

International Council for
the Exploration of the Sea

C.M.1974/C:20
Hydrography Committee



Digitalization sponsored
by Thünen-Institut

S T A T I O N S W O R K E D D U R I N G I B Y

1 9 6 9 - 1 9 7 0

Introduction and Sample Track Charts

by

ICES Service Hydrographique

INTRODUCTION

The International Baltic Year (IBY) was a joint oceanographic project in the Baltic organized by the Baltic Oceanographers. The IBY proper covered the period 1 January 1969-30 April 1970. It was, however, followed up by the International Baltic Coordination in May-December 1970. In the following the name International Baltic Year (IBY) will be used for the full two years period January 1969-December 1970.

IBY may be considered a continuation of the Cooperative Synoptic Investigation of the Baltic in August 1964. The data from this investigation have been published as 5 volumes in the series "ICES Oceanographic Data Lists". A glance in these volumes shows that the emphasis was then laid on the study of the physical parameters. In IBY, however, the emphasis was shifted to chemical investigations, especially such which are of basic importance for the understanding of the biological situation of the region.

During the IBY a network of fixed stations was worked regularly, as far as possible in accordance with a fixed time schedule, by the countries surrounding the Baltic. The network of stations is shown on p. 8. It consists of 39 standard stations distributed over the Baltic to give a representative picture of the oceanographic conditions there, especially in the deeps. The stations marked A on p. 8 should be worked on each cruise whereas a choice could be made with regard to those marked B. An especially important station was No. 15, situated in the Gotland Deep; it was scheduled as an anchor station where at each cruise physical and chemical observations should be made every 3 hours during a period of 5 days.

The station Stolpe Sill, indicated by SS in the cruise charts, was not included in the original programme, but was proposed as a standard station at the 7th Conference of Baltic Oceanographers, May 1970.

The periods covered by cruises of vessels of the various countries are indicated in the figure on p. 7. Included in the figure are some cruises which covered several of the IBY stations, even if they were not official IBY cruises.

A report was prepared by the cruise leader and distributed after each IBY cruise. For the original IBY, i.e., January 1969-April 1970, these cruise reports have been compiled and published by S.R. Carlberg (Meddelande från Havsfiskelaboratoriet, Lysekil; nr. 87).

During the cruises a wealth of samples for physical, chemical and biological studies were collected and analysed. The analyses were carried out by standardized methods, published in "The Baltic Year 1969-70 Program Manual", which was issued in 1968 by the Baltic Oceanographers. A revised version of the Manual ("New Baltic Manual"), edited by S.R. Carlberg, was published by the International Council for the Exploration of the Sea (ICES) in 1972, as Cooperative Research Report, Series A, No. 29.

Another measure aiming at obtaining comparable values was intercalibration of a number of the chemical methods used. Such intercalibration experiments were organized by ICES: in Copenhagen (June 1965), Leningrad (May 1966) and Copenhagen (September 1966). The results of the intercalibration experiments were presented in a number of meeting documents at the ICES Statutory Meetings in 1965, 1966 and 1967 and were later on published as Unesco Technical Papers in Marine Science, No. 3 (the 1965-experiment) and No. 9 (the 1966-experiments).

At its meeting in 1969 ICES agreed (C.Res.1969/1:10) that the physical and chemical data collected as part of the IBY investigations be published in the series "ICES Oceanographic Data Lists". As this series since then has been discontinued and replaced by "ICES Oceanographic Data Lists and Inventories" the data will be published there.

The data have been arranged according to cruises, these following each other chronologically. Data from a few cruises more than those indicated in the figure on p. 7 have been included as they may be of interest in connection with the IBY data proper. Nearly all stations worked on a cruise have been included, as far as available here, also if they were not part of the IBY network of standard stations. Omitted were only such stations that were considered to be of purely local interest.

The data from each cruise are accompanied by a track chart showing the positions of all the stations worked during the cruise. As basic chart is used a chart showing the IBY station network in blue colour, so that it is immediately seen from a track chart which IBY standard stations were worked during the cruise.

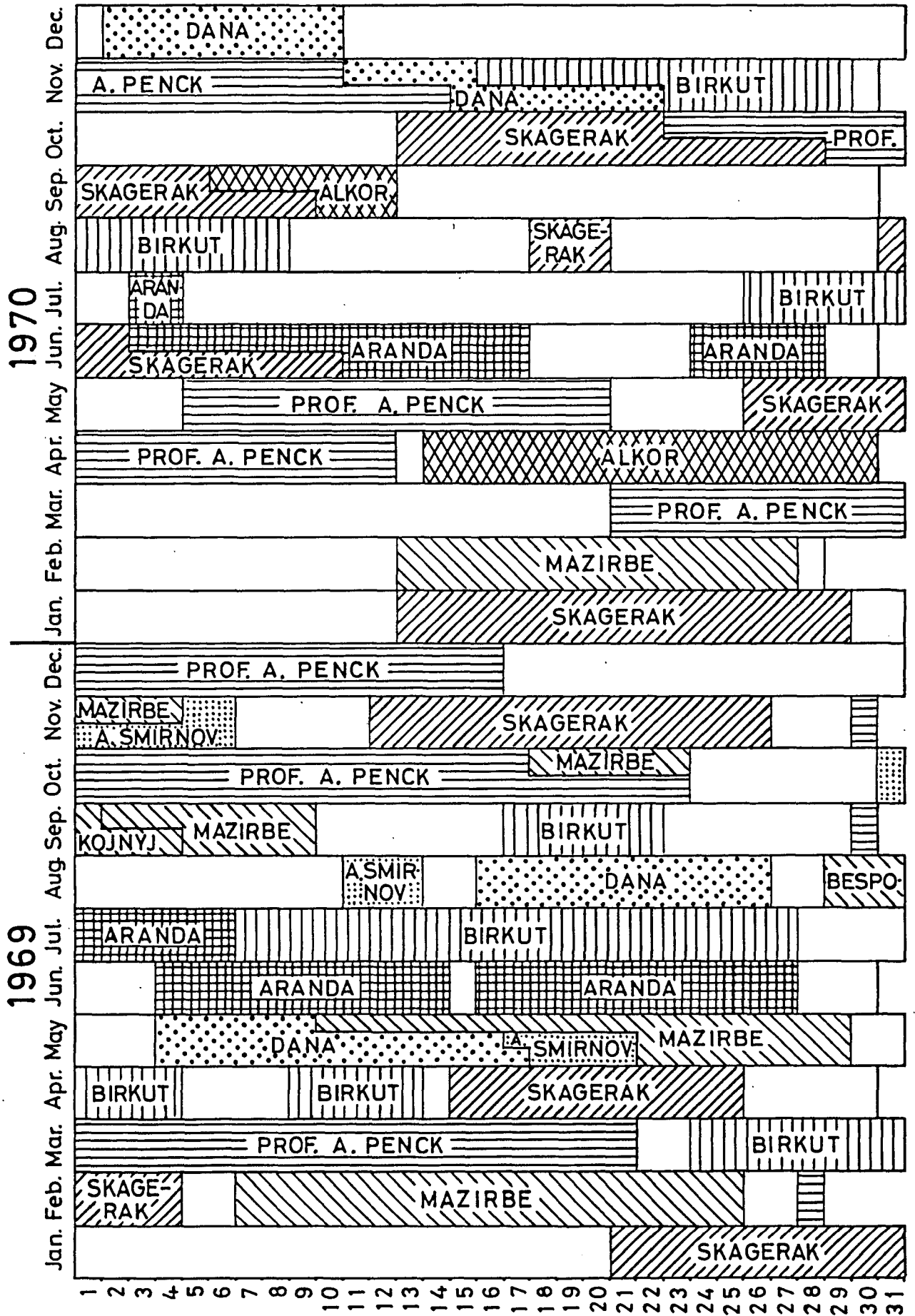
Not included in the data lists are such data that have already been published nationally. This applies to the cruises made by research vessels of the German Democratic Republic and Sweden. In such cases references have, however, been given to the relevant pages of the national publications. Furthermore, track charts showing the stations worked have been included.

List of Data 1969

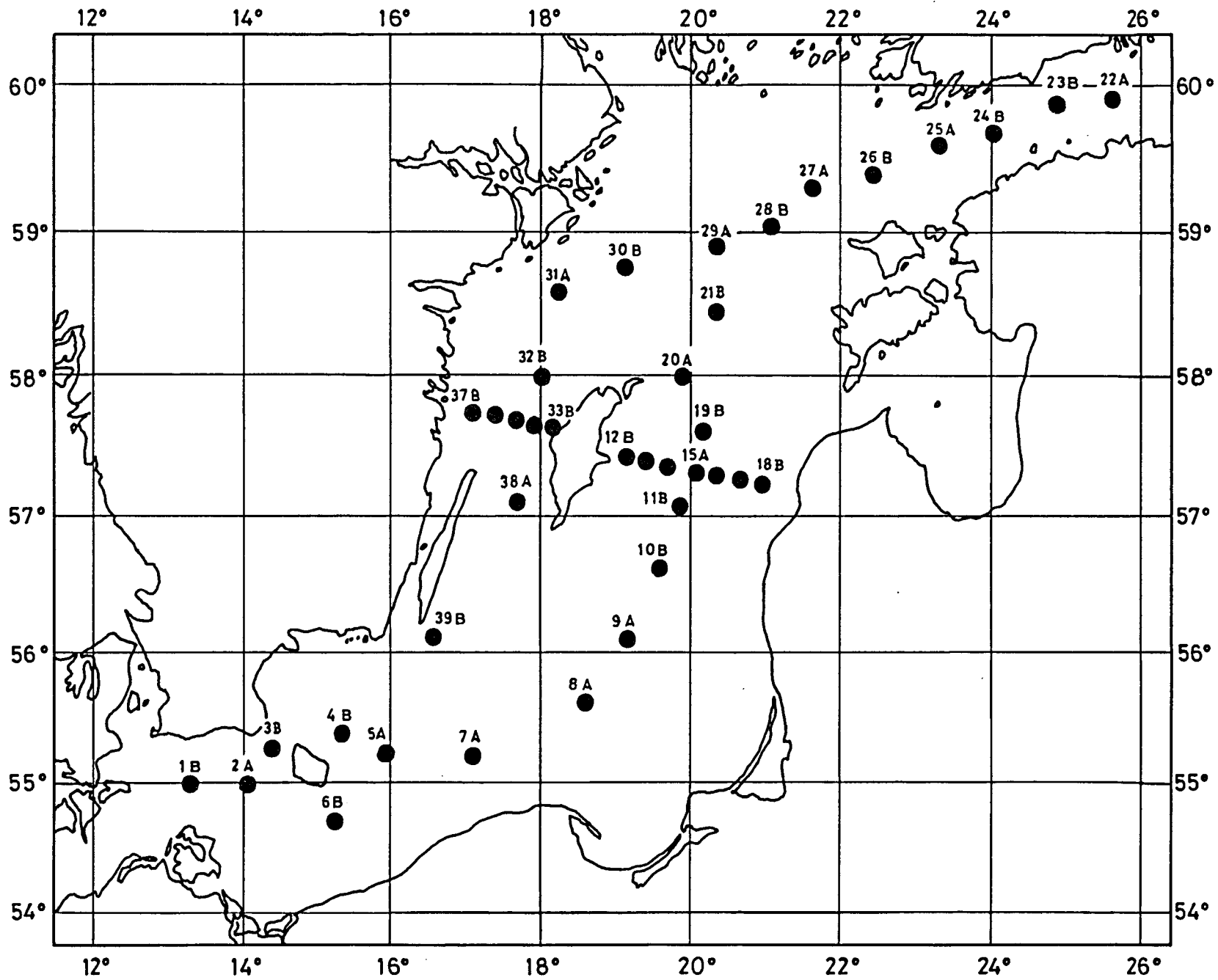
| Cruise Period | Ship | Stat. Nos. | Track chart p. |
|---------------|-----------------|---------------|----------------|
| 21 Jan- 4 Feb | "Skagerak" | 4-72 | 9 |
| 19, 21, 27 " | " " | 73-75 | 9 |
| 7-25 Feb | "Mazirbe" | 1-38 | 10 |
| 9-11 Feb | "Mir I" | 1-12 | 27 |
| 18-23 " | " " | 13-28 | 27 |
| 28 Feb-21 Mar | "Prof. A.Penck" | (47 Stations) | 11 |
| 19-28 Mar | "Thetis" | 40-47 | 29 |
| 24 Mar- 4 Apr | "Birkut" | 1-61 | 12 |
| 9-13 Apr | " " | 63-79 | 12 |
| 15-25 Apr | "Skagerak" | 130-195 | 13 |
| 4-17 May | "Dana" | 37-59 | 14 |
| 10-29 May | "Mazirbe" | 39-75 | 15 |
| 17-21 May | "Alex. Smirnov" | 1-11 | 31 |
| 27-28 May | "Mir I" | 29-32 | 27 |
| 3-10 Jun | " " | 33-61 | 27 |
| 4-16 Jun | "Thetis" | 58-68 | 29 |
| 4-14 Jun | "Aranda" | 1-64 | 16 |
| 18-27 " | " " | 69-113 | 16 |
| 1- 6 Jul | " " | 114-129 | 17 |
| 16-17 " | " " | 157-162 | 17 |
| 7-27 Jul | "Birkut" | 134-214 | 18 |
| 29-30 " | " " | 215-220 | 18 |
| 21-25 Jul | "Aranda" | 166,183-201 | 31 |
| 11-12 Aug | " " | 273-280 | 31 |
| 11-13 Aug | "Alex. Smirnov" | 12-22 | 31 |
| 16-26 Aug | "Dana" | 116-153 | 19 |
| 20-29 Aug | "Birkut" | 221-249 | 28 |
| 29 Aug- 4 Sep | "Bespokojnyj" | 1001-1010 | 20 |
| 2- 9 Sep | "Mazirbe" | 76-103 | 20 |
| 17-22 Sep | "Birkut" | 251-305 | 21 |
| 23 Oct | " " | 346 | 21 |
| 30 Sep-23 Oct | "Prof. A.Penck" | (72 Stations) | 22 |
| 16-24 Oct | "Skagerak" | 280-294 | 23 |
| 12-26 Nov | " " | 298-347 | 23 |
| 18-23 Oct | "Mazirbe" | 104-113 | 24 |
| 1-4 Nov | " " | 114-124 | 24 |
| 31 Oct- 6 Nov | "Alex. Smirnov" | 23-33 | 31 |
| 13-24 Nov | "Birkut" | 347-375 | 28 |
| 30 Nov-16 Dec | "Prof. A.Penck" | (46 Stations) | 25 |

List of Data 1970

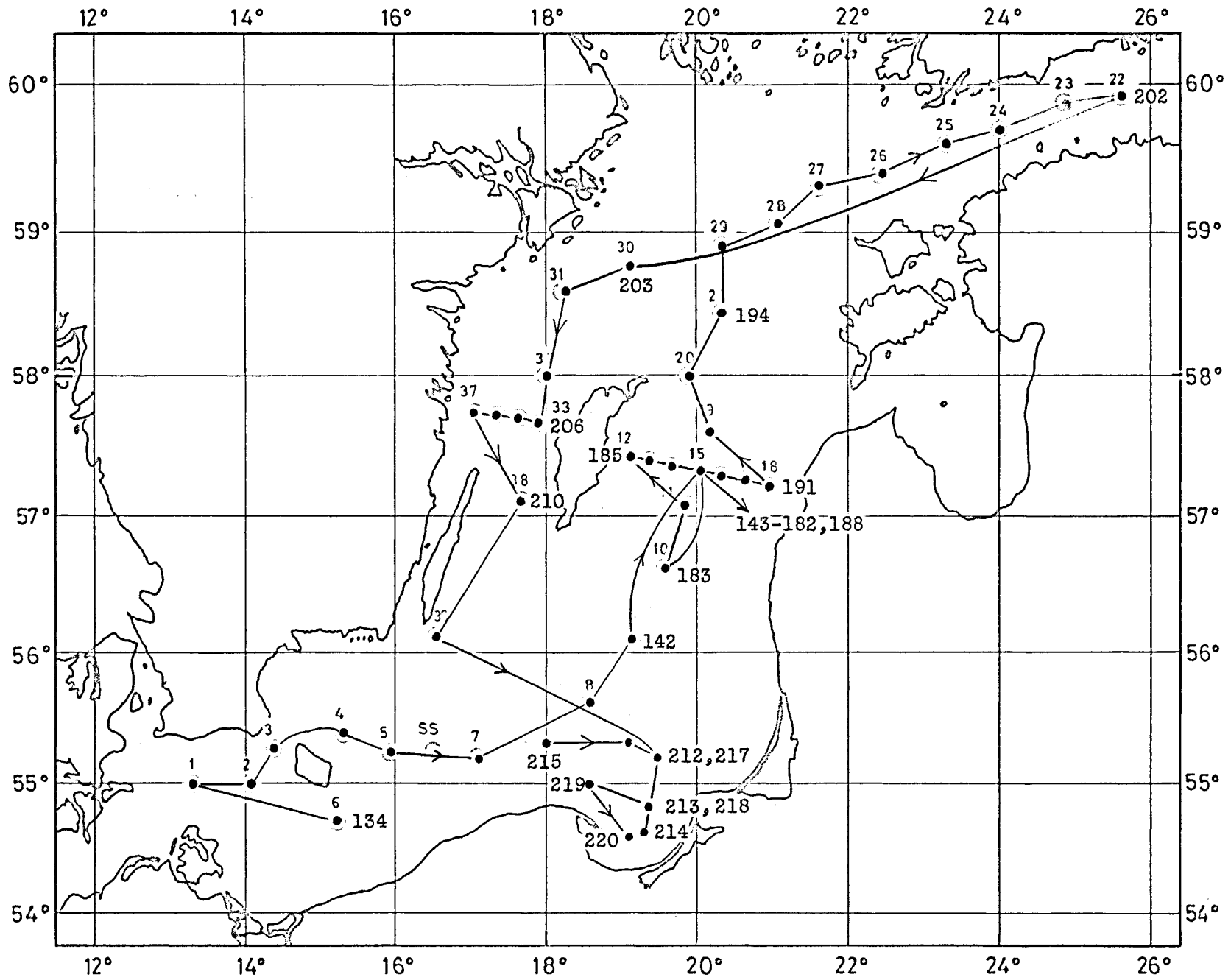
| Cruise Period | Ship | Stat.Nos. | Track chart p. |
|---------------|-----------------|-----------------|----------------|
| 7 -9 Jan | "Birkut" | 1-16 | 51 |
| 13-29 Jan | "Skagerak" | 5-80 | 33 |
| 5-16 Feb | "Birkut" | 17-42 | 51 |
| 13-27 Feb | "Mazirbe" | 1-20 | 34 |
| 27 Feb- 5 Mar | "Skagerak" | 81-87 | 54 |
| 21 Mar-12 Apr | "Prof. A.Penck" | (32 Stations) | 35 |
| 14-30 Apr | "Alkor" | 1-75 | 36 |
| 5-20 May | "Prof. A.Penck" | (28 Stations) | 37 |
| 20-21 May | "Okeanograf" | 1-9 | 55 |
| 25-30 May | "Birkut" | 43-57 | 52 |
| 26 May- 4 Jun | "Skagerak" | 113-146 | 38 |
| 5-10 Jun | " | 148-7161 | 39 |
| 2-10 Jun | "Thetis" | 87-96 | 54 |
| 3-17 Jun | "Aranda" | 2, 4-56 | 40 |
| 6-25 Jun | "Birkut" | 58-74,76-81 | 52 |
| 24-28 Jun | "Aranda" | 74-111 | 41 |
| 3- 4 Jul | " | 113-118 | 41 |
| 18,20-24 Jul | " | 154-159 | 41 |
| 27-28 Jul | "Aranda" | 163-166 | 55 |
| 29-31 " | " | 181-187,190-194 | 55 |
| 26 Jul- 8 Aug | "Birkut" | 83-130 | 42 |
| 2-5 Aug | "Alex. Smirnov" | 1-9 | 55 |
| 12,14 Aug | "Birkut" | 132-133 | 53 |
| 18-26 " | " | 135-152 | 53 |
| 18-20 Aug | "Skagerak" | 217-221 | 43 |
| 31 Aug- 9 Sep | " | 258-298 | 43 |
| 6-12 Sep | "Alkor" | 76-127 | 44 |
| 13-28 Oct | "Skagerak" | 325-351,361-377 | 45 |
| 22,25,28 Oct | "Birkut" | 208-210 | 53 |
| 7-11 Nov | " | 211-216 | 53 |
| 23 Oct-14 Nov | "Prof. A.Penck" | (34 Stations) | 46 |
| 2- 3 Nov | "Alex. Smirnov" | 10-18 | 55 |
| 11-22 Nov | "Dana" | 14-24 | 47 |
| 2-10 Dec | " | 34-71 | 47 |
| 12-26 Nov | "Skagerak" | 378-407 | 48 |
| 16-29 Nov | "Birkut" | 218-247 | 49 |
| 15-19 Dec | " | 369,371-375 | 49 |



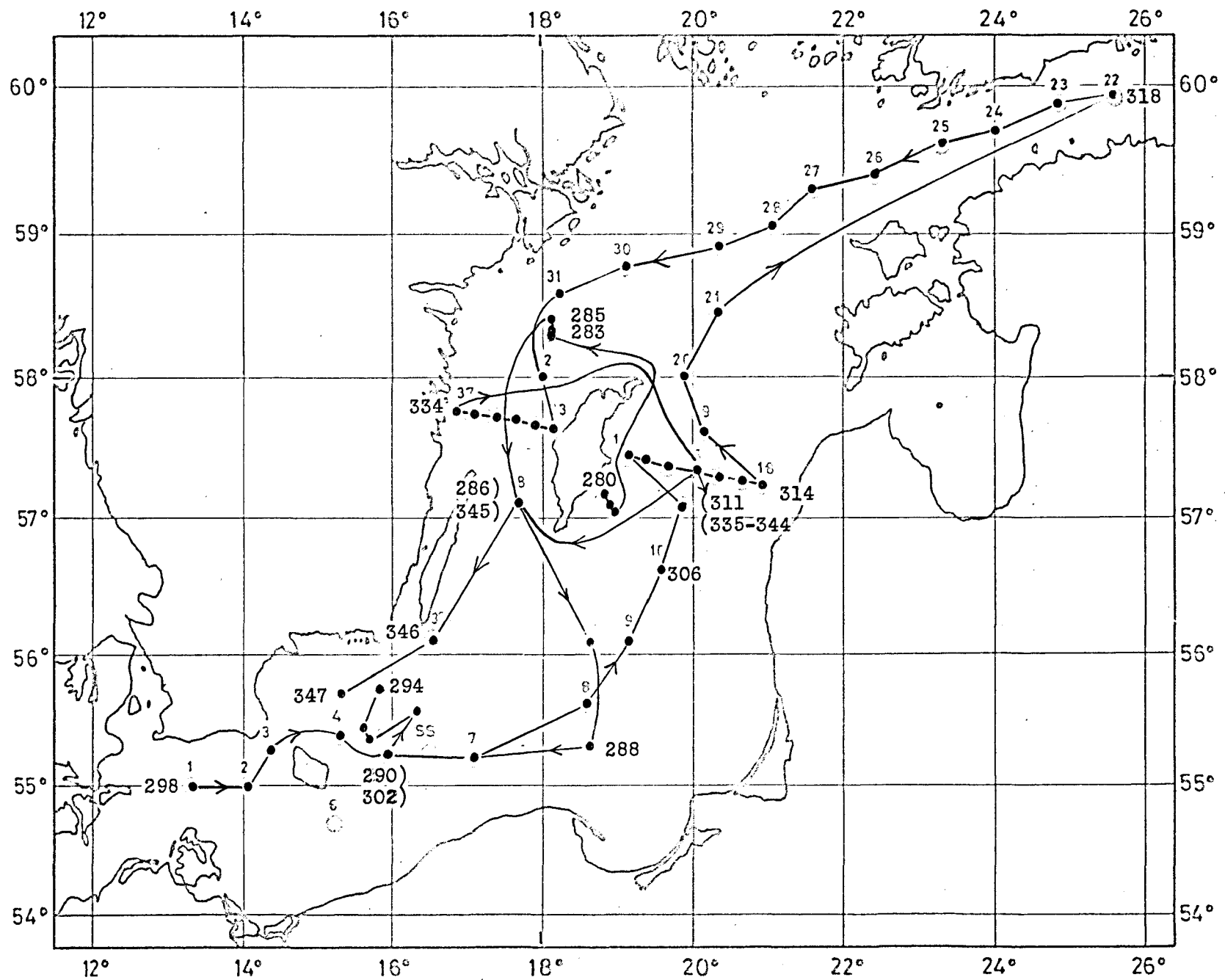
Graph of cruises



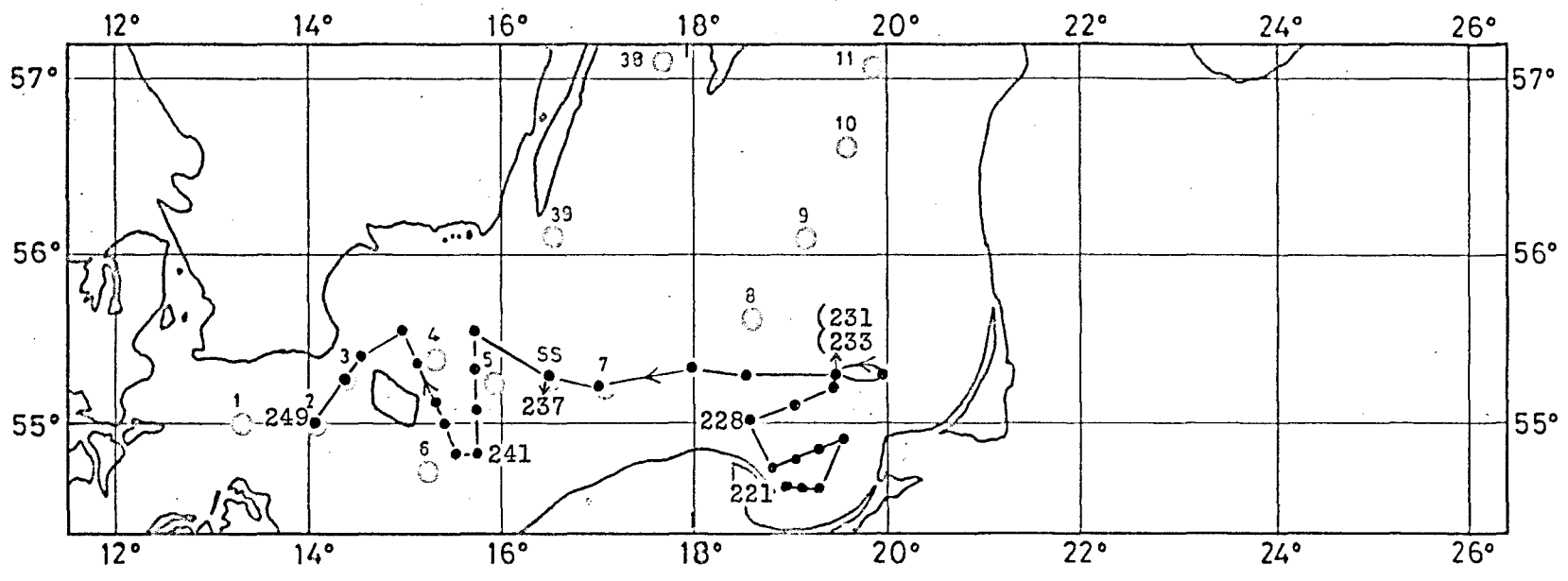
IBY standard stations



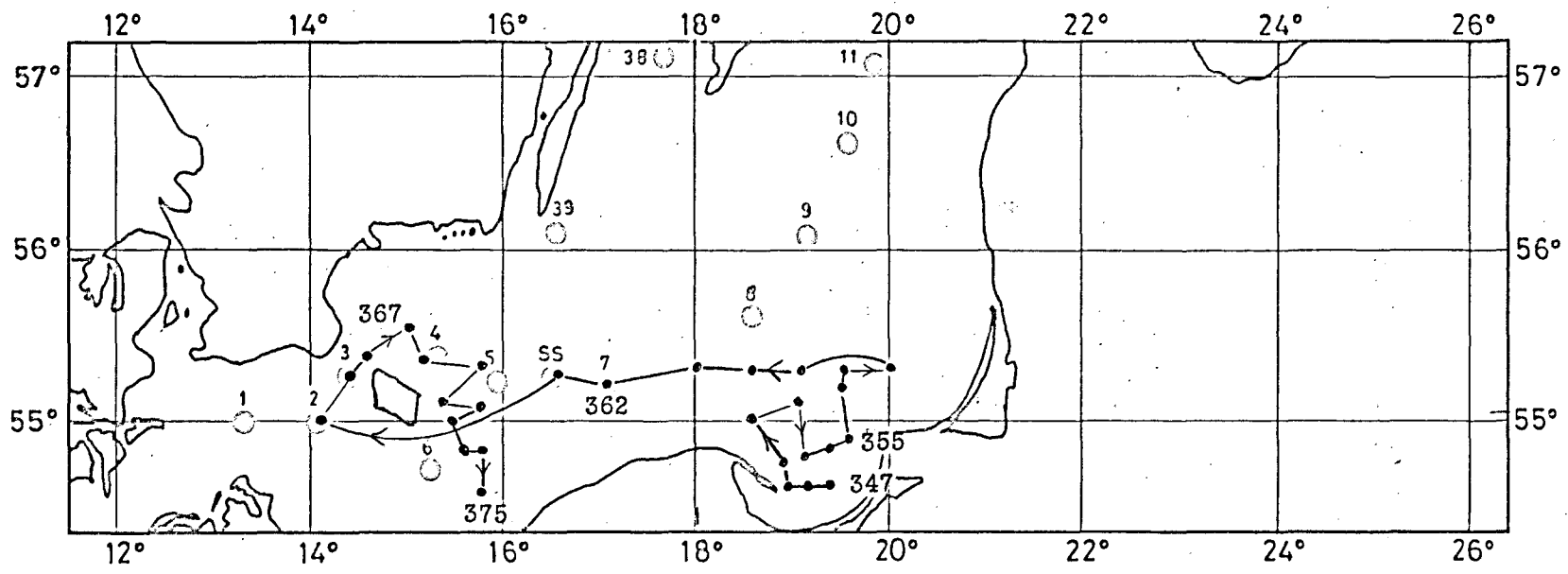
"Birkut". Stat. Nos. 134-214, 215-220. Periods: 7-27, 29-30 Jul 1969



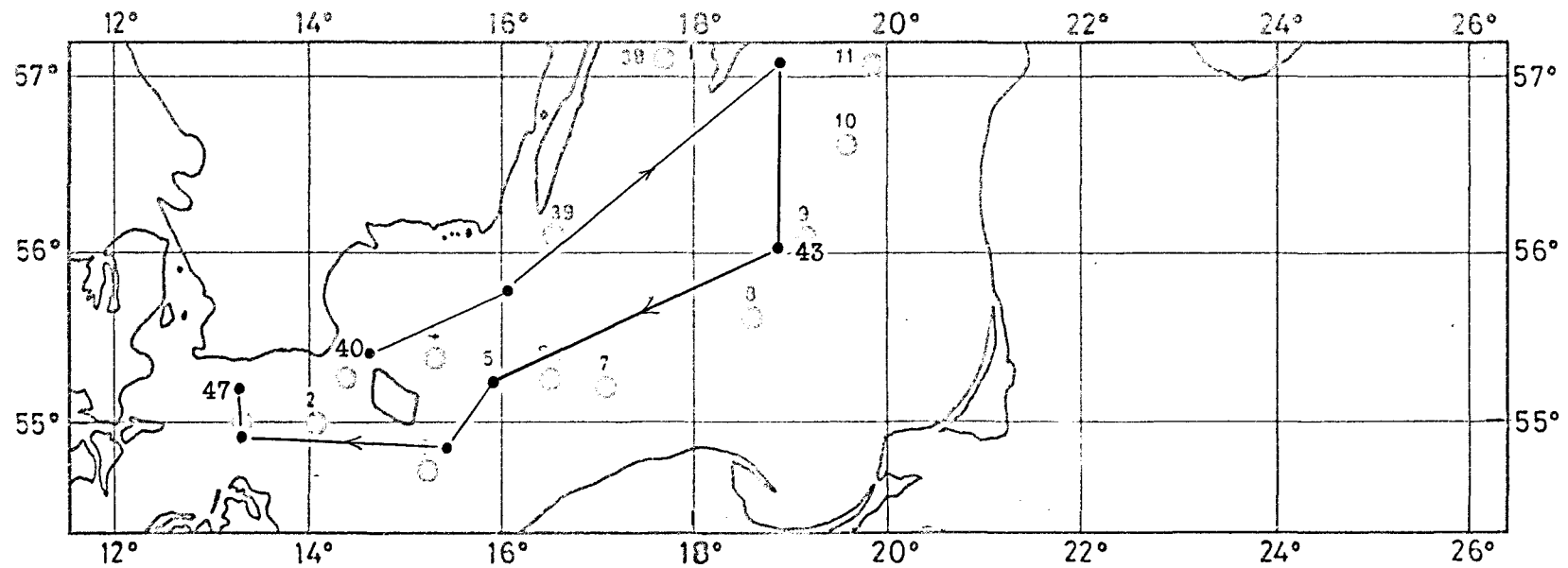
"Skagerak". Stat. Nos. 280-297, 298-347. Periods: 16-24 Oct, 12-26 Nov 1969.



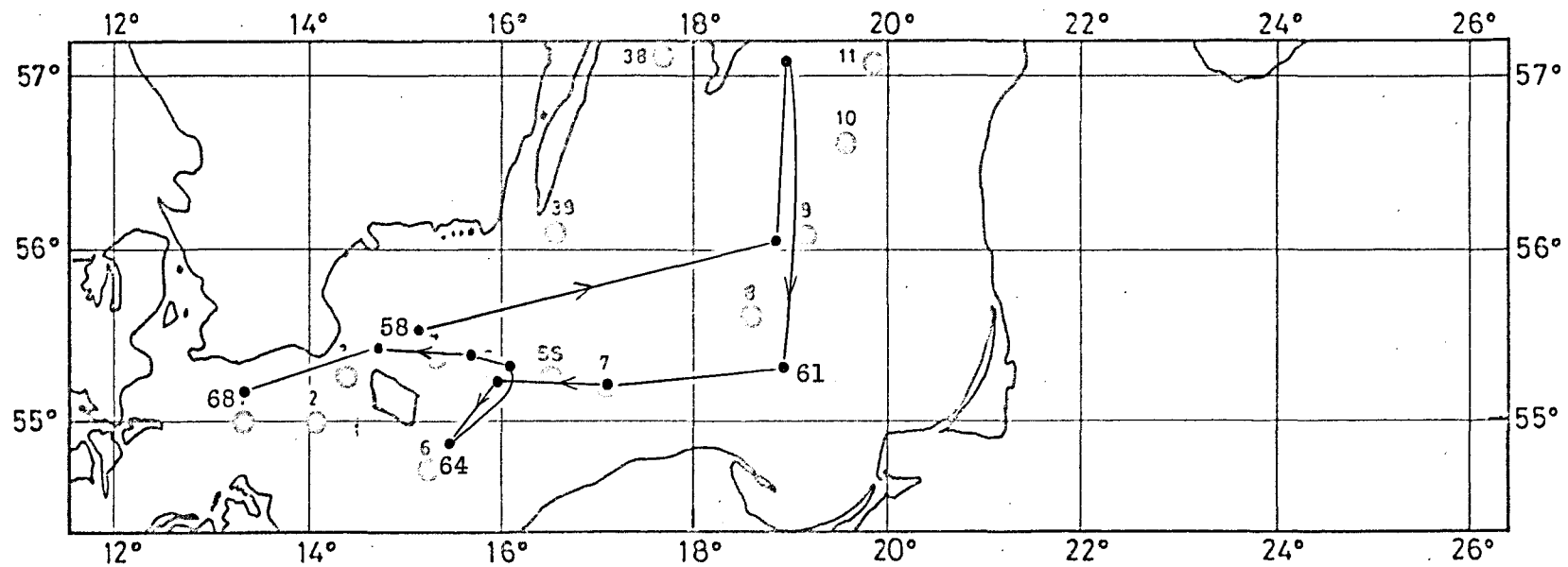
"Mir I". Stat. Nos. 221-249. Period: 20-29 Aug 1969.



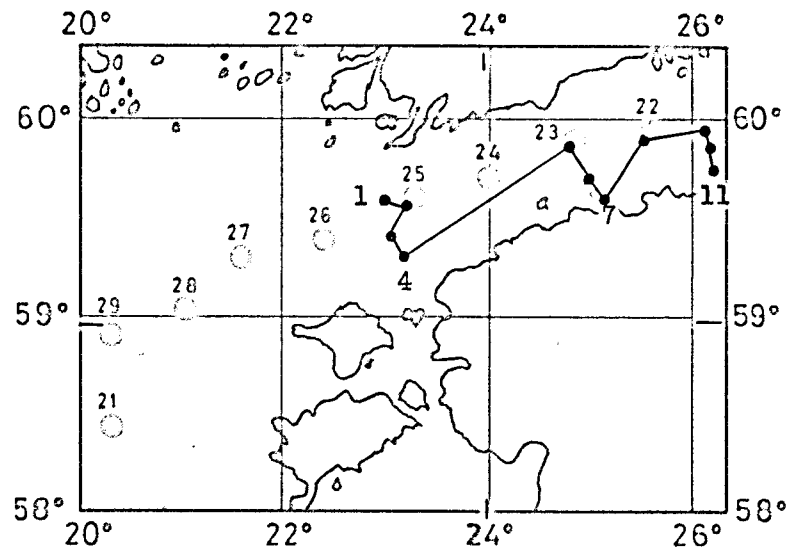
"Mir I". Stat. Nos. 347-375. Period: 13-24 Nov 1969.



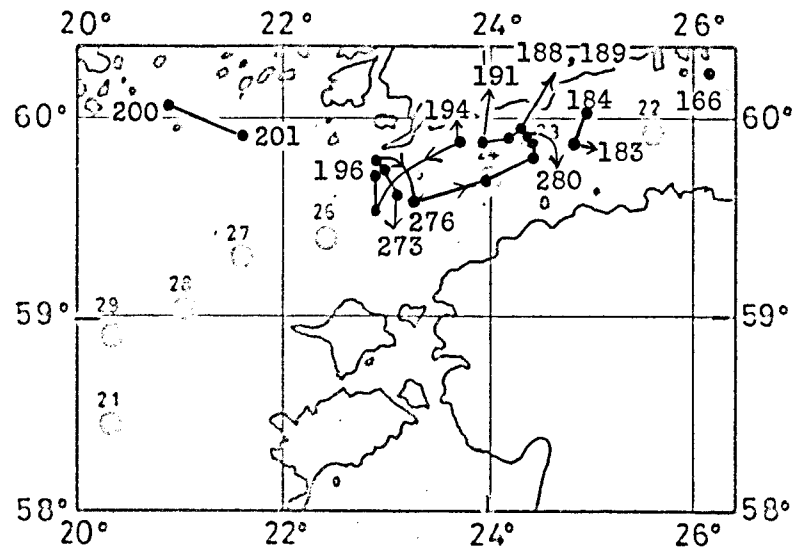
"Thetis". Stat. Nos. 40-47. Period: 19-28 Mar 1969.



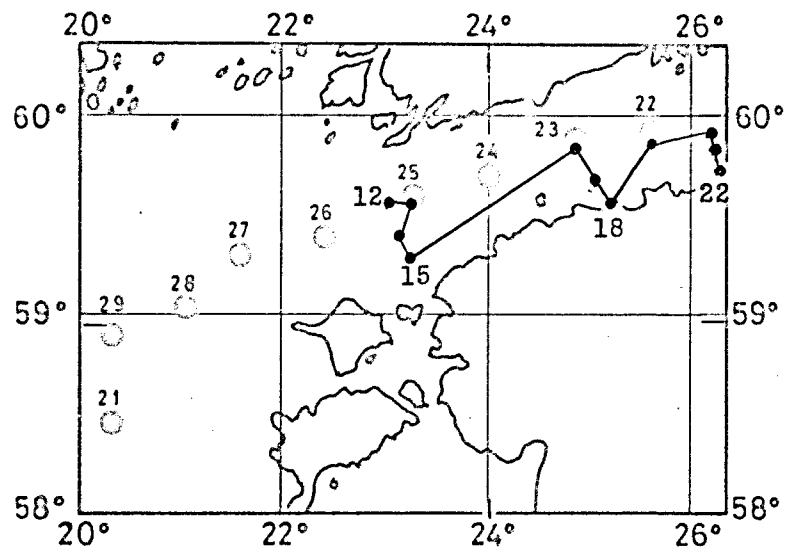
"Thetis". Stat. Nos. 58-68. Period: 4-16 Jun 1969.



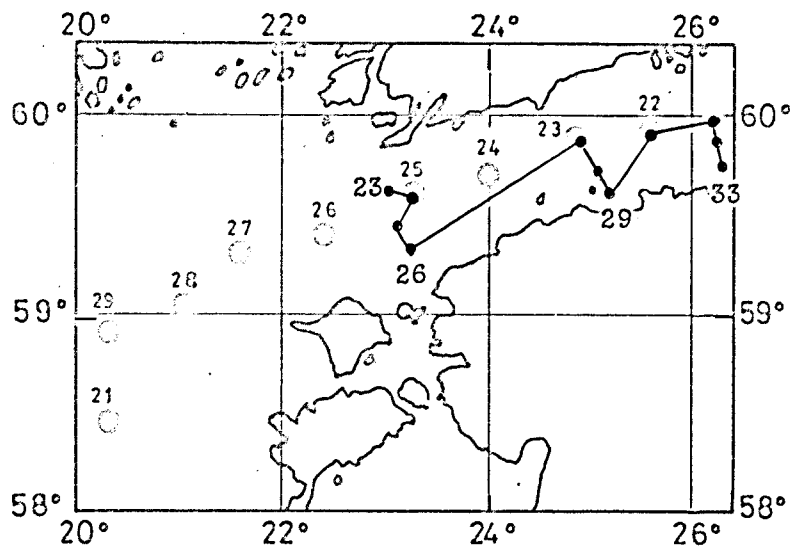
"Alex. Smirnov". Stat. Nos. 1-11.
Period: 17-21 May 1969.



"Aranda". Stat. Nos. 166, 183-184, 188-191, 194-196,
200-201, 273-280. Periods: 21-25 Jul, 11-12 Aug 1969.



"Alex. Smirnov". Stat. Nos. 12-22.
Period: 11-13 Aug 1969



"Alex. Smirnov". Stat. Nos. 23-33.
Period 31 Oct-6 Nov 1969.