1.00	0.60
1919	17	61	3.07	0.00
1920	7	48	1.72	0.00
1921	4	47	2.08	1.40
1922	9	64	4.84	0.08
1923	10	52	6.36	0.70
1924	10	57	12.24	1.20
1925	13	45	15.39	1.35
Average for 1909—13 + 1921—25	6.6	78.9	5.30	0.52
Average per 100 square naut. miles	0.41	1.23	0.10	0.004

Table 9. Annual Yield of Danish turbot fishery. The areas refer to the depths between 0 and 60 m.

Year	Skager-rak	Kattegat with the Sound	Belt Sea	Baltic
1909	3	25	6	10
1910	9	40	4	7
1911	8	38	5	7
1912	6	42	3	9
1913	7	63	7	10
1914	8	53	7	13
1915	16	62	10	25
1916	12	29	6	29
1917	9	25	5	36
1918	10	17	6	30
1919	11	22	8	29
1920	9	17	11	33
1921	7	20	15	26
1922	13	23	21	20
1923	18	37	25	23
1924	22	33	21	22
1925	22	32	21	40
Average for 1909—13 + 1921—25	11.5	35.3	12.8	17.4
Average per 100 square naut. miles	0.72	0.55	0.23	0.13

Table 11. Annual Yield of Danish sole fishery. The areas refer to the depths between 0 and 80 m.

Year	Kattegat with the Sound	Belt Sea	Baltic
1909	59	0.23	0
1910	73	1.25	»
1911	78	0.31	»
1912	68	0.01	»
1913	68	0.13	»
1914	76	0.28	»
1915	79	0.08	»
1916	43	0.07	»
1917	27	0.00	»
1918	20	0.00	»
1919	21	0.23	»
1920	18	0.00	»
1921	16	0.05	»
1922	13	0.03	»
1923	21	0.00	»
1924	29	0.01	»
1925	33	0.00	»
Average for 1909—13 + 1921—25	45.8	0.18	»
Average per 100 square naut. miles	0.69	0.003	»

The areas in nautic square miles of the different Danish waters calculated after Johansen og Neergaard-Møller (1912).

Within the depth of:	Skagerrak	Kattegat (w. Sound)	Belt-Sea	Baltic
0—60 m	1600	6420	5560	12740
0—80 m	1950	6630	5560	15210

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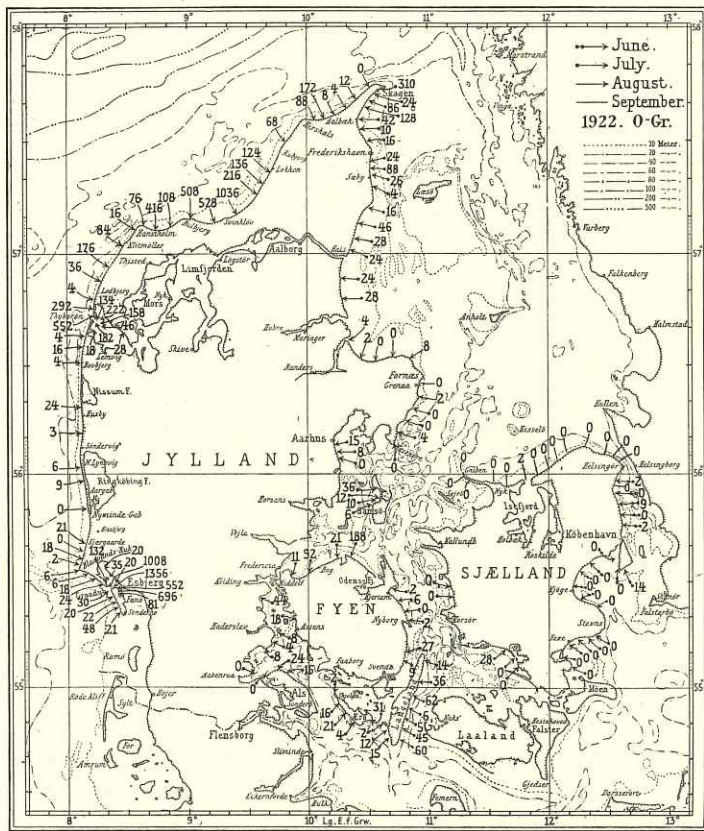


Chart 1. Distribution of 0-gr. plaice at the Danish coast 1922. Figures denote number caught per hour with Young Plaice trawl.

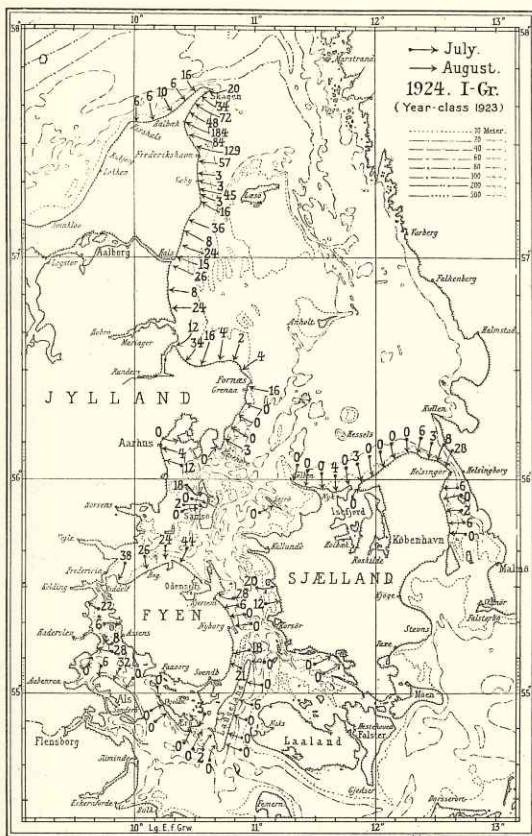


Chart 2. Distribution of 1-gr. plaice 1924, representing 0-gr. plaice from 1923. Figures as in Chart 1.

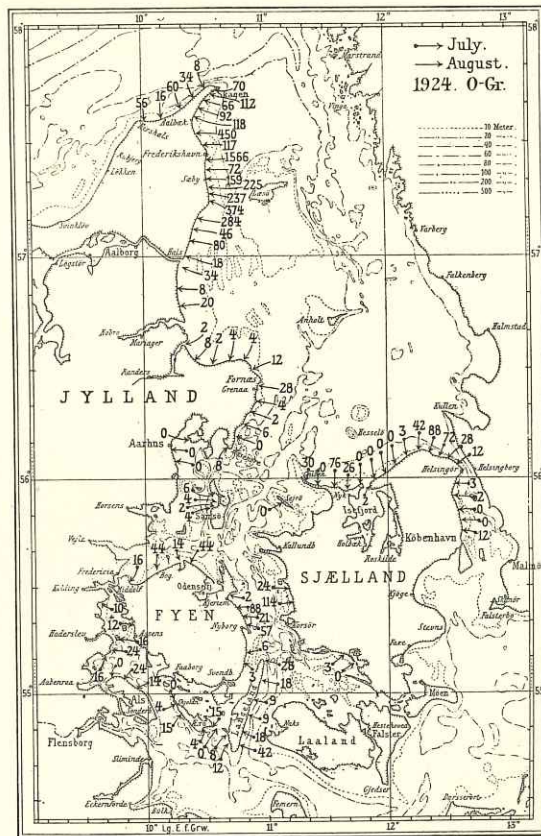


Chart 3. Distribution of 0-gr. plaice 1924. Figures as in Chart 1.

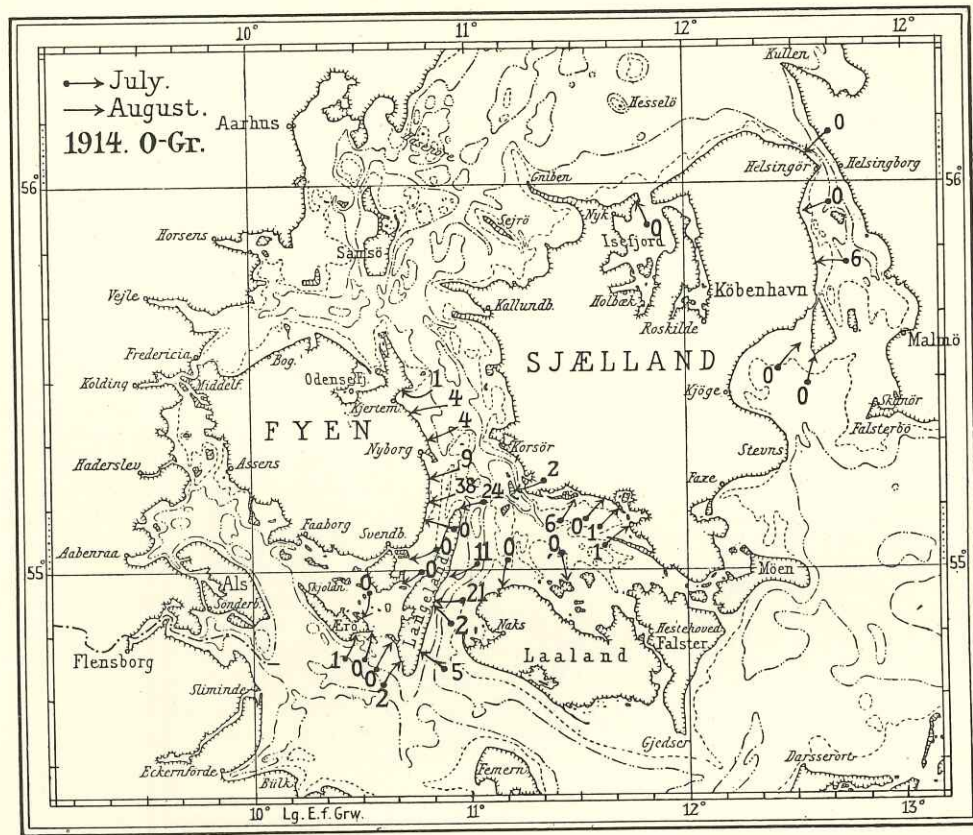


Chart 4. Distribution of 0-gr. plaice 1914. Figures as in Chart 1.



Chart 5. Distribution of 0-gr. plaice 1925. Figures as in Chart 1.

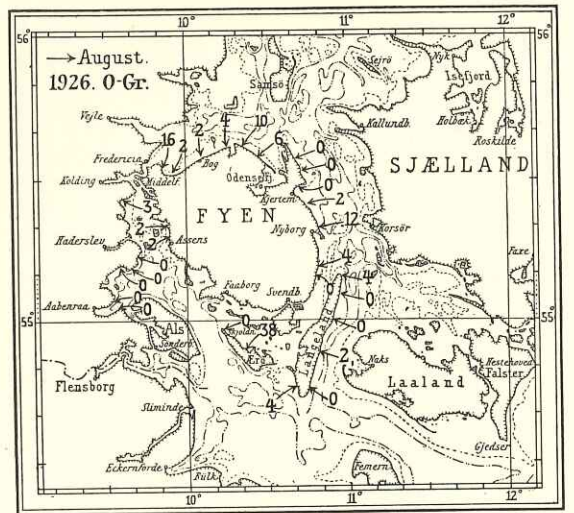


Chart 6. Distribution of 0-gr. plaice 1926. Figures as in Chart 1.

Station No.	Date	Locality	Central Position		Depth m	Duration of Fishing hours	Plaice <i>Pleuro- nectes platessa</i>		Turbot <i>Rhombus maximus</i>		Brill <i>Rhombus laevis</i>		Sole <i>Solea vulgaris</i>	
			N	E			0-gr	I-gr	0-gr	I-gr	0-gr	I-gr	0-gr	I-gr
2296	1920 July 17	N. Lyngvig	56°03'	8°09'	1—2	1/2	..	..	..	..	..	..	..	..
2297	" " "	S. Lyngvig	56°01'	8°08'	1—2	1/2	..	..	..	..	..	..	..	..
2298	" " "	Off Hvide Sande	56°00'	8°09'	4	1/2	..	..	..	..	..	..	..	..
2299	" " 19	Between Haurvig and Østerby bank	55°57'	8°14'	1—2	1/2	..	1	..	..	..	..	..	..
2300	" " "	W.N.W. of Stavning Point	55°58'	8°16'	1—2	1/2	..	..	..	..	..	..	..	..
2301	" " "	Ballehage Point	55°59'	8°11'	1—2	1/2	..	..	..	..	..	..	..	..
2302	" " 21	Centre of Northern deep	56°03'	8°12'	3—4	1/2	..	..	..	..	..	..	..	..
2303	" " "	Velling	56°03'	8°17'	1—2	1/2	..	..	..	..	..	..	..	..
2304	" " "	Halby	56°00'	8°16'	1—2	1/2	..	..	..	..	..	..	..	..
2305	" " "	Haurvig Point	55°56'	8°16'	1—2	1/2	..	..	..	..	..	..	..	..
2306	" " "	Tipperne	55°55'	8°14'	1,2	1/2	..	..	..	..	..	..	..	..
2307	" " "	N. Bjerregaard	55°54'	8°11'	1—2	1/2	22	..	..	..	..	..	..	..
2308	" " "	N. of Hans Lønnes Pold	55°51'	8°11'	1—2	1/2	3	1	..	..	..	..	..	..
2309	" " 22	Off the new Nymindégab	55°49'	8°11'	1—2	1/2	88	83	..	1	..	..	..	..
2310	" " 26	Between Hans Lønnes Pold and the Outlet	55°50'	8°11'	1—2,5	1/2	13	13	..	..	..	..	..	..
2311	" " "	Nymindégab	55°48'	8°10'	..	1/2	1	..	..	..	..	..	..	..
2312	" " "	At Blaabjerg	55°45'	8°10'	1,5—3	1/2	..	..	1	..	..	..	..	..
2313	" " 31	Off Oxbø	55°32'	8°08'	1—2,5	1/2	6	..	2	..	..	..	..	..
2314	" " "	Esperance Bay	55°31'	8°11'	1—2,5	1/2	3	..	..	..	..	..	..	..
2315	" " "	Søren Jessens Sand	55°27'	8°18'	1—2,5	1/2	9	1	..	..	..	..	..	..
2316	" Aug. 1	Off Fanø North Sea watering place	55°26'	8°21'	1—2,5	1/2	68	57	..	..	..	..	..	..
2317	" " "	Off the West Coast Fanø	55°24'	8°23'	1,5	1/2	125	48	..	..	..	..	..	..
2318	" " "	The West Coast of Fanø at Sønderho	55°21'	8°25'	1—2,5	1/2	50	27	9	..	3	..	1	..
2319	" " "	Off Sønderho	55°20'	8°23'	4	1/2	56	3	1	..	..	..	..	..
2320	" " "	N. of Fanø Vesterhavs Bad	55°25'	8°17'	5	1/2	24	5	..	..	..	..	..	..
2321	" " 2	Skallinghul	55°28'	8°18'	1—2	1/2	8	6	..	..	..	..	..	..
2322	" " "	N. of Fanø	55°29'	8°23'	1—2	1/2	13	16	..	..	..	..	1	..
2323	" " "	Off Ringebjerg	55°37'	8°07',5	1—2,5	1/2	48	5	..	..	..	..	..	..
2324	" " 4	Off Ringebjerg	55°37'	8°08'	..	1/2	147	18	6	1	4	..	..	..
2325	" " "	Off Børsrose	55°40'	8°08'	..	1/2	25	..	..	..	..	..	..	..
2326	" " "	Off Hennebjerg	55°45'	8°10'	..	1/4	2	..	..	..	..	..	..	..
2327	" " 9	Off Haurvig beacon	55°55'	8°09'	1,5—2,5	1/2	2	..	..	..	..	..	..	..
2328	" " "	Off Aargab beacon	55°59'	8°07'	1—3	1/2	14	..	..	..	..	..	..	..
2329	" " "	Off Klegod	56°05'	8°06'	1,5—2,5	1/2	8	..	..	..	..	..	..	..
2330	" " "	Off Husby Klit beacon	56°10',5	8°07'	1,5—3	1/2	..	..	..	..	..	..	..	..
2331	" " "	Between Vedersø beacon and Bjerg- huse beacon	56°17'	8°07'	1,5—3	1/2	..	1	..	..	..	..	..	..
2332	" " "	N. of Torsminde	56°23'	8°07'	1,5—2,5	1/2	..	..	1	..	..	..	..	..
2334	" " 10	Between Harboøre and Knopper ..	56°38'	8°09',5	1,5—2	1/2	17	..	..	..	..	..	..	..
2335	" " "	Off Tyborøn beacon	56°42'	8°12'	1,5—2,5	1/2	2	..	..	..	..	..	..	..
2336	" " "	Between Lodbjerg beacon and Agger	56°48'	8°14'	1,5—2,5	..	28	..	..	..	..	..	..	..
2337	" " "	Off Agger beacon	56°45'	8°13'	1—2	1/2	52	5	1	..	..	..	..	..
2338	" " "	Langholm Hage	56°42',5	8°14'	1—1,5	1/2	12	6	..	1	..	..	..	..
2339	" " "	Thyborøn	56°43'	8°19'	1—2	1/3	246	30	..	..	..	..	..	..
2340	" " 11	Off Rønland	56°39',5	8°14'	1—2	1/2	87	5	..	..	..	..	..	..
2341	" " "	Helligsø	56°41'	8°21'	1,5—2	1/2	136	13	..	..	..	..	..	..
2342	" " "	Off Kollerup	56°38',5	8°28'	1—1,5	1/2	8	2	..	..	..	..	..	..
2343	" " "	Off Nørballø	55°34'	8°16'	1,5—3	1/2	4	1	..	..	..	..	..	..
2344	" " 13	At Nordmandshage	56°59'	10°21'	1—2	1/2	53	24	..	..	..	..	4	..
2346	" " 14	Between Hov and Geraa	57°05'	10°24'	1—1,5	1/2	150	67	..	..	..	9	..	1
2347	" " "	Off Asaa	57°09'	10°26'	1—1,5	1/2	43	99	..	..	..	..	3	1
2348	" " "	Off Vorsaa	57°12'	10°30'	1—1,5	1/2	25	59	..	..	2	..	..	..
2349	" " "	Off Solsbæk	57°17'	10°33'	1—1,5	1/2	26	18	..	..	..	..	..	..
2350	" " "	Off Understed	57°22'	10°32'	1—3	1/2	15	3	..	2	..	4	1	..
2351	" " 15	Off Jerup	57°33'	10°27'	1—2	1/2	19	6	..	..	..	1	..	..
2352	" " "	Between Aalbæk and Bunken	57°35'	10°26'	1—1,5	1	43	8	..	..	7	..	..	..
2353	" " "	Off Hulsig	57°39'	10°29'	1—1,5	1/2	13	10	..	1	..	1	..	..
2354	" " "	Off the old Church, Skagen	57°42'	10°34'	1—2	1/2?	8	5	..	2	..	..	..	..
2355	" " 16	Off Korsholm	56°58'	10°21'	1—1,5	1/2?	25	5	..	..	..	2	..	..
2356	" " "	Off Muldbjergene to Kragelund ..	56°53'	10°17'	1—1,5	1/2	9	2	..	..	..	..	..	..
2357	" " "	Off Als (Kattegat)	56°43'	10°22'	1,2—2	1/2	..	2	..	..	..	..	..	..
2358	" " 17	Off Hevring	56°32',5	10°25'	1—2	1/2	69	..	..	..	..	..	2	..
2359	" " "	Off Fjellerup Flak	56°31'	10°36'	1—2	1/2	18	5	..	..	..	..	..	..
2360	" " "	Betw. Treaa Mill and Stavshoved	56°32'	10°44'	1—2	1/2	..	..	..	..	..	..	..	..
2375	1921 July 11	Off Velling Church	56°03'	8°14'	4	1/2	..	..	..	..	..	..	..	..
2376	" " 12	Haurvig point	55°56'	8°16'	1,5	1/4	..	..	..	..	..	..	..	..
2377	" " 13	Nymindégab, off Lodsberget	55°49'	8°11'	1,75—4	1/4?	..	39	..	..	..	..	..	..

Station No.	Date	Locality	Central Position		Depth m	Duration of Fishing hours	Plaice <i>Pleuro nectes Platessa</i>		Turbot <i>Rhombus maximus</i>		Brill <i>Rhombus laevis</i>		Sole <i>Solea vulgaris</i>	
			N	E			0-gr	I-gr	0-gr	I-gr	0-gr	I-gr	0-gr	I-gr
2378	1921 July 13	Kromandens Ogrøde	55°49',5	8°11'	1,75—4	1/4	52	3	..	..	..	..	..	..
2379	»	S. of Hans Lønnes Pold	55°50'	8°11'	1,25—5	1/4	..	12	..	..	..	..	..	..
2380	»	N. of Hans Lønnes Pold	55°51'	8°11'	1,5—3	1/4	..	54	..	..	..	..	..	1
2381	»	Off Bjerregaard	55°52',5	8°11'	1,5—3	1/4	..	48	..	..	..	..	..	3
2383	»	Nymandsbjerg	55°53'	8°12'	1,5—3	1/3	..	2	..	..	..	..	..	..
2384	»	Skernaa Depth, N. of Anholt	55°55'	8°14'	3—3,5	1/2	..	..	..	..	..	..	..	..
2385	»	Between Haurvig Huk and Skernaa	55°55'	8°19'	4	1/2	..	..	..	..	..	..	..	..
2386	»	W. of Stavning Point	55°58'	8°16'	1—2	1/2	..	..	..	..	..	..	..	..
2387	»	Betw. Stavning Point and Ballehage	55°58',5	8°14'	5—7	1/2	..	..	..	..	..	..	..	..
2388	»	S. of Ballehage	55°59'	8°12'	3	1/2	..	..	..	..	..	..	..	..
2400	»	Off Holmslands chapel	56°03'	8°10'	3	1/3	..	..	..	..	..	..	..	..
2401	»	Off S. Lyngvig	56°01'	8°09'	2	1/2	..	..	..	..	..	..	..	..
2402	»	Aargab beacon	56°00'	8°09'	2	1/2	..	..	..	..	..	..	..	..
2406	»	Between Anholt and Skygaarde	55°54'	8°19'	3,25	1/2	..	..	..	..	..	..	..	..
2407	»	Off N. Bork church	55°52'	8°17'	1,5	1/2	..	1	..	..	..	..	..	..
2422	»	Off Gjødelen	55°50'	8°11'	3	1/2	..	63	..	..	1	..	..	4
2423	»	Off Bjerregaard	55°52',5	8°11'	3	1/2	..	41	..	1	..	..	..	7
2439	»	The North Sea S. of the Nymindcurrent	55°48'	8°10',5	..	1/4	8	7	..	..	..	..	..	..
2444	»	North Sea 1 Sm. S. of Nymindgab	55°47',5	8°10'	5	1/2	11	3	..	..	..	..	..	2
2445	»	North Sea off Hannely	55°44'	8°10'	4—5	1/2	5	3	..	..	..	..	..	..
2446	»	S. of Kærgaard beacon	55°40',5	8°08'	3—4	1/2	4	12	4	1	..	..	..	..
2447	»	Off Ringbjerg beacon	55°37'	8°06'	3	1/2	6	9	..	1	..	..	..	1
2449	»	S. coast of Skallingen	55°27',5	8°18'	1—3	1/2	1	1	..	..	..	..	..	1
2450	»	Off the North coast, Fanø	55°29'	8°23'	1—2	1/2	58	69	..	1	..	..	..	1
2451	»	North of the ground Søren Jessen at Fanø	55°27',5	8°19'	1—1,5	1/2	47	40	..	..	..	..	..	..
2452	»	Depth Hjerting	55°32'	8°20'	1,5—4	1/2	..	10	..	..	..	..	..	1
2453	»	N.E. coast of Fanø	55°28'	8°24',5	1,5—3	1/3	4	20	..	..	..	..	..	..
2455	»	Between the ground Søren Jessen and Fanø	55°28'	8°20'	1—3	1/2	58	33	..	2	..	..	..	6
2456	»	Off the watering place, Fanø	55°26'	8°21'	1—1,75	1/2	48	61	1	..	..	..	..	2
2457	»	S. of the watering place, Fanø	55°24',5	8°23'	1—2	1/2	39	74	..	1	..	..	..	6
2458	»	Off Sønderho	55°21'	8°24',5	1—2	1/2	22	26	..	..	..	..	..	2
2460	»	S.W. Point of Skallingen	55°27'	8°18'	1—1,3	1/2	56	41	..	..	..	..	..	..
2461	»	Esperance Bay	55°31'	8°12'	1—1,5	1/2	56	31	..	..	..	..	..	1
2462	»	West coast of Skallingen, off Svenskknoldene	55°30'	8°15'	1—1,5	1/2	33	25	..	..	1	..	..	5
2463	»	S.W. of Oksby	55°31',5	8°10'	1—2	1/2	61	28	..	..	..	..	..	4
2464	»	W.S.W. of Nordby	55°27'	8°26'	1—2,5	1/2	58	49	..	..	..	..	..	4
2465	»	N. of the headland	55°27'	8°27'	1—1,3	1/2	34	24	..	..	..	..	..	..
2466	»	Off Nordby	55°27'	8°26'	1—2	1/2	66	74	..	..	1	..	..	5
2469	»	N. of Nymindgab	55°49'	8°10'	1,25—2	1/2	7	3	9	..	..	..	..	..
2470	»	Off Hvide Sande	56°00'	8°07'	1,25—2	1/2	11	1	4	..	..	..	..	..
2471	»	Off Haurvig beacon	55°55'	8°09'	1,5—2,5	1/2	12	..	..	..	..	..	..	..
2472	»	Off Torsminde	56°22'	8°07'	1,5—2,5	1/4	20	..	..	..	..	..	..	..
2473	»	Off Southend of Bovbjerg	56°30',5	8°07'	1,25—2	1/4	141	3	4	..	..	..	..	..
2474	»	1 Sm. S. of Harboøre	56°36',5	8°08'	1,5—2,5	1/4	8	2	..	..	..	..	..	..
2475	»	Off Knopper	56°40'	8°10'	1,5—2,5	1/2	11	3	1	..	..	..	..	..
2476	»	Off Thyborøn beacon	56°42'	8°12'	1,5—3	1/2	24	3	1	..	..	..	..	..
2477	»	Between Agger beacon and Agger	56°46'	8°13',5	1,5—3,5	..	26	3	1	..	..	..	..	..
2478	»	North Side of Thyborøn Channel	56°43'	8°14'	1,5—3	1/2	37	5	..	..	..	..	..	..
2479	»	At Thyborøn Channel	56°42'	8°14'	1—2	1/2	51	31	4	..	..	..	..	..
2480	»	Off Lodbjerg	56°50'	8°15'	1,5—3	..	..	..	..	..	..	..	..	..
2481	»	Off Lyngby	56°53'	8°17'	2—3	1/2	14	1	..	..	..	..	..	..
2482	»	S. of Vorupør	56°57',5	8°22'	1,25—2	1/2	373	3	9	..	..	..	..	..
2483	»	Between Vorupør and Klitmøller	57°00'	8°30'	1,25—2	1/2	286	7	4	..	..	..	..	..
2484	»	Between Klitmøller and Hanstholm	57°05'	8°33'	3—3,5	1/4	7	..	..	..	..	..	..	..
2485	»	E. of Hanstholm	57°07'	8°40'	1,5—2,5	1/4	10	1	..	..	..	..	..	..
2486	»	Vikso Bay (in the middle)	57°06',5	8°45'	2—4	1/2	20	9	3	..	..	..	..	..
2487	»	W. of Lildstrand	57°08',5	8°56'	1,5—2	1/2	60	1	..	..	..	..	..	..
2488	»	Between Bulbjerg and Sandnæshage	57°09',5	9°01'	1,25—2,5	1/2	142	..	1	..	..	..	..	..
2489	»	Off Torupstrand	57°09'	9°08'	1,25—2,5	1/2	120	29	..	..	..	..	..	..
2490	»	Off Slettestrand	57°09',5	9°23'	1,5—2	1/2	61	28	2	..	..	..	..	..
2491	»	Betw. Slettestrand and Blokhuse	57°12'	9°30'	1,25—2	1/2	6	..	..	..	..	..	..	..

Station No.	Date	Locality	Central Position		Depth m	Duration of Fishing hours	Plaice <i>Pleuro- nectes platessa</i>		Turbot <i>Rhombus maximus</i>		Brill <i>Rhombus laevis</i>		Sole <i>Solea vulgaris</i>	
			N	E			0-gr	I-gr	0-gr	I-gr	0-gr	I-gr	0-gr	I-gr
2492	1921 Aug 23	Off Blokhuse.....	57°15'	9°35'	1,25—2	1/2	25	6	2	..	..	..	..
2493	» » »	Off the beacon E. of Blokhuse ...	57°16'	9°35'	1,25—2	1/2	60	7	..	..	..	..	..
2494	» » »	Off Løkken	57°23'	9°43'	1,25—2	1/4	101	18	4	1	..	..	..
2496	» » 24	Betw. Rubjerg Knude and Hirshals	57°31'	9°51'	1—1,5	1/2	74	14	2	..	..	..	..
2497	» » »	E. of Hirshals	57°36'	10°00'	1—1,5	1/2	167	9	3	1	1	..	..
2498	» » »	Off Tversted	57°36'	10°11'	1,25—2	1/2	267	2	3	4	..	..	..
2499	» » »	Off Kandestederne	57°39'	10°21'	1,25—2	1/2	50	3	..	..	..	..	..
2500	» » »	Off Spirbakken	57°42'	10°26'	1—2	1/2	37	1	1	2	..	..	..
2501	» » »	Off Højen	57°45'	10°33'	1,5—2	1/2	24	1	1	..	1	..	..
2502	» » 25	N.E. of Skagen Harbour	57°43'	10°36'	1,5—3	1/2	57	37	..	..	..	..	..
2503	» » 26	Off Skagen old Church	57°42'	10°34'	1—1,5	1/3	105	39	..	..	..	..	..
2504	» » »	Off Hulsig	57°39'	10°29'	1,3—2	1/3	76	52	..	..	..	..	..
2505	» » »	Off Bunken	57°37'	10°27'	1,5—2	1/2	118	31	..	..	..	..	1
2506	» » »	Off Aalbæk	57°36'	10°26'	1,5—2	1/3	62	22	..	..	1	..	..
2507	» » »	Off Jerup	57°32',5	10°27'	1,25—2	1/3	78	21	..	..	..	..	..
2508	» » »	Off Strandby	57°30'	10°30'	1,5	1/3	16	25	..	..	..	..	..
2509	» » 28	S. of Harbour Frederikshavn, Bangsbo	57°26'	10°32'	1,5—3	1/3	9	16	..	..	..	..	..
2510	» » »	Off Understed	57°22'	10°32'	1—2	1/3	22	3	..	..	..	..	..
2511	» » »	Off the wood, Sæbygaard	57°21'	10°32'	1—2	1/2	27	1	..	..	..	..	..
2512	» » »	Off Stensnæs Point	57°13'	10°33'	1,5—3	1/2	101	24	..	..	..	..	..
2513	» » »	Off Vorsaa	57°12'	10°30'	1—1,75	1/3	222	42	..	..	1	..	1
2514	» » »	S. of Harbour Asaa	57°08',5	10°26'	1—1,5	1/3	58	24	..	..	..	2	..
2515	» » 29	Off Hov	57°03'	10°23'	1,5	1/3	20	35	..	..	..	2	..
2516	» » 30	N. of the entrance to Hals	56°58',5	10°21'	1—1,5	1	210	108	..	..	..	3	..
2517	» » »	S. of the entrance to Hals	56°58'	10°21'	1—2	1/6	15	31	..	..	..	..	..
2518	» » »	S. of Muldbjergene	56°52',5	10°17'	1—1,5	1/3	148	55	..	..	..	5	..
2519	» » »	Near Hurup	56°48'	10°17'	1—1,5	1/3	46	35	..	..	..	..	1
2520	1921 Sept. 1	Off Udbyhøj cliffs	56°35',5	10°21',5	1—1,5	1/2	1	3	..	..	..	..	..
2521	» » »	Off Hevringsholm	56°31',5	10°27'	1—1,5	1/3	..	1	..	..	..	..	..
2522	» » »	Off Fjellerup	56°31',5	10°37'	1—1,5	1/2	5	12	..	..	..	..	..
2523	» » »	Off Treaa Mill	56°32'	10°42'	1—1,5	1/2	1	11	..	..	..	1	..
2524	» » »	N.E. of Knudshoved	56°32'	10°50',5	1—1,5	1/2	5	2	..	..	..	..	..
2526	» » 3	S. of Grenaa Harbour	56°24',5	10°55',5	1—1,5	1/2	..	7	..	..	..	..	..
2527	» » »	Off Katholm	56°22'	10°55'	1—2	1/2	..	1	..	..	..	..	..
2528	» » »	S. of Hoed	56°18'	10°52'	3—4	1/6	1	..	..	..	..	..	..
2529	» » »	S. of Jernhatten	56°13',5	10°45'	1,5—2	1/3	..	..	..	..	..	..	..
2530	» » »	Off Draaby	56°13'	10°45'	1—2	1/3	2	..	..	..	..	..	..
2531	» » »	W.-Side Hasenøre	56°08'	10°42'	1,5—2	1/2	..	..	..	..	..	..	..
2532	» » 5	S. of Maarup, Samsø	55°56'	10°34'	1—2	1/3	3	1	..	..	..	..	..
2533	» » »	Sælvig, Samsø	55°52'	10°35'	1—2	1/3	1	..	..	..	..	..	..
2534	» » »	W. of Onsbjerg	55°51'	10°31',5	1—2	1/3	1	..	..	..	..	..	..
2535	» » 6	E. of Ljushage	55°46'	10°38'	1,5—3	1/3	..	..	..	..	..	..	..
2536	» » »	Near Fyns Hoved	55°37'	10°36'	1—2	1/3	1	..	..	..	..	1	..
2537	» » »	Off Einsiedelsborg, Fyn	55°36',5	10°22'	1,25—2	1/2	6	4	..	..	..	..	..
2538	» » »	W. of Agernæs	55°38'	10°18'	1,5—3	1/3	1	7	..	..	..	..	..
2539	» » 7	W. of Bogense	55°33'	10°02'	1—1,5	1/3	1	6	..	..	..	..	..
2540	» » »	S.W. corner of Baaring Vig	55°31'	9°52'	1—1,5	1/2	16	11	..	..	..	..	..
2541	» » 8	Mosvig, at the Bridge	55°25'	9°36'	1—3,5	1/3	1	6	..	..	..	..	..
2542	» » »	W. of Brandsø	55°21'	9°41'	1,5—2	1/4	..	..	..	..	..	..	..
2543	» » »	N.W. of Bogø	55°20'	9°47'	3—5	1/6	..	2	..	..	..	..	..
2544	» » »	N. of Assens	55°19'	9°53'	1,5—2,5	1/2	1	2	..	..	..	..	..
2545	» » 9	W. of Aarø Kalv	55°16'	9°46'	1—1,5	1/3	12	2	..	..	..	..	..
2546	» » »	E. of Halk, Slesvig	55°12'	9°42'	4	1/3	1	2	..	..	..	..	..
2547	» » »	S. of Halk	55°10'	9°38'	1,5—2	1	37	16	..	..	..	..	..
2548	» » »	Off Spramhuse	55°04'	9°32',5	1—1,5	1/3	..	2	..	..	..	..	..
2549	» » 10	W. of Nørrelykke	55°04'	9°40'	1—1,5	1/2	2	1	..	..	..	..	..
2550	» » »	Trane sand, N. of Als	55°05'	9°45'	1,5—2	1 1/2	18	7	..	..	..	1	..
2551	» » »	At Tranerodde Lighthouse	55°03'	9°51'	1—2	1/3	..	..	..	..	..	..	..
2552	» » 14	Northern point of Ærø	54°58'	10°13'	1,5—3	1/3	..	..	..	..	..	..	..
2553	» » »	N.E. of Vejsnæs	54°50'	10°27'	1,5—2,5	1/2	..	..	..	..	..	..	..
2554	» » »	At Ærø Hale, Marstal	54°50',5	10°32',5	1,25—2	1/3	..	4	..	..	..	..	..
2555	» » »	E. of Marstal	54°51'	10°35'	1,5—2	1/2	..	3	..	..	..	..	..
2556	» » 17	Off Hjortholm wood	54°49',5	10°47'	2—3	1/2	..	..	..	..	..	..	..
2557	» » »	S. end of Nebbe Revler	54°54'	10°50'	2	1/2	1	3	..	..	..	..	..
2558	» » »	S. of Spodsbjerg	54°55'	10°50'	1,5—2	1/2	1	1	..	..	..	..	..
2559	» » »	N. of Tranekjær Lighthouse	55°00'	10°54'	2—3	1/2	1	..	..	..	..	..	..

Station No.	Date	Locality	Central Position		Depth m	Duration of Fishing hours	Plaice <i>Pleuro- nectes platessa</i>		Turbot <i>Rhombus maximus</i>		Brill <i>Rhombus laevis</i>		Sole <i>Solea vulgaris</i>	
			N	E			0-gr	I-gr	0-gr	I-gr	0-gr	I-gr	0-gr	I-gr
2560	1921 Sept. 17	S. of Botofte Lighthouse.....	54°59'	10°53'	1—2	⁷ / ₆₀	..	..	..	..	..	..	..	..
2561	» » 18	S. of Lundeborg, Fyn	55°08'	10°47'	1—1,5	¹ / ₂	6	2	..	..	..	..	..	..
2562	» » »	Off Klintholm	55°11'	10°49'	1,5	¹ / ₆	..	3	..	..	..	..	..	..
2563	» » »	Musholms Bay, off Kongsmark ...	55°26'	11°12'	1—1,5	¹ / ₂	..	4	..	..	..	..	..	..
2564	» » »	Musholms Bay, S. of Bildsø wood.	55°27'	11°12'	c. 1,5	¹ / ₂	..	1	..	..	..	..	..	..
2565	» » 19	Kerteminde Bay	55°27'	10°40'	1—2	¹ / ₂	..	4	..	..	..	..	..	..
2566	» » »	N.E. of Kerteminde Harbour.....	55°28'	10°41'	1,5—3	..	1	1	..	..	..	..	..	..
2567	» » »	Off Dalby, Hindsholm	55°31',5	10°43'	1—2	¹ / ₃	1	9	..	..	..	..	..	..
2568	» » 20	W. of Sejro Harbour	55°53',5	11°07',5	1—2	¹ / ₂	..	..	..	..	..	..	..	..
2569	» » »	S. of Sejro Lighthouse	55°55'	11°05'	1—1,5	¹ / ₃	..	..	..	..	..	..	..	..
2570	» » »	N.-Side of Sjællands Odde	55°59'	11°19'	1—2	¹ / ₃	1	1	..	..	..	..	..	..
2571	» » »	E. of Yderby Harbour	55°58'	11°24'	1,5—2,5	¹ / ₂	..	..	..	..	..	..	..	..
2572	» » »	W. of Klintebjerg	55°57'	11°32'	1—3	¹ / ₃	1	..	..	..	..	..	..	..
2573	» » »	N.W. of Nykjøbing, S.	55°56'	11°39'	1,5—2	¹ / ₄	..	..	..	..	..	..	..	..
2574	» » »	W. of Korshage	55°59'	11°47'	1—2	¹ / ₂	..	2	..	..	..	..	..	..
2575	» » 21	W. of Lynæs	55°56'	11°50',5	2—3	¹ / ₂	..	..	..	..	..	..	..	..
2576	» » »	Off Kikhavn	55°59'	11°52'	1—2	¹ / ₂	..	1	..	..	..	..	..	..
2577	» » »	Off Liseleje	56°01'	11°58'	1—2	¹ / ₂	..	..	..	..	..	..	..	..
2578	» » »	Off Tisvilde Hegn	56°03'	12°03'	1—2	¹ / ₂	..	..	..	..	..	..	..	..
2579	» » »	Off Raageleje	56°06'	12°10'	1,5—2	¹ / ₂	..	..	..	..	..	..	..	..
2580	» » 22	E. of Gilleleje Harbour	56°07',5	12°19'	1,5—2,5	¹ / ₃	..	..	..	..	..	..	..	..
2581	» » »	Off Hulerød	56°06'	12°23'	1,5	¹ / ₄	..	..	..	..	..	..	..	..
2582	» » »	Off Hulerød	56°06'	12°23'	3—4	¹ / ₄	..	..	..	..	..	..	..	..
2583	» » »	W. of Hornbæk	56°05',5	12°27',5	2—3	¹ / ₃	..	..	..	..	..	..	..	..
2584	» » »	Off Aalsgaarde	56°04',5	12°33',5	2—3	¹ / ₃	..	..	..	..	..	..	..	..
2585	» » »	1 Sm. W. of Helsingør	56°03'	12°36'	1,5—2	¹ / ₂	..	1	..	..	..	..	..	..
2586	» » »	S. of Sletten	55°57'	12°32',5	1,5—2	¹ / ₂	3	3	..	..	..	..	..	1
2587	» » »	2 Sm. S. of Nivaa	55°54'	12°32'	1—2	¹ / ₂	..	3	..	..	..	..	..	..
2588	» » »	Off Skodsborg	55°49',5	12°35'	2	¹ / ₃	..	..	..	..	..	..	..	..
2589	» » »	Off Hellerup	55°44'	12°35'	2—3	¹ / ₆	..	1	..	..	..	..	..	..
2590	1922 June 24	N. and S. of Skovshoved Harbour.	55°45'	12°36'	1,5—2	¹ / ₂	1	..	..	..	..	..	..	..
2592	» » »	Off Rungsted	55°53'	12°33'	2,5—3	¹ / ₂	..	..	..	..	..	..	..	..
2593	» » »	Off Rungsted	55°53'	12°33'	1—1,5	¹ / ₃	3	..	..	..	..	..	..	..
2594	» » »	S. of Nivaa	55°55'	12°31'	1—3	¹ / ₃	..	..	..	..	..	..	..	..
2594	» » »	S. of Sletten. (The harbour).....	55°57'	12°32'	1—1,75	¹ / ₂	1	..	..	..	..	..	..	..
2596	» » 28	Off Aflandshage	55°33'	12°36'	1,5	¹ / ₂	7	11	..	..	..	..	..	..
2597	» » »	Off Kongelunden	55°34'	12°33'	1,5—2	¹ / ₄	..	2	..	..	..	..	..	..
2598	» » »	Off Kalleboderne	55°36'	12°30'	1	¹ / ₆	..	3	..	..	..	..	..	..
2599	» » 30	Off Kildebrønde	55°35'	12°20'	1—2	¹ / ₂	..	..	..	..	..	..	..	..
2600	» » »	Off Kagstrup	55°33'	12°15'	1—2	¹ / ₂	..	..	..	..	..	..	..	..
2601	» » »	Off Ølseagle	55°30'	12°13'	1—2	¹ / ₂	..	1	..	..	..	..	..	..
2602	» » »	Off Billesborg	55°26'	12°13'	1—2	¹ / ₂	..	1	..	..	..	..	..	..
2605	» July 1	Off Søholm	55°23'	12°24'	1	¹ / ₄	..	3	..	..	2	..	..	..
2606	» » »	Off Rødvig	55°15'	12°23'	4	¹ / ₄	..	3	..	..	..	..	..	..
2609	» » »	Off Taarøje	55°14'	12°17'	3	¹ / ₄	..	1	..	..	..	..	..	..
2610	» » »	Off Vemmetofte	55°14'	12°14'	1—2	¹ / ₄	..	..	..	..	..	..	..	..
2612	» » 2	Off Strandegaarde	55°12'	12°08'	1—2	¹ / ₆	..	..	..	..	..	..	..	..
2613	» » »	E. of South-end of Fed	55°08'	12°07'	7	..	..	..	..	..	..	..	..	..
2617	» » »	North-eastern point of Jungshoved	55°06'	12°11'	2	¹ / ₃	..	..	..	..	..	..	..	..
2636	» » 6	Off Svinø Land	55°07'	11°43'	1—2	¹ / ₂	..	48	..	..	..	..	..	..
2637	» » »	Smaalandsbugt off Dybsø and Enø common	55°09'	11°43'	1—2,5	¹ / ₂	..	7	..	..	..	..	..	..
2638	» » »	Smaalandsbugt off Karebæksminde to Vesterhave	55°11'	11°37'	1,5—2,5	¹ / ₂	14	4	1	..	3	..	..	..
2647	» » 8	N.E. side of Langeland from Light- house northward	55°09'	10°58'	1—1,5	¹ / ₂	7	4	..	..	..	..	..	..
2648	» » »	N. of Lundeborg Harbour. E. coast of Fyn	55°09'	10°47'	1—1,5	¹ / ₃	3	1	..	..	..	..	..	..
2649	» » »	N. of Stokkebæk Huse. E. coast of Fyn	55°11'	10°48'	1—1,5	¹ / ₃	9	2	..	..	..	..	..	..
2650	» » 9	Off Kongsmark at the landing place. Musholmbugt	55°26'	11°12'	1—1,5	¹ / ₂	..	..	..	..	..	..	..	..
2651	» » »	Off Bildsø wood	55°38'	11°11'	1—2	¹ / ₃	..	..	..	..	..	..	..	..
2652	» » 11	Kertemindebugt. Off school, north- ward	55°28'	10°40'	1—1,5	¹ / ₂	1	..	..	..	..	..	..	..
2654	» » »	Between Risinge and Dvenstrup. E. coast of Fyn	55°25'	10°44'	1—1,5	¹ / ₂	3	..	..	..	..	..	..	..

Station No.	Date	Locality	Central Position		Depth m	Duration of Fishing hours	Plaice <i>Pleuro- nectes platessa</i>		Turbot <i>Rhombus maximus</i>		Brill <i>Rhombus laevis</i>		Sole <i>Solea vulgaris</i>	
			N	E			0-gr	I-gr	0-gr	I-gr	0-gr	I-gr	0-gr	I-gr
2655	1922 July 11	Between Strandtved and Lysemose- gaard. E. coast of Fyn	55°24'	10°46'	1—1,5	1/3	..	..	..	..	..	..	..	..
2656	» » »	Off Skabo Huse. E. coast of Fyn . .	55°21'	10°48'	1—1,5	1/2	1	..	..	..	..	..	..	..
2657	» » »	Off Tranekjær. E. side of Langeland	55°00'	10°54'	1—1,5	1/2	18	1	..	..	..	..	..	..
2658	» » 12	S. of Spodsbjerg Harbour. E. coast of Langeland	54°56'	10°50'	1—1,5	1/2	31	..	..	..	..	..	..	..
2659	» » »	S. of Nebbeskov	54°54'	10°50'	1—1,5	1/3	2	..	..	..	..	..	..	..
2660	» » »	Off Hjortholm. E. coast of Langeland	54°49'	10°47'	1—1,5	1/5	1	..	..	..	..	..	..	..
2661	» » »	Off Fodslette	54°48'	10°47'	1—1,5	1/3	15	1	..	..	..	..	..	..
2662	» » »	Off Follesbjerg, Holmegaard. E. coast of Langeland	54°45'	10°45'	1—1,5	1/2	30	2	..	..	..	..	..	..
2663	» » »	N. of Bagnkop Harbour	54°46'	10°40'	1—1,5	1/5	3	1	..	..	..	..	..	..
2664	» » »	Ristingebugt. Off Hesselager mill .	54°48'	10°39'	1—1,5	1/2	6	..	..	..	..	..	..	..
2665	» » »	Between Langeland (Ristinge) and Marstal	54°51'	10°34'	1—2	1/2	1	3	..	..	..	..	..	..
2666	» » 13	S. of Marstal Harbour	54°51'	10°32'	1	5/12	13	3	..	..	..	..	..	..
2667	» » »	S. side of Ærø, off Dunkjær at Drejet	54°50'	10°27'	1—2	1/2	2	..	..	..	..	..	..	..
2668	» » »	Off Bregninge (the Brisk-field) S.W.- side of Ærø	54°53'	10°17'	1—2,5	1/3	7	..	..	..	..	..	..	..
2669	» » »	S.W. side of Ærø. South of Fyn. Off Søby church	54°56'	10°15'	1—1,5	1/2	8	..	..	..	..	..	..	..
2670	» » »	N. of Skjoldnæs around the point.	54°58'	10°13'	1—3	1/2	1	..	..	..	..	..	..	..
2671	» » 14	Off Tranerodde Lighthouse. N.E.- side of Als	55°03'	9°52'	1—2	1/2	8	..	..	..	..	..	..	..
2672	» » »	N. of Als	55°05'	9°45'	1,5—2	1/4	6	..	..	..	..	..	..	..
2673	» » »	N.W. side of Als. Off Vestenmølle .	55°04'	9°41'	1,5	1/2	..	2	..	..	..	..	..	..
2674	» » »	Aabenraa fiord off Spramhusene . .	55°03'	9°31'	1—1,5	1/5	..	..	..	..	..	..	..	..
2675	» » 16	Off Revshale. N. Barsø	55°10'	9°39'	1,5	1/2	4	1	..	..	..	..	..	..
2676	» » »	Halk bank	55°12'	9°42'	1,5	1/4	1	2	..	..	..	..	..	..
2677	» » »	Off Aarø	55°15'	9°46'	1	2/15	1	..	..	..	..	..	..	..
2678	» » »	At Aborgminde. N. of Assens. W.- side of Fyn	55°19'	10°53'	1—2	1/2	9	..	..	..	..	..	..	..
2679	» » 17	Mosvig	55°25'	9°36'	1—1,5	1/2	22	3	..	..	..	..	..	..
2680	» » 19	Baaring Vig. S.W. corner	55°31'	9°52'	1,5—2	2/3	7	27	..	..	..	..	..	..
2681	» » »	S.W. of Fogsand. Bogense	55°33'	10°00'	1—1,5	1/2	46	11	..	..	..	..	..	..
2682	» » »	Two miles W. of Agernæs. N. coast of Fyn	55°37'	10°15'	1,5—2	1/3	7	20	..	..	..	..	..	..
2683	» » »	Off Einsiedelsborg. N. coast of Fyn	55°36'	10°22'	1—1,7	1/2	94	35	..	..	1	..	..	..
2684	» » 21	At Ringbjerg Sand, Samsø	55°52'	10°32'	1,5—2	1/3	2	1	..	..	..	..	..	..
2685	» » 22	Sælvig, Samsø	55°53'	10°33'	1—2	1/2	5	..	..	..	..	..	..	..
2686	» » »	Off Toftebjerg, Samsø	55°53'	10°35'	1,5	1/2	6	..	..	..	2	..	..	..
2687	» » »	One mile S.E. of Maarup Harbour, Samsø	55°56'	10°35'	1—2	1/3	12	3	2	..	5	..	..	..
2688	» » »	Aarhusbugt. S. of Ørnereden	56°04'	10°16'	c. 1,5	1/3	..	..	..	..	..	..	..	..
2689	» » »	Off Marselisborg (The forest)	56°08'	10°13'	1—2	1/4	2	3	..	..	..	..	..	..
2690	» » »	One mile S. of Aarhus	56°08'	10°13'	c. 1,5	1/3	5	..	..	..	..	..	..	..
2691	» » 23	Hasenøre	56°08'	10°42'	1—1,25	1/2	..	..	..	..	..	..	..	..
2692	» » »	Off Kobbergaard	56°11'	10°45'	1—1,5	1/2	2	..	..	..	..	..	..	..
2693	» » »	North of Jernhatten	56°15'	10°48'	2	1/2	..	..	..	..	..	..	..	..
2694	» » »	Off Glatved	56°18'	10°52'	1—2	1/2	..	1	..	..	..	..	..	..
2695	» » »	Off Katholm	56°19'	10°53'	1—2	1/2	1	..	..	..	..	..	..	..
2696	» » 25	Off Hurup	56°48'	10°17'	1—1,5	1/2	14	104	..	..	..	..	..	..
2697	» » »	Off Tofte mill	56°51'	10°16'	1	1/2	12	62	..	..	..	..	..	..
2698	» » 26	N. of Hals	57°00'	10°21'	1—1,5	1/2	12	..	..	..	..	..	..	..
2699	» » »	Off Hov mill	57°04'	10°23'	1,5	1/2	14	105	..	..	..	..	..	..
2700	» » »	Off Asaa	57°09'	10°26'	1—1,5	1/2	23	22	..	..	2	..	..	..
2701	» » »	Off Lyngsaa	57°14'	10°33'	1—1,75	1/2	8	4	..	..	..	..	..	..
2702	» » »	S. of Sæby Harbour	57°19'	10°32'	1—2	1/2	2	..	..	..	..	..	..	..
2703	» » »	N. of Sæby Harbour	57°21'	10°32'	1—1,5	1/2	13	..	..	..	..	..	..	..
2704	» » 27	Off Understed	57°22'	10°31'	1,5	1/2	44	23	..	..	..	..	..	..
2705	» » »	Off Bangsbostrand	57°25'	10°32'	1—2	1/2	12	119	..	..	..	..	..	..
2713	» » 29	Off Strandby	57°30'	10°31'	1,5	1/2	8	2	..	..	..	..	..	..
2714	» » »	Off Jerup	57°33'	10°27'	1,5	1/2	5	5	..	..	..	..	..	..
2715	» » »	Off Aalbæk	57°36'	10°26'	1—1,5	1/2	21	8	..	..	..	..	..	..
2716	» » »	Off Bunken	57°37'	10°27'	1,5	1/2	64	6	..	..	..	..	..	..
2717	» » »	Off Tranesteder	57°40'	10°30'	1,5	1/2	43	2	..	..	..	..	..	..
2718	» » »	Skagen. W. of the Harbour	57°43'	10°34'	1—1,5	1/2	12	2	..	..	..	..	..	..

Station No.	Date	Locality	Central Position		Depth m	Duration of Fishing hours	Plaice <i>Pleuro- nectes platessa</i>		Turbot <i>Rhombus maximus</i>		Brill <i>Rhombus laevis</i>		Sole <i>Solea vulgaris</i>	
			N	E			0-gr	I-gr	0-gr	I-gr	0-gr	I-gr	0-gr	I-gr
2719	1922 July 29	Skagen. E. of the harbour.....	57°43'	10°36'	1—1,5	1/2	155	32						
2720	» Aug. 5	Højen. Off the beacon.....	57°44'	10°31'	2	1/4	..	..	..	..	..	..	..	..
2721	» » »	Spirbakken. Off the beacon.....	57°42'	10°26'	c. 2	1/4	3	..	..	..	..	..	..	..
2722	» » »	Kandestederne. Off the beacon...	57°39'	10°21'	c. 2	1/4	1	..	..	..	..	..	..	..
2723	» » »	Off Skiverne.....	57°37'	10°17'	1,5—2	1/4	2	..	..	..	..	..	..	..
2724	» » »	Tversted. Off the beacon.....	57°36'	10°11'	1,5—2	1/4	43	3	..	..	..	..	..	..
2725	» » »	Off Uggerby.....	57°35'	10°05'	1,5—2	1/4	22	..	..	..	..	..	..	..
2726	» » 7	Off Klithuse.....	57°30'	9°51'	1—2	1/4	17	2	1	..	..	..	..	..
2727	» » »	Off Løkken.....	57°23'	9°43'	c. 1,5	1/4	31	13	2	..	..	..	..	..
2728	» » »	Kjettrup. Off the beacon.....	57°18'	9°38'	c. 1,5	1/4	34	5	..	..	..	..	..	..
2729	» » »	Blokhus. Off the beacon.....	57°16'	9°35'	1,5—2	1/4	54	3	..	..	..	..	..	..
2730	» » »	Off Tranum Strand.....	57°10'	9°25'	1,5—2,5	1/4	259	1	3	..	..	..	..	..
2731	» » »	Svinkløv. Off the beacon.....	57°09'	9°18'	1,5—2	1/4	132	..	1	..	..	..	..	..
2732	» » »	Off Torup Strand.....	57°08'	9°08'	c. 1,5	1/4	127	4	..	..	..	..	..	..
2733	» » 8	Off Lild Strand.....	57°09'	8°57'	1,5—2	1/6	18	2	..	..	..	..	..	..
2734	» » »	Off Madsbøl Bavnebakke.....	57°07'	8°51'	1,5—2	1/4	104	2	..	..	..	..	1	..
2735	» » »	Vigso. Off the beacon.....	57°06'	8°45'	1,5—2,5	1/4	19	..	..	..	..	..	..	..
2736	» » »	S. of Hanstholm.....	57°07'	8°35'	c. 2,5	1/4	4	..	..	..	..	..	..	..
2737	» » »	Off Klitmøller.....	57°03'	8°29'	2—3	1/6	14	..	..	..	..	..	..	..
2738	» » »	Off Vorupør.....	56°58'	8°22'	1,5—2	1/4	44	1	1	..	..	..	..	..
2739	» » »	Off Lyngby.....	56°52'	8°17'	2—3	1/4	9	..	..	..	..	..	..	..
2740	» » »	Agger. Off the life-boat station...	56°48'	8°14'	2	1/4	1	1	..	..	..	..	..	..
2741	» » »	Agger. Off the beacon.....	56°45'	8°13'	1,5—2	1/4	73	..	..	..	..	..	..	..
2742	» » »	N. of Tyborøn channel.....	56°43'	8°13'	1,5—2	1/4	138	1	1	..	..	..	..	..
2743	» » 15	Betw. Fanø and Søren Jessens Sand	55°27'	8°21'	1—2	1/2	15	8	..	..	..	..	..	..
2744	» » »	Fanø. N. of the watering-place...	55°26'	8°21'	1—2	1/2	10	4	..	..	..	..	..	..
2745	» » »	Fanø. One mile S. of the watering-pl.	55°25'	8°22'	1—2	1/2	11	5	2	..	..	..	..	..
2746	» » »	Off Fanø. Centre of W. coast.....	55°23'	8°24'	1,5	1/3	16	..	..	..	..	..	..	..
2747	» » »	Two miles N.W. of Sønderho. W.- side of Fanø.....	55°21'	8°25'	1—1,5	1/3	7	..	..	1	..	..	..	..
2748	» » 16	Sædenstrand. Off the Lighthouse..	55°30'	8°24'	1—3	1/2	10	14	..	..	..	..	..	..
2749	» » »	Hjertingbugt until N. of Hjerting.	55°32'	8°21'	1—3	1/5	7	6	..	..	..	..	..	..
2750	» » »	Hjertingbugt.....	55°33'	8°19'	1—2	1/4	5	19	..	..	..	..	..	..
2751	» » »	Skallingen.....	55°29'	8°20'	1—3	1/4	44	5	..	..	..	..	..	..
2752	» » »	S.-side of Skallingen.....	55°28'	8°19'	1—4	2/5	403	73	1	1	..	..	..	1
2753	» » »	N.-side of Fanø.....	55°28'	8°22'	1—1,2	1/3	452	48	..	..	3	..	..	..
2754	» » »	Off Nordby.....	55°27'	8°25'	1—1,5	1/3	232	12	..	..	..	..	..	1
2755	» » 17	Extreme part of Fanø Lo.....	55°28'	8°25'	1—4	1/3	27	7	..	..	1	..	..	..
2757	» » »	N.E. point of Fanø. At Mejsand.	55°29'	8°25'	1,5—6	1/3	184	28	..	..	..	..	..	..
2758	» » 21	N. of Bjelken.....	55°29'	8°17'	2—3	1/2	12	9	..	..	..	..	..	..
2759	» » »	Close to S.-side of Svenskknolden.	55°30'	8°15'	1,5—2	1/2	9	1	1	..	..	..	..	..
2760	» » »	Off Høje Knolde. Skallingen.....	55°31'	8°12'	1—2	1/2	3	5	1	..	..	..	..	..
2761	» » »	Off Oksby.....	55°32'	8°07'	1—2	1/6	1	1	..	..	..	..	..	..
2762	» » »	Off Ringbjerg bank.....	55°35'	8°05'	1,5—3	1/2	1	..	..	..	1	..	..	..
2763	» » »	N.-side of Søren Jessens bank.....	55°27'	8°19'	2—3	1/3	6	1	..	..	..	..	..	..
2764	» » 22	Ringbjerg. Off the beacon.....	55°37'	8°07'	1,5—2,5	1/3	..	1	..	..	..	..	..	..
2765	» » »	Kjærgaard. Off the beacon.....	55°41'	8°09'	1,5—2	1/3	7	1	9	..	..	..	..	..
2766	» » »	Nymindegab. N. of the outlet.....	55°49'	8°10'	1,5—2	1/3	..	..	1	..	..	..	..	..
2767	» » »	Aargab. Off the beacon.....	55°59'	8°07'	1—2	1/3	3	..	6	..	..	..	..	..
2768	» » »	Lyngvig. Off the Lighthouse.....	56°03'	8°06'	1,5—2	1/3	2	..	2	..	..	..	..	..
2769	» » »	Husby Klit. One mile N. of the beacon.....	56°11'	8°07'	1,5—2,5	1/3	1	1	..	1	..	..	..	..
2770	» » »	Bjergehuse.....	56°20'	8°07'	3	1/3	8	..	8	..	..	..	..	..
2771	» » 23	S.E. of Langholm.....	56°42'	8°15'	2—3	1/2	67	22	..	..	..	..	..	..
2772	» » »	N.E. of Fjordgrunden.....	56°43'	8°18'	1—2	1/3	74	20	..	..	2	..	..	..
2773	» » 24	S. of Sælhundeholm.....	56°41'	8°14'	1—2	1/2	91	51	..	..	..	..	..	..
2774	» » »	Off Rønholm.....	56°39'	8°14'	1—2	1/2	9	3	..	..	..	..	..	..
2775	» » 25	E. of Gaaseholm.....	56°41'	8°17'	1—2	1/2	23	4	..	..	..	..	..	..
2776	» » »	E. of Gaaseholm.....	56°41'	8°17'	1,5—3	1/2	79	14	..	..	2	..	1	..
2777	» » »	Off Kellerup.....	56°38'	8°28'	1—2	1/2	14	5	1	..	..	..	..	..
2778	» » 28	Langer Huse.....	56°38'	8°09'	2—3	1/4	1	..	..	..	..	..	..	..
2779	» » »	Lilleør.....	56°34'	8°08'	2—3	1/4	4	..	..	..	..	..	..	..
2780	» » »	Bovbjerg.....	56°30'	8°07'	1,5—3	1/4	1	..	..	..	..	..	..	..
2781	» » 30	Udbyhøj.....	56°35'	10°21'	1—2	1/2	2	3	..	..	..	..	..	..
2782	» » »	Off Lystrup.....	56°31'	10°29'	1—2,5	1/2	1	..	..	..	..	..	..	..
2783	» » »	Off Fjellerup.....	56°31'	10°36'	1—2	1/2	..	..	..	..	..	..	..	..
2784	» » »	Treaa.....	56°32'	10°42'	1—2	1/2	..	2	..	..	..	..	..	..

Station No.	Date	Locality	Central Position		Depth m	Duration of Fishing hours	Plaice <i>Pleuro- nectes platessa</i>		Turbot <i>Rhombus maximus</i>		Brill <i>Rhombus laevis</i>		Sole <i>Solea vulgaris</i>	
			N	E			0-gr	I-gr	0-gr	I-gr	0-gr	I-gr	0-gr	I-gr
2785	1922 Aug. 30	Gjerrild	56°31'	10°52'	1—2	1/2	4	2	..	..	..	..	2	..
2786	» Sept. 1	Grenaa. N. of the harbour.....	56°25'	10°56'	1—2	1/2	..	1	..	..	..	..	1	..
2788	» » »	Off Gniben	56°01'	11°17'	1—2,5	1/3	..	..	..	..	..	..	..	..
2789	» » »	Off Yderby	55°59'	11°21'	1—2	1/2	..	..	..	..	..	..	..	..
2790	» » »	Off Overby	55°57'	11°24'	1—2	1/3	..	..	..	..	..	..	..	..
2791	» » 2	Tærskelen (Isefjord)	55°58'	11°49'	1—2	1/2	1	..	..	..	..	..	..	..
2792	» » »	Off Nyrup	55°57'	11°37'	1,0—1,5	1/2	..	..	..	..	..	..	..	..
2793	» » »	Off Klintebjerg.....	55°58'	11°36'	2—3	1/3	..	..	..	..	..	..	..	..
2794	» » 3	Off Kikhavn	55°59'	11°53'	1,5—2,5	1/4	..	..	..	..	..	..	..	..
2795	» » »	Off Liseleje	56°01'	11°58'	1,5—2,5	1/3	..	..	..	..	..	..	..	..
2796	» » »	Tisvilde	56°04'	12°04'	1,5—2,5	1/2	..	..	..	..	..	..	..	..
2797	» » »	Raageleje	56°06'	12°10'	1—2	1/2	..	..	..	..	..	..	..	..
2798	» » »	Off Gilleleje.....	56°08'	12°19'	..	1/2	..	..	..	..	..	..	..	..
2799a	» » »	Off Hornbæk	56°06'	12°28'	..	1/2	..	..	..	..	..	..	..	..
2799b	» » »	Off Odinshøj.....	56°05'	12°32'	..	1/2	..	..	..	..	..	..	1	..
2799c	» » »	Off Belvedere.....	56°03'	12°34'	..	1/2	..	..	..	..	..	..	..	..
2799d	» » 4	Sletten. S. of the harbour	55°57'	12°32'	..	1/2	..	..	..	..	..	..	..	..
3168	1924 July 14	Between Charlottenlund and Skovs- hoved harbour	55°45'	12°36'	1,5	1/4	3	..	..	..	..	..	..	..
3169	» » 15	Betw. Strandmøllen and Skodsborg	55°49'	12°35'	1,5—2	1/3	..	2	..	..	..	..	..	..
3170	» » »	S. of Rungsted harbour.....	55°53'	12°33'	1—1,5	1/2	..	1	..	..	..	..	..	..
3171	» » »	Sand-banks N. of Kokkedal.....	55°54'	12°32'	1—2	1/2	1	..	..	..	..	..	..	..
3172	» » »	S. of Sletten harbour.....	55°57'	12°32'	1—2	1/3	1	2	..	..	..	..	..	..
3173	» » 16	N.W. of Marienlyst.....	56°03'	12°36'	1—1,5	1/4	3	7	..	..	..	..	..	..
3174	» » »	Off Aalsgaarde	56°05'	12°33'	1—1,5	1/4	7	2	..	..	..	..	..	..
3175	» » »	Off Hornbæk; N. of the harbour .	56°06'	12°28'	1—1,5	1/3	24	1	..	..	..	..	..	..
3176	» » »	Off Villingeby	56°06'	12°24'	1—1,5	1/2	44	3	..	..	..	..	..	..
3177	» » »	N. of Gilleleje harbour.....	56°08'	12°19'	1—2	1/3	14	..	..	..	..	..	..	..
3178	» » »	S.W. of Raageleje	56°06'	12°10'	1—2	1/3	1	..	..	..	..	..	..	..
3179	» » »	W. of Tidsvildeleje	56°03'	12°02'	1—1,5	1/3	..	..	..	..	..	..	..	..
3180	» » »	Off Liseleje	56°01'	11°58'	1—2	1/3	..	..	..	..	..	..	..	..
3181	» » 17	W. of Lynæs	55°57'	11°51'	1,5—1,8	1/2	1	..	..	..	..	..	..	..
3182	» » »	E. of Kikhavn	55°59'	11°53'	1,2—1,8	1/3	..	1	..	..	..	..	..	..
3183	» » »	W. of Korshage	55°59'	11°46'	1—1,5	1/2	..	..	..	..	..	..	..	..
3184	» » »	N. of Nykøbing	55°57'	11°40'	1—1,5	1/2	13	2	..	..	..	..	..	..
3185	» » »	W. of Klintebjerg	55°58'	11°33'	1—1,5	1/2	38	..	..	..	..	..	..	..
3186	» » »	E. of Yderby harbour	55°58'	11°24'	2—3	1/6	..	..	..	..	..	..	..	..
3187	» » 18	N. of Stenfabrikken	55°59'	11°19'	0,9—1,5	1/2	15	..	1	..	..	..	..	..
3188	» » »	N.W. of Sejerø harbour.....	55°53'	11°08'	1,2—1,8	1/3	..	..	..	..	..	..	..	..
3189	» » 19	Near Kerteminde harbour.....	55°28'	10°41'	1—1,5	1/2	1	14	..	..	..	..	..	..
3190	» » »	Off Dvenstrup Gaarde	55°24'	10°44'	1—1,5	1/2	44	3	..	..	..	..	..	..
3191	» » »	Off Skabo Huse.....	55°21'	10°48'	1—1,3	1/3	7	..	1	..	..	..	..	..
3192	» » »	Off Teglgårdsskov toward S.	55°20'	10°49'	1—1,5	1/3	19	..	..	..	..	..	..	..
3193	» » 21	S. of Bildsøe wood	55°27'	11°12'	1—1,5	1/4	6	5	..	..	..	..	..	..
3194	» » »	Off Kongsmark	55°26'	11°12'	0,8—1	1/6	19	2	..	..	..	..	..	..
3195	» » »	The bay W. of Karrebæksminde..	55°11'	11°37'	1—1,5	1/3	1	..	1	..	..	..	..	..
3196	» » 22	S.-point of Enø	55°09'	11°43'	1—1,5	1/4	..	..	..	..	..	..	..	..
3197	» » 23	N. of Lundeberg harbour	55°09'	10°48'	1,5	1/3	1	7	..	..	..	..	..	..
3198	» » »	Off Stokkebæk Huse.....	55°11'	10°48'	1—1,5	1/3	2	6	..	..	..	..	..	..
3199	» » »	N. of Hov light.....	55°09'	10°58'	1—1,5	1/2	14	..	..	..	..	..	..	..
3200	» » »	Off Tranekjær.....	55°00'	10°54'	1,2	1/3	6	..	..	..	..	..	..	..
3201	» » »	S. of Spodsbjerg harbour	54°56'	10°50'	1,2	1/3	3	2	..	..	..	..	..	..
3202	» » »	Off Nebbe wood	54°54'	10°50'	1,2—1,8	1/3	3	..	..	..	..	..	..	..
3203	» » »	Off Hjortholm	54°49'	10°47'	1,2	1/3	6	..	..	..	..	..	..	..
3204	» » »	Off Holmegaard.....	54°45'	10°45'	1	1/3	14	..	..	..	..	..	..	..
3205	» » 25	N. of Bagnkop harbour.....	54°46'	10°40'	..	1/6	2	..	..	..	..	..	..	..
3206	» » »	Ristinge bay.....	54°48'	10°39'	1,2—1,5	1/3	4	1	4	..	..	..	..	..
3207	» » »	Off Lilleholm	54°51'	10°35'	1,2	1/2	..	..	..	..	..	..	..	..
3208	» » »	S. of Marstal harbour	54°51'	10°32'	1,5	1/3	5	1	..	..	..	..	..	..
3209	» » 26	Off Drejet, Ærø.....	54°50'	10°27'	1,5	1/2	2	..	..	..	..	..	..	..
3210	» » »	Off Bregnerød Teglværk	54°53'	10°19'	1,2	1/3	5	..	..	..	..	..	..	..
3211	» » »	Off Søby church	54°56'	10°15'	1,2	1/2	2	..	1	..	1	..	..	..
3212	» » »	N. of Skjoldnæs	54°58'	10°13'	..	1/6	..	..	..	..	..	..	..	..
3213	» » 27	Off Tranerødde light.....	55°03'	9°52'	1,5	1/2	7	..	..	..	..	..	..	..
3214	» » »	S.E. of Augustenborg light.....	55°05'	9°44'	1,0	1/2	12	16	..	..	..	..	..	..
3215	» » »	W. of Augustenborg light	55°04'	9°40'	1—1,5	1/6	..	1	..	..	..	..	..	..
3216	» » »	Off Aborgminde	55°19'	10°53'	1,3	1/2	6	3	..	..	..	..	..	..

Station No.	Date	Locality	Central Position		Depth m	Duration of Fishing hours	Plaice <i>Pleuro- nectes platessa</i>		Turbot <i>Rhombus maximus</i>		Brill <i>Rhombus laevis</i>		Sole <i>Solea vulgaris</i>	
			N	E			0-gr	I-gr	0-gr	I-gr	0-gr	I-gr	0-gr	I-gr
3217	1924 July 28	N. of Halk bank	55°12'	9°42'	1,2	1/4	6	7	..	..	..	..	..	..
3218	» » »	Off Revshale	55°10'	9°39'	1,3	1/2	8	..	..	..	..	..	..	..
3219	» » »	Off Aarø	55°15'	9°46'	0,8—1,2	1/4	4	2	..	..	..	..	..	..
3220	» » »	Off Skamlingsbanken	55°25'	9°36'	1,0	1/2	5	11	..	..	..	..	..	..
3221	» » 30	Flaskebugten, off Vejlbj	55°31'	9°52'	1,5	1/2	8	19	..	..	..	..	..	..
3222	» » »	S.W. of Fogsand	55°33'	10°00'	1,2	1/2	22	13	..	..	..	..	..	..
3223	» » »	2 Sm. W. of Agernæs	55°37'	10°15'	1,0	1/2	7	12	..	..	..	..	..	..
3224	» » »	Off Einsiedelsborg	55°36'	10°22'	1—1,5	1/4	11	11	..	..	..	..	..	..
3225	» » 31	S. of Maarup harbour	55°56'	10°34'	1,2	1/2	3	9	..	..	..	..	..	..
3226	» » »	Off Toftebjerg	55°53'	10°35'	1,2	1/2	1	1	..	..	..	..	..	..
3227	» » »	Off Sælvig	55°53'	10°33'	1,3	1/2	2	1	..	..	..	..	..	..
3228	» » »	Ringebjerg Sand	55°52'	10°32'	1,2	1/2	2	..	..	..	..	..	..	..
3229	» » »	Off Moesgaard	56°05'	10°15'	1—1,5	1/4	..	3	..	..	..	..	..	..
3230	» Aug. 1	N.W. of Skjødshoved pier	56°12'	10°21'	0,9—1,3	1/3	..	..	..	..	..	..	..	..
3231	» » 2	Between Aarhus and Varna	56°08'	10°13'	1—1,3	1/2	..	2	..	..	..	..	..	..
3232	» » 3	Off Hasenøre	56°08'	10°42'	1,2—1,7	1/2	4	..	..	..	..	..	..	..
3233	» » »	Boeslumbugten	56°13'	10°45'	1,5—2	1/3	..	1	..	..	..	..	..	..
3234	» » »	N. of Jærnhatten	56°15'	10°48'	1,5—2	1/3	2	..	..	..	..	..	..	..
3235	» » »	N. of Glatved Kalkværk	56°18'	10°52'	1,5—2	1/2	1	..	..	..	..	..	..	..
3236	» » »	Off Katholm	56°19'	10°53'	1,2—1,7	1/2	2	..	..	..	..	..	..	..
3237	» » 5	Between Fornæs light and Grenaa harbour	56°26'	10°56'	0,8—1,5	1/4	7	4	..	..	..	..	..	..
3238	» » »	Off Karlby	56°29'	10°54'	1—1,5	1/2	6	2	..	..	..	..	..	..
3239	» » »	Off Knudshoved	56°32'	10°50'	0,9—1,5	1/2	2	1	..	..	..	..	..	..
3240	» » »	Off Treaa	56°32'	10°42'	0,8—1,3	1/2	2	2	..	..	2	..	..	..
3241	» » »	Off Fjellerupstrand	56°31'	10°36'	1—1,5	1/2	1	8	..	..	1	..	..	..
3242	» » »	Off Lystrup	56°31'	10°29'	0,8—1,3	1/2	4	17	..	..	4	..	..	..
3243	» » 7	Off Udbyhøj	56°36'	10°21'	1—1,5	1/2	1	6	..	..	1	..	..	..
3244	» » »	Off Hurup	56°48'	10°17'	0,8—1,2	1/2	10	12	..	..	5	..	..	..
3245	» » »	Off Tofte mill	56°51'	10°16'	0,9—1,3	1/4	2	2	1	..	12	..	..	..
3246	» » »	The Sand-bank of Vejdybet (Hals)	56°56'	10°19'	0,8—1,5	1/2	17	13	..	..	4	..	..	..
3247	» » 8	N. of Hals	57°00'	10°21'	1—1,7	1/3	9	10	..	..	1	..	..	..
3248	» » »	N. of Hals	57°00'	10°21'	0,8—1,8	1/3	9	5	1	..	2	..	..	..
3249	» » »	Off Hov	57°04'	10°23'	1—1,5	1/2	42	17	..	..	16	..	..	..
3250	» » »	Off Hov	57°04'	10°23'	1—1,2	1/2	38	7	..	..	8	..	..	..
3251	» » »	Off Gjæraa	57°07'	10°24'	0,9—1,5	1/2	23	4	..	..	5	..	..	..
3252	» » »	S. of Asaa	57°08'	10°25'	0,9—1,4	1/2	142	18	1	..	14	..	..	..
3253	» » »	Off Lyngsaa	57°14'	10°33'	1—1,6	1/2	187	8	..	..	9	..	..	..
3254	» » 9	Off Tversted plantation	57°37'	10°14'	1,5—2	1/2	8	3	..	..	1	..	..	..
3255	» » »	N. of Uggerby plantation	57°36'	10°05'	1,5—2	1/2	28	3	..	..	..	..	..	..
3256	» » 13	Off Kandstederne	57°40'	10°23'	1—2	1/2	30	5	8	..	..	..	..	..
3257	» » »	Off Spirbakken beacon	57°42'	10°26'	1,2—2	1/2	17	3	..	..	..	..	..	..
3258	» » »	Off Højen	57°44'	10°31'	1,2—2,3	1/2	4	8	..	..	..	..	..	..
3259	» » 14	N.E. of Skagen harbour	57°43'	10°36'	0,9—1,5	1/2	35	10	..	..	7	..	..	..
3260	» » »	S.W. of Skagen harbour	57°43'	10°34'	1,2	1/2	56	17	1	..	3	..	1	..
3261	» » »	Off Transtederne	57°40'	10°30'	1—1,6	1/2	33	36	..	..	9	..	..	..
3262	» » »	Off Bunken (N. of Aalbæk)	57°37'	10°27'	1—1,5	1/2	46	24	..	..	..	..	..	..
3263	» » »	Off Aalbæk	57°36'	10°26'	1,2	1/2	59	92	..	..	3	..	..	..
3264	» » »	Off Jerup	57°33'	10°27'	1—2	1/2	225	42	..	..	11	..	..	..
3265	» » »	Off Strandby, N. of Frederikshavn	57°30'	10°31'	1—2	1/3	39	43	..	..	..	..	..	..
3266	» » 15	S. of Frederikshavn harbour	57°25'	10°32'	1—1,5	1/3	522	19	1	..	5	..	..	..
3267	» » »	Off Understed	57°22'	10°31'	1—1,6	1/3	24	1	1	..	3	..	..	..
3268	» » »	N. of Sæby harbour	57°21'	10°32'	1—1,6	1/3	53	1	..	..	3	..	..	..
3269	» » »	1 Sm. S. of Sæby harbour	57°19'	10°32'	1,2—1,6	1/3	75	15	..	..	..	..	1	..
3270	» » »	Off Solsbæk, S. of Sæby	57°17'	10°33'	1,2—1,8	1/3	79	1	..	..	2	..	..	..
3386	1925 July 13	S. of Karebæksminde harbour	55°10'	11°39'	2—3	1/2	..	..	..	..	1	..	..	..
3387	» » 14	W. of Karebæksminde harbour	55°11'	11°37'	1,5—3	1	3	..	..	..	..	..	..	..
3388	» » »	Off Bjernebæk at Gumperup	55°11'	11°34'	2	2/3	4	..	..	..	..	..	..	..
3389	» » »	N. of Vejro	55°03'	11°23'	1,5	1/4	1	..	..	..	..	..	..	..
3390	» » »	S. of Vejro	55°01'	11°21'	1,5	1/4	..	..	..	..	..	..	..	..
3396	» Aug. 10	Kongsmark	55°26'	11°12'	2,5	1/3	6	3	..	..	..	..	..	..
3397	» » »	Bildsø wood	55°27'	11°12'	2,3	1/2	3	1	..	..	..	..	..	..
3398	» » »	S. of Stubberup wood	55°32'	10°43'	2	1/2	3	2	..	..	..	..	..	..
3399	» » »	Off Viby	55°30'	10°44'	2,3	1/3	2	1	..	..	..	..	..	..
3400	» » 11	N. of Kerteminde harbour	55°28'	10°41'	2,3	1/2	7	3	..	..	..	..	..	..
3401	» » »	N.E. of Kerteminde	55°28'	10°42'	2,3	1/2	5	5	..	..	..	..	..	..
3402	» » »	S. of Risinge Hoved	55°24'	10°44'	2,3	1/2	7	2	..	..	..	..	..	..

Station No.	Date	Locality	Central Position		Depth m	Duration of Fishing hours	Plaice <i>Pleuro- nectes platessa</i>		Turbot <i>Rhombus maximus</i>		Brill <i>Rhombus laevis</i>		Sole <i>Solea vulgaris</i>	
			N	E			0-gr	I-gr	0-gr	I-gr	0-gr	I-gr	0-gr	I-gr
3403	1925 Aug. 11	Teglgaard wood	55°20'	10°49'	2,3	1/2	5	4	..	..	..	..	..	..
3404	" " "	N. of Lundeberg	55°09'	10°48'	2—2,3	1/4	2	..	..	..	..	..	..	..
3405	" " 12	Off Elsehoved	55°06'	10°47'	2	1/2	6	..	..	..	..	..	..	..
3406	" " "	E. of Hov	55°09'	10°58'	2,3	1/4	2	..	..	..	..	..	..	..
3407	" " "	Tranekær	54°59'	10°54'	2	1/2	2	2	..	..	..	..	..	..
3408	" " "	Nebbe Revler	54°54'	10°50'	2—2,3	1/2	3	5	..	..	..	..	..	..
3409	" " "	Hjortholm	54°49'	10°47'	2—2,3	1/3	7	..	..	..	..	..	..	..
3410	" " "	Off Hesselbjerg	54°48'	10°39'	2—2,3	1/2	..	..	..	..	..	..	..	..
3411	" " "	S. of Storeholm	54°50'	10°36'	2,3	1/3	..	..	..	..	..	..	..	..
3412	" " "	S.E. of Marstal	54°51'	10°33'	2,3—2,5	1/2	1	..	..	..	..	..	..	..
3413	" " 13	Turø Rev	55°01'	10°44'	2—2,3	1/4	..	..	..	..	..	..	..	..
3414	" " 14	1 Sm. N.E. of Vejsnæs Nakke	54°50'	10°27'	2	1/2	..	..	..	..	..	..	..	..
3415	" " 18	1 Sm. S.W. of Halkhoved	55°11'	9°41'	1—1,5	1/2	45	2	2	..	1	..	..	..
3416	" " "	Off Bankel Nor	55°13'	9°42'	1—1,5	1/2	29	3	4	..	5	..	..	..
3417	" " "	S. of Aarø	55°15'	9°45'	1—1,5	1/4	..	1	..	..	..	..	..	..
3418	" " 19	Off Aborgminde	55°19'	9°53'	1,5	1/2	10	2	1	..	..	..	..	..
3419	" " "	N.E. of Baagø	55°19'	9°50'	1,5—2	1/4	..	..	..	..	..	..	..	..
3420	" " "	Fyensvig	55°25'	9°49'	1,3—1,5	1/4	5	..	..	..	..	..	..	..
3421	" " "	Mosvig	55°25'	9°36'	1,5	1/3	1	..	..	..	..	..	..	..
3422	" " 20	Baaring Vig	55°31'	9°52'	1,5	1/2	34	6	..	..	1	..	..	..
3423	" " 21	Off Skastrup	55°34'	9°59'	1,5	1/6	8	1	..	..	..	..	..	..
3424	" " "	Fogsand	55°34'	10°02'	1,5	1/2	42	23	..	..	..	..	..	..
3425	" " 22	Off Agernæs	55°38'	10°18'	1,5	1/2	42	7	..	..	..	..	..	..
3426	" " "	Off Einsiedelsborg, N.	55°37'	10°22'	1,5	1/3	31	5	..	..	..	..	..	..
3427	" " "	Off Einsiedelsborg, S.	55°36'	10°23'	1,5—2	1/2	14	1	..	..	..	..	..	..
3609	1926 Aug. 3	Off Teglgaardsskov	55°20'	10°49'	1,5	1/2	6	3	..	..	..	..	..	..
3610	" " "	S. of Risinge	55°25'	10°44'	1,5	1/2	1	..	..	..	..	..	..	..
3612	" " 4	N. of Kerteminde harbour	55°28'	10°41'	1—1,5	1/2	..	5	..	..	..	..	..	..
3613	" " "	N. of Blæsenborg	55°31'	10°43'	1,5	1/2	..	4	..	..	..	..	..	..
3614	" " "	S. of Store Bøgebjerg	55°33'	10°43'	1,5	1/2	..	2	..	..	..	..	..	..
3615	" " "	Off Christiansminde	55°35'	10°26'	1,5	1/2	3	33	..	..	..	..	..	..
3616	" " "	Off Einsiedelsborg	55°37'	10°22'	1,5	2/3	7	19	..	..	1	..	..	..
3617	" " "	S.E. of Æbelø	55°38'	10°12'	1,5—2,0	1/2	2	10	..	..	..	..	..	..
3618	" " 5	Fogsand	55°34'	10°02'	1,5—2,0	1/2	1	6	..	..	..	..	..	..
3619	" " "	W. of Baaring	55°31'	9°55'	1,5	1/2	1	2	..	..	..	..	..	..
3620	" " "	Flaskebugt	55°31'	9°52'	1,5	1/4	4	15	..	..	..	..	..	..
3621	" " 6	Mos Vig	55°25'	9°36'	1	1/3	1	3	..	..	..	..	..	..
3622	" " "	S. of Emtækær Nor	55°20'	9°52'	1,0—1,5	5/12	1	2	..	..	..	..	..	..
3623	" " "	Off Aborgminde	55°19'	9°53'	1,5	1/2	1	1	..	..	..	..	..	..
3625	" " 8	Sandvigen, W. of Halk	55°11'	9°37'	2—2,5	1/4	..	..	..	..	..	..	..	..
3628	" " "	Off Varnæshoved	55°03'	9°35'	1—1,5	1/10	..	..	..	..	..	..	..	..
3629	" " 9	S. of Knudshoved	55°05'	9°33'	1—1,5	1/3	..	1	..	..	..	..	..	..
3630	" " "	S. of Halk Hoved	55°11'	9°42'	1,5—2	1/2	..	1	..	..	..	..	..	..
3631	" " "	Off Bankel Nor	55°13'	9°42'	1,5	1/4	..	1	..	..	..	..	..	..
3632	" " 10	E. of Skjoldnæs light	54°58'	10°13'	2,0	1/4	..	..	..	..	..	..	..	..
3633	" " "	S.W. of Urehoved	54°54'	10°23'	1,5—2,0	1/2	19	3	..	..	..	..	..	..
3634	" " 11	E. of Bagnkop harbour	54°45'	10°40'	2	1/4	1	..	..	..	..	..	..	..
3636	" " 13	1,5 Sm. N. of Kjels Nor Light	54°45'	10°45'	1,5	1/2	..	..	..	..	..	..	..	..
3637	" " "	Nebbe Revler	54°54'	10°50'	1—2	1	2	..	..	..	..	..	..	..
3638	" " "	N. of Tranekær Light	54°59'	10°54'	2	1/2	..	1	..	..	..	..	..	..
3639	" " "	Off Snøde	55°05'	10°56'	1,5	1/2	..	..	..	..	..	..	..	..
3640	" " "	N. of Hov Light	55°09'	10°58'	1,5—2,0	1/2	2	..	..	..	..	..	..	..
3641	" " 14	N. of Lundeberg harbour	55°09'	10°48'	1,5	1/3
3642	" " "	Off Stokkebæk	55°10'	10°48'	1,5	1/3	1

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