

Quantitative and qualitative investigations of benthic communities in the areas of mobile bottoms of the Adriatic Sea

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Under the scope of PIPETA trawl survey monitoring program of the Adriatic Sea ground fish stocks monitoring of quantitative and qualitative benthic communities aspects (epi and endofauna) were carried out. Program included quantitative and qualitative studies of benthic communities and their relationship with edible: fish, crustacean and cephalopod stocks.

In these studies a special care was taken of selection of the representative stations and profiles in the northern and central Adriatic of characteristic and dominant bottom sediments and sea depths.

Data of PIPETA trawl surveys collected in spring (April-May) and winter (November-December) of 1982 year are presented in this reports as:

- quantitative and qualitative inventory of species and their percentage values;
- percentage value relationship between the numbers and weight of each species group for different stations;
- average value of two cruises, biomass and number of dominant species groups at each station;
- horizontal and vertical distribution of species in the area.

INTRODUCTION

The first investigations of quantitative aspects of the Adriatic benthic communities of a wider area of the northern and central Adriatic Sea were carried out by VATOVA (1949). In our study the endofauna, i.e. its biomass in different sea bottom communities of the northern and central Adriatic were described.

The first comprehensive fisheries investigations on quantitative and qualitative aspects of the Adriatic continental shelf communities were carried out in 1948/49 within the frame-

work of the HVAR Expedition (KARLOVAC, O. 1959). The significance of the results of that study among the other things, was the first and preliminary statement of the relationship between edible and nonedible biomass of bottom trawl catches. In addition to these studies of interest for the quantitative and qualitative aspects of benthic flora and fauna over a rather wide area, some important papers should be mentioned, such as: ALVISI *et al.* (1978); BABIĆ (1922); COLANTONI *et al.* (1980); GAMULIN-BRIDA (1962, 1969, 1974); GAMULIN-BRIDA *et al.* (1971); PAX (1952); PAX and MÜLLER (1962); SCACCINI

(1967); SCACCINI *et al.* (1967); ŠTEVČIĆ (1982); ŽUPANOVIĆ (1961); ZAVODNIK (1971, 1972, 1980); VIDOVIĆ-MATVEJEV (1978). These papers deal with the benthic communities of mobile Adriatic bottoms, and each of these authors worked out a separate area.

It is very likely that some important changes have taken place in the benthic communities of the Adriatic Sea since the "HVAR" expedition, due to intensive trawling. The program of "PIPETA" was agreed between the Laboratory for Marine Biology and Fisheries - Fano (Italy) and the Institute of Oceanography and Fisheries - Split (Croatia) to study qualitative and quantitative changes of benthic communities (epifauna and endofauna) among the other things in spring and winter of 1982.

The first cruise took place in spring 1982 (April-May). Benthic communities were studied from both qualitative and quantitative aspects aiming at establishing the richness of individual sea beds in commercial catches (fish, crustaceans and cephalopods).

The principal goals with respect to benthos of this bilateral Adriatic trawl fishing expedition were:

- 1) to establish the distribution of each species, taking into account the numbers and weight;
- 2) to find out the abundance in relation to the area of distribution;
- 3) to establish the abundance indices for each individual species at different stations and their dependence on bottom type and depth;
- 4) to prepare a detailed biocoenological map of benthic communities of the study area;
- 5) to determine, if possible, the relationship between trawled benthic communities and particularly the relationship between the edible and non-edible catch parts, taking seasonal aspects into account.

Sampling stations were particularly carefully selected so as to be representative of principal bottom types (Figs. 1 and 2) and different depths (Fig. 3). Crustacean behaviour by day and at night was observed.

Italian commercial vessel "PIPETA" (300 HP) took the samples from 47 stations at nine profiles in April and May 1982 (Fig. 1) and from 53 stations in November and December of the same year (Fig. 2).

MATERIAL AND METHODS

Benthic organisms were collected by an Italian type trawl (PICCINETTI, 1972) at 3.5 Nm per hour towing speed.

The "swept area technique" was applied to get the information on benthic fauna abundance. Three successive trawl hauls were performed at almost all the stations.

Abundance indices by individual species and groups were calculated and expressed in grams as a quantity caught in unit time - 1 hour.

The weight of non-edible catch part was calculated as follows: a plastic fishbox of dimensions 50x32x10.5 was filled by the random sample technique with the material of epifauna collected by every haul. The weight of the plastic fishbox with epifauna was multiplied with the number of fishboxes of epifauna collected per single trawl haul, and then this value was calculated per unit time. Material was collected by day and by night.

To keep the trawl characteristics constant at all locations, at some stations of profiles A and B, characterized by hard bottoms or large quantities of epifauna, nets were little modified.

Wooden rollers, normal at the ground rope of the net, were removed when hauling muddy bottoms and coastal stations of all the profiles (Fig. 2).

Objective difficulties (rocky bottoms) conditioned some slight changes in geographical positions of some stations in November-December cruise.

During the second cruise in 1982, net was dropped twice at each station. The arrow in Fig. 2 shows the first towing directions and the arrow length the distance per trawling time. The second towing was frequently performed

along the same distance but in opposite direction.

During the second cruise, the technique of benthic fauna sampling (weight and number) differed sometimes from that applied during the April-May cruise due to the presence of some bigger species (*Pinna pectinata*, *Echinus acutus*) which made up the bulk of the catches at some stations. The biggest specimens would be separated, counted and weighed first, and thereupon the sample of a fishbox would be taken which contained other species and which was multiplied by the number of fishboxes by every haul.

Fixed stations of PIPETA trawl-survey action in 1982 (April-May)

A (1):	45° 14'50 N, 12° 21'00 E 45° 17'50 N, 12° 22'00 E	C (6):	44° 39'00 N, 13° 34'00 E 44° 40'50 N, 13° 26'00 E
A (2):	45° 15'50 N, 12° 33'50 E 45° 12'50 N, 12° 33'00 E	D (1):	43° 54'00 N, 13° 03'00 E 43° 56'00 N, 12° 58'50 E
A (3):	45° 21'00 N, 12° 45'00 E 45° 17'00 N, 12° 45'25 E	D (2):	43° 58'00 N, 13° 17'00 E 43° 55'00 N, 12° 20'00 E
A (4):	45° 11'00 N, 12° 51'00 E 45° 12'00 N, 12° 56'00 E	D (3):	44° 03'00 N, 13° 27'00 E 44° 09'50 N, 12° 20'00 E
A (7):	45° 20'50 N, 13° 11'50 E 45° 24'00 N, 13° 10'00 E	D (4):	44° 09'00 N, 13° 39'00 E 44° 13'00 N, 13° 31'00 E
B (1):	44° 59'00 N, 12° 35'00 E 44° 54'00 N, 12° 39'00 E	D (5):	44° 15'00 N, 13° 50'00 E 44° 21'00 N, 13° 52'00 E
B (2):	45° 00'00 N, 12° 49'00 E 45° 00'00 N, 12° 54'00 E	D (6):	44° 21'50 N, 14° 00'00 E 44° 25'00 N, 13° 54'00 E
B (3):	45° 02'00 N, 13° 01'00 E 45° 00'00 N, 13° 07'00 E	E (1):	43° 40'50 N, 13° 35'00 E 43° 37'00 N, 13° 40'00 E
C (1):	44° 13'00 N, 12° 28'50 E 44° 10'00 N, 12° 34'00 E	E (2):	43° 47'00 N, 13° 48'00 E 43° 49'50 N, 13° 44'00 E
C (2):	44° 20'00 N, 12° 40'00 E 44° 22'50 N, 12° 45'00 E	E (3):	43° 53'50 N, 14° 00'50 E 43° 58'00 N, 13° 55'00 E
C (3):	44° 23'00 N, 12° 51'00 E 44° 19'00 N, 12° 45'00 E	E (4):	43° 55'50 N, 14° 13'00 E 44° 00'00 N, 14° 15'00 E
C (4):	44° 28'00 N, 13° 02'00 E 44° 23'50 N, 13° 09'00 E	E (5):	44° 00'00 N, 14° 32'00 E 44° 03'00 N, 14° 28'00 E
C (5):	44° 35'00 N, 13° 17'00 E 44° 32'00 N, 13° 12'50 E	F (1):	43° 03'00 N, 13° 56'00 E 42° 58'50 N, 13° 56'00 E
		F (2):	43° 07'00 N, 14° 12'00 E 43° 02'50 N, 14° 13'00 E
		F (3):	43° 17'00 N, 14° 12'00 E 43° 16'00 N, 14° 27'00 E
		F (4):	43° 23'00 N, 14° 31'00 E 43° 26'00 N, 14° 28'00 E
		F (5):	43° 30'00 N, 14° 41'00 E 43° 33'50 N, 14° 37'00 E
		F (6):	43° 33'00 N, 14° 58'00 E 43° 30'50 N, 15° 03'50 E
		G (1):	42° 29'00 N, 14° 19'00 E 42° 33'50 N, 14° 21'00 E
		G (2):	42° 35'00 N, 14° 31'50 E 42° 38'50 N, 14° 38'00 E
		G (3):	42° 37'00 N, 14° 44'50 E 42° 44'00 N, 14° 48'00 E

G (4): 42° 48'00 N, 14° 52'00 E 42° 51'00 N, 14° 48'00 E	B (1): 45° 00'00 N, 12° 38'00 E 44° 52'50 N, 13° 33'00 E
G (5): 42° 52'00 N, 15° 08'00 E 42° 47'00 N, 15° 08'00 E	B (2): 45° 01'00 N, 12° 51'00 E 44° 57'00 N, 12° 50'00 E
H (1): 42° 01'00 N, 15° 06'00 E 42° 05'00 N, 15° 00'00 E	B (3): 45° 04'00 N, 13° 00'00 E 45° 00'00 N, 13° 00'00 E
H (2): 42° 11'00 N, 15° 14'00 E 42° 12'50 N, 15° 08'00 E	B (4): 45° 00'00 N, 13° 18'00 E 44° 58'50 N, 13° 21'00 E
H (3): 42° 19'00 N, 15° 22'00 E 42° 17'00 N, 15° 28'50 E	B (5): 44° 29'50 N, 12° 49'00 E 44° 25'00 N, 12° 58'00 E
H (4): 42° 26'00 N, 15° 34'00 E 42° 31'50 N, 15° 29'00 E	B (6): 44° 32'00 N, 12° 56'00 E 44° 27'50 N, 12° 55'00 E
H (5): 42° 32'50 N, 15° 46'00 E 42° 27'00 N, 15° 42'00 E	B (7): 44° 36'00 N, 13° 06'00 E 44° 44'00 N, 13° 00'00 E
H (6): 42° 45'00 N, 15° 55'00 E 42° 43'00 N, 15° 45'00 E	B (8): 44° 40'00 N, 12° 55'00 E 44° 34'00 N, 12° 56'00 E
I (1): 41° 55'00 N, 16° 16'00 E 41° 58'00 N, 16° 09'00 E	C (1): 44° 12'00 N, 12° 32'00 E 44° 08'50 N, 12° 35'00 E
I (2): 42° 00'00 N, 16° 25'00 E 42° 00'50 N, 16° 31'00 E	C (2): 44° 20'00 N, 12° 41'00 E 44° 16'00 N, 12° 42'00 E
I (3) : 42° 09'00 N, 16° 36'00 E 42° 12'00 N, 16° 42'00 E	C (3): 44° 23'00 N, 12° 52'00 E 44° 21'00 N, 12° 56'00 E
I (4): 42° 20'00 N, 16° 48'00 E 42° 16'00 N, 16° 47'50 E	C (4): 44° 26'00 N, 13° 04'00 E 44° 24'50 N, 13° 09'00 E
I (5): 42° 24'00 N, 16° 58'00 E 42° 27'00 N, 16° 03'02 E	C (5): 44° 35'00 N, 13° 18'00 E 44° 37'00 N, 13° 12'00 E

November - December (1982)

A (1): 45° 13'00 N, 12° 20'00 E 45° 16'00 N, 12° 21'00 E	D (1): 43° 53'00 N, 13° 04'00 E 43° 56'00 N, 12° 59'00 E
A (2): 45° 15'00 N, 12° 33'00 E 45° 12'50 N, 12° 35'00 E	D (2): 43° 58'50 N, 13° 18'00 E 44° 03'00 N, 13° 12'00 E
A (3): 45° 17'50 N, 12° 45'50 E 45° 19'50 N, 12° 41'00 E	D (3): 44° 04'00 N, 13° 27'00 E 44° 11'00 N, 13° 27'00 E
A (4): 45° 16'50 N, 12° 50'00 E 45° 16'00 N, 12° 55'00 E	D (4): 44° 09'00 N, 13° 38'00 E 44° 15'00 N, 13° 35'00 E
A (6): 45° 30'00 N, 13° 07'50 E 45° 29'50 N, 13° 04'50 E	D (5): 44° 20'00 N, 13° 44'00 E 44° 16'00 N, 13° 51'00 E
A (7): 45° 20'00 N, 13° 17'00 E 45° 17'50 N, 13° 12'00 E	D (6): 44° 22'00 N, 14° 01'00 E 44° 24'00 N, 13° 54'00 E
A (8): 45° 10'00 N, 13° 02'50 E 45° 07'00 N, 13° 03'50 E	E (1): 43° 41'00 N, 13° 36'00 E 43° 37'00 N, 13° 41'00 E

E (2):	43° 47'00 N, 13° 48'00 E 43° 51'00 N, 13° 42'00 E	I (1):	41° 56'00 N, 16° 14'00 E 41° 52'00 N, 16° 19'00 E
E (3):	43° 53'00 N, 14° 00'00 E 43° 57'00 N, 13° 55'00 E	I (2):	42° 00'00 N, 16° 25'00 E 42° 04'50 N, 16° 20'00 E
E (4):	43° 58'00 N, 14° 14'00 E 43° 03'00 N, 14° 10'00 E	I (3):	42° 08'50 N, 16° 37'00 E 42° 11'00 N, 16° 44'00 E
E (5):	44° 01'00 N, 14° 29'00 E 43° 57'00 N, 14° 34'00 E	I (4):	42° 18'00 N, 16° 49'50 E 42° 21'00 N, 16° 43'00 E
F (1):	43° 05'00 N, 13° 55'50 E 42° 58'00 N, 13° 58'00 E	I (5):	42° 24'00 N, 16° 58'00 E 42° 26'00 N, 16° 53'00 E
F (2):	43° 10'00 N, 14° 10'00 E 43° 04'00 N, 14° 11'00 E		
F (3):	43° 13'00 N, 14° 22'00 E 43° 04'00 N, 14° 22'00 E		
F (4):	43° 18'00 N, 14° 32'00 E 43° 17'00 N, 14° 27'00 E		
F (5):	43° 24'00 N, 14° 45'00 E 43° 29'50 N, 14° 42'00 E		
F (6):	43° 33'00 N, 14° 59'00 E 43° 30'00 N, 15° 05'00 E		
G (1):	42° 29'50 N, 14° 20'00 E 42° 34'00 N, 14° 15'00 E		
G (2):	42° 36'00 N, 14° 34'00 E 42° 40'00 N, 14° 41'00 E		
G (3):	42° 41'00 N, 14° 42'00 E 42° 45'00 N, 14° 46'00 E		
G (4):	42° 45'00 N, 14° 54'00 E 42° 54'00 N, 14° 48'00 E		
G (5):	42° 54'00 N, 15° 04'00 E 42° 56'50 N, 14° 57'00 E		
H (1):	42° 04'00 N, 15° 03'00 E 42° 07'00 N, 14° 56'00 E		
H (2):	42° 12'00 N, 15° 13'00 E 42° 16'00 N, 15° 07'00 E		
H (3):	42° 20'00 N, 15° 27'00 E 42° 24'00 N, 15° 23'00 E		
H (4):	42° 29'00 N, 15° 35'00 E 42° 31'00 N, 15° 26'00 E		
H (5):	42° 28'00 N, 15° 46'00 E 42° 33'30 N, 15° 40'00 E		
H (6):	42° 43'00 N, 15° 52'00 E 42° 42'00 N, 16° 00'00 E		

RESULTS AND DISCUSSION

The data of PIPETA Expedition in April-May and November-December 1982 are presented in this paper as:

- quantitative and qualitative inventory of species with their percentage presence;
- percentage relationship between the numbers and weight of individual species by groups and stations;
- mean values of two cruises biomass and numbers of dominant animal groups for each station;
- horizontal and vertical distribution in the study area.

Qualitative and quantitative inventory of species collected with trawl was made on the basis of the data collected during two cruises in 1982. It may be observed that the abundance indices referring to the species collected from the northern Adriatic stations and profiles differ from those collected from the central and southern Adriatic.

Indices of abundance of benthic organisms by individual profiles (means for all stations) show the following quantities: Profile A 207.2 kg/h, Profile B 336.6 kg/h, Profile C 460.9 kg/h collected from the colder and shallower waters of the northern Adriatic.

Towards the central and southern Adriatic the values of abundance indices were lower: Profile D 134.5 kg/h; Profile E 96.6 kg/h, Profile F 121.2 kg/h; the lowest abundance indices were recorded for Profile G 6.7 kg/h, Profile H 6.3 kg/h and Profile I 10.5 kg/h.

Abundance indices vary significantly from western towards the eastern Adriatic. This particularly applies to the northern Adriatic and partly central Adriatic and to depths down to 100 m.

Weight of the Adriatic benthic fauna collected down to 100 m depth makes up the bulk of the total weight of catches realized with bottom trawls. Benthic fauna abundance for two cruises and all the stations marked with number 1 along the Italian coast was on the average 45.2 kg/h, for stations 2-66.4 kg/h, for stations 3-112.7 kg/h, for stations 4-228.8 kg/h for stations 5-557.3 kg/h and for stations 6-656.9 kg/. At stations where depth exceeds 100 m the biomass varied from 3 to 8 kg/h with the exception of stations "F6" (114 m depth) and "I3" (168-210 m depth) where recorded values were 83 kg/h and 25.2 kg/h respectively.

PÉRÈS and GAMULIN-BRIDA (1973) published an inventory of benthic epifauna quantities collected during 1948/49 in the central Adriatic using the table given by O. KARLOVAC (1959).

The values they reported for the quantities of benthos are in broad agreement with those obtained by PIPETA Expedition during two cruises in 1982. The epifauna quantities caught during the first cruise differ from those collected during the second cruise, presumably due to the change in the geographical position of some stations as well as to the effects of wooden rollers added to the ground rope.

Presumably, large quantities of some species recorded during the first cruise were not recorded during the second cruise due to these changes. This refers to, for example, *Distoma adriaticum* DRACHE at station 7 of A profile. The differences in biomass values for the same species at the same stations between two cruises may be related to either the seasonal aspect and difference in species behaviour, to the benthic community dynamics or to the trawling possibilities. These aspects are taken into account when programming the cruises.

The percentages of the numbers and weights of benthic faunal groups given in Figs. 4-21, show their presence at individual stations. Some differences in species composition of benthic faunal groups between two PIPETA cruises were also observed.

Studies of distribution of biomass of dominant groups at individual stations (Fig. 22) show that the Mollusca group is dominant along the western Adriatic coast. Significant dominance of Arthropoda (crabs) group was recorded from muddy bottoms whilst Mollusca and Echinodermata dominated sandy bottoms. Similar pattern of distribution was found for the numbers of individuals of dominant groups (Fig. 23), with the exception of some stations where biomass of the group did not conform with the number of its individuals.

Species distribution data give us some information on the distribution of some very rare Adriatic species, such as *Anamathia rissoana* (ROUX) or *Spondylus gussoni* O.C. COSTA. Among these, some rare species are found as well: *Munida intermedia* M. EDW & BOUV. (found on only one occasion), *Polycheles typhlops* HELLER, *Monodaeus couchi* (COUCH), *Mesothuria intestinalis* (ASCANIUS and RATHKE), *Odonaster mediterraneus* MAR., *Luidia sarsi* DUB. KOR., *Sclerasterias neglecta* (PERR.), *Brisingella coronata* (O. SARS).

The species *Ranella gigantea* (LAMARCK) was caught on fine sandy bottom of station "I4" between 200 and 260 m depth and station "I5" between 396 and 430 m depth. Wave-like sea bed morphology at station "I5" yielded stones and pieces of a hard bottom (Fig. 42). The available literature on the Adriatic Mollusca contains only a single record of the species *Ranella gigantea* (RADIĆ, 1982).

Catch of these and other rare Adriatic species originate mainly from greater depths. That's why their biology and ecology are poorly known.

In general, it may be stated that the distribution of most of the Adriatic species is direct-

ly related to environmental factors. So the species of Mollusca group: *Naticarius stercus-muscarum* (Gmel.), *Hinia reticulata* (LINNE), *Sphaeronassa mutabilis* (LINNE) and *Venerupis corbuloides* (MONT.) are distributed along the western Adriatic coastal belt wide up to 5 Nm.

The species *Cliona celata* GRANT of Porifera group which prefers sandy bottoms (Fig. 24) was caught down to the maximum depth of 114 m ("F6"). The species *Suberites domuncula* (OLIVI) prefers sandy bottom as well, but on the contrary of *Cliona celata* it is distributed throughout the whole investigated area (Fig. 25). The species *Suberites carnosus* (JOHNSTON) prefers muddy bottoms and was collected from muddy bottoms of the central Adriatic (Fig. 26) even though its numbers were highest at stations "B2" and "B3" in the northern Adriatic.

The species *Pennatula phosphorea* LINNE (Cnidaria) was found at central Adriatic stations (Fig. 27). It presumably prefers sandy bottom.

The species *Liocarcinus depurator* (LINNE) (Arthropoda) is one of better distributed species in the Adriatic. It may be found on all bottom types and at different depths (Fig. 28); its numbers are rather high at stations "B5", "B6" and "B8" in the northern Adriatic and it makes up the bulk of the catches, constituting from 82.86% to 98.86%. The species *Solenocera membranacea* (RISSO) and *Processa nouveli* AL ADHUB and WILLIAMS (Figs. 29 and 30) are predominantly distributed on muddy and sandy-muddy bottoms of the central Adriatic.

The species *Galeodea echinophora* (LINNE) of Mollusca group was recorded from all bottom types throughout the study area (Fig. 31). Its densities are greater on muddy than on sandy bottoms. The species *Aporrhais pespelecani* (LINNE) was recorded throughout the study area, particularly at smaller depths, being denser at 20-30 m along the western Adriatic coast (Fig. 32). The species *Chlamys opercularis* (LINNE) was

caught only from the northern Adriatic depths with sand dominance. Its depth distribution limit is somewhere between 62 and 66 m (Fig. 33). The species *Pecten jacobaeus* LINNE inhabits the same bottom types like the preceding species even though it is more widely distributed (Fig. 34). The species *Pinna pectinata* LINNE was recorded from sandy-muddy bottoms (Fig. 35). Greater quantities of this species were recorded from some stations (live specimens or shells) and it may cause a lot of difficulties for trawls.

The species *Stichopus regalis* (CUV.) of the Echinodermata group prefers sandy bottoms (Fig. 36) even though individual specimens could be found on other bottom types, as well. An average of 940 specimens of this species was caught per an hour haul at station "F5". The species *Holothuria forskali* DELLE CHIAJE prefers sandy bottoms (Fig. 37). Its greater quantities occur at some stations along with the specimens of commercial catches. It causes some predominantly esthetic problems for species separation. Depth seems to be a limiting factor of its distribution. It was recorded down to a maximum of 114 m (station "F6"). The species *Cucumaria planci* (BRANDT) lives on all bottom types. Depth is a limiting factor of its distribution so that it was not recorded deeper than 104 m (station "H2"; Fig. 38). The species *Echinus acutus* (LAMARCK) was recorded from predominantly sandy bottom types (Fig. 39). It was found at all the profiles with the exception of profile "I". The number of specimens caught in the northern Adriatic considerably exceeded that in the central Adriatic. The species *Astropecten irregularis pentacanthus* (DELLE CHIAJE) is distributed at practically all the stations of the study area (Fig. 40) between 12 and 430 m.

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Kvantitativna i kvalitativna istraživanja bentoskih zajednica na pomicnim dnama Jadrana

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KRATKI SADRŽAJ

Programom istraživanja ekspedicije PIPETA osim ribarstvenih zadataka su se odredivala kvalitativna i kvantitativna obilježja bentoskih zajednica (epifauna i endofauna). Prvo je krstarenje obavljeno u proljeće 1982. godine (travanj-svibanj).

Posebna je pažnja posvećena odabiru reprezentativnih postaja u odnosu na tipove dna i dubine mora.

Podaci su prikupljeni pomoću talijanskog komercijalnoga broda m/b PIPETA (300 ks) na 47 stalnih postaja raspoređenih na devet profila tijekom travnja i svibnja mjeseca 1982. i na 53 postaje tijekom studenoga i prosinca 1982. godine. Brzina povlačenja je bila oko 3.5 Nm na sat.

Da bi se odredili pokazatelji obilnosti faune bentosa koristilo se je metodom "izlova po jedinici površine". Pokazatelji obilnosti pojedine vrste i grupe izračunati su i izraženi u gramima kao količina ulovljena u jedinici vremena - 1 satu.

Težina nejestivoga dijela ulova izračunata je na način da je jedan plastični sanduk (kašeta) dimenzija 50 x 32 x 10.5 cm punjen metodom slučajnog uzorka, materijalom koji je sadržavao epi-faunu sakupljenu povlačnom mrežom. Težina jednoga plastičnog sanduka ispunjenog epifaunom množena je s ukupnim brojem sanduka epifaune sakupljene tijekom jednoga potega s dubinskom povlačnom mrežom, a zatim je vrijednost izražena u jedinici vremena (kg/sat). Materijal se prikupljao kontinuirano, tj. danju i noću. Nastojale su se zadržati stalne tehničko-tehnološke karakteristike dubinske povlačne mreže na svim postajama tijekom sakupljanja materijala.

Podaci prikupljeni u tijeku ekspedicije PIPETA u mjesecima travnju-svibnju i studenome - prosincu 1982. godine u ovom su radu prikazani u obliku kvantitativnog i kvalitativnog popisa vrsta, s postotnom zastupljeničću; postotnog odnosa između broja i težine pojedinih vrsta po grupama na različitim postajama; srednjih vrijednosti (dvaju putovanja) biomase i broja primjeraka dominantnih grupa životinja na svakoj postaji; horizontalne i vertikalne rasprostranjenosti vrsta u području istraživanja.

Na temelju rezultata istraživanja moguće je zaključiti da se pokazatelji obilnosti vrsta, glede postaja i profila u sjevernom Jadranu znatno razlikuju od postaja u srednjem i južnom Jadranu. Od sjevernog prema južnom Jadranu, vrijednosti pokazatelja obilnosti organizama bentosa znatno se smanjuju.

Pokazatelji obilnosti faune bentosa se također mijenjaju i od zapadne prema istočnoj obali Jadrana.

Težina bentoske faune do dubine 100 metara čini glavni dio nejestive biomase lova dubinskom povlačnom mrežom u Jadranu.

Na prikazanim slikama biomasa i broj primjeraka glavnih skupina bentoske faune Jadrana pokazuju raspored dominirajućih grupa po pojedinim postajama.

Ulov koji se odnosi na rijetke vrste bentske faune Jadrana, uglavnom potječe s većih dubina, a što je ujedno i uzrok slaboga poznavanja biologije i ekologije tih vrsta u Jadranu.

U radu se također daje i horizontalna i vertikalna rasprostranjenost broja vrsta i njihova povezanost s čimbenicima okoliša.

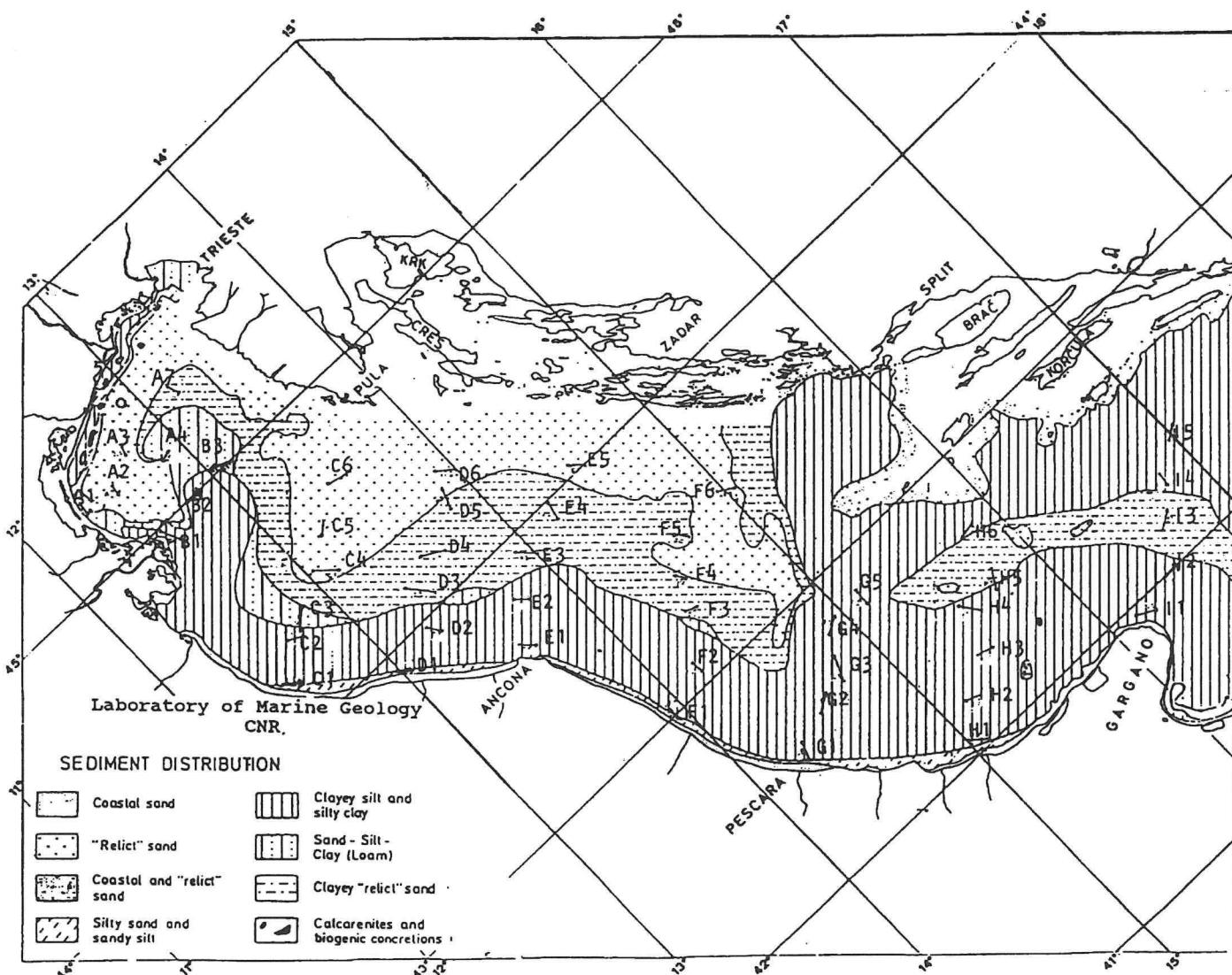


Fig. 1. Stations of PIPETA Expedition 1982 (April-May)

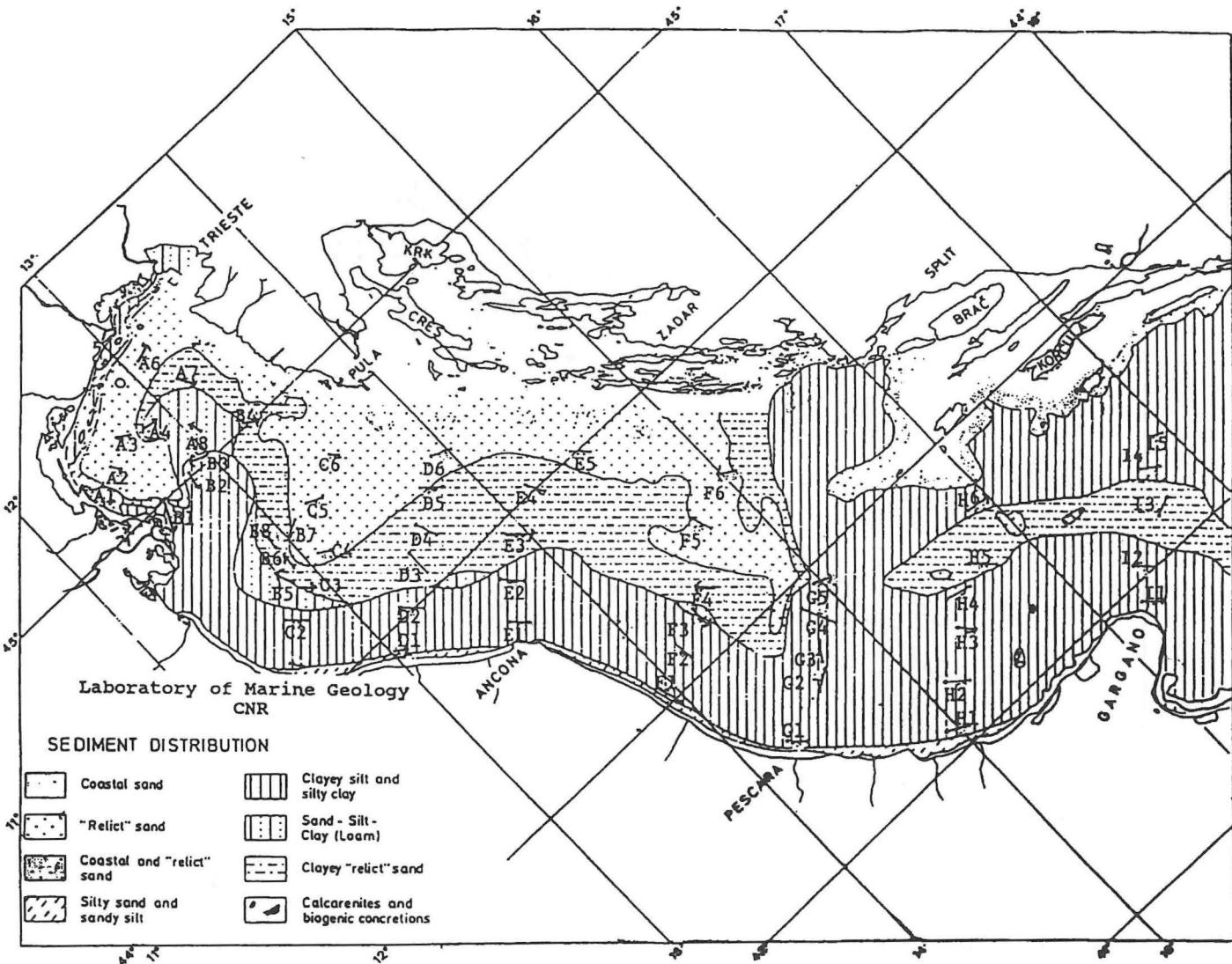


Fig. 2. Stations of PIPETA Expedition 1982 (November-December)

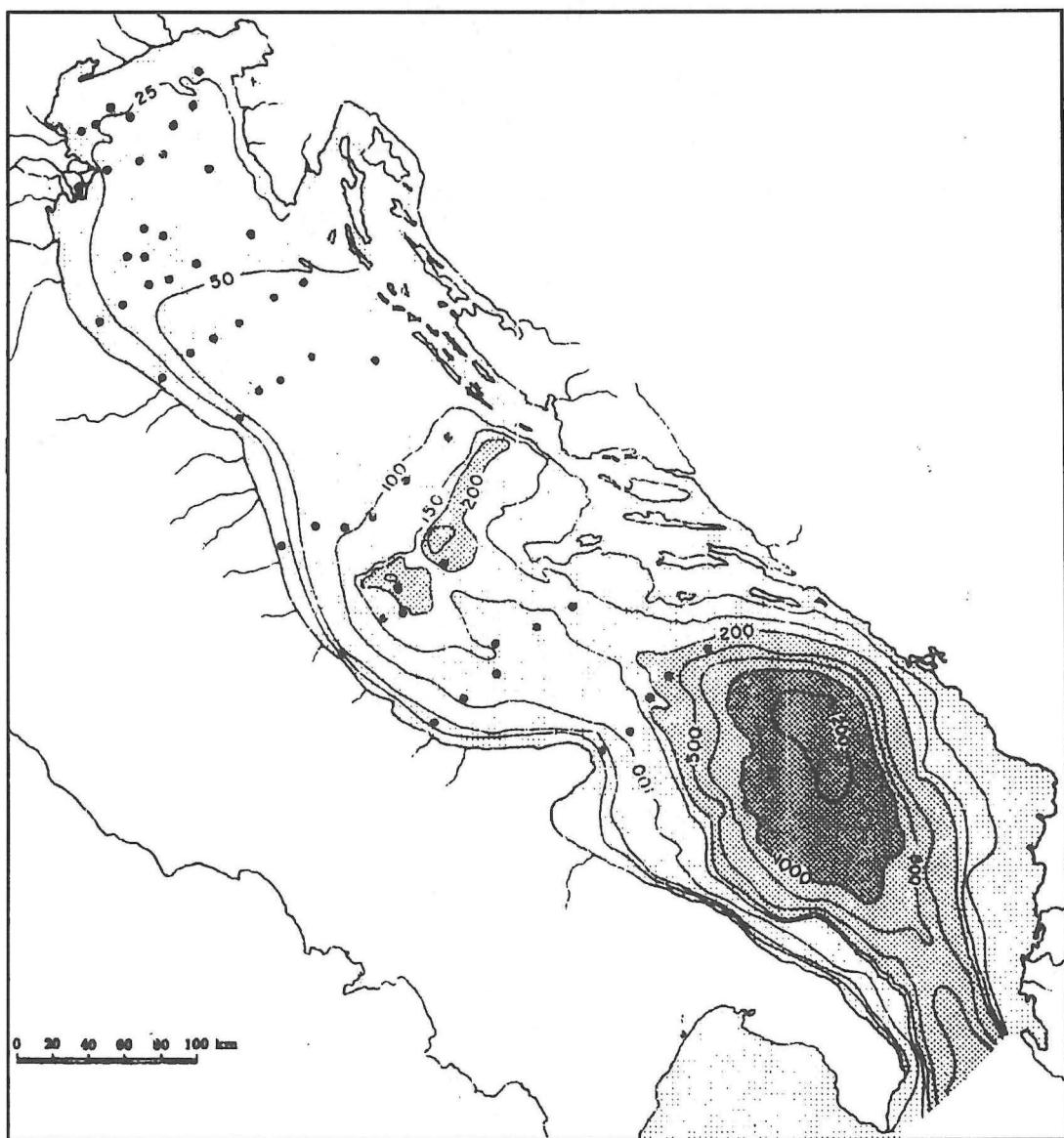


Fig. 3. Stations of PIPETA Expedition 1982 (November-December). Depths in metres (CNR-Istituto di Geologia Marina-Bologna). FAO Rapp. Pêches, 1981, (253): p. 1.

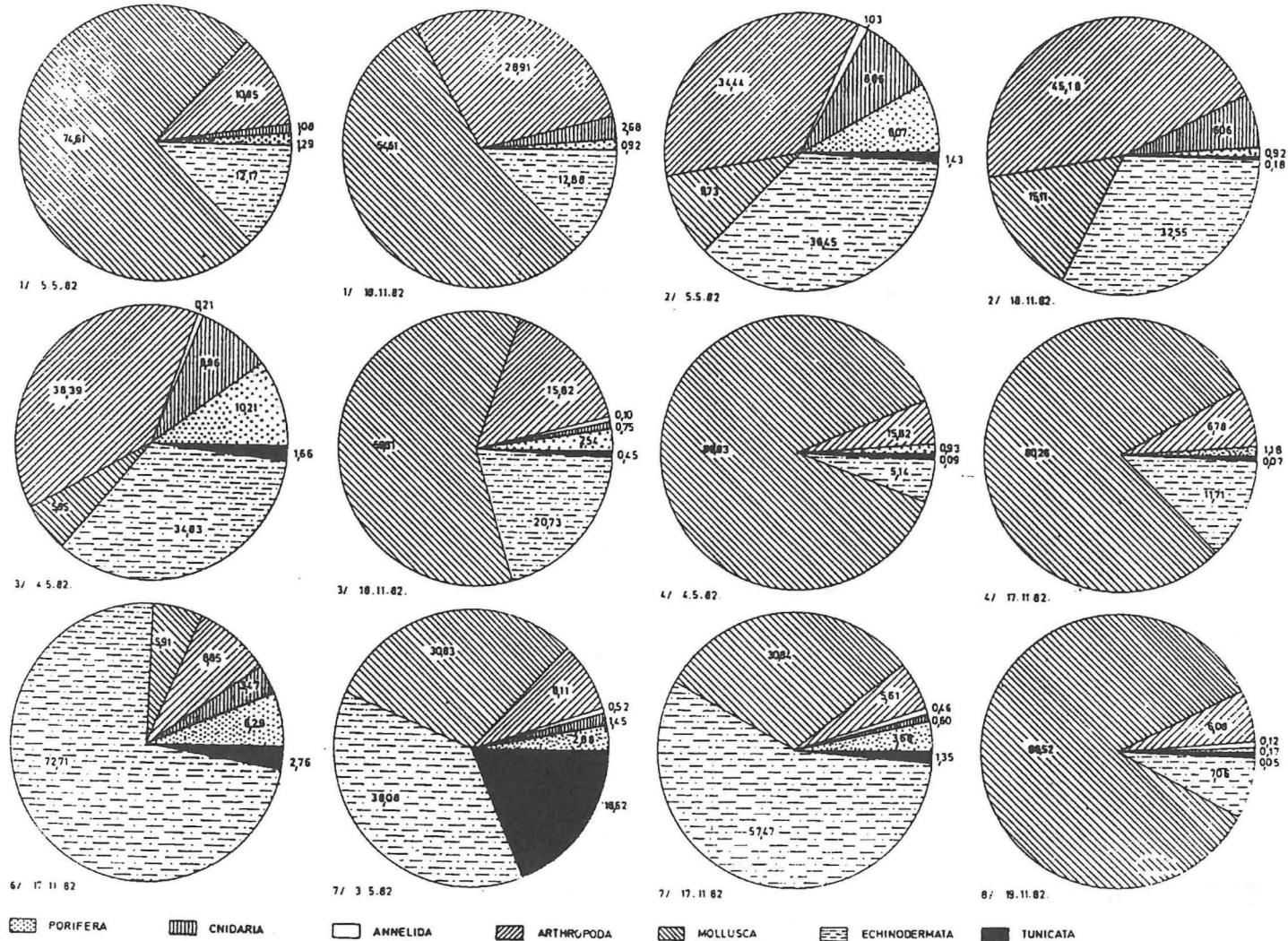


Fig. 4. Percentage values of the specimen numbers for individual animal groups at stations of profile "A" (bottom trawl net-1982)

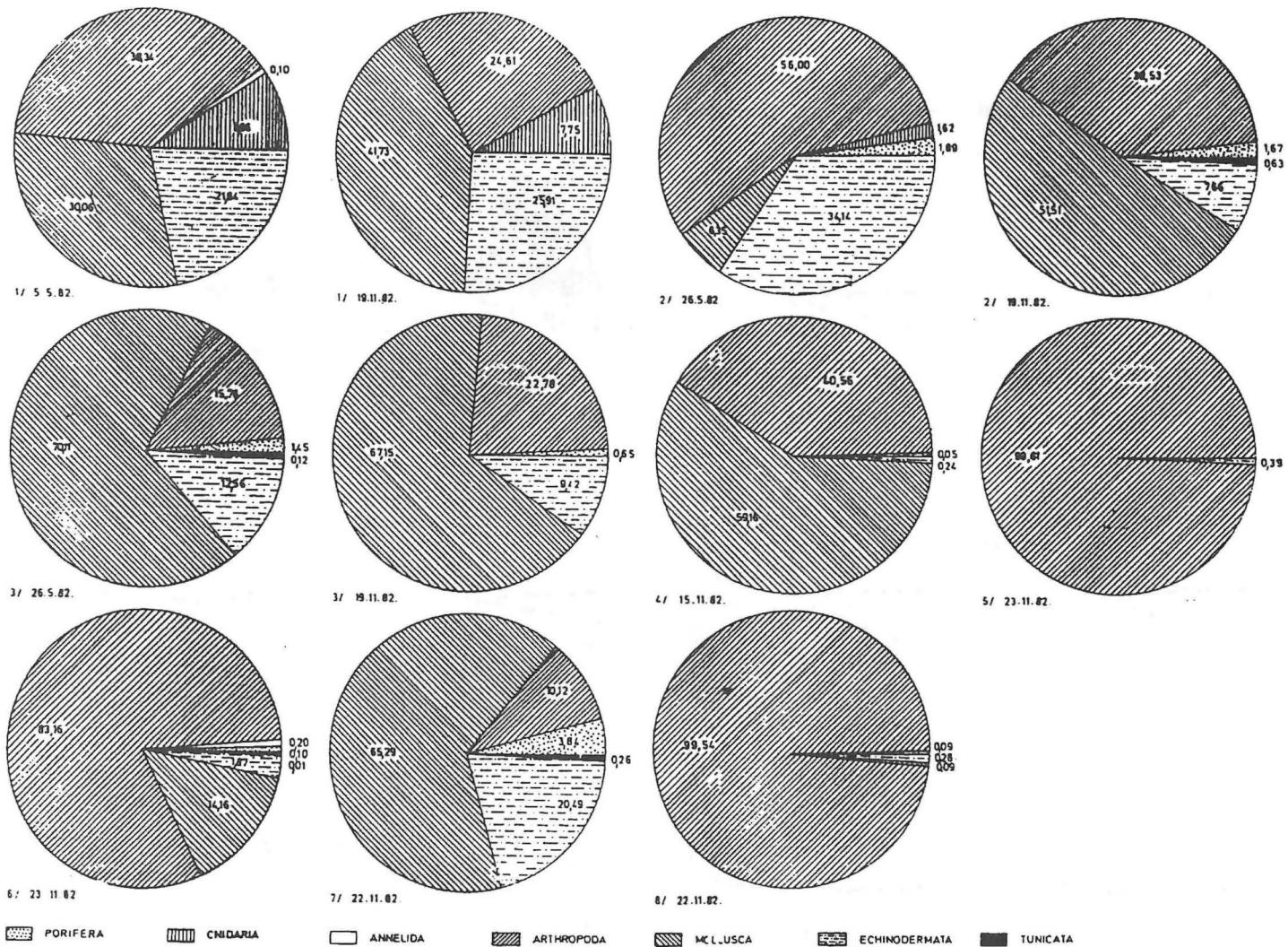


Fig. 5. Percentage values of the specimen numbers for individual animal groups at stations of profile "B" (bottom trawl net-1982)

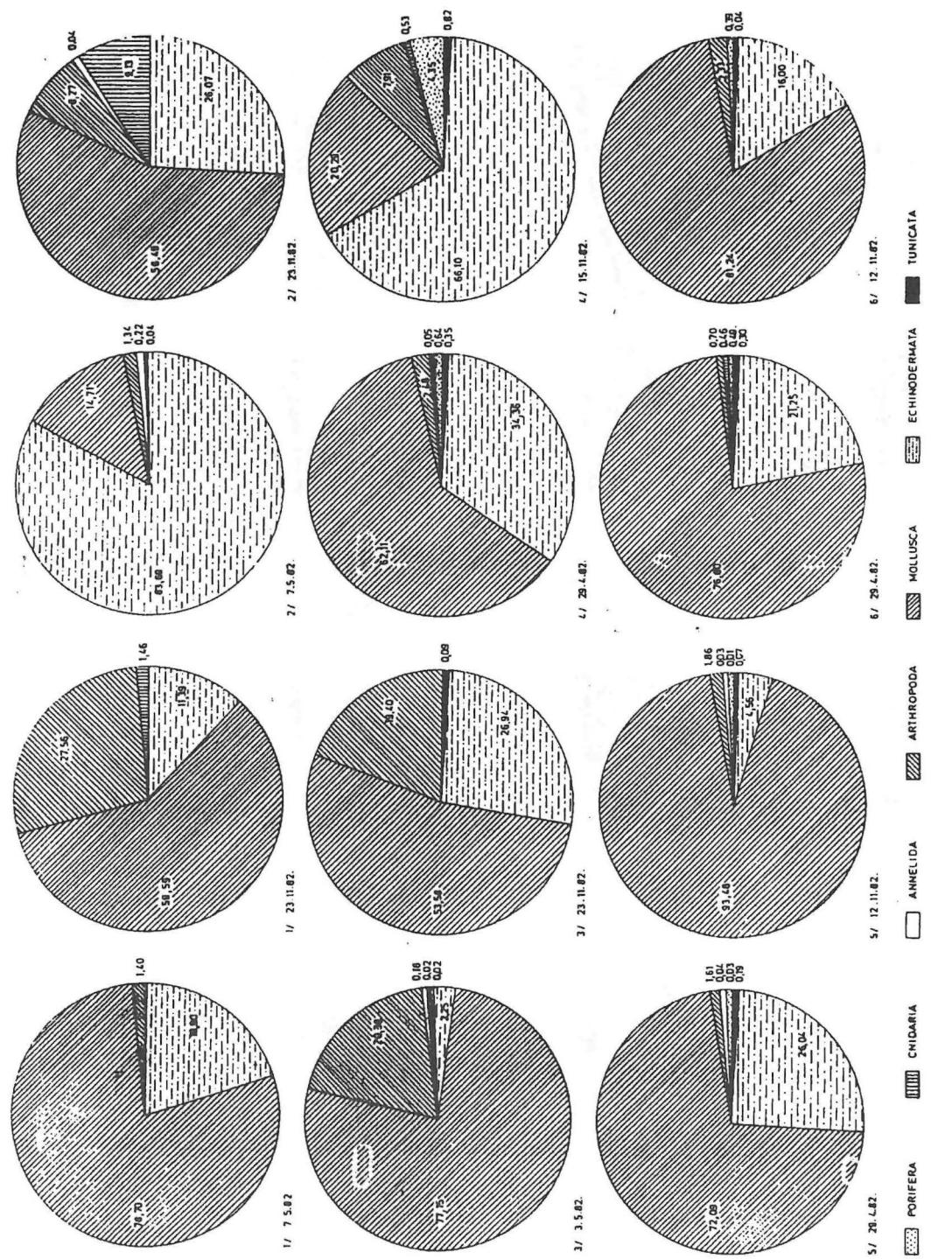


Fig. 6. Percentage values of the specimen numbers for individual animal groups at stations of profile "C" (bottom trawl net-1982)

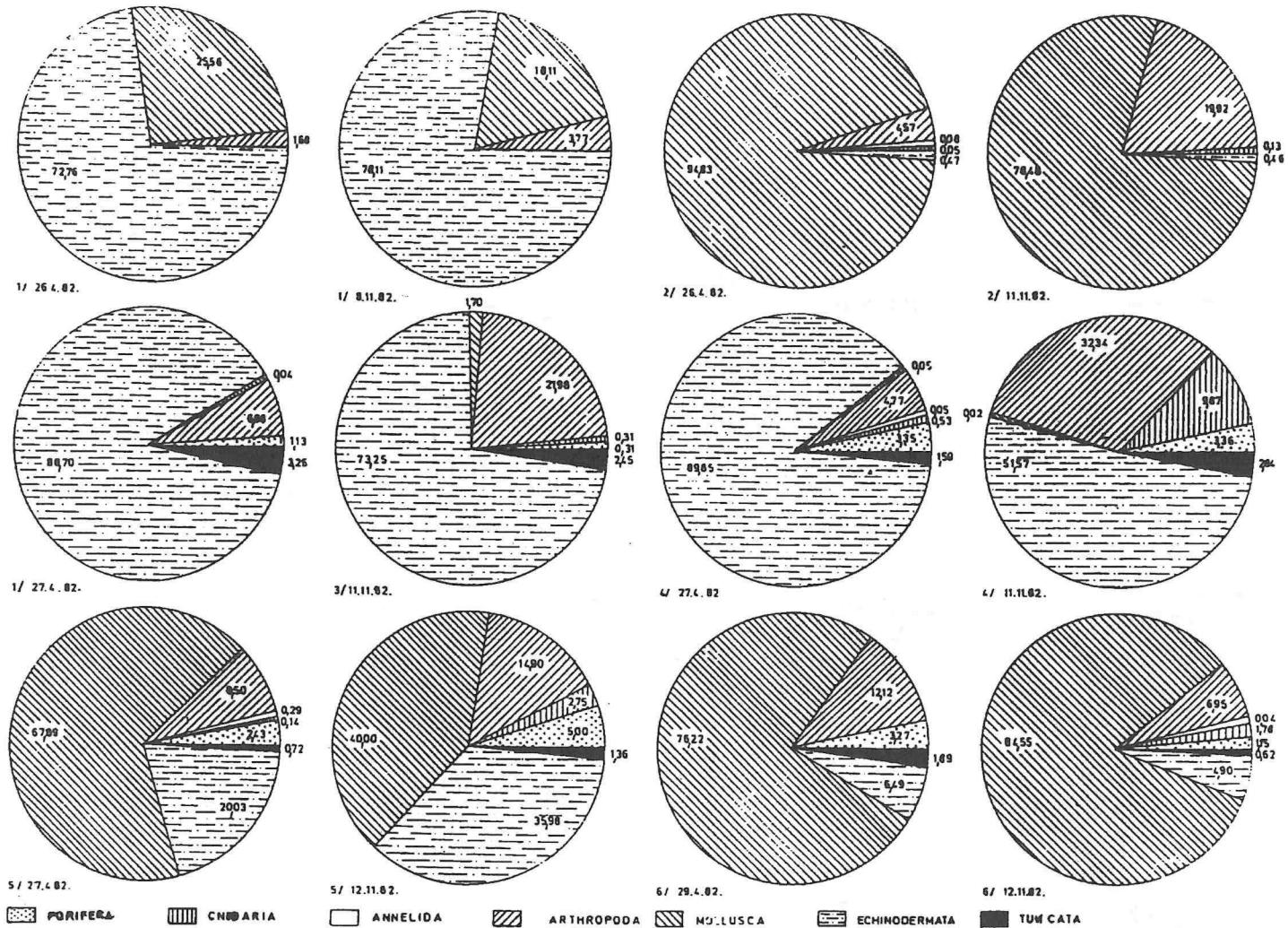


Fig. 7. Percentage values of the specimen numbers for individual animal groups at stations of profile "D" (bottom trawl net-1982)

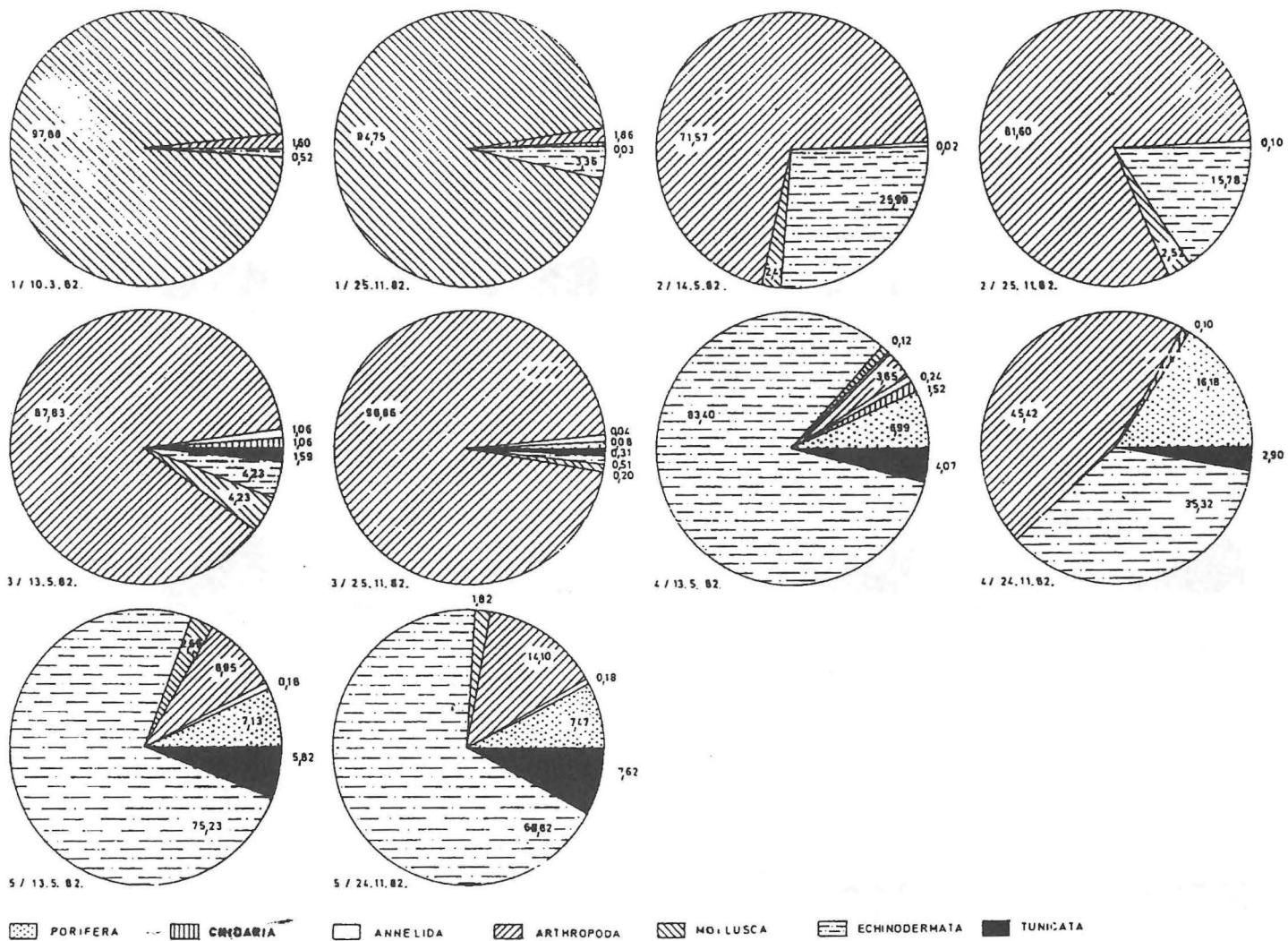


Fig. 8. Percentage values of the specimen numbers for individual animal groups at stations of profile "E" (bottom trawl net 1982)

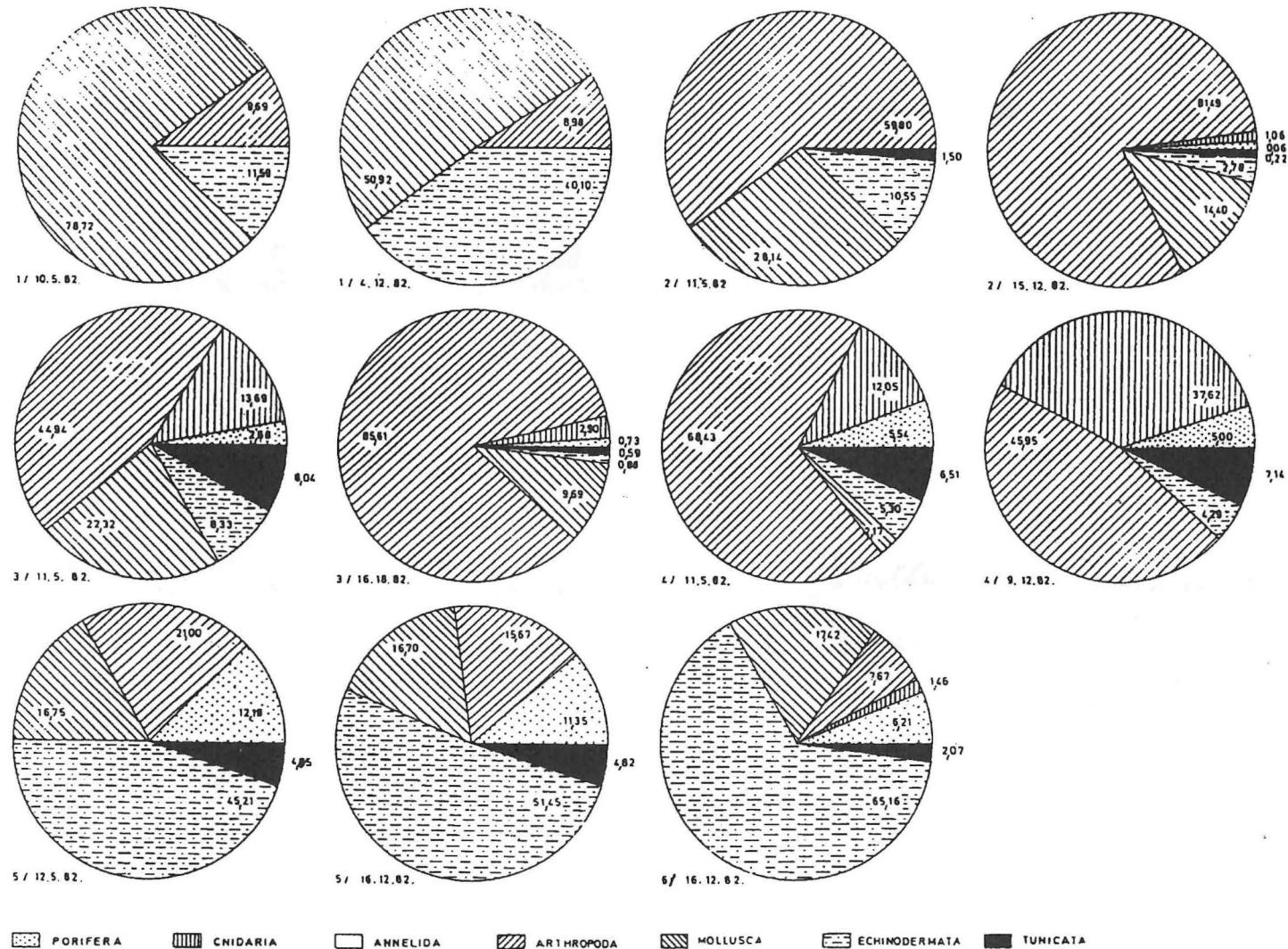


Fig.9. Percentage values of the specimen numbers for individual animal groups at stations of profile "F" (bottom trawl net-1982)

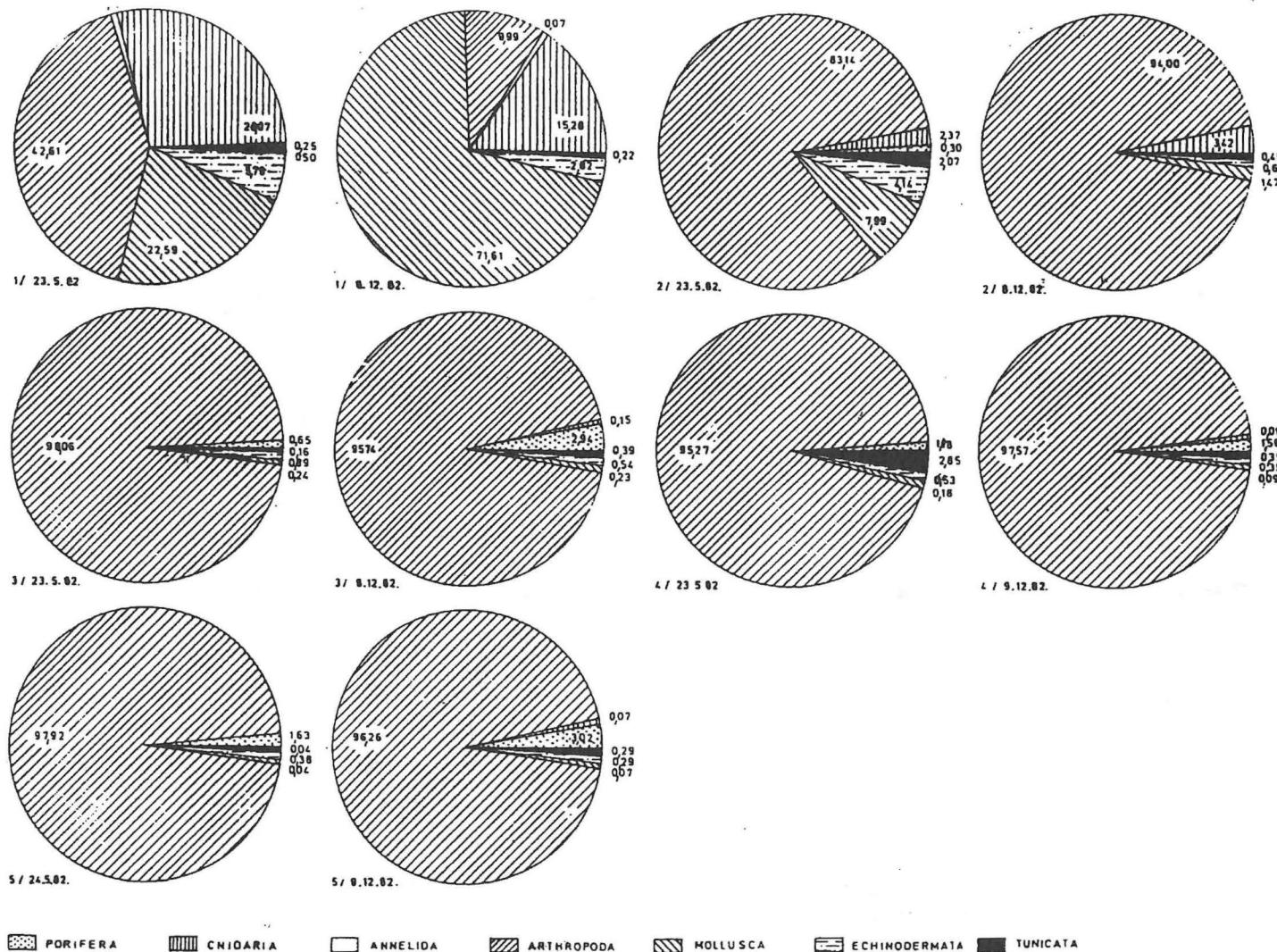


Fig. 10. Percentage values of the specimen numbers for individual animal groups at stations of profile "G" (bottom trawl net-1982)

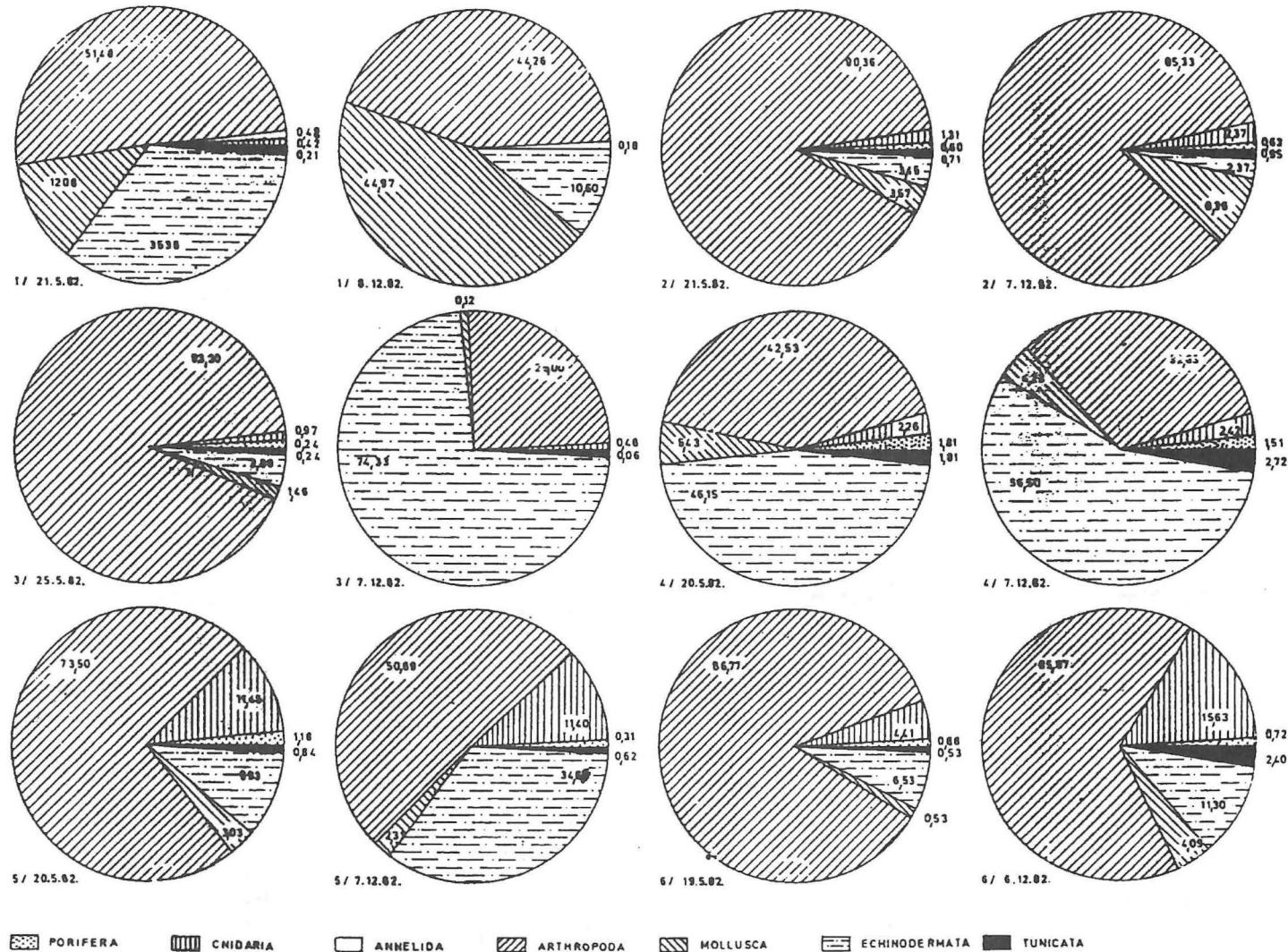


Fig. 11. Percentage values of the specimen numbers for individual animal groups at stations of profile "H" (bottom trawl net-1982)

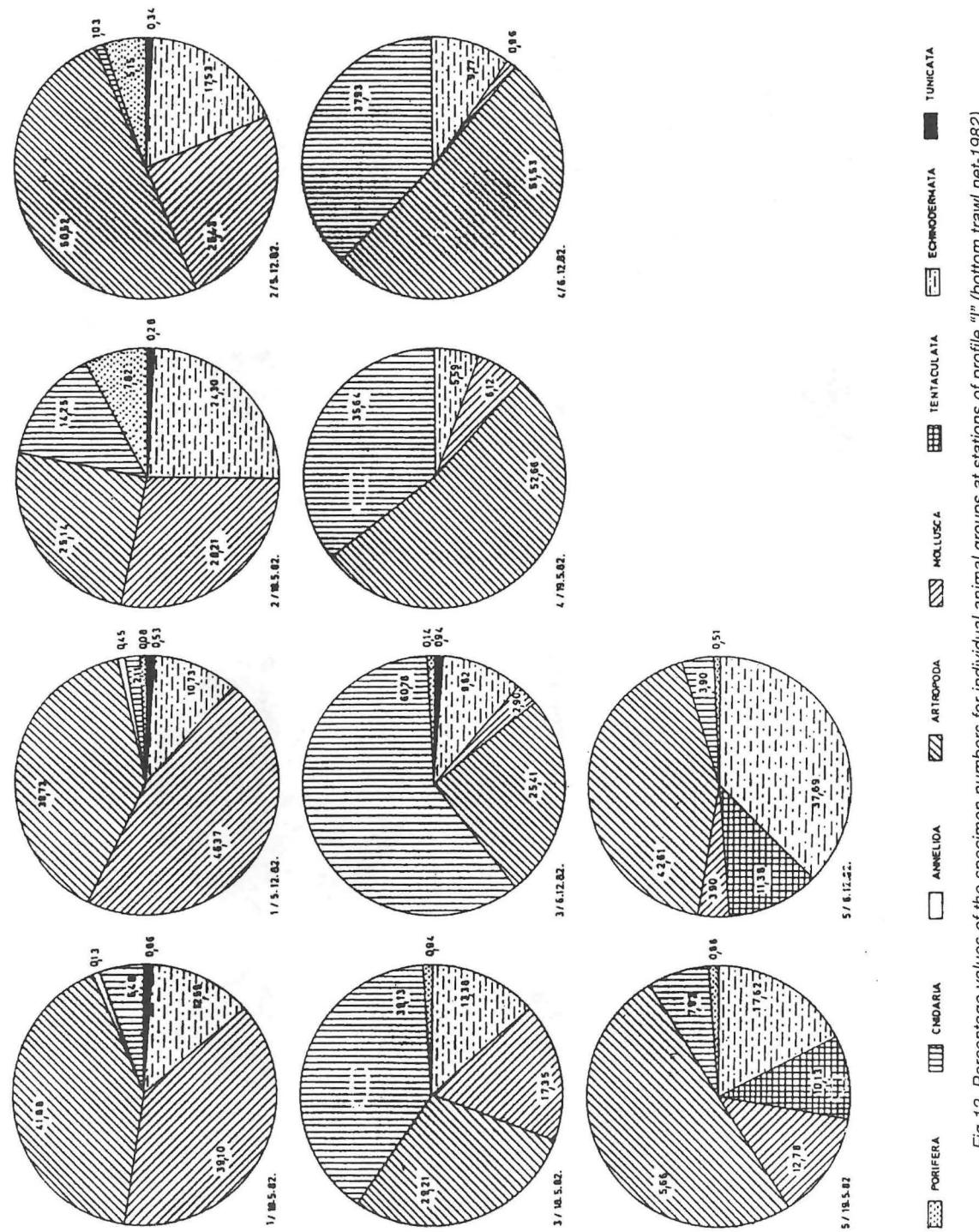


Fig. 12. Percentage values of the specimen numbers for individual animal groups at stations of profile "I" (bottom trawl net-1982)

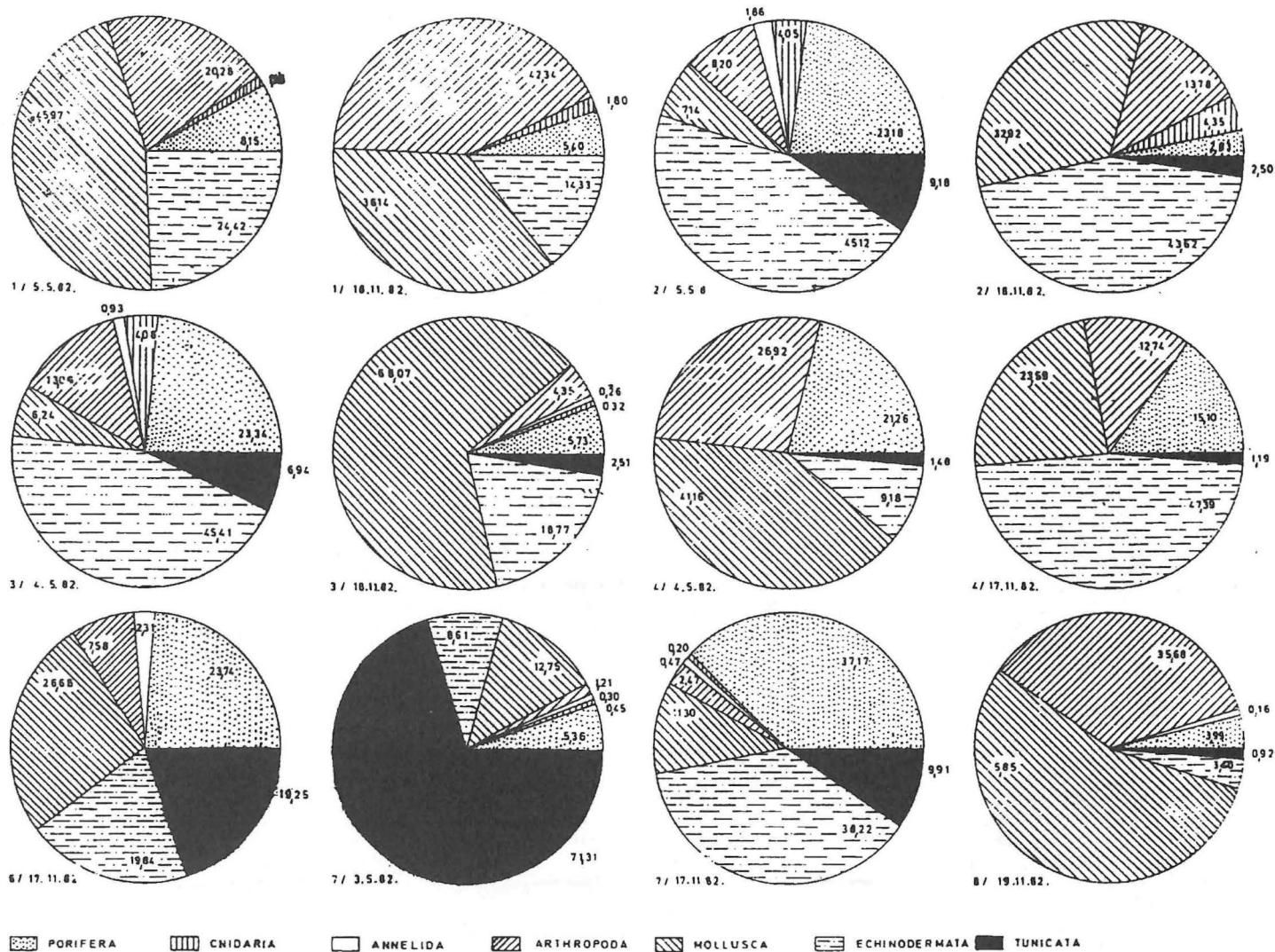


Fig. 13. Percentage values of the weight for individual animal groups on profile "A"- bottom trawl net-1982

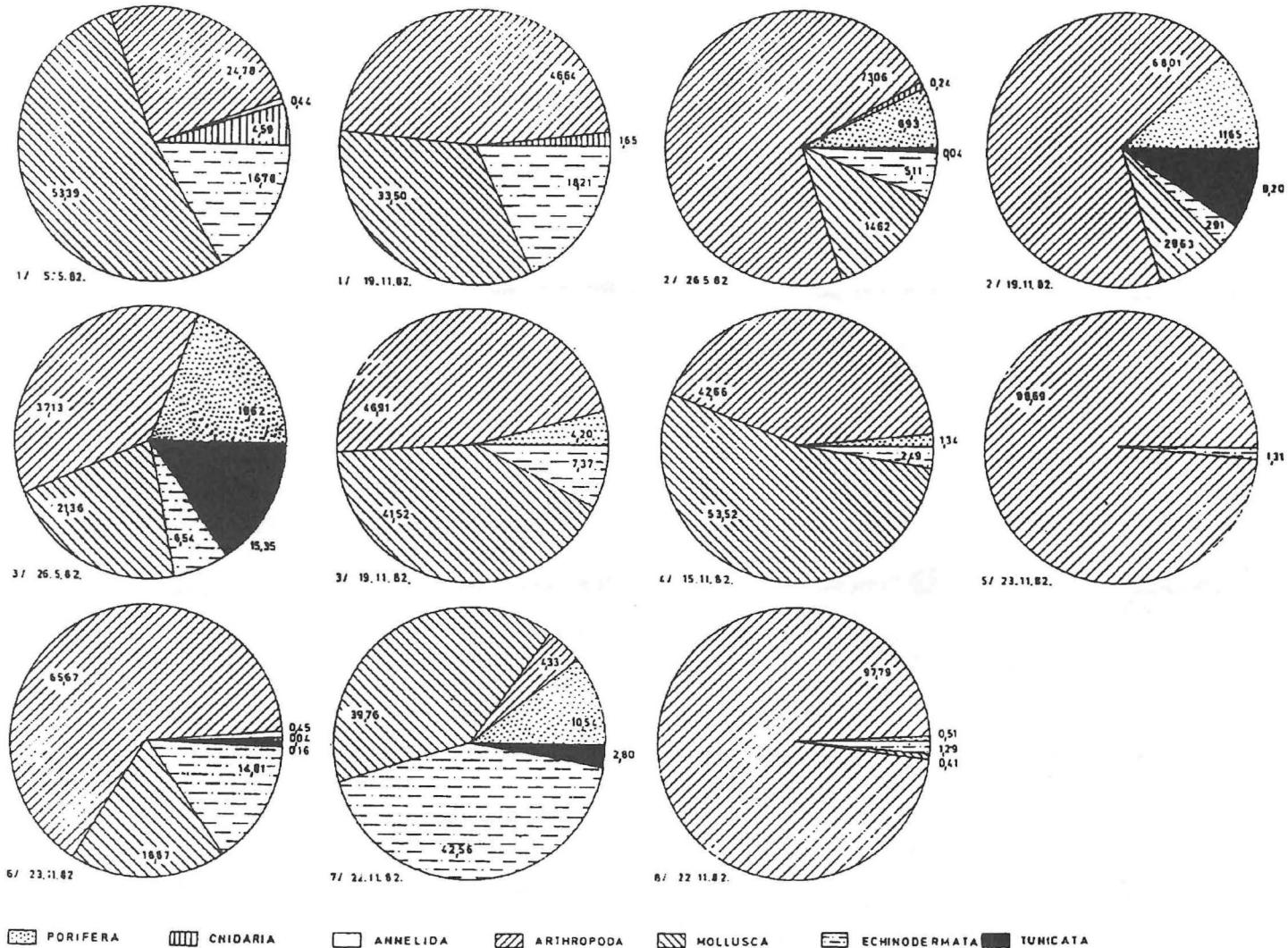


Fig. 14. Percentage values of the weight for individual animal groups on profile "B"- bottom trawl net-1982

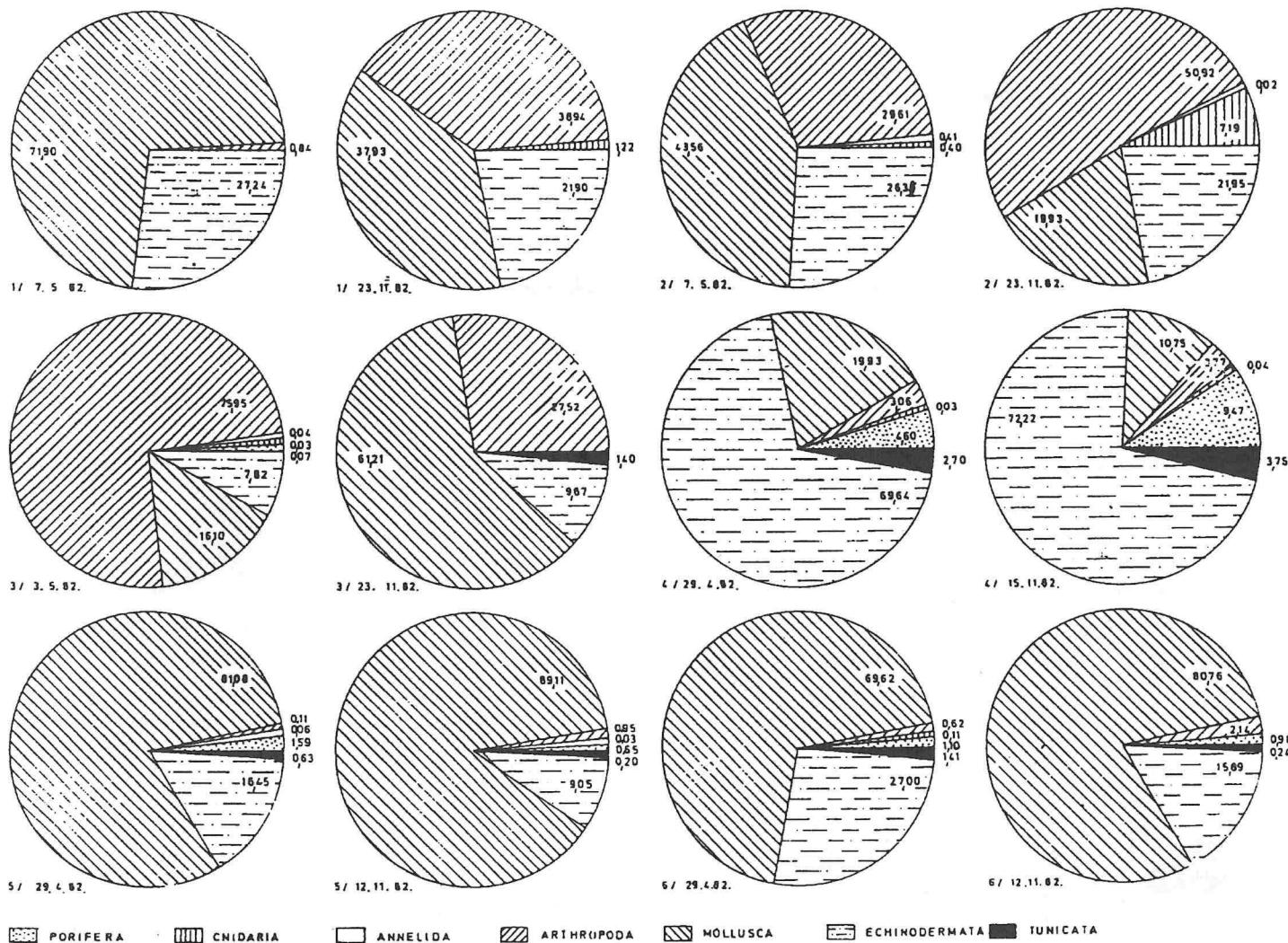


Fig. 15. Percentage values of the weight for individual animal groups on profile "C"- bottom trawl net-1982

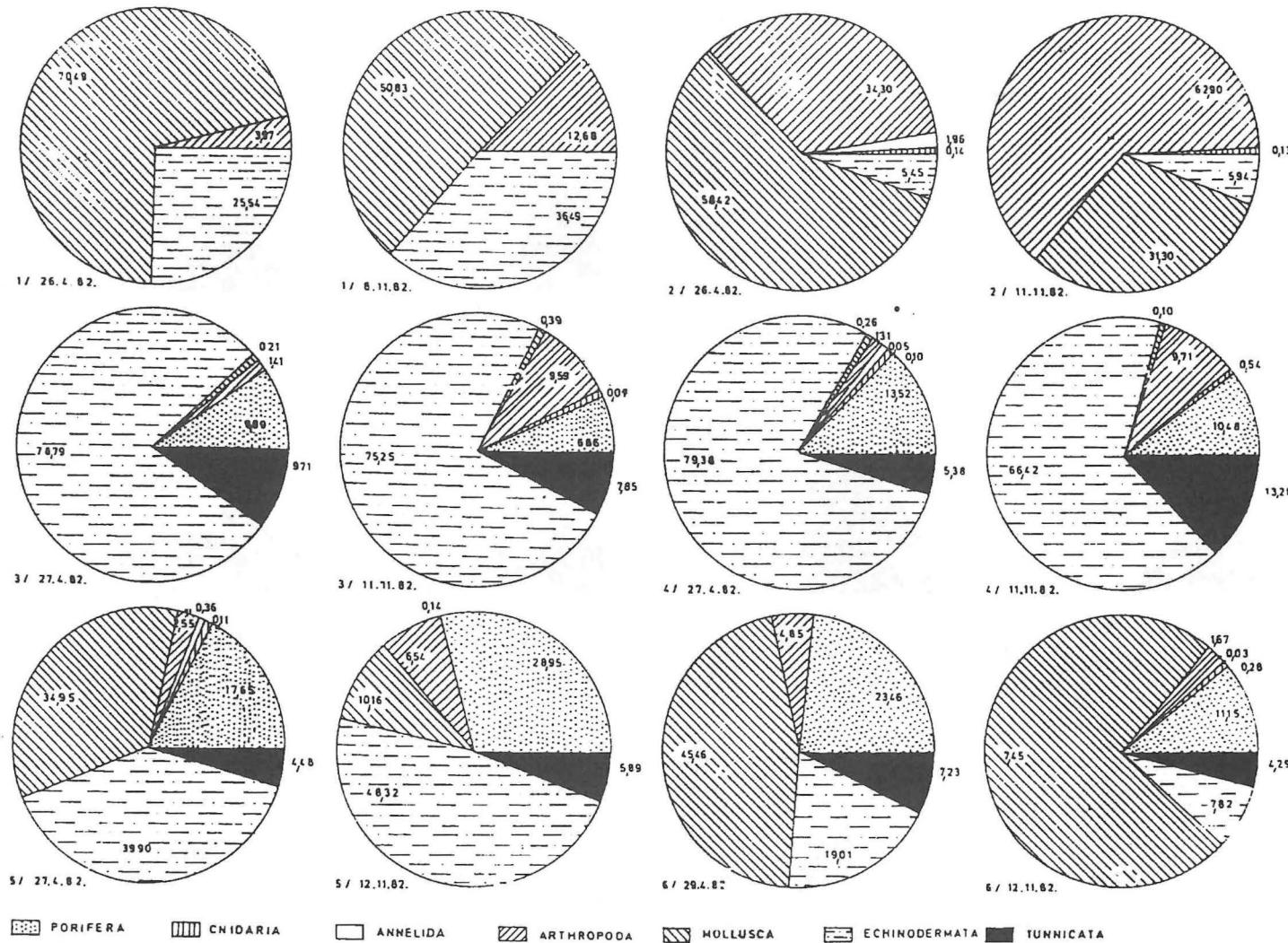


Fig. 16. Percentage values of the weight for individual animal groups on profile "D"- bottom trawl net-1982

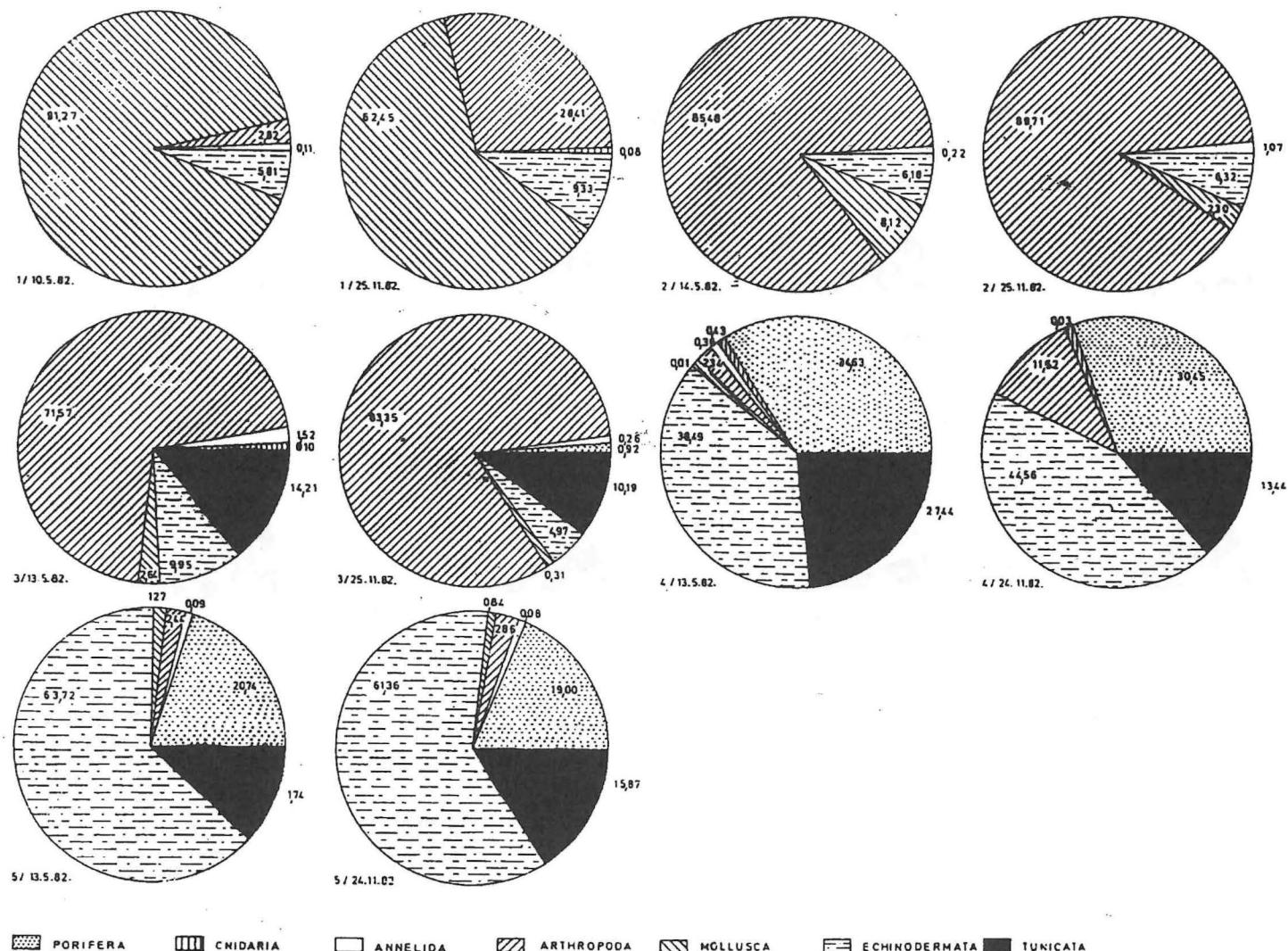


Fig. 17. Percentage values of the weight for individual animal groups on profile "E"- bottom trawl net-1982

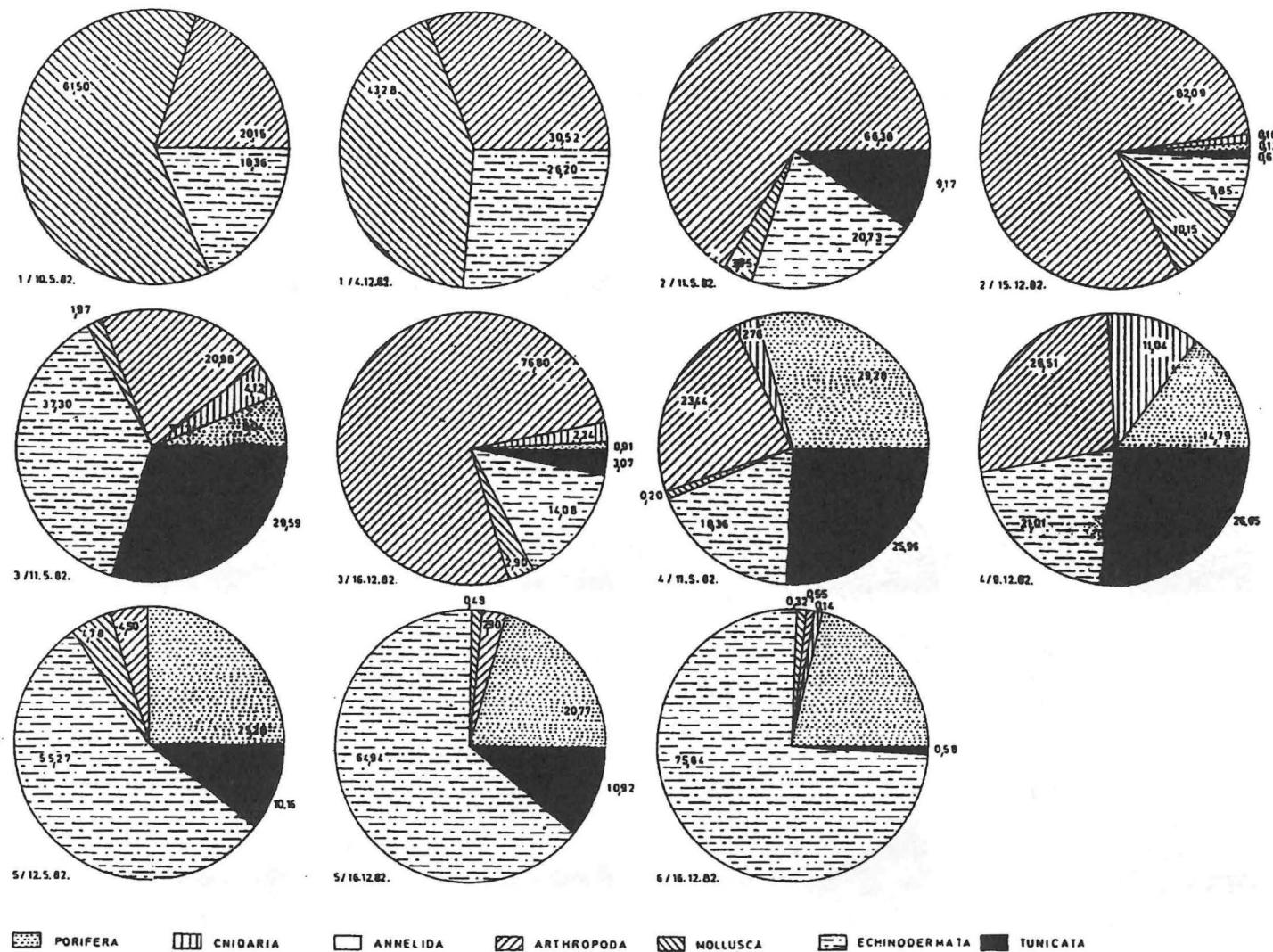


Fig. 18. Percentage values of the weight for individual animal groups on profile "F"- bottom trawl net-1982

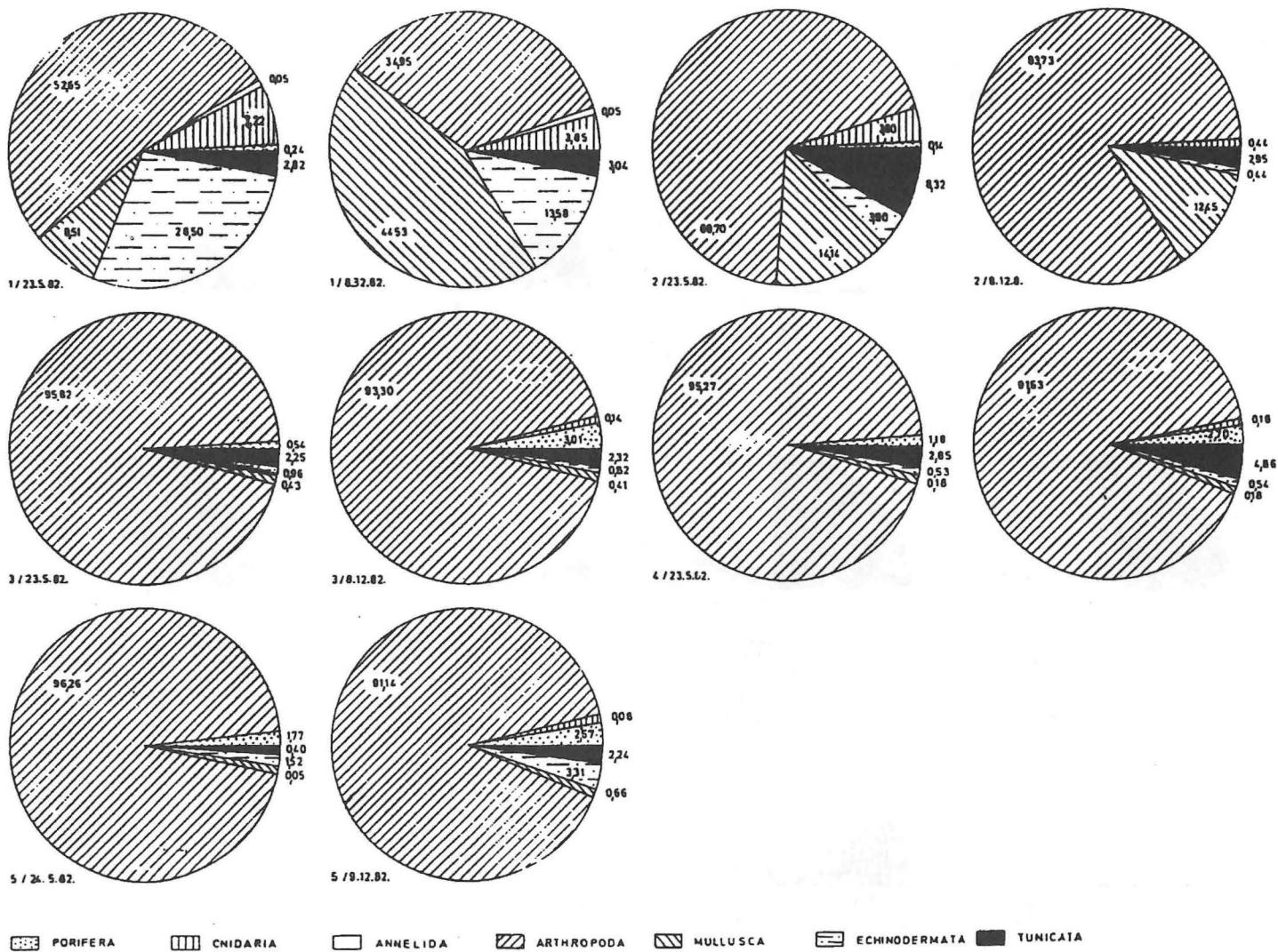


Fig. 19. Percentage values of the weight for individual animal groups on profile "G"- bottom trawl net-1982

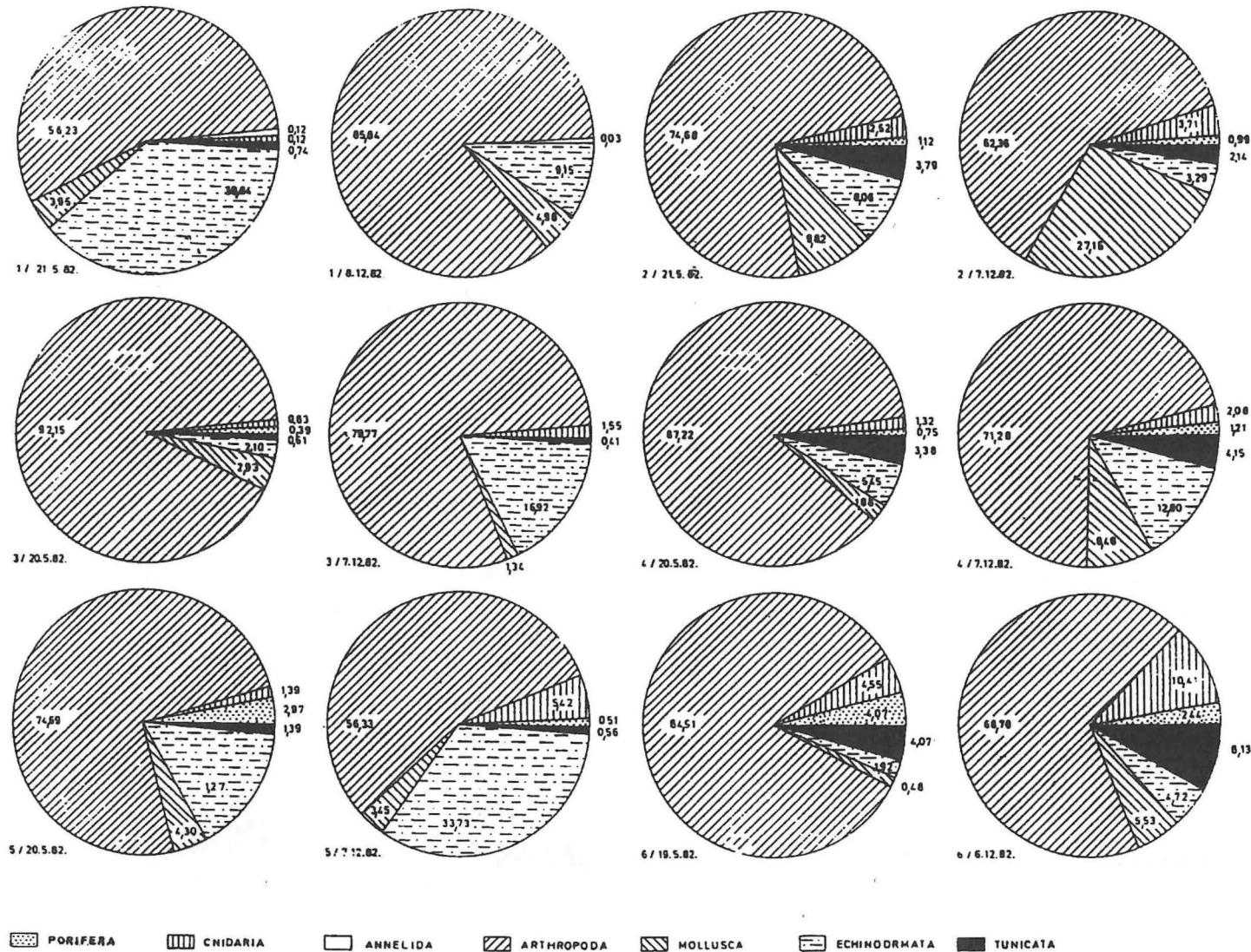


Fig. 20. Percentage values of the weight for individual animal groups on profile "H"- bottom trawl net-1982

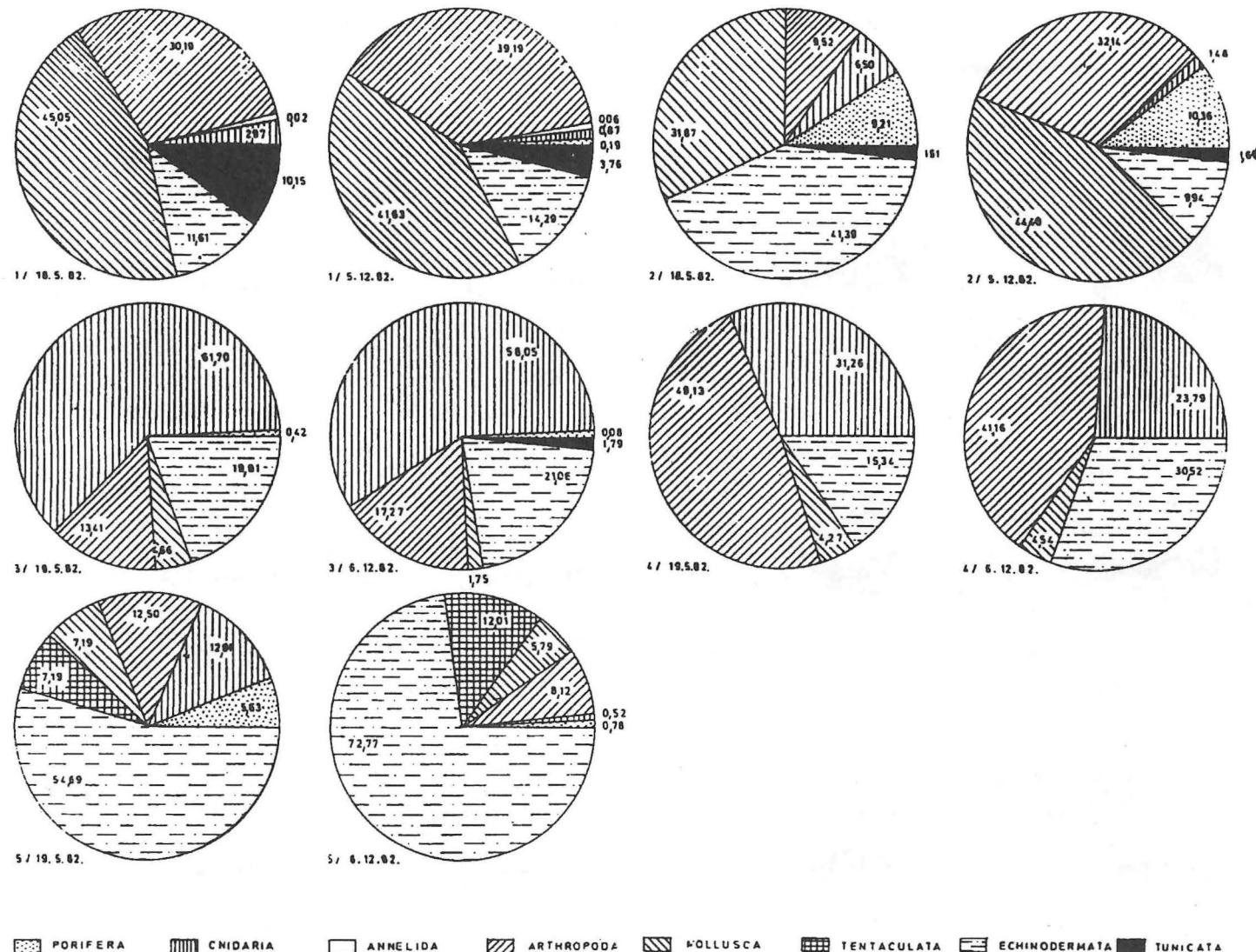


Fig. 21. Percentage values of the weight for individual animal groups on profile "I"- bottom trawl net-1982

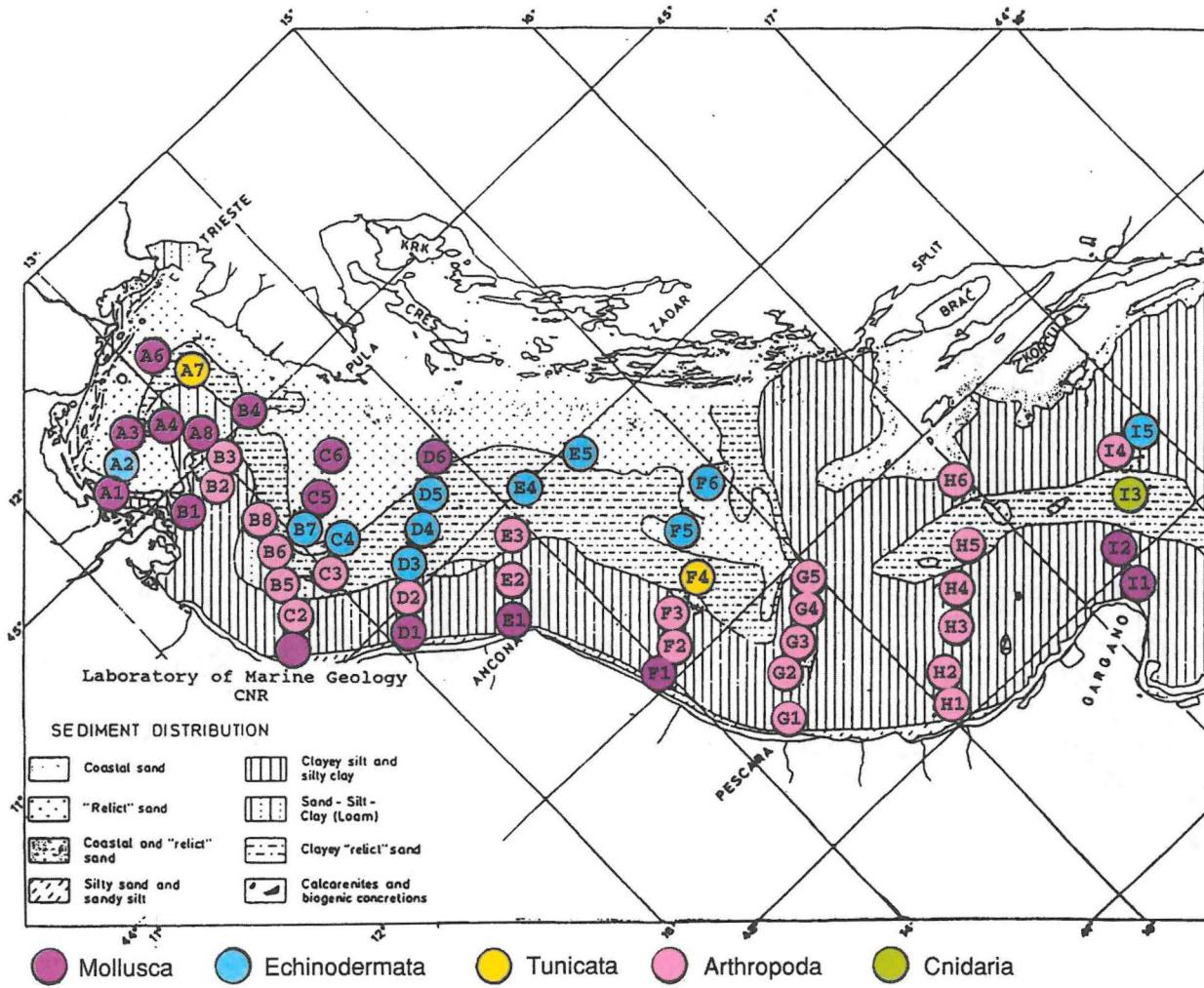


Fig. 22. Biomass of dominant groups at studied stations (mean of two cruises - 1982)

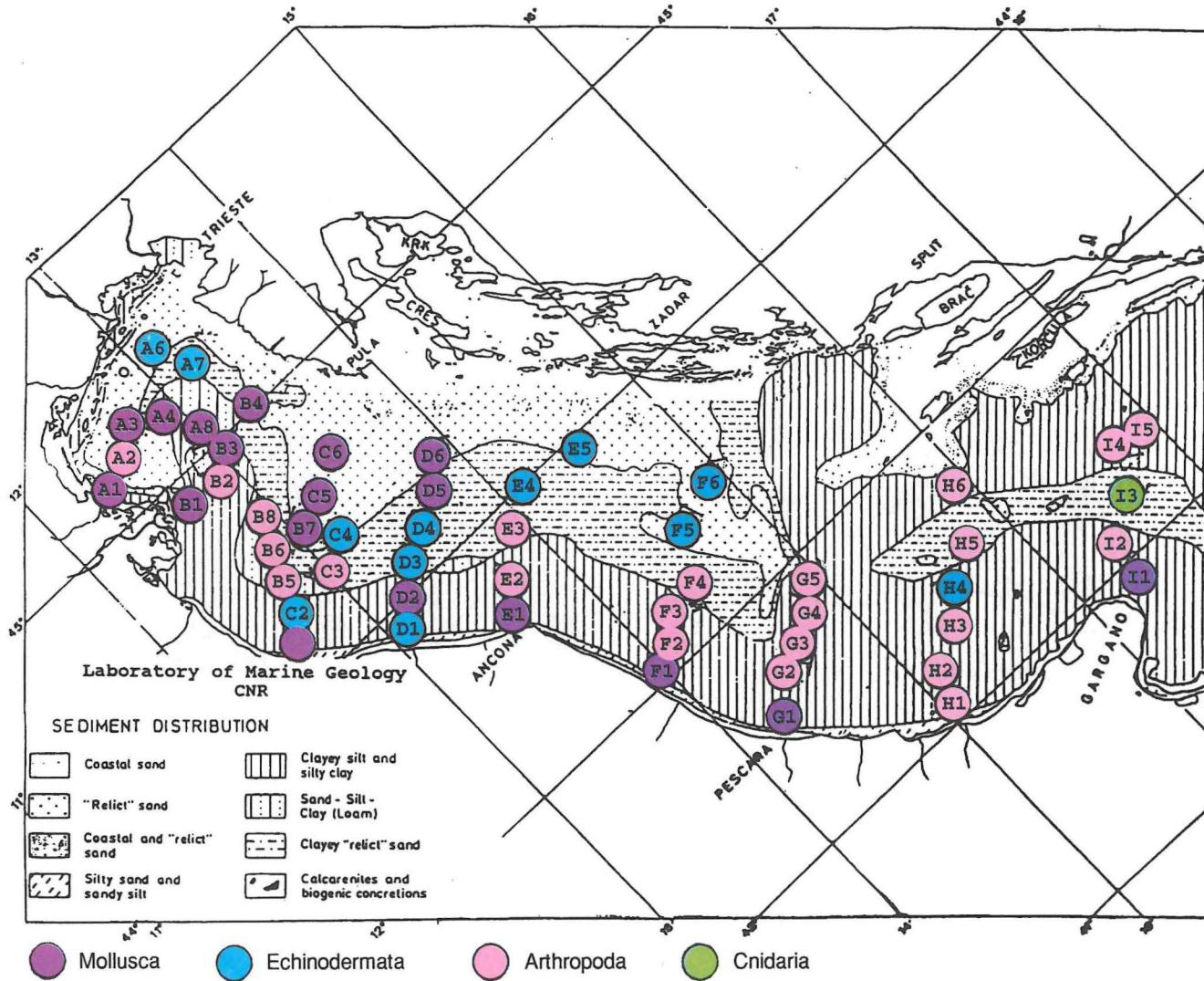


Fig. 23. Dominant groups according to the number of individuals (mean of two cruises - 1982)

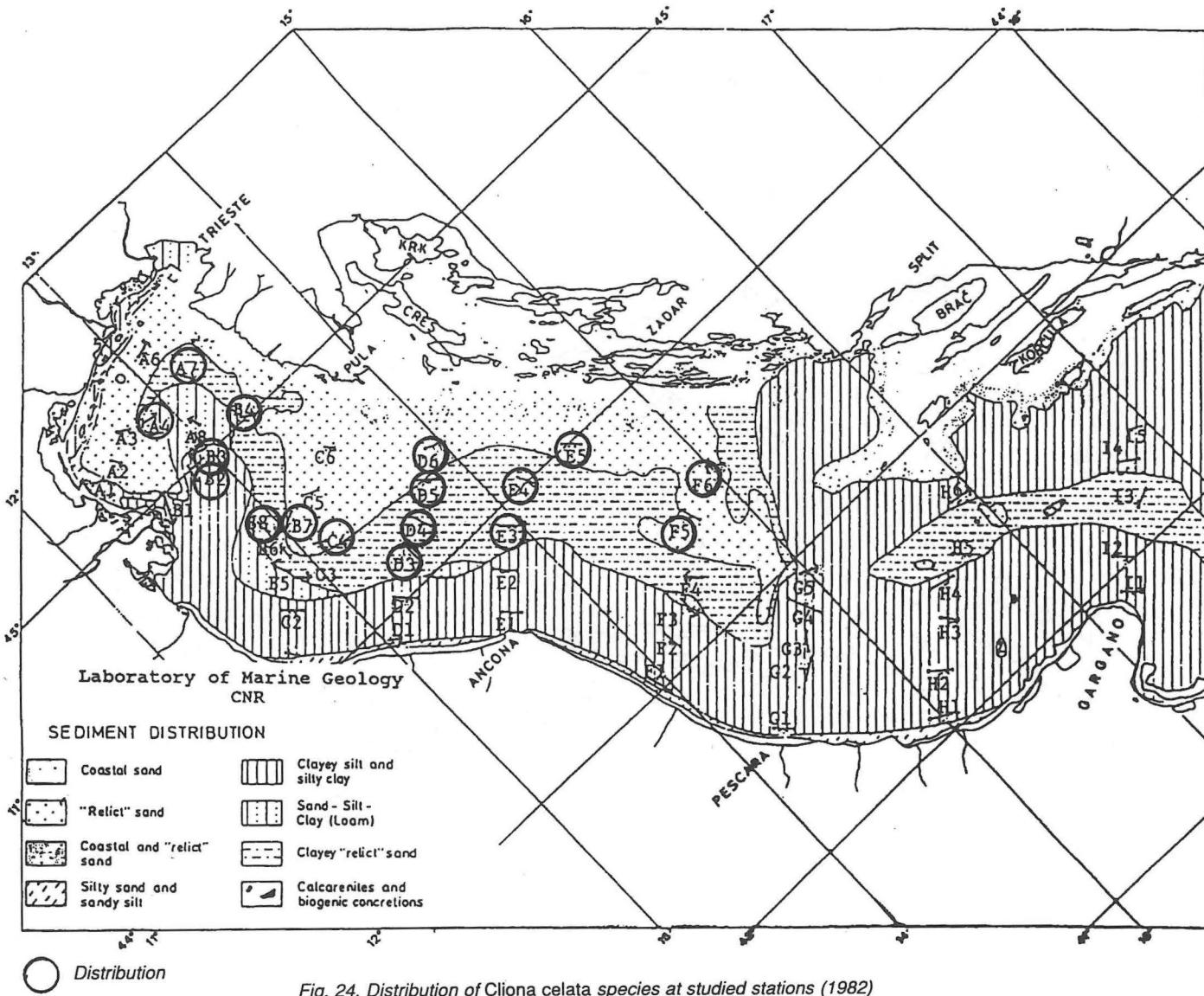
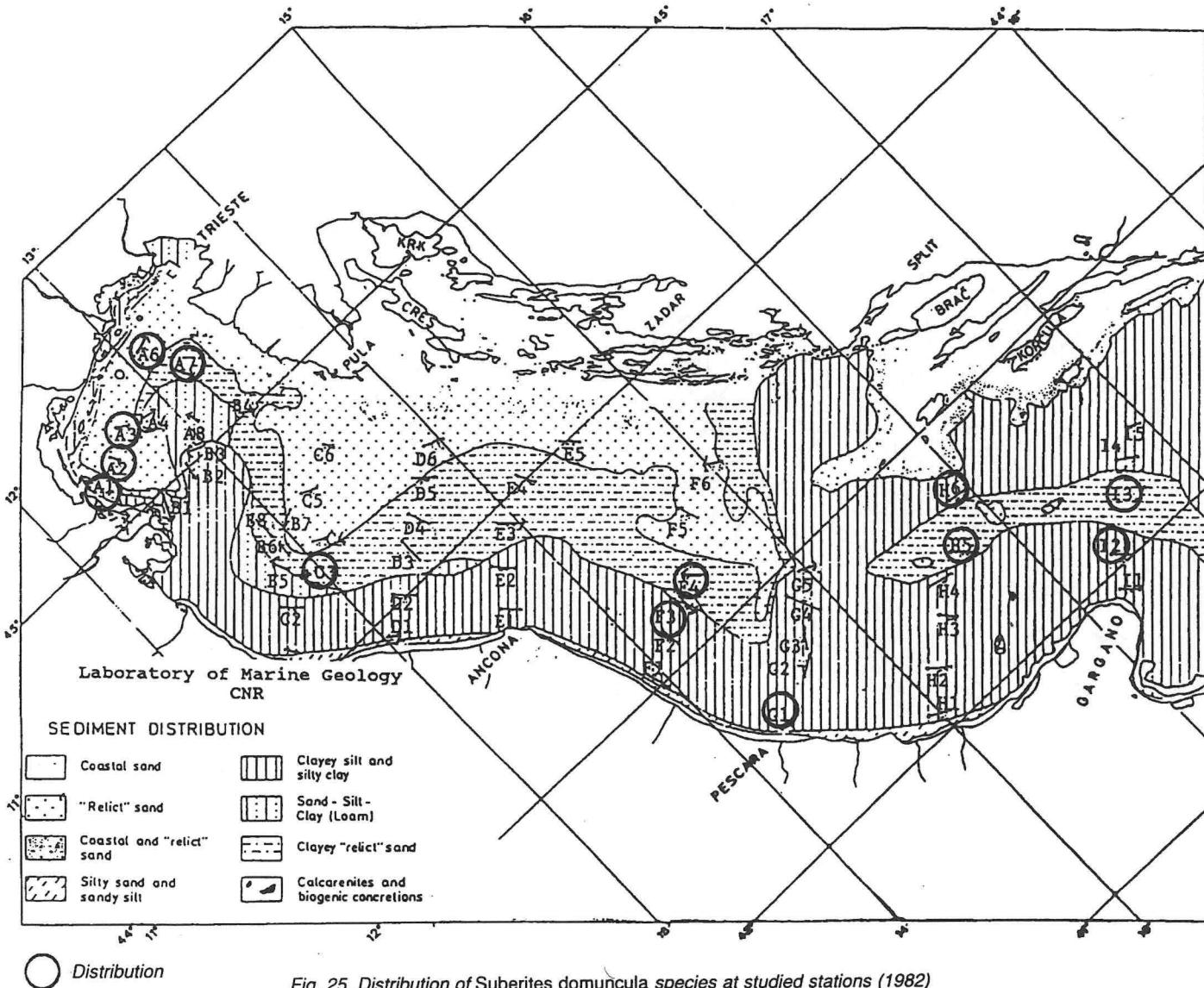


Fig. 24. Distribution of *Cliona celata* species at studied stations (1982)



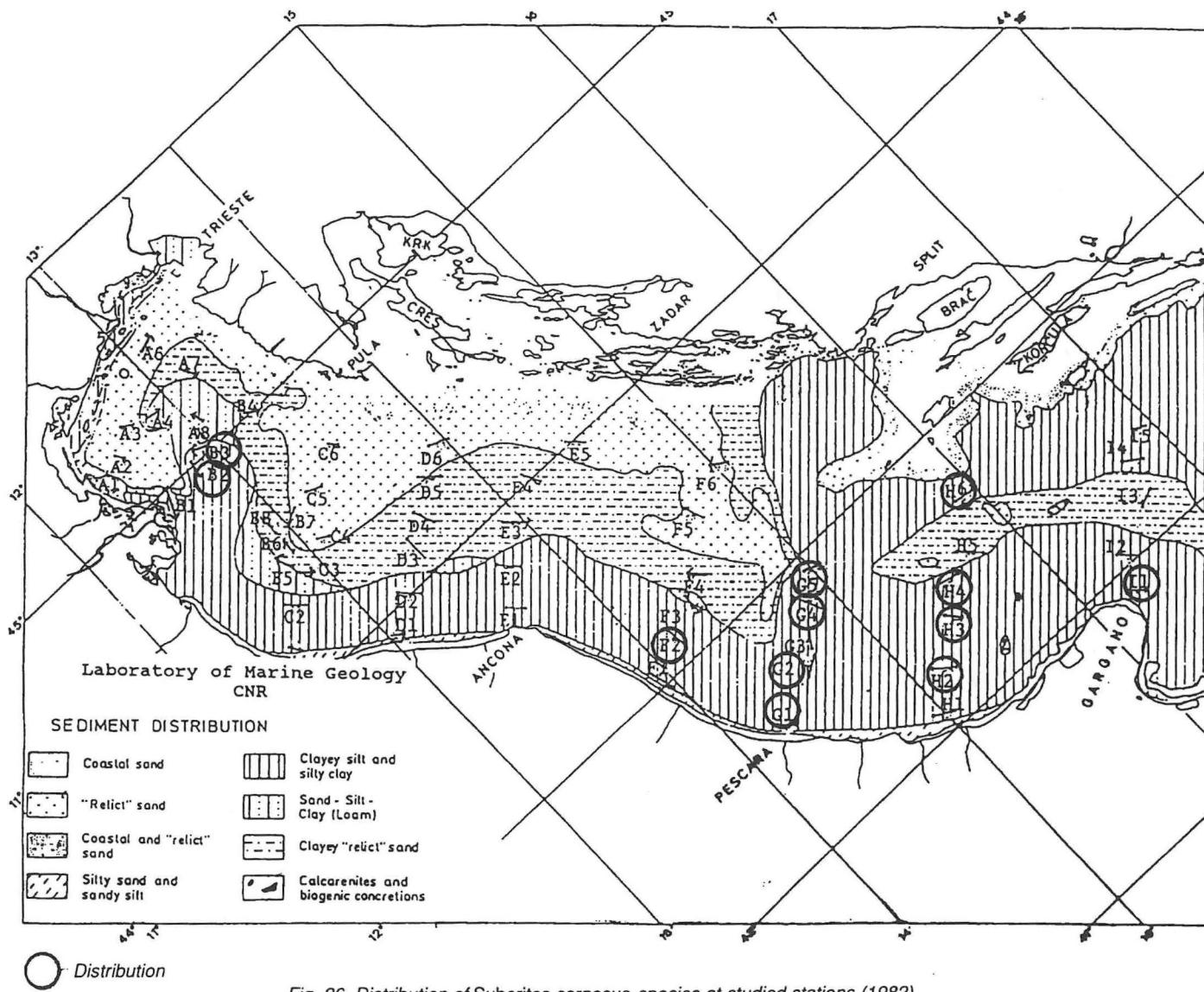
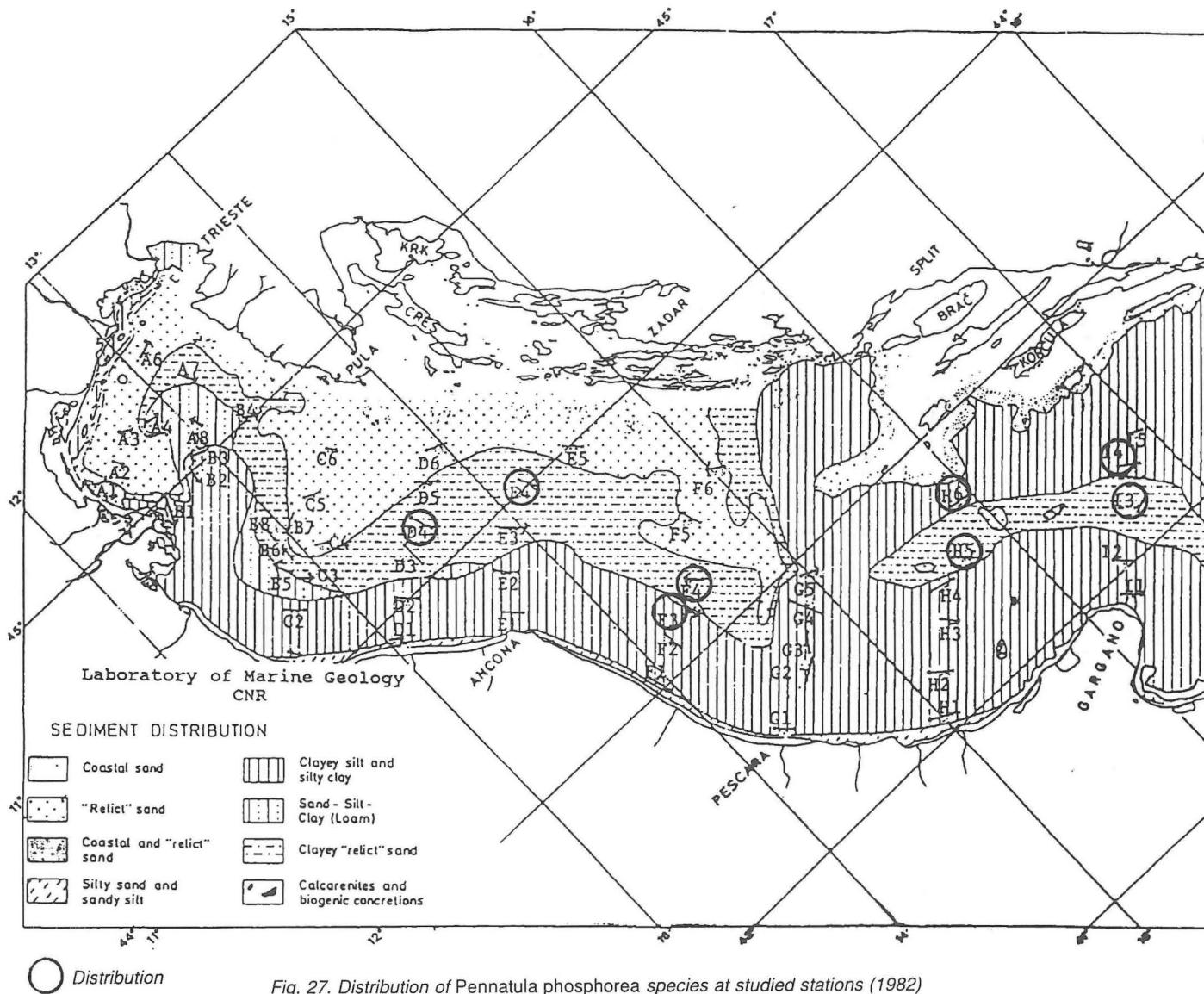


Fig. 26. Distribution of *Suberites carnosus* species at studied stations (1982)



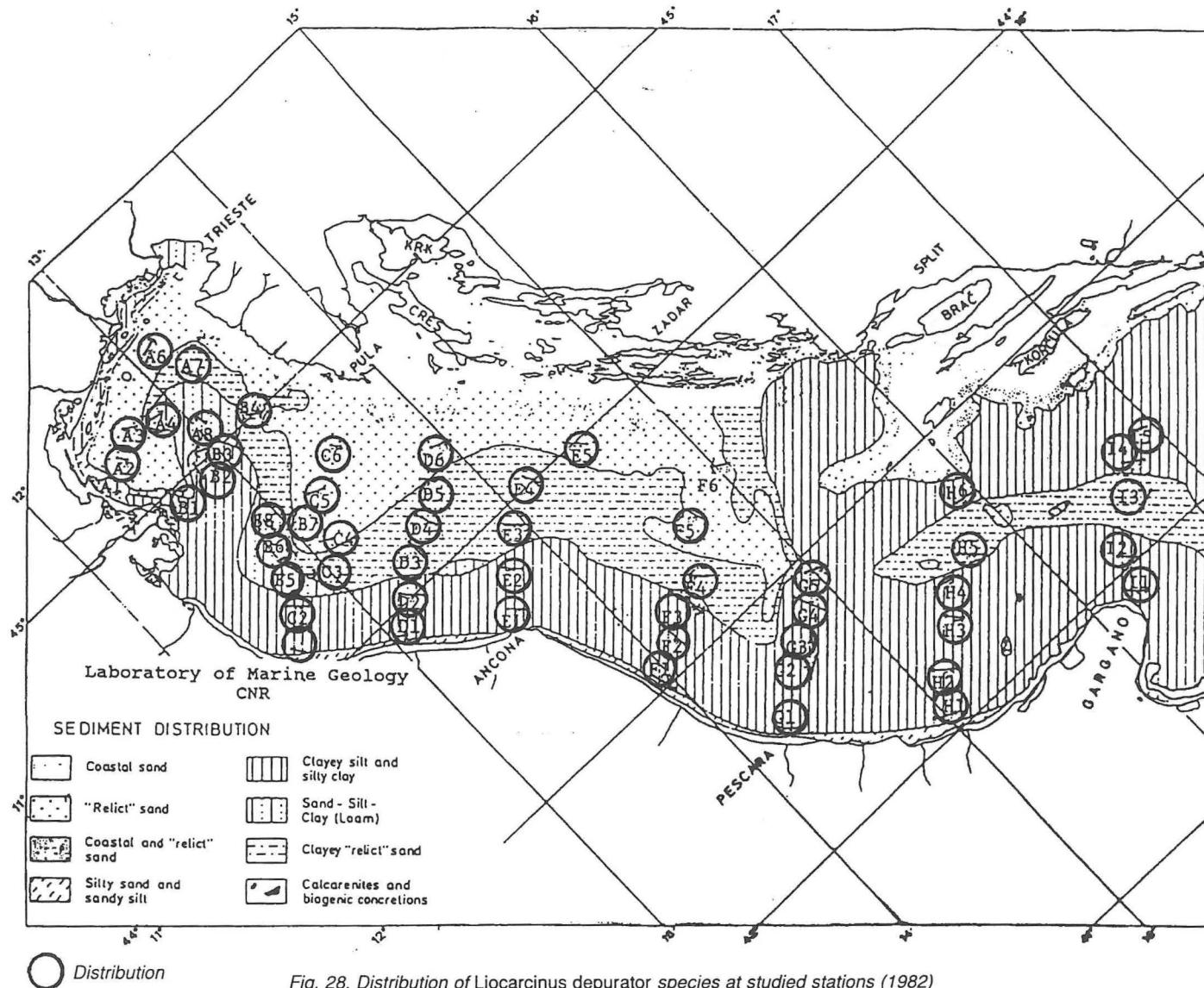
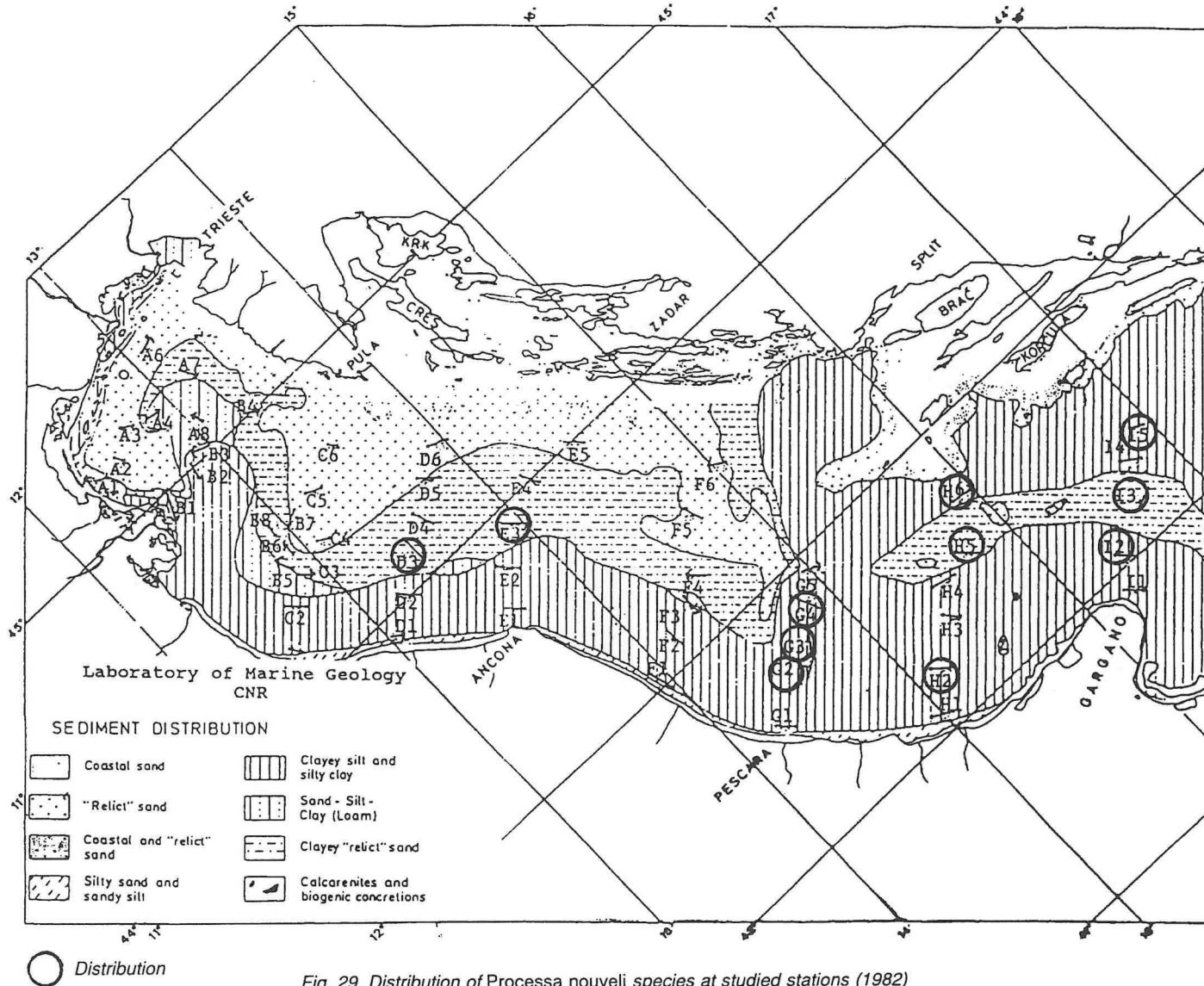


Fig. 28. Distribution of *Liocarcinus depurator* species at studied stations (1982)



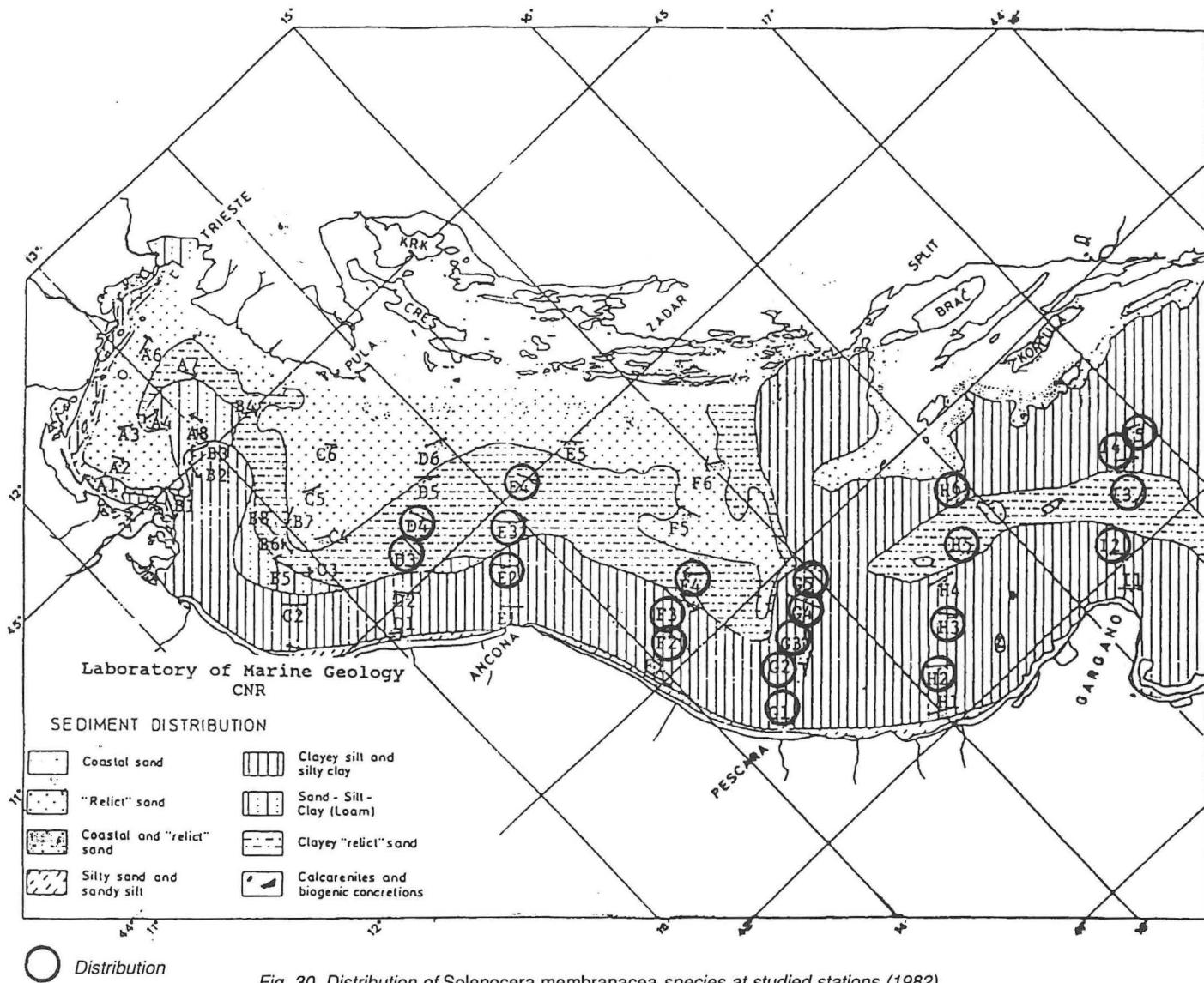


Fig. 30. Distribution of *Solenocera membranacea* species at studied stations (1982)

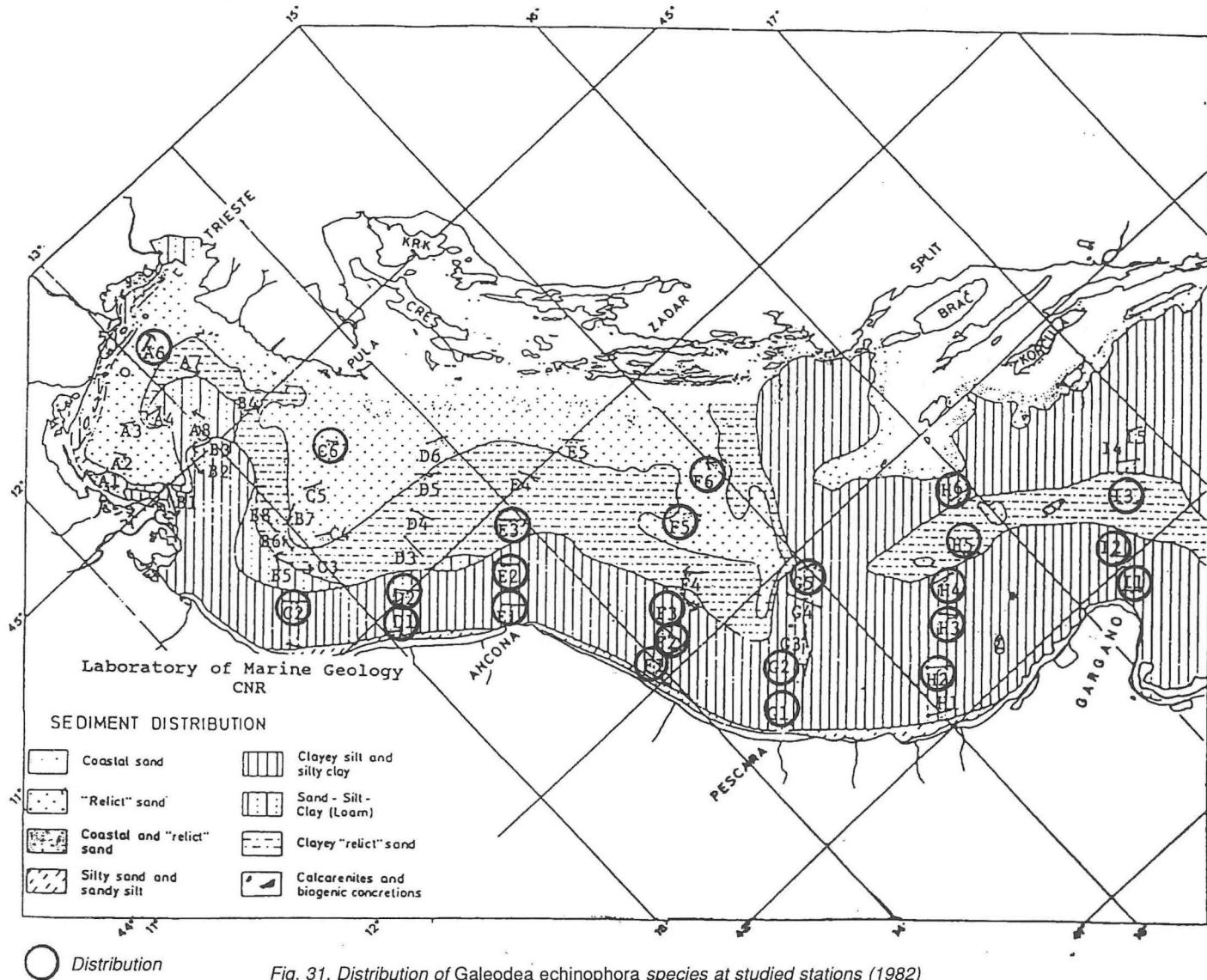
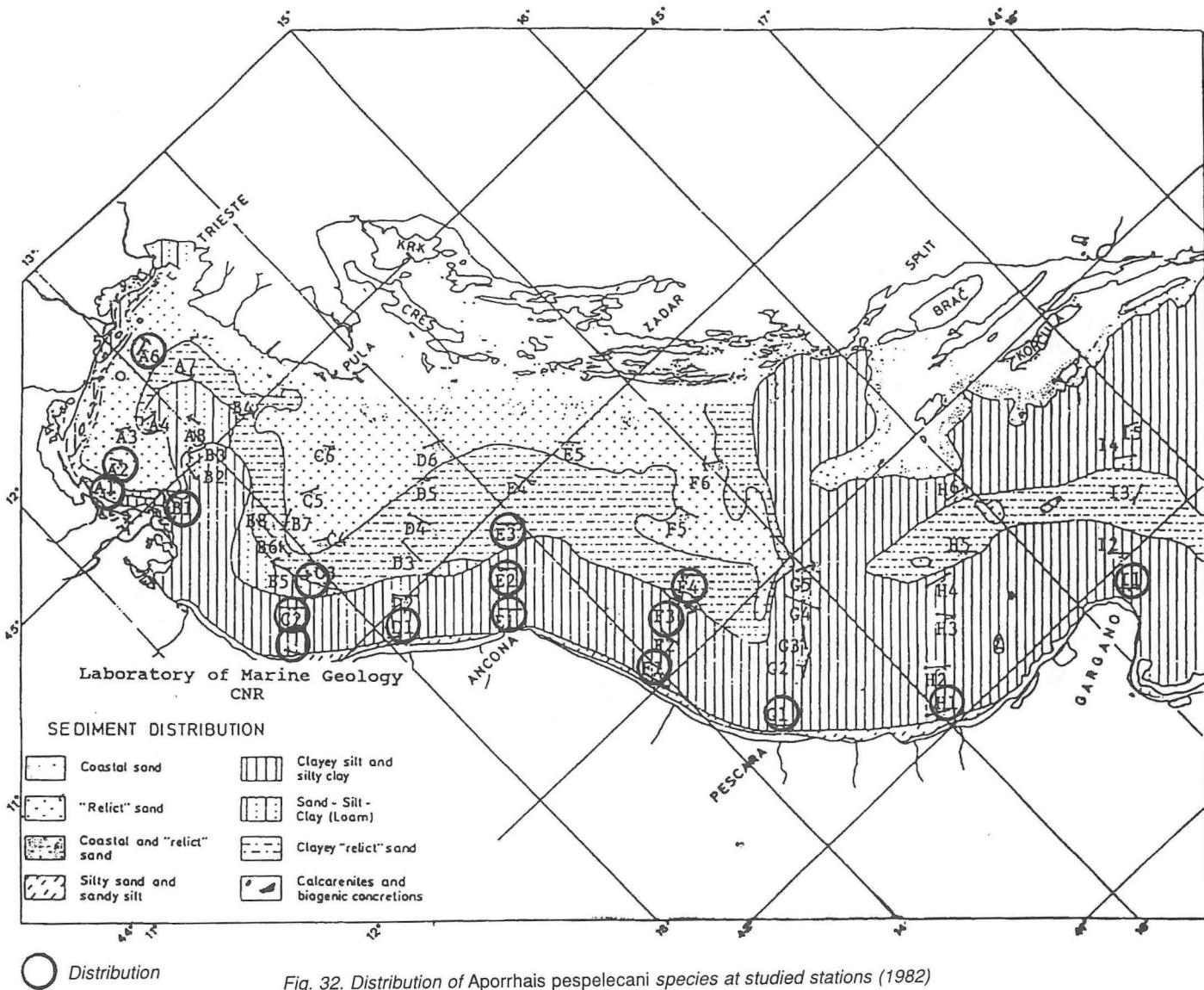
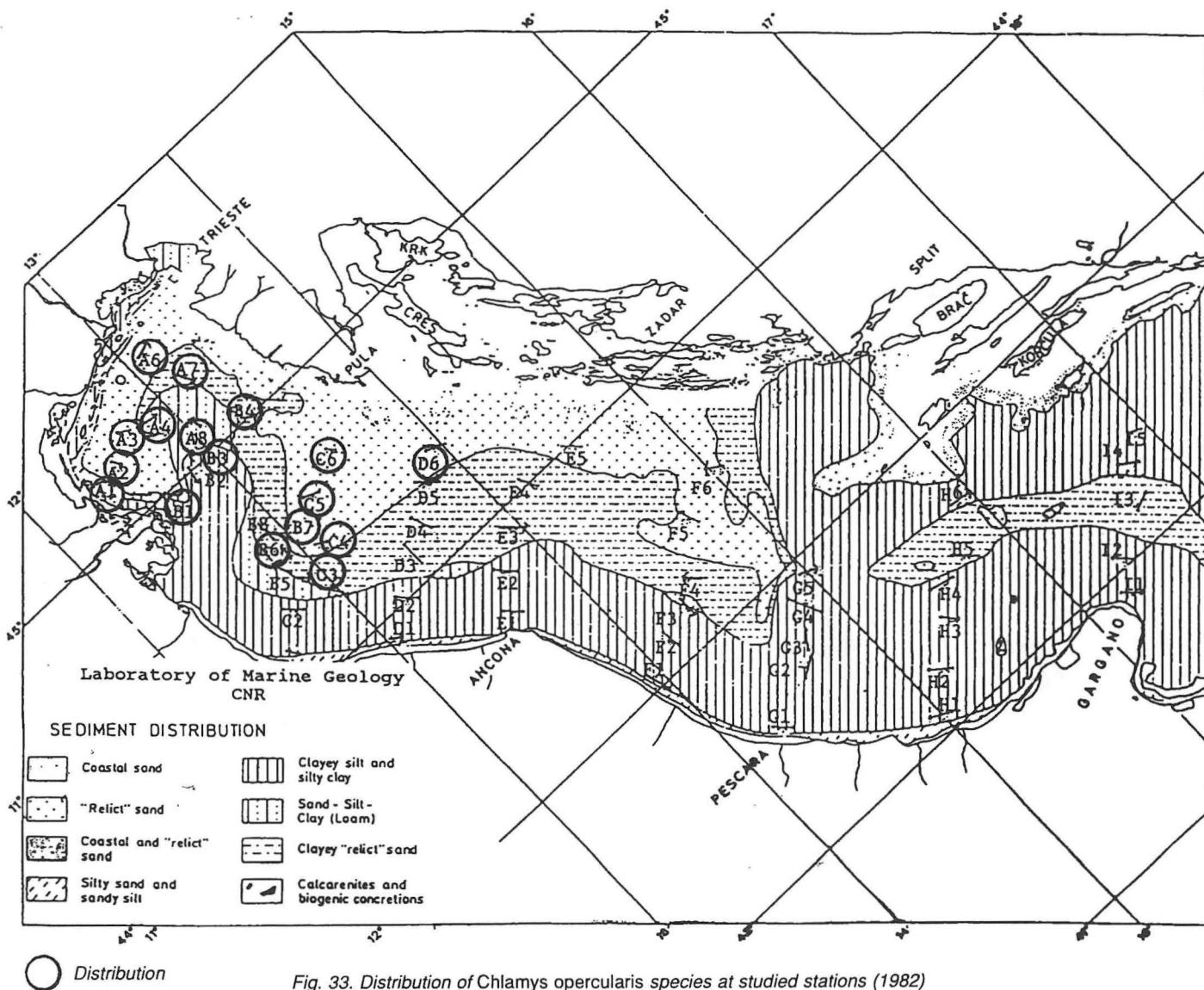
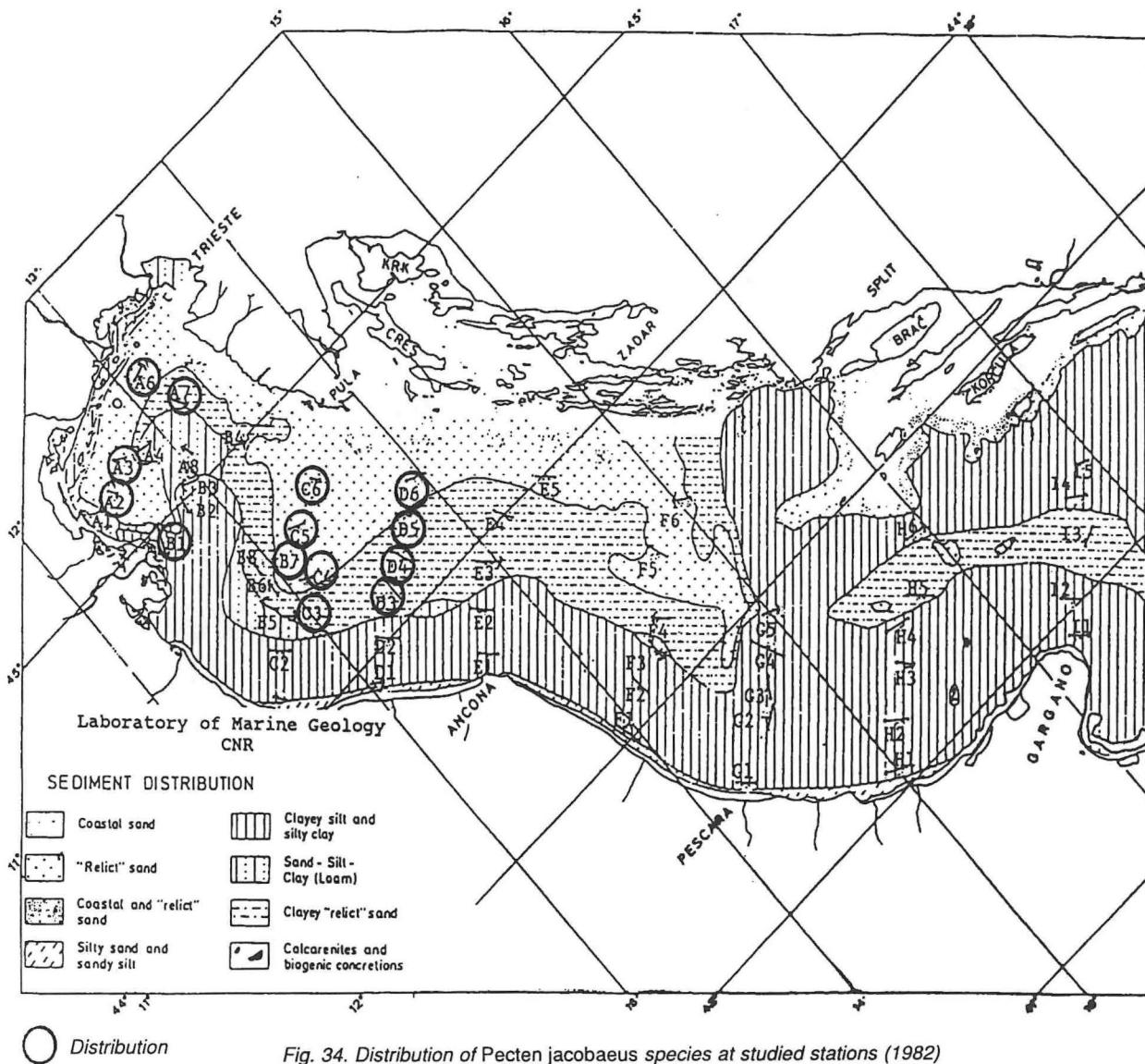


Fig. 31. Distribution of *Galeoidea echinophora* species at studied stations (1982)



Fig. 33. Distribution of *Chlamys opercularis* species at studied stations (1982)



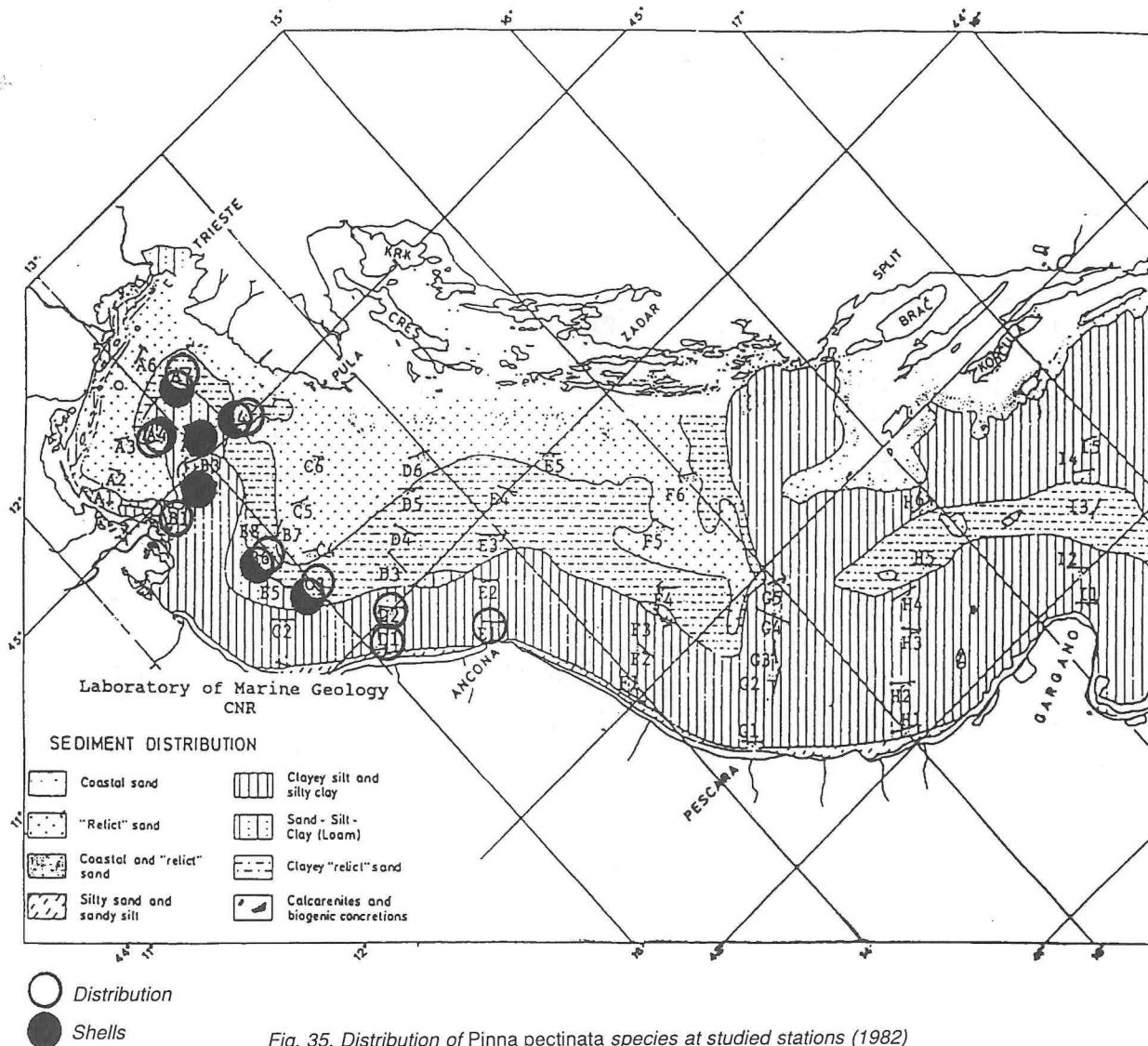
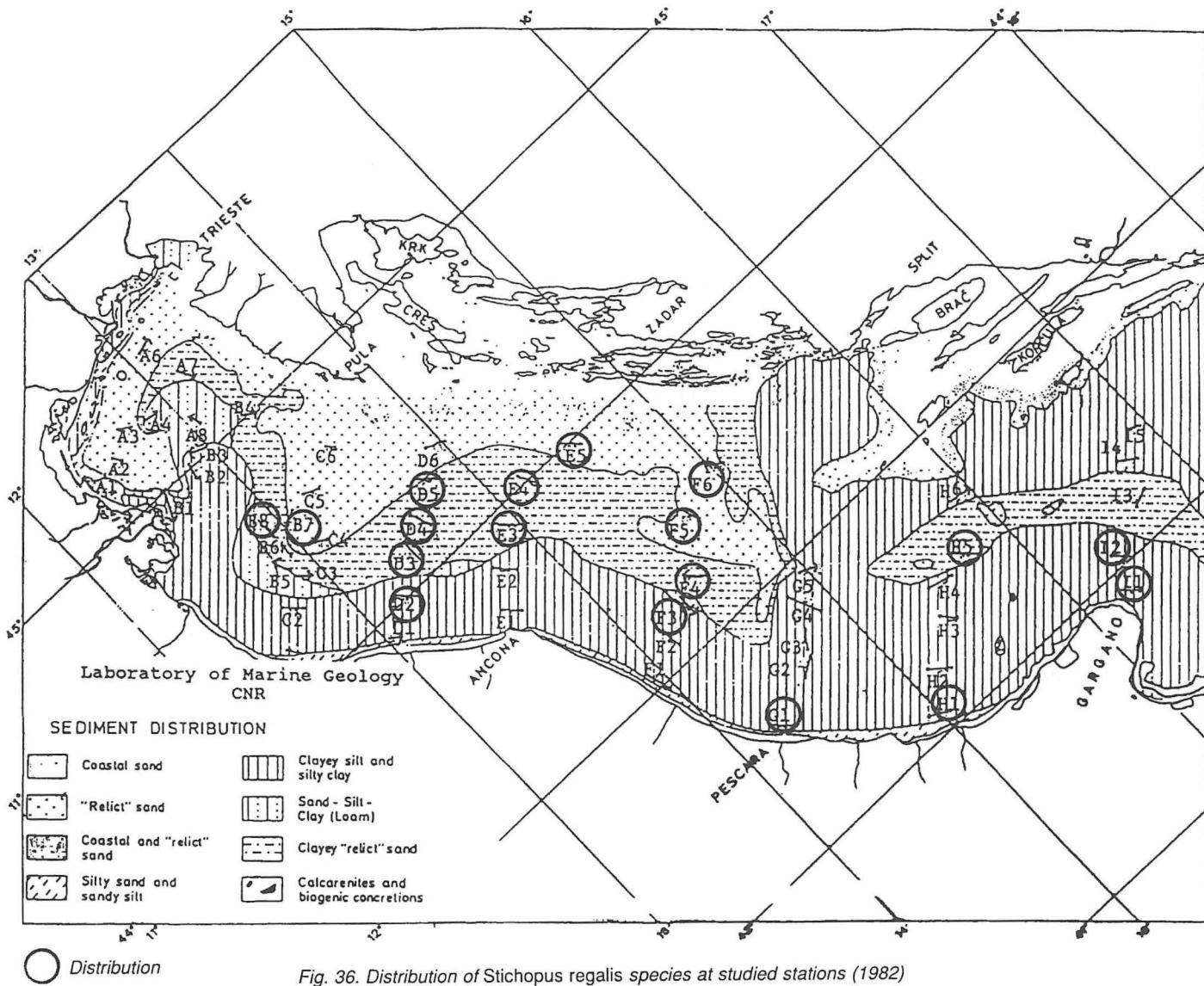
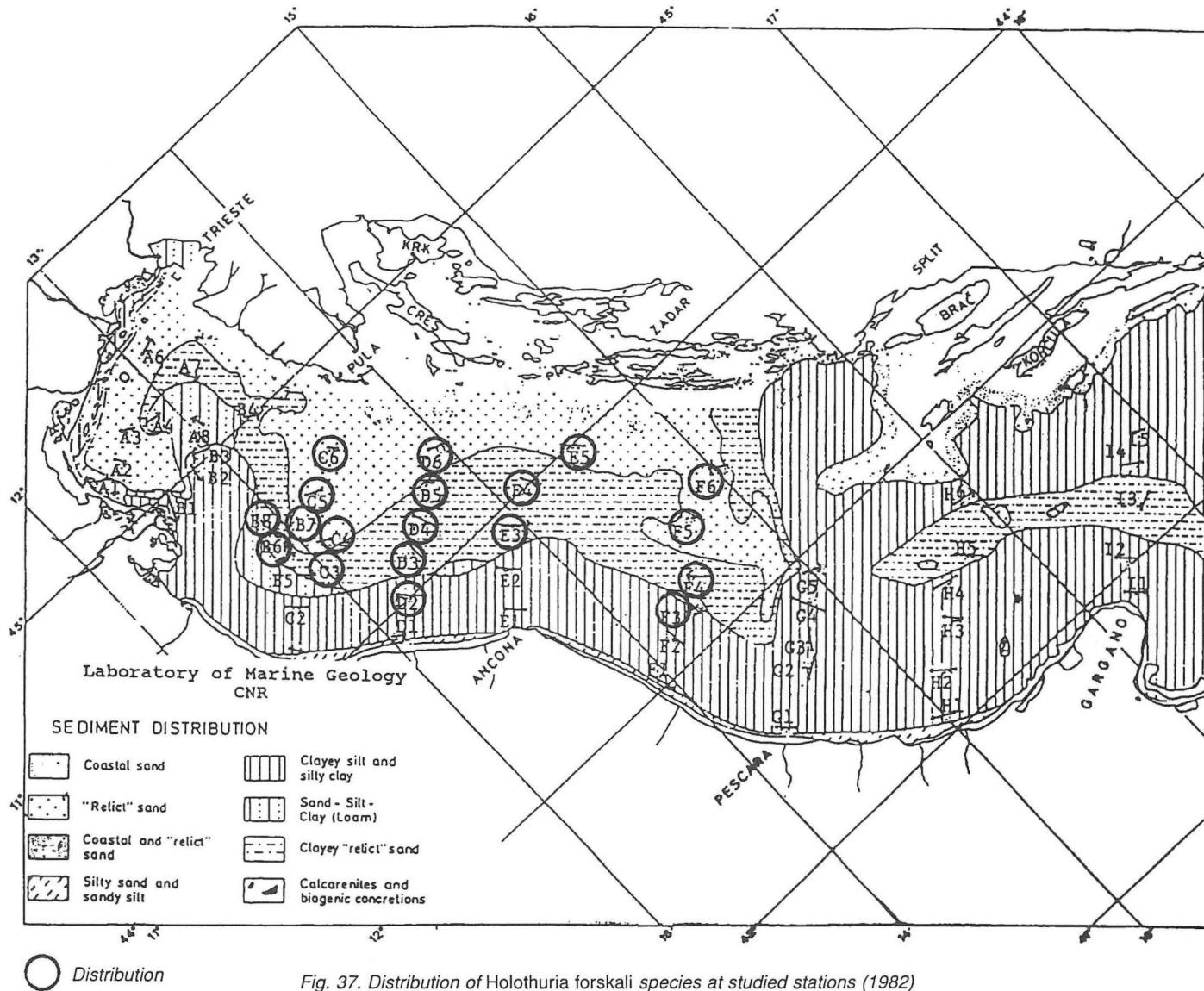
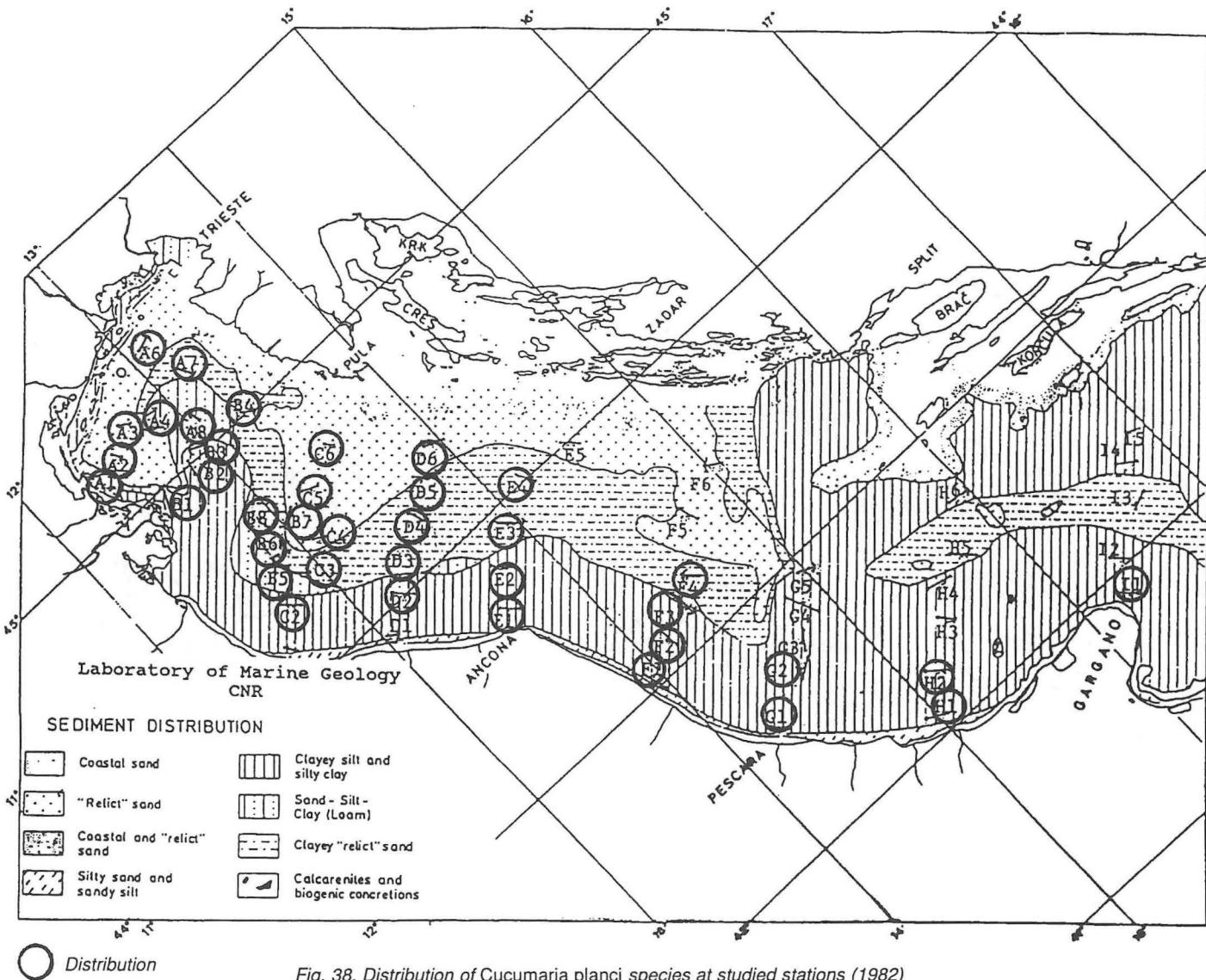
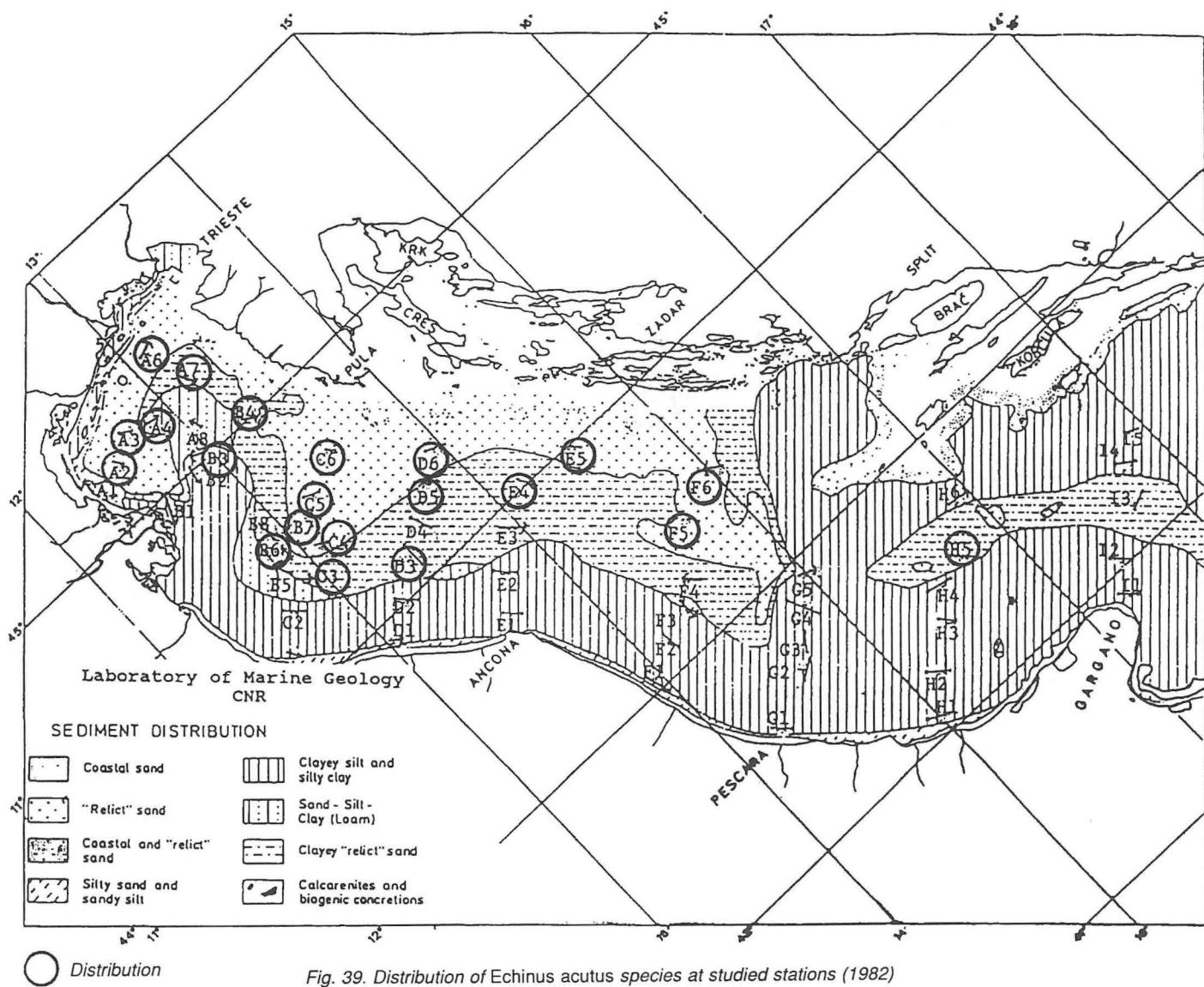


Fig. 35. Distribution of *Pinna pectinata* species at studied stations (1982)







Fig. 39. Distribution of *Echinus acutus* species at studied stations (1982)

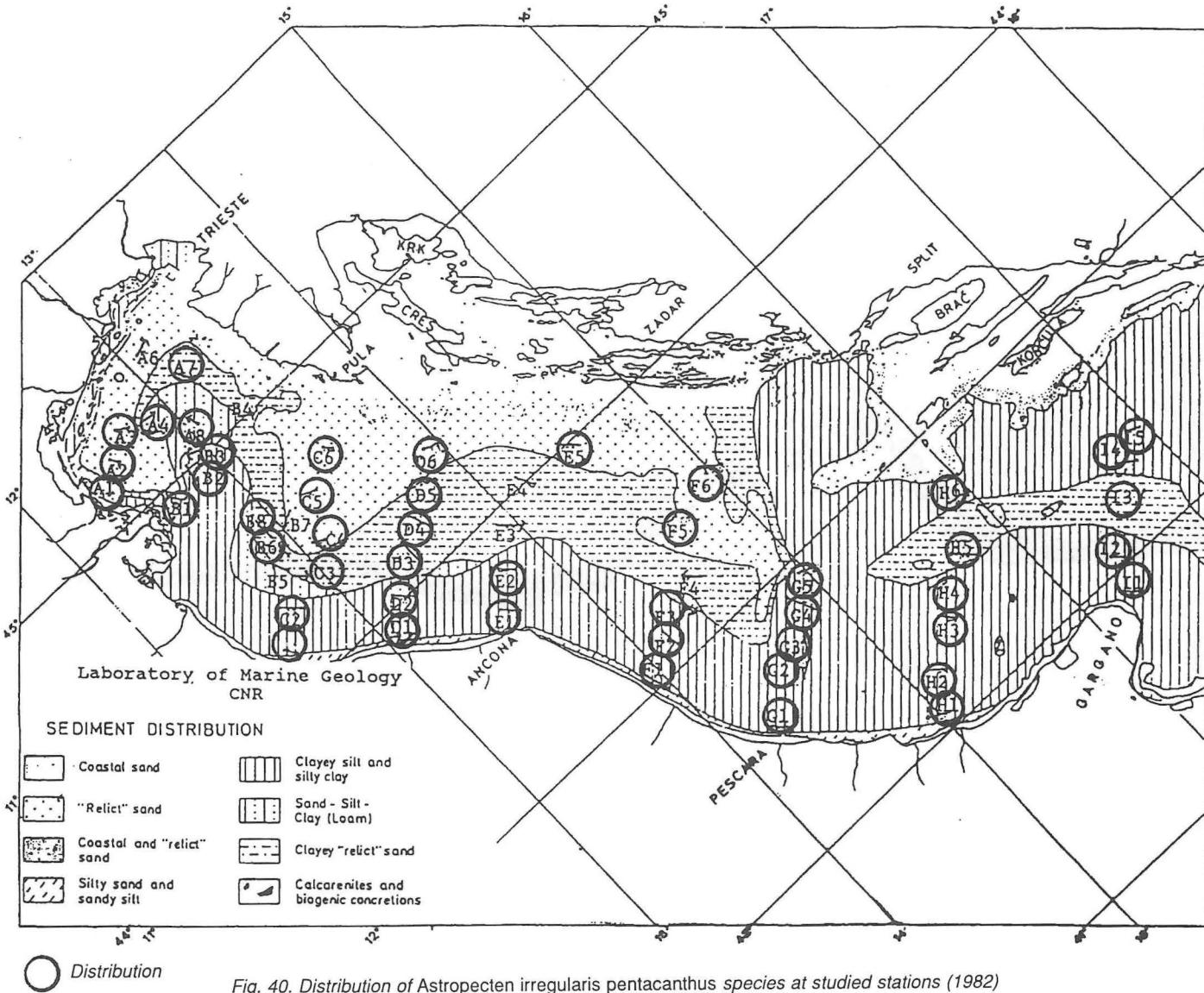


Fig. 40. Distribution of *Astropecten irregularis pentacanthus* species at studied stations (1982)

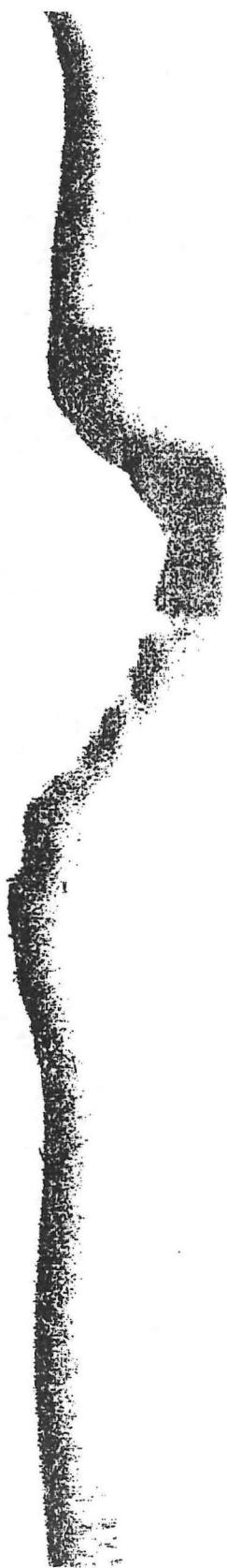


Fig.41. Bottom morphology at station "I5"



Fig.42. *Ranella gigantea* species at station "15"

ANNEX - Quantitative and qualitative (No; g) list of the species with their percentage presence at profils (A-I) and its station (1-8) from which they were collected during PIPETA trawl survey expedition in 1982.

A1

Note: Seaweed: *Ulva rigida* C.AG., *Gracilaria compressa* (C.AG.) GREV., *Cymodocea nodosa* (UCRIA) ASCHERSON, *Zostera marina* LINNE; seabed obstruction; rocky bottom (400 kg).

Depth (m): Date	18 5.5.1982.				20 18.11.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
Species list								
PORIFERA								
<i>Suberites domuncula</i> (OLIVI)	151	1.29	4915	8.15	48	0.92	1680	5.40
CNIDARIA								
<i>Calliactis parasitica</i> (COUCH)	127	1.08	710	1.18	140	2.68	560	1.80
ARTHROPODA								
<i>Squilla mantis</i> (FABR.)	2	0.02	100	0.17	37	0.71	1850	5.94
<i>Scyllarus arctus</i> (LINNE)	2	0.02	100	0.17	1	0.02	40	0.13
<i>Astacus gammarus</i> (LINNE)	-	-	-	-	1	0.02	850	2.73
<i>Dromia vulgaris</i> MILNE EDW.	2	0.02	300	0.50	1	0.02	120	0.39
<i>Macropodia longipes</i> (A.MILNE EDW. & BOUV.) and <i>Macropodia rostrata</i> (LINNE)	195	1.66	315	0.52	84	1.61	120	0.39
<i>Inachus dorsettensis</i> (PENN.)	151	1.29	475	0.79	300	5.75	880	2.83
<i>Carcinides maenas</i> RATH	349	2.98	10400	17.25	268	5.14	8550	27.47
<i>Liocarcinus vernalis</i> (RISSO)	570	4.86	535	0.89	816	15.64	770	2.47
MOLLUSCA								
<i>Aporrhais pespelcani</i> (LINNE)	372	3.17	1480	2.46	68	1.30	200	0.64
<i>Naticarius stercusmuscarum</i> (GMEL.)	5	0.04	40	0.07	-	-	-	-
<i>Murex brandaris</i> LINNE	272	2.32	2695	4.47	172	3.30	2540	8.16
<i>Trunculariopsis trunculus</i> (LINNE)	16	0.14	635	1.05	20	0.38	600	1.93
<i>Hinia reticulata</i> (LINNE)	5080	43.35	13315	22.09	2256	43.24	5640	18.12
<i>Philine aperta</i> (LINNE)	2805	23.94	7845	13.01	216	4.14	600	1.93
<i>Chlamys opercularis</i> (LINNE)	95	0.81	790	1.31	108	2.07	1040	3.34
<i>Chlamys varius</i> (LINNE)	63	0.54	635	1.05	-	-	-	-
<i>Chlamys glabra</i> (LINNE)	32	0.27	80	0.13	-	-	-	-
<i>Ostrea edulis</i> LINNE	3	0.03	200	0.33	9	0.17	630	2.02
ECHINODERMATA								
<i>Holothuria tubulosa</i> GMELIN	16	0.14	1030	1.71	12	0.23	480	1.54
<i>Cucumaria planci</i> (BRANDT)	666	5.68	11890	19.72	148	2.84	2900	9.32
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	214	1.83	950	1.58	84	1.61	320	1.03
<i>Ophiura texturata</i> LAM.	530	4.52	850	1.41	428	8.20	760	2.44
Total:	11718		60285		5217		31130	

A2

Depth (m): Date	25 5.5.1982.				26 18.11.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
PORIFERA								
<i>Suberites domuncula</i> (OLIVI)	342	7.63	11080	18.68	40	0.92	860	2.83
<i>Tedania anhelans</i> (LIEBERKÜHN)	20	0.45	2670	4.50	-	-	-	-
CNIDARIA								
<i>Calliactis parasitica</i> (COUCH)	397	8.86	2400	4.05	264	6.06	1320	4.35
ANNELIDA								
<i>Aphrodisia aculeata</i> LINNE	46	1.03	1105	1.86	-	-	-	-
ARTHROPODA								
<i>Squilla mantis</i> (FABR.)	2	0.04	100	0.17	-	-	-	-
<i>Paguristes oculatus</i> (FABR.)	981	21.88	3690	6.22	304	6.98	1520	5.00
<i>Macropodia longipes</i> (A.MILNE EDW. & BOUV.) and <i>Macropodia rostrata</i> (LINNE)	240	5.35	370	0.62	272	6.24	320	1.05
<i>Inachus dorsettensis</i> (PENN.)	295	6.58	930	1.57	1384	31.77	2210	7.28
<i>Liocarcinus depurator</i> (LINNE)	26	0.58	370	0.62	8	0.18	135	0.44
MOLLUSCA								
<i>Gibbula magus</i> (LINNE)	2	0.04	10	0.02	-	-	-	-
<i>Aporrhais pespelecani</i> (LINNE)	46	1.03	185	0.31	-	-	-	-
<i>Chlamys opercularis</i> (LINNE)	342	7.63	2400	4.05	648	14.88	9600	31.60
<i>Chlamys varius</i> (LINNE)	18	0.40	140	0.24	-	-	-	-
<i>Laevicardium oblongum</i> (GMELIN)	28	0.62	1660	2.80	-	-	-	-
<i>Pecten jacobaeus</i> LINNE	-	-	-	-	7	0.16	200	0.66
<i>Ostrea edulis</i> LINNE	-	-	-	-	3	0.07	200	0.66
ECHINODERMATA								
<i>Holothuria tubulosa</i> GMELIN	83	1.85	8490	14.31	-	-	-	-
<i>Cucumaria planci</i> (BRANDT)	748	16.69	12270	20.68	872	20.02	11000	36.21
<i>Echinus acutus</i> LAM.	28	0.62	4615	7.78	6	0.14	840	2.77
<i>Psammechinus microtuberculatus</i> (BLAINVILLE)	138	3.08	370	0.62	248	5.69	760	2.50
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	-	-	-	-	28	0.64	240	0.79
<i>Ophiothrix quinquemaculata</i> (DELLE CHIAJE)	388	8.65	560	0.95	-	-	-	-
<i>Ophiura texturata</i> LAM.	249	5.55	465	0.78	264	6.06	410	1.35

ANNEX - continued

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
TUNICATA								
<i>Ascidia mentula</i> (MÜLLER)	9	0.20	185	0.31	-	-	-	-
<i>Phallusia mammilata</i> (CUVIER)	18	0.40	1290	2.17	8	0.18	760	2.50
<i>Bothryllus schlosseri</i> (PALLAS)	37	0.83	3970	6.69	-	-	-	-
Total:	4483		59325		4356		30375	

Note: *Pinna pectinata* (shells, 21 piece)

A3

Species list	24		28	
	Date	4.5.1982.	Date	18.11.1982
PORIFERA				
<i>Suberites domuncula</i> (OLIVI)	645	10.21	16595	23.34
<i>Siphonochalina crassa</i> TOPSENT	-	-	-	-
CNIDARIA				
<i>Calliactis parasitica</i> (COUCH)	560	8.86	2900	4.08
ANNELIDA				
<i>Aphrodisia aculeata</i> LINNE	13	0.21	660	0.93
ARTHROPODA				
<i>Squilla mantis</i> (FABR.)	-	-	-	-
<i>Paguristes oculatus</i> (FABR.)	1056	16.71	5000	7.03
<i>Macropodia longipes</i> (A.MILNE EDW. & BOUV.)				
and <i>Macropodia rostrata</i> (LINNE)	711	11.25	1185	1.67
<i>Inachus dorsettensis</i> (PENN.)	514	8.13	1450	2.04
<i>Coryistes cassivelaunus</i> (PENN.)	-	-	-	-
<i>Liocarcinus depurator</i> (LINNE)	105	1.66	1450	2.04
<i>Pilumnus hirtellus</i> (LINNE)	40	0.63	200	0.28
MOLLUSCA				
<i>Gibbula magus</i> (LINNE)	53	0.84	330	0.46
<i>Naticarius stercusmuscarum</i> (GMEL.)	13	0.21	265	0.37
<i>Murex brandaris</i> LINNE	13	0.21	395	0.56
<i>Hadriania craticulata</i> (BROCCHI)	40	0.63	130	0.18

ANNEX - continued

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
<i>Chlamys opercularis</i> (LINNE)	184	2.91	1845	2.59	5240	58.80	71330	67.33
<i>Chlamys glabra</i> (LINNE)	53	0.84	525	0.74	-	-	-	-
<i>Pecten jacobaeus</i> LINNE	1	0.01	160	0.23	-	-	-	-
<i>Ostrea edulis</i> LINNE	-	-	-	-	12	0.13	300	0.28
<i>Laevicardium oblongum</i> (GMELIN)	13	0.21	790	1.11	-	-	-	-
ECHINODERMATA								
<i>Cucumaria planci</i> (BRANDT)	158	2.50	2900	4.08	387	4.34	4665	4.40
<i>Sphaerechinus granularis</i> (LAM.)	1	0.01	140	0.20	9	0.10	450	0.42
<i>Echinus acutus</i> LAM.	277	4.38	26680	37.52	93	1.04	11550	10.90
<i>Psammechinus microtuberculatus</i> (BLAINVILLE)	369	5.84	530	0.75	653	7.33	2065	1.95
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	211	3.34	330	0.46	39	0.44	200	0.19
<i>Ophiotrix quinquemaculata</i> (DELLE CHIAJE)	685	10.84	790	1.11	426	4.78	425	0.40
<i>Ophiura texturata</i> LAM.	500	7.91	920	1.29	240	2.69	530	0.50
TUNICATA								
<i>Phallusia mammilata</i> (CUVIER)	26	0.41	1580	2.22	40	0.45	2660	2.51
<i>Botryllus schlosseri</i> (PALLAS)	66	1.04	2565	3.61	-	-	-	-
<i>Microcosmus sulcatus</i> COQUEBERT	13	0.21	790	1.11	-	-	-	-
Total:	6320		71105		8911		105950	

A4

Note: *Pinna pectinata* (shells, 427 pieces)

Depth (m): Date	34 4.5.1982.				29 17.11.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
Species list								
PORIFERA								
<i>Cliona celata</i> GRANT	391	0.93	33320	21.26	153	1.18	13365	15.10
ARTHROPODA								
<i>Nephrops norvegicus</i> (LINNE)	2	-	100	0.06	-	-	-	-
<i>Macropodia rostrata</i> (LINNE) and								
<i>Macropodia longipes</i> (A.MILNE EDW. & BOUV)	47	0.11	50	0.03	115	0.89	110	0.12
<i>Inachus dorsettensis</i> (PENN.)	53	0.13	45	0.03	248	1.91	190	0.21
<i>Liocarcinus depurator</i> (LINNE)	2020	4.78	42000	26.80	515	3.98	10975	12.40

ANNEX - continued

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
MOLLUSCA								
<i>Turritella communis</i> RISSO	2100	4.97	3240	2.07	-	-	-	-
<i>calyptarea chinensis</i> (LINNE)	2200	5.21	550	0.35	776	5.99	195	0.22
<i>Fusinus rostratus</i> (OLIVI)	107	0.25	270	0.17	19	0.15	50	0.06
<i>Philine aperta</i> (LINNE)	1200	2.84	5450	3.48	-	-	-	-
<i>Mytilus galloprovincialis</i> (LAMARCK)	96	0.23	9600	6.12	14	0.11	1500	1.69
<i>Pinna pectinata</i> (LINNE)	35	0.08	18900	12.06	4	0.03	1720	1.94
<i>Chlamys opercularis</i> (LINNE)	-	-	-	-	983	7.59	11450	12.93
<i>Anomia ephippium</i> (LINNE)	27360	64.75	16400	10.46	8580	66.25	5150	5.82
<i>Ostrea edulis</i> LINNE	150	0.35	9000	5.74	18	0.14	820	0.93
<i>Chione ovata</i> (PENN.)	1170	2.77	150	0.10	-	-	-	-
<i>Aloidis gibba</i> (OLIVI)	3117	7.38	950	0.61	-	-	-	-
ECHINODERMATA								
<i>Cucumaria planci</i> (BRANDT)	197	0.47	1430	0.91	95	0.73	1430	1.62
<i>Echinus acutus</i> LAMARCK	45	0.10	7685	4.90	248	1.91	37230	42.05
<i>Psammechinus microtuberculatus</i> (BLAINVILLE)	-	-	-	-	48	0.37	240	0.27
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	304	0.72	3930	2.51	248	1.91	2385	2.69
<i>Ophiura texturata</i> LAM.	1626	3.85	1340	0.85	878	6.78	670	0.76
TUNICATA								
<i>Phallusia mammillata</i> (CUVIER)	36	0.09	2325	1.48	9	0.07	1050	1.19
Total:	42256		156735		12951		88530	

Note: calcareous algae; seabed obstructions

Depth (m):	22 17.11.1982.			
Date:	N°/h	%	g/h	%
Species list:				
PORIFERA				
<i>Polymastia mamillaris</i> (MÜLLER)	12	0.08	600	0.72
<i>Tethya aurantium</i> (PALL.)	60	0.41	4200	5.06
<i>Suberites domuncula</i> (OLIVI)	744	5.13	9540	11.49
<i>Siphonochalina crassa</i> TOPSENT	36	0.25	1200	1.45
<i>Dysidea fragilis</i> (MONTAGU)	36	0.25	2340	2.82
<i>Tedania anhelans</i> (LIEBERKUHN)	24	0.17	1820	2.19
CNIDARIA				
<i>Calliactis parasitica</i> (COUCH)	504	3.47	1920	2.31
ARTHROPODA				
<i>Paguristes oculatus</i> (FABR.)	1256	8.66	5655	6.81
<i>Dromia vulgaris</i> MILNE EDW.	4	0.03	520	0.63
<i>Liocarcinus depurator</i> (LINNE)	24	0.17	120	0.14
MOLLUSCA				
<i>Gibbula magus</i> (LINNE)	98	0.68	450	0.54
<i>Aporrhais pespelecani</i> (LINNE)	36	0.25	150	0.18
<i>Galeodea echinophora</i> (LINNE)	6	0.04	210	0.25
<i>Murex brandarix</i> LINNE	83	0.57	3045	3.67
<i>Trunculariopsis trunculus</i> (LINNE)	132	0.91	7160	8.63
<i>Scaphander lignarius</i> (LINNE)	5	0.03	235	0.28
<i>Chlamys opercularis</i> (LINNE)	348	2.40	1820	2.19
<i>Pecten jacobaeus</i> LINNE	46	0.32	4195	5.05
<i>Mantellum hians</i> (GMELIN)	12	0.08	20	0.02
<i>Ostrea edulis</i> LINNE	24	0.17	1855	2.24
<i>Laevicardium oblongum</i> (GMELIN)	48	0.34	2070	2.49
<i>Cardium echinatum</i> LINNE	2	0.01	185	0.22
<i>Pitaria chione</i> (LINNE)	4	0.03	275	0.33
<i>Venus verrucosa</i> LINNE	12	0.08	430	0.52
<i>Venerupis aurea</i> (GMELIN)	2	0.01	40	0.05
ECHINODERMATA				
<i>Holothuria tubulosa</i> GMELIN	18	0.12	2520	3.04
<i>Cucumaria planci</i> (BRANDT)	108	0.74	810	0.98
<i>Sphaerechinus granularis</i> (LAM.)	21	0.14	1575	1.90

ANNEX - continued

Species list:	N°/h	%	g/h	%
<i>Echinus acutus</i> LAM.	19	0.13	3140	3.78
<i>Psammechinus microtuberculatus</i> (BLAINVILLE)	852	5.87	1365	1.64
<i>Astropecten aranciacus</i> (LINNE)	2	0.01	425	0.51
<i>Ophiothrix quinquemaculata</i> (DELLE CHIAJE)	7680	52.94	4470	5.39
<i>Ophiura texturata</i> LAM.	1848	12.74	2160	2.60
TUNICATA				
<i>Distoma adriaticum</i> DRASCHE	36	0.25	3240	3.90
<i>Aplidium conicum</i> OLIVI	2	0.01	345	0.42
<i>Ascidia mentula</i> (MÜLLER)	29	0.20	435	0.52
<i>Phallusia mammilata</i> (CUVIER)	53	0.37	2130	2.56
<i>Styella partita</i> (STIMPSON)	52	0.36	125	0.15
<i>Microcosmus sulcatus</i> COQUEBERT	228	1.57	10200	12.29
Total:	14506		82995	

A7

Note: *Pinna pectinata* (shells, 126 pieces)

Depth (m): Date	31 3.5.1982.				32 17.11.1982.			
	N°/h	%	g/h	%	N°/h	%	g/h	%
Species list								
PORIFERA								
<i>Polymastia mammillaris</i> (MÜLLER)	3168	2.86	100190	5.21	-	-	-	-
<i>Suberites domuncula</i> (OLIVI)	-	-	-	-	308	1.98	8290	5.44
<i>Cliona celata</i> GRANT	25	0.02	2915	0.15	261	1.67	48200	31.62
<i>Siphonocalina crassa</i> TOPSENT	-	-	-	-	4	0.03	160	0.10
CNIDARIA								
<i>Calliactis parasitica</i> (COUCH)	1610	1.45	8710	0.45	47	0.30	185	0.12
<i>Adamsia palliata</i> (BOHADSCH)	-	-	-	-	46	0.30	115	0.08
ANNELIDA								
<i>Hermonia histrix</i> (SAV.)	581	0.52	5810	0.30	71	0.46	710	0.47
ARTHROPODA								
<i>Paguristes oculatus</i> (FABR.)	872	0.79	4360	0.23	355	2.28	1775	1.16
<i>Dromia vulgaris</i> MILNE EDW.	4	-	1200	0.06	-	-	-	-

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
<i>Macropodia longipes</i> (A.MILNE EDW. & BOUV)								
and <i>Macropodia rostrata</i> (LINNE)	5212	4.70	8710	0.45	334	2.14	425	0.28
<i>Inachus dorsettensis</i> (PENN.)	2890	2.61	8970	0.47	68	0.44	195	0.13
<i>Liocarcinus depurator</i> (LINNE)	-	-	-	-	118	0.76	1775	1.16
MOLLUSCA								
<i>Gibbula magus</i> (LINNE)	2	-	10	-	-	-	-	-
<i>Calyptitraea chinensis</i> (LINNE)	-	-	-	-	795	5.10	200	0.13
<i>Trunculariopsis trunculus</i> (LINNE)	1016	0.92	90000	4.68	-	-	-	-
<i>Mytilus galloprovincialis</i> LAM.	-	-	-	-	46	0.30	2070	1.36
<i>Pinna pectinata</i> LINNE	-	-	-	-	5	0.03	1940	1.27
<i>Chlamys opercularis</i> (LINNE)	32525	29.37	152460	7.93	687	4.41	9410	6.17
<i>Pecten jacobaeus</i> LINNE	38	0.03	1440	0.07	8	0.05	560	0.37
<i>Anomia ephippium</i> LINNE	-	-	-	-	3255	20.88	2270	1.49
<i>Ostrea edulis</i> LINNE	10	0.01	865	0.04	11	0.07	780	0.51
<i>Laevicardium oblongum</i> (GMELIN)	2	-	110	0.01	-	-	-	-
<i>Pitaria chione</i> (LINNE)	1	-	80	-	-	-	-	-
ECHINODERMATA								
<i>Holothuria tubulosa</i> GMELIN	72	0.07	4360	0.23	24	0.15	1760	1.15
<i>Cucumaria planci</i> (BRANDT)	871	0.79	15970	0.83	118	0.76	2360	1.55
<i>Echinus acutus</i> LAM.	436	0.39	87130	4.53	308	1.98	39080	25.64
<i>Astropecten aranciacus</i> (LINNE)	-	-	-	-	2	0.01	720	0.47
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	145	0.13	2900	0.15	355	2.28	4265	2.80
<i>Ophiothrix quinquemaculata</i> (DELLE CHIAJE)	34558	31.20	42100	2.19	2416	15.50	3285	2.16
<i>Amphiura filiformis</i> (O.F.MÜLLER)	-	-	-	-	2420	15.52	485	0.32
<i>Ophiura texturata</i> LAM.	66098	5.51	13070	0.68	3315	21.27	6300	4.13
TUNICATA								
<i>Distoma adriaticum</i> DRASCHE	18295	16.52	1242900	64.67	-	-	-	-
<i>Phallusia mammillata</i> (CUVIER)	1742	1.57	75515	3.93	67	0.43	3685	2.42
<i>Botryllus schlosseri</i> (PALLAS)	-	-	-	-	95	0.61	7990	5.24
<i>Microcosmus sulcatus</i> COQUEBERT	580	0.52	52270	2.72	49	0.31	3430	2.25
Total:	110753		1922045		15588		152420	

Note: *Pinna pectinata* (shells, 236 pieces)

Depth (m):	32 19.11.1982.			
Date:				
Species list:	N°/h	%	g/h	%
PORIFERA				
<i>Cliona celata</i> GRANT	13	0.17	1125	3.99
ANNELIDA				
<i>Hermonia histrix</i> (SAV.)	9	0.12	45	0.16
ARTHROPODA				
<i>Astacus gammarus</i> (LINNE)	1	0.01	2350	8.33
<i>Liocarcinus depurator</i> (LINNE)	468	6.07	7720	27.53
MOLLUSCA				
<i>Fusinus rostratus</i> (OLIVI)	9	0.12	30	0.11
<i>Scaphander lignarius</i> (LINNE)	4	0.05	60	0.21
<i>Chlamys opercularis</i> (LINNE)	1008	13.08	11900	42.16
<i>Anomia ephippium</i> LINNE	5640	73.16	3100	10.98
<i>Ostrea edulis</i> LINNE	9	0.12	675	2.39
ECHINODERMATA				
<i>Cucumaria planci</i> (BRANDT)	23	0.30	225	0.80
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	49	0.64	440	1.56
<i>Ophiothrix quinquemaculata</i> (DELLE CHIAJE)	171	2.22	85	0.30
<i>Ophiura texturata</i> LAM.	301	3.90	210	0.74
TUNICATA				
<i>Phallusia mammilata</i> (CUVIER)	4	0.05	260	0.92
Total:	7709		28225	

B1

Note: Seaweed: *Ulva rigida* C.AG: (0.70 kg), *Gracilaria compressa* (C:AG:) GREV. (4.60 kg), *Codium dichotomum* (HUDS.) SETCH. (0.15 kg).

Depth (m): Date	31 5.5.1982.				29 19.11.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
Species list								
CNIDARIA								
<i>Amphianthus dohrnii</i> (V. KOCH.)	2880	9.15	4730	4.30	405	7.75	520	1.65
<i>Virgularia mirabilis</i> (MÜLLER)	161	0.51	320	0.29	-	-	-	-
ANNELIDA								
<i>Aphrodisia aculeata</i> LINNE	32	0.10	485	0.44	-	-	-	-
ARTHROPODA								
<i>Squilla mantis</i> FABR.	5	0.02	200	0.18	277	5.30	8900	28.26
<i>Penaeus kerathurus</i> (FORSKAL)	-	-	-	-	1	0.02	10	0.03
<i>Astacus gammarus</i> (LINNE)	-	-	-	-	1	0.02	1200	3.81
<i>Macropodia rostrata</i> (LINNE) and								
<i>Macropodia longipes</i> (A.MILNE EDW. & BOUV.)	3063	9.73	4190	3.81	122	2.33	70	0.22
<i>Inachus dorsettensis</i> (PENN.)	5115	16.24	10530	9.57	432	8.27	790	2.51
<i>Liocarcinus depurator</i> (LINNE)	3451	10.96	11960	10.87	336	6.43	3620	11.49
<i>Liocarcinus vernalis</i> (RISSO)	439	1.39	400	0.36	117	2.24	100	0.32
MOLLUSCA								
<i>Turritella communis</i> RISSO	3482	11.06	13215	12.01	629	12.04	1600	5.08
<i>Apporhais pespelcana</i> (LINNE)	806	2.56	4515	4.10	106	2.03	565	1.79
<i>Naticarius stercusmuscarum</i> GMELIN	64	0.20	1075	0.98	12	0.23	145	0.46
<i>Sphaeronassa mutabilis</i> (LINNE)	-	-	-	-	211	4.04	635	2.02
<i>Hinia reticulata</i> (LINNE)	3009	9.56	10315	9.37	486	9.30	1400	4.44
<i>Hinia costulata</i> (REN.)	129	0.41	645	0.59	-	-	-	-
<i>Philine aperta</i> (LINNE)	-	-	-	-	509	9.74	2040	6.48
<i>Arca corbuloides</i> (MONT.)	-	-	-	-	77	1.47	2345	7.45
<i>Pinna pectinata</i> LINNE	64	0.20	2570	2.33	-	-	-	-
<i>Chlamys opercularis</i> LINNE	1805	5.73	21060	19.13	145	2.77	1600	5.08
<i>Pecten jacobaeus</i> LINNE	64	0.20	2580	2.34	6	0.11	220	0.70
<i>Ostrea edulis</i> LINNE	43	0.14	2795	2.54	-	-	-	-
ECHINODERMATA								
<i>Cucumaria planci</i> (BRANDT)	215	0.68	2580	2.34	57	1.09	585	1.86
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	451	1.43	5590	5.08	457	8.74	3960	12.57
<i>Ophiura texturata</i> LAM.	6212	19.73	10315	9.37	840	16.07	1190	3.78
Total:	31490		110070		5226		31495	

ANNEX - continued

Note: *Pinna pectinata* (shells, 155 piece)

Depth (m): Date	34 26.5.1982.				31 19.11.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
Species list								
PORIFERA								
<i>Suberites carnosus</i> (JOHNSTON)	571	1.85	22600	6.49	99	1.67	6840	11.65
<i>Cliona celata</i> GRANT	12	0.04	1535	0.44	-	-	-	-
CNIDARIA								
<i>Virgularia mirabilis</i> (MÜLLER)	499	1.62	830	0.24	-	-	-	-
ARTHROPODA								
<i>Squilla mantis</i> FABR.	2	0.01	100	0.03	2	0.03	65	0.11
<i>Nephros norvegicus</i> (LINNE)	1	-	100	0.03	-	-	-	-
<i>Macropodia rostrata</i> (LINNE) and								
<i>Macropodia longipes</i> (A.MILNE EDW. & BOUV.)	125	0.41	210	0.06	-	-	-	-
<i>Inachus dorsettensis</i> (PENN.)	208	0.67	200	0.06	-	-	-	-
<i>Liocarcinus depurator</i> (LINNE)	16936	54.91	253850	72.88	2277	38.50	39870	67.90
MOLLUSCA								
<i>Turritella communis</i> RISSO	791	2.56	1250	0.36	3006	50.83	4500	7.66
<i>Fusinus rostratus</i> (OLIVI)	-	-	-	-	40	0.68	135	0.23
<i>Philine aperta</i> (LINNE)	375	1.22	1250	0.36	-	-	-	-
<i>Mytilus galloprovincialis</i> LAMARCK	624	2.02	37450	10.75	-	-	-	-
<i>Ostrea edulis</i> LINNE	166	0.54	10820	3.11	-	-	-	-
<i>Isocardia cor</i> (LINNE)	1	-	160	0.05	1	0.02	200	0.34
ECHINODERMATA								
<i>Cucumaria planci</i> (BRANDT)	375	1.22	2080	0.60	63	1.07	630	1.07
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	5576	18.08	11650	3.34	390	6.59	1080	1.84
<i>Ophiothrix quinquemaculata</i> (DELLE CHIAJE)	1956	6.34	1165	0.33	-	-	-	-
<i>Ophiura texturata</i> LAM.	2622	8.50	2910	0.84	-	-	-	-
TUNICATA								
<i>Distoma adriaticum</i> DRASCHE	1	-	140	0.04	18	0.30	3150	5.36
<i>Phallusia mammilata</i> (CUVIER)	-	-	-	-	19	0.32	2250	3.83
Total:	30841		348300		5915		58720	

B3

Note: *Pinna pectinata* (shells, 137 piece); seabed obstructions.

Species list	38 26.5.1982.				33 19.11.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
PORIFERA								
<i>Suberites domuncula</i> (OLIVI)	1	-	65	0.02	-	-	-	-
<i>Suberites carnosus</i> (JOHNSTON)	739	0.92	39900	10.93	56	0.54	3100	3.46
<i>Cliona celata</i> GRANT	430	0.53	31700	8.68	11	0.11	660	0.74
ARTHROPODA								
<i>Nephrops norvegicus</i> (LINNE)	21	0.03	1800	0.49	1	0.01	90	0.10
<i>Macropodia rostrata</i> (LINNE) and								
<i>Macropodia longipes</i> (A.MILNE EDW. & BOUV.)	1755	2.17	2440	0.67	-	-	-	-
<i>Inachus dorsettensis</i> (PENN.)	2535	3.13	4880	1.33	-	-	-	-
<i>Maia squinado</i> (HERBST)	-	-	-	-	1	0.01	500	0.56
<i>Liocarcinus depurator</i> (LINNE)	8434	10.43	126500	34.64	2338	22.76	41375	46.25
MOLLUSCA								
<i>Turritella communis</i> RISSO	17843	22.06	11700	3.20	1464	14.25	1345	1.50
<i>Fusinus rostratus</i> OLIVI	49	0.06	245	0.07	54	0.53	135	0.15
<i>Scaphander lignarius</i> (LINNE)	50	0.06	240	0.07	-	-	-	-
<i>Philine aperta</i> (LINNE)	1560	1.93	4385	1.20	-	-	-	-
<i>Chlamys opercularis</i> (LINNE)	14333	17.72	50700	13.88	3170	30.86	34120	38.14
<i>Anomia ephippium</i> LINNE	2096	2.59	975	0.27	2208	21.49	1100	1.23
<i>Ostrea edulis</i> LINNE	244	0.30	7315	2.00	2	0.02	450	0.50
<i>Chione ovata</i> (PENN.)	20524	25.38	2440	0.67	-	-	-	-
ECHINODERMATA								
<i>Cucumaria planci</i> (BRANDT)	439	0.54	2925	0.80	81	0.79	685	0.77
<i>Echinus acutus</i> LAMARCK	20	0.02	3400	0.93	27	0.26	4700	5.25
<i>Astropecten irregularis pentachantus</i> (DELLE CHIAJE)	6581	8.14	14635	4.00	280	2.73	670	0.75
<i>Ophiura texturata</i> LAM.	3120	3.86	2920	0.80	580	5.65	535	0.60
TUNICATA								
<i>Distoma adriaticum</i> DRASCHE	98	0.12	56060	15.35	-	-	-	-
Total:	80872		365225		10273		89465	

ANNEX - continued

B4

Note: *Pinna pectinata* (shells, 320 piece)

Depth (m):	38 15.11.1982.			
Species list	N°/h	%	g/h	%
PORIFERA				
<i>Cliona celata</i> GRANT	34	0.05	11300	1.34
ARTHROPODA				
<i>Nephrops norvegicus</i> (LINNE)	2	-	300	0.04
<i>Maia squinado</i> (HERBST)	1	-	1300	0.15
<i>Liocarcinus depurator</i> (LINNE)	25420	40.54	358750	42.47
MOLLUSCA				
<i>Pinna pectinata</i> LINNE	24	0.04	1080	0.13
<i>Chlamys opercularis</i> (LINNE)	37064	59.12	451000	53.39
ECHINODERMATA				
<i>Cucumaria planci</i> (BRANDT)	10	0.02	285	0.03
<i>Echinus acutus</i> LAMARCK	128	0.20	20280	2.40
<i>Marthasterias glacialis</i> (LINNE)	2	-	440	0.05
<i>Ophiura texturata</i> LAMARCK	10	0.02	15	-
Total:	62695		844750	

B5

Depth (m):	40 23.11.1982.			
Species list	N°/h	%	g/h	%
ARTHROPODA				
<i>Liocarcinus depurator</i> (LINNE)	13842	99.35	148860	98.51
<i>Gonoplaex angulata</i> (PENN.)	36	0.26	270	0.18
ECHINODERMATA				
<i>Holothuria forskali</i> DELLE CHIAJE	36	0.26	1440	0.95
<i>Cucumaria planci</i> (BRANDT)	18	0.13	540	0.36
Total:	13932		151110	

Note: *Pinna pectinata* (shells, 123 piece)

Depth (m):	42 23.11.1982.			
Date:	N°/h	%	g/h	%
Species list				
CNIDARIA				
<i>Calliactis parasitica</i> (COUCH)	67	0.10	335	0.04
ANNELIDA				
<i>Hermonia hystrix</i> (SAV.)	134	0.20	3340	0.45
ARTHROPODA				
<i>Squilla mantis</i> FABR.	2	-	115	0.02
<i>Nephrops norvegicus</i> (LINNE)	4	0.01	170	0.02
<i>Liocarcinus depurator</i> (LINNE)	56227	82.86	488060	65.36
<i>Gonoplax angulata</i> (PENN.)	201	0.30	2000	0.27
MOLLUSCA				
<i>Capulus hungaricus</i> (LINNE)	8	0.01	55	0.01
<i>Murex brandaris</i> LINNE	267	0.39	13370	1.79
<i>Pinna pectinata</i> LINNE	175	0.26	79720	10.68
<i>Chlamys opercularis</i> (LINNE)	1203	1.77	30080	4.03
<i>Anomia ephippium</i> LINNE	8164	12.03	4290	0.57
<i>Ostrea edulis</i> LINNE	134	0.20	13370	1.79
ECHINODERMATA				
<i>Holothuria tubulosa</i> GMELIN	78	0.11	10140	1.36
<i>Holothuria forskali</i> DELLE CHIAJE	398	0.59	17960	2.40
<i>Cucumaria planci</i> (BRANDT)	199	0.29	8350	1.12
<i>Thyone cherbonnieri</i> REYS	16	0.02	170	0.02
<i>Echinus acutus</i> LAMARCK	355	0.52	70200	9.40
<i>Echinaster sepositus</i> (RETZ.)	6	0.01	185	0.02
<i>Anseropoda placenta</i> (PENN.)	13	0.02	255	0.03
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	201	0.30	3340	0.45
TUNICATA				
<i>Phallusia mammilata</i> (CUVIER)	9	0.01	1180	0.16
Total:	67861		746685	

Depth (m):	41 22.11.1982.			
Species list	N°/h	%	g/h	%
PORIFERA				
<i>Erylus discophorus</i> (SCHMIDT)	8	0.17	1240	1.09
<i>Cliona celata</i> GRANT	33	0.72	1650	1.44
<i>Myxilla rosacea</i> (LIEBERKÜHN)	41	0.89	2475	2.17
<i>Tedania anhelans</i> (LIEBERKÜHN)	25	0.54	2060	1.80
<i>Clathria coralloides</i> (OLIVI)	3	0.07	450	0.39
<i>Siphonochalina crassa</i> TOPSENT	66	1.43	3720	3.27
<i>Spongia officinalis</i> LINNE	1	0.02	450	0.39
ARTHROPODA				
<i>Maia squinado</i> (HERBST)	1	0.02	450	0.39
<i>Liocarcinus depurator</i> (LINNE)	465	10.09	4500	3.94
MOLLUSCA				
<i>Chlamys opercularis</i> (LINNE)	3007	65.27	45370	39.71
<i>Pecten jacobaeus</i> LINNE	1	0.02	55	0.05
ECHINODERMATA				
<i>Holothuria tubulosa</i> GMELIN	44	0.96	6160	5.39
<i>Holothuria forskali</i> DELLE CHIAJE	864	18.75	37560	32.88
<i>Stichopus regalis</i> (CUVIER)	2	0.04	30	0.03
<i>Cucumaria planci</i> (BRANDT)	17	0.37	330	0.29
<i>Echinus acutus</i> LAMARCK	17	0.37	4540	3.97
TUNICATA				
<i>Aplidium conicum</i> OLIVI	1	0.02	950	0.83
<i>Phallusia mammillata</i> (CUVIER)	11	0.24	2250	1.97
Total:	4607		114240	

Species list	N°/h	%	g/h	%
PORIFERA			42	
<i>Cliona celata</i> GRANT	25	0.09	1230	0.51
ARTHROPODA			22.11.1982.	
<i>Squilla mantis</i> FABR.	14	0.05	500	0.21
<i>Nephrops norvegicus</i> (LINNE)	13	0.04	790	0.33
<i>Liocarcinus depurator</i> (LINNE)	27355	99.36	235190	97.21
<i>Gonoplax angulata</i> (PENN.)	24	0.09	125	0.05
MOLLUSCA				
<i>Ostrea edulis</i> LINNE	25	0.09	980	0.41
ECHINODERMATA				
<i>Holothuria tubulosa</i> GMELIN	8	0.03	1120	0.46
<i>Holothuria forskali</i> DELLE CHIAJE	17	0.06	850	0.35
<i>Stichopus regalis</i> (CUVIER)	1	-	220	0.09
<i>Cucumaria planci</i> (BRANDT)	25	0.09	490	0.20
<i>Astropecten irregularis pentacanthus</i> DELLE CHIAJE	25	0.09	450	0.19
Total:	27532		241945	

C1

Species list	12 7.5.1982.				12 23.11.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
CNIDARIA								
<i>Virgularia mirabilis</i> (MÜLLER)	-	-	-	-	300	1.46	750	1.22
ARTHROPODA								
<i>Squilla mantis</i> FABR.	8	0.03	400	0.24	23	0.11	970	1.58
<i>Liocarcinus depurator</i> (LINNE)	115	0.41	820	0.49	4420	21.52	21780	35.54
<i>Liocarcinus vernalis</i> (RISSO)	260	0.95	215	0.13	1215	5.91	1100	1.79
<i>Gonoplax angulata</i> (PENN.)	-	-	-	-	2	0.01	15	0.02
MOLLUSCA								
<i>Turritella communis</i> RISSO	-	-	-	-	480	2.34	670	1.09
<i>Aporrhais pespelecani</i> (LINNE)	1648	6.01	8160	4.88	180	0.88	600	0.98
<i>Naticarius stercusmuscarum</i> GMELIN	361	1.32	2190	1.31	240	1.17	980	1.60
<i>Sphaeronassa mutabilis</i> (LINNE)	3499	12.75	9400	5.63	1215	5.92	3150	5.14
<i>Hinia reticulata</i> (LINNE)	973	3.55	2850	1.71	510	2.48	1500	2.45
<i>Philine aperta</i> (LINNE)	6669	24.31	28250	16.91	1380	6.72	2470	4.03
<i>Ostrea edulis</i> LINNE	31	0.11	1880	1.13	-	-	-	-
<i>Spisula subtruncata</i> (DA COSTA)	-	-	-	-	6555	31.91	5250	8.57
<i>Arca corbuloides</i> (MONTER.)	1679	6.12	48650	29.12	120	0.58	4500	7.34
<i>Venerupis rhomboides</i> (PENN.)	5868	21.39	17100	10.24	1440	7.01	3900	6.36
<i>Angulus albicans</i> (GMELIN)	863	3.15	1650	0.99	120	0.58	230	0.38
ECHINODERMATA								
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	5461	19.91	45500	27.23	1830	8.91	12800	20.89
<i>Ophiothrix quinquemaculata</i> (DELLE CHIAJE)	-	-	-	-	510	2.48	625	1.02
Total:	27435		167065		20540		61290	

C2

Species list	Depth (m):		30 7.5.1982.		32 23.11.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
CNIDARIA								
<i>Virgularia mirabilis</i> (MÜLLER)	38	0.04	95	0.10	2150	9.13	5220	7.19
ANNELIDA								
<i>Sternapsis scutata</i> (RENIER)	190	0.22	380	0.41	9	0.04	15	0.02
ARTHROPODA								
<i>Squilla mantis</i> FABR.	-	-	-	-	63	0.27	3050	4.20
<i>Liocarcinus depurator</i> (LINNE)	1162	1.34	27430	29.61	1883	8.00	33900	46.70
<i>Gonopla angulata</i> (PENN.)	-	-	-	-	2	0.01	10	0.02
MOLLUSCA								
<i>Turritella communis</i> RISSO	1029	1.19	1550	1.67	3726	15.87	4500	6.19
<i>Aporrhais pespelecani</i> (LINNE)	286	0.33	1900	2.05	-	-	-	-
<i>Galeodea echinophora</i> (LINNE)	-	-	-	-	1	-	75	0.10
<i>Philine aperta</i> (LINNE)	4838	5.58	34670	37.43	1116	4.74	7560	10.41
<i>Ostrea edulis</i> LINNE	19	0.02	570	0.62	1	-	30	0.04
<i>Isocardia cor</i> (LINNE)	-	-	-	-	1	-	200	0.28
<i>Alolidis gibba</i> (OLIVI)	6571	7.58	1655	1.79	8456	35.91	2100	2.89
ECHINODERMATA								
<i>Cucumaria planci</i> BRANDT	19	0.02	190	0.20	18	0.08	270	0.37
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	1028	1.19	8760	9.46	1476	6.27	10800	14.88
<i>Ophiura texturata</i> LAM.	71467	82.48	15430	16.16	4644	19.72	4860	6.70
Total:	86647		92630		23546		72590	

C3

Note: *Pinna pectinata* (shells, 34 piece); particles of hard bottom.

Depth (m): Date	40 3.5.1982.				40 23.11.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
Species list								
PORIFERA								
<i>Suberites domuncula</i> (OLIVI)	2	0.02	40	0.07	-	-	-	-
CNIDARIA								
<i>Calliactis parasitica</i> (COUCH)	2	0.02	15	0.03	-	-	-	-
ANNELIDA								
<i>Sternaspis scutata</i> (RENIER)	17	0.18	25	0.04	-	-	-	-
ARTHROPODA								
<i>Nephrops norvegicus</i> (LINNE)	2	0.02	60	0.10	1	-	75	0.02
<i>Pagurus arrosor</i> (HERBST)	1	0.01	10	0.02	-	-	-	-
<i>Dromia vulgaris</i> MILNE EDW.	-	-	-	-	1	-	160	0.04
<i>Liocarcinus depurator</i> (LINNE)	1908	20.35	45360	75.83	5616	19.39	106850	27.46
MOLLUSCA								
<i>Turritella communis</i> RISSO	3081	32.86	3650	6.10	-	-	-	-
<i>Aporrhais pespelecani</i> (LINNE)	306	3.26	2140	3.58	-	-	-	-
<i>Galeodea echinophora</i> (LINNE)	1	0.01	60	0.10	-	-	-	-
<i>Fusinus rostratus</i> (OLIVI)	6	0.06	30	0.05	-	-	-	-
<i>Philine aperta</i> (LINNE)	150	1.60	600	1.00	-	-	-	-
<i>Mytilus galloprovincialis</i> LAM.	4	0.04	200	0.34	-	-	-	-
<i>Ostrea edulis</i> LINNE	62	0.66	1950	3.26	-	-	-	-
<i>Pinna pectinata</i> LINNE	-	-	-	-	21	0.07	9000	2.31
<i>Chlamys opercularis</i> LINNE	-	-	-	-	15492	53.49	228620	58.75
<i>Pecten jacobaeus</i> LINNE	-	-	-	-	4	0.01	590	0.15
<i>Aloidis gibba</i> (OLIVI)	3624	38.65	1000	1.67	-	-	-	-
ECHINODERMATA								
<i>Holothuria forskali</i> DELLE CHIAJE	1	0.01	40	0.07	188	0.65	10360	2.66
<i>Cucumaria planci</i> BRANDT	24	0.26	2650	4.43	78	0.27	2600	0.67
<i>Trachythone elongata</i> (DÜB. et COR.)	4	0.04	50	0.08	-	-	-	-
<i>Trachythone tergestina</i> (SARS)	2	0.02	15	0.03	-	-	-	-
<i>Psammechinus microtuberculatus</i> (BLAIN)	-	-	-	-	78	0.27	260	0.07
<i>Echinus acutus</i> LAMARCK	-	-	-	-	80	0.28	16800	4.32

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
<i>Anseropoda placenta</i> (PENN.)	-	-	-	-	9	0.03	200	0.05
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	180	1.92	1920	3.21	54	0.19	1345	0.35
<i>Ophiothrix quinquemaculata</i> (DELLE CHIAJE)	-	-	-	-	7315	25.26	6850	1.76
TUNICATA								
<i>Phallusia mammilata</i> (CUVIER)	-	-	-	-	26	0.09	5460	1.40
Total:	9377		59815		28963		389170	

C4

Note: calcareous algae.

Depth (m):	38				48			
	29.4.1982.				15.11.1982.			
Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
PORIFERA								
<i>Tethia aurantium</i> (PALL.)	3	0.02	400	0.20	-	-	-	-
<i>Cliona celata</i> GRANT	41	0.31	5165	2.56	62	0.78	10400	4.13
<i>Siphonochalina crassa</i> TOPSENT	40	0.31	3720	1.84	104	1.31	3100	1.23
<i>Hippospongia communis</i> LAMARCK	-	-	-	-	2	0.03	1550	0.62
<i>Cacospongia mollior</i> SCHMIDT	-	-	-	-	4	0.05	2050	0.81
<i>Verongia cavernicola</i> VACELET	-	-	-	-	1	0.01	300	0.12
<i>Tedania anhelans</i> (LIEBERKÜHN)	-	-	-	-	83	1.05	4180	1.65
<i>Myxilla rosacea</i> (LIEBERKÜHN)	-	-	-	-	89	1.13	2300	0.91
CNIDARIA								
<i>Calliactis parasitica</i> (COUCH)	7	0.05	65	0.03	-	-	-	-
<i>Adamsia palliata</i> (BOHADSCH)	-	-	-	-	42	0.53	95	0.04
ARTHROPODA								
<i>Pagurus variabilis</i> MILNE EDW. & BOUV.	-	-	-	-	43	0.54	925	0.37
<i>Dromia vulgaris</i> MILNE EDW.	1	0.01	100	0.05	1	0.01	150	0.06
<i>Maia squinado</i> (HERBST)	3	0.02	900	0.95	1	0.01	100	0.04
<i>Liocarcinus depurator</i> (LINNE)	320	2.45	5165	2.56	499	6.29	7800	3.09
<i>Pilumnus hirtellus</i> (LINNE)	-	-	-	-	83	1.05	520	0.21

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
MOLLUSCA								
<i>Schapander lignarius</i> (LINNE)	9	0.07	145	0.07	-	-	-	-
<i>Chlamys opercularis</i> (LINNE)	8100	62.00	39270	19.47	1608	20.28	27040	10.73
<i>Pecten jacobaeus</i> LINNE	5	0.04	900	0.45	1	0.01	50	0.02
ECHINODERMATA								
<i>Holothuria forskali</i> DELLE CHIAJE	3442	26.35	97950	48.56	3588	45.25	108000	42.85
<i>Holothuria tubulosa</i> GMELIN	30	0.23	3300	1.64	52	0.66	6300	2.51
<i>Cucumaria planci</i> BRANDT	13	0.10	260	0.13	83	1.05	1000	0.41
<i>Echinus acutus</i> LAMARCK	165	1.26	36400	18.05	374	4.72	58300	23.13
<i>Marthasterias glacialis</i> (LINNE)	-	-	-	-	6	0.08	4100	1.63
<i>Anseropoda placenta</i> (PENN.)	13	0.10	390	0.19	104	1.31	2100	0.83
<i>Echinaster sepositus</i> (RETZ.)	-	-	-	-	1	0.01	30	0.01
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	165	1.26	1240	0.61	125	1.58	1100	0.44
<i>Ophiothrix quinquemaculata</i> (DELLE CHIAJE)	434	3.32	620	0.31	874	11.02	1050	0.42
<i>Ophiura texturata</i> LAM.	227	1.74	300	0.15	34	0.43	40	0.02
TUNICATA								
<i>Distoma adriaticum</i> DRASCHE	-	-	-	-	1	0.01	220	0.09
<i>Aplidium conicum</i> OLIVI	5	0.04	1400	0.69	2	0.03	940	0.38
<i>Phallusia mammilata</i> (CUVIER)	11	0.08	2460	1.22	62	0.78	8300	3.29
<i>Bothryllus schlosseri</i> (PALLAS)	21	0.16	415	0.20	-	-	-	-
<i>Microcosmus sulcatus</i> COQUEBERT	9	0.07	1120	0.55	-	-	-	-
Total:	13064		201685		7929		252040	

Depth (m): Date	43 29.4.1982.				46 12.11.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
PORIFERA								
<i>Geodia cydonium</i> (JAMESON)	-	-	-	-	1	-	560	0.03
<i>Micale</i> sp.	1	-	1550	0.19	3	-	2700	0.17
<i>Cacospongia mollior</i> SCHMIDT	8	0.02	11400	1.40	5	0.01	7200	0.45
ANNELIDA								
<i>Aphrodisia aculeata</i> LINNE	12	0.04	500	0.06	17	0.03	560	0.03
ARTHROPODA								
<i>Pagurus variabilis</i> MILNE EDW. & BOUV.	7	0.02	100	0.01	-	-	-	-
<i>Macropodia rostrata</i> LINNE and								
<i>Macropodia longipes</i> (A.MILNE EDW. & BOUV.)	333	1.02	330	0.04	-	-	-	-
<i>Inachus dorsettensis</i> (PENN.)	183	0.56	400	0.05	-	-	-	-
<i>Ethusa mascarone</i> (HERBST)	2	0.02	5	-	-	-	-	-
<i>Liocarcinus depurator</i> (LINNE)	5	0.02	80	0.01	1251	1.86	15295	0.95
MOLLUSCA								
<i>Scaphander lignarius</i> (LINNE)	5	0.02	280	0.03	-	-	-	-
<i>Chlamys opercularis</i> (LINNE)	23557	72.04	659530	80.82	62850	93.43	1432190	88.94
<i>Pecten jacobaeus</i> LINNE	10	0.03	1850	0.23	33	0.05	2800	0.17
ECHINODERMATA								
<i>Holothuria forskali</i> DELLE CHIAJE	665	2.03	31940	3.91	834	1.24	43100	2.68
<i>Cucumaria planci</i> BRANDT	-	-	-	-	12	0.02	120	0.01
<i>Echinus acutus</i> LAMARCK	266	0.81	81850	10.03	417	0.62	88990	5.53
<i>Marthasterias glacialis</i> (LINNE)	5	0.02	2300	0.28	11	0.02	4700	0.29
<i>Anseropoda placenta</i> (PENN.)	133	0.41	3330	0.41	278	0.41	5560	0.35
<i>Echinaster sepositus</i> (RETZ.)	47	0.14	1400	0.17	55	0.08	1100	0.07
<i>Astropeten irregularis pentachantus</i> (DELLE CHIAJE)	81	0.25	815	0.10	-	-	-	-
<i>Ophiothrix quinquemaculata</i> (DELLE CHIAJE)	4791	14.65	8650	1.06	1022	1.52	1460	0.09
<i>Ophiura texturata</i> LAMARCK	2528	7.73	4660	0.57	438	0.65	700	0.04
TUNICATA								
<i>Phallusia mammillata</i> (CUVIER)	21	0.06	2620	0.32	29	0.04	2320	0.14
<i>Bothryllus schlosseri</i> (PALLAS)	41	0.13	2485	0.30	15	0.02	950	0.06
Total:	32699		816075		67271		1610305	

ANNEX - continued

C6

Note: calcareous algae

Species list	Nº/h	%	45		49		g/h	%
			29.4.1982.		12.11.1982.			
PORIFERA								
<i>Geodia cydonium</i> (JAMESON)	1	-	1460	0.14	3	-	3600	0.19
<i>Tethia aurantium</i> (PALL.)	2	0.01	80	0.01	4	-	160	0.01
<i>Siphonocalina crassa</i> TOPSENT	182	0.46	8300	0.79	377	0.38	14200	0.74
<i>Hippospongia communis</i> (LAMARCK)	7	0.02	2500	0.24	4	-	950	0.05
CNIDARIA								
<i>Calliactis parasitica</i> (COUCH)	182	0.46	1820	0.17	-	-	-	-
ARTHROPODA								
<i>Pagurus variabilis</i> MILNE EDW. & BOUV.	273	0.69	4550	0.43	26	0.03	350	0.02
<i>Dromia vulgaris</i> MILNE EDW.	-	-	-	-	1	-	220	0.01
<i>Maia squinado</i> (HERBST)	3	0.01	2000	0.19	5	0.01	3200	0.17
<i>Liocarcinus depurator</i> (LINNE)	-	-	-	-	2260	2.30	37670	1.94
<i>Atelecyclus rotundatus</i> (OLIVI)	-	-	-	-	1	-	10	-
MOLLUSCA								
<i>Calliostoma granulatum</i> (BORN)	2	0.01	5	-	-	-	-	-
<i>Galeodea echinophora</i> (LINNE)	1	-	20	-	-	-	-	-
<i>Scaphander lignarius</i> (LINNE)	2	0.01	30	-	-	-	-	-
<i>Chlamys opercularis</i> (LINNE)	30212	76.67	725100	69.12	79869	81.22	1563490	80.66
<i>Pecten jacobaeus</i> LINNE	44	0.11	5150	0.49	21	0.02	1850	0.10
ECHINODERMATA								
<i>Holothuria forskali</i> DELLE CHIAJE	728	1.85	41900	3.99	1130	1.15	67800	3.50
<i>Cucumaria planci</i> BRANDT	273	0.69	5460	0.52	188	0.19	2840	0.15
<i>Sphaerechinus granularis</i> (LAMARCK)	2	0.01	600	0.06	10	0.01	2300	0.12
<i>Echinus acutus</i> LAMARCK	637	1.62	210200	20.04	753	0.77	197800	10.20
<i>Marthasterias glacialis</i> (LINNE)	2	0.01	1460	0.14	29	0.03	10100	0.52
<i>Anseropoda placenta</i> (PENN.)	270	0.69	7280	0.69	376	0.38	9400	0.49
<i>Echinaster sepositus</i> (RETZ.)	91	0.23	1800	0.17	13	0.01	250	0.01
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	182	0.46	1800	0.17	6	0.01	50	-

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
<i>Ophiothrix quinquemaculata</i> (DELLE CHIAJE)	4550	11.55	9100	0.87	12960	13.18	16900	0.87
<i>Ophiura texturata</i> LAMARCK	1638	4.16	3650	0.35	270	0.27	540	0.03
TUNICATA								
<i>Aplidium conicum</i> OLIVI	2	0.01	1080	0.10	1	-	600	0.03
<i>Phallusia mammilata</i> (CUVIER)	53	0.13	8480	0.81	27	0.03	3700	0.19
<i>Bothryllus schlosseri</i> (PALLAS)	65	0.16	5200	0.50	7	0.01	370	0.02
Total:	39404		1049025		98341		1938350	

D1

Depth (m): Date	15 26.4.1982.				15-16 8.11.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
ARTHROPODA								
<i>Squilla mantis</i> FABR.	4	0.01	100	0.23	24	0.10	1220	3.65
<i>Mcropodia rostrata</i> (LINNE) and								
<i>Macropodia longipes</i> (A.MILNE EDW. & BOUV.)	192	0.67	480	1.13	173	0.74	85	0.26
<i>Inachus dorsettensis</i> (PENN.)	261	0.91	870	2.04	296	1.27	530	1.59
<i>Liocarcinus depurator</i> (LINNE)	27	0.09	240	0.56	384	1.65	2400	7.18
MOLLUSCA								
<i>Turritella communis</i> RISSO	57	0.20	120	0.28	67	0.29	100	0.30
<i>Aporrhais pespelecani</i> (LINNE)	4797	16.70	19500	45.80	1384	5.95	4300	12.87
<i>Naticarius stercusmuscarum</i> GMELIN	105	0.37	700	1.64	203	0.87	1600	4.79
<i>Galeoidea echinophora</i> (LINNE)	1	-	50	0.12	-	-	-	-
<i>Murex bradndaris</i> LINNE	3	0.01	150	0.35	5	0.02	230	0.69
<i>Hadriania craticulata</i> (BROCCHI)	102	0.36	180	0.42	80	0.34	200	0.60
<i>Sphaeronassa mutabilis</i> (LINNE)	360	1.25	1200	2.82	373	1.60	660	1.98
<i>Philine aperta</i> (LINNE)	1815	6.32	7300	17.15	1930	8.30	7700	23.05
<i>Fimbria fimbria</i> (BOHADSCH)	-	-	-	-	29	0.12	370	1.11
<i>Pitar rude</i> (POLI)	33	0.11	30	0.07	27	0.12	30	0.09
<i>Mytilus galloprovincialis</i> LAMARCK	-	-	-	-	9	0.04	230	0.69
<i>Pinna pectinata</i> LINNE	-	-	-	-	1	-	430	1.29
<i>Protopecten griseus</i> LAMARCK	-	-	-	-	51	0.22	150	0.45
<i>Ostrea edulis</i> LINNE	-	-	-	-	8	0.03	130	0.39
<i>Cardium paucicostatum</i> SOWERBY	15	0.05	120	0.28	11	0.05	30	0.09

ANNEX - continued

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
<i>Arca corbuloides</i> (MONTER.)	33	0.11	600	1.41	27	0.12	800	2.39
<i>Venerupis rhombooides</i> (PENN.)	21	0.07	60	0.14	5	0.02	20	0.06
ECHINODERMATA								
<i>Trachythyon elongata</i> (DÜB.KOR.)	3	0.01	15	0.04	1	-	5	0.01
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	21	0.07	360	0.85	1034	4.45	3650	10.93
<i>Ophiura texturata</i> LAMARCK	20880	72.68	10500	24.66	17120	73.66	8535	25.55
Total:	28730		42575		23242		33405	

Note: *Pinna pectinata* (shells)

D2

Depth (m):	50				50			
	Date		26.4.1982.		Date		11.11.1982.	
Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
CNIDARIA								
<i>Calliactis parasitica</i> (COUCH)	-	-	-	-	11	0.13	40	0.13
<i>Funiculina quadrangularis</i> (PALLAS)	8	0.05	60	0.14	-	-	-	-
ANNELIDA								
<i>Aphrodisia aculeata</i> LINNE	12	0.08	695	1.69	-	-	-	-
ARTHROPODA								
<i>Alpheus glaber</i> (OLIVI)	46	0.29	155	0.38	-	-	-	-
<i>Nephrops norvegicus</i> LINNE	7	0.04	900	2.18				
<i>Pagurus variabilis</i> (A.M.EDW. & BOUV.)	-	-	-	-	8	0.10	320	1.06
<i>Liocarcinus depurator</i> (LINNE)	631	4.01	12580	30.51	1621	19.70	18400	61.19
<i>Gonoplaex angulata</i> (PENN.)	35	0.22	505	1.22	10	0.12	195	0.65
MOLLUSCA								
<i>Turritella communis</i> RISSO	14632	93.08	18900	45.85	5653	68.71	7500	24.94
<i>Galeodea echinophora</i> (LINNE)	12	0.08	620	1.50	1	0.01	100	0.33
<i>Mytilus galloprovincialis</i> LAMARCK	252	1.60	2500	6.06	-	-	-	-
<i>Pinna pectinata</i> LINNE	2	0.01	750	1.82	2	0.02	650	2.16
<i>Anomia ephippium</i> LINNE	-	-	-	-	853	10.37	130	0.44
<i>Ostrea edulis</i> LINNE	8	0.05	1160	2.82	29	0.35	800	2.66
<i>Isocardia cor</i> (LINNE)	1	0.01	150	0.36	1	0.01	150	0.50

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
ECHINODERMATA								
<i>Holothuria forskali</i> DELLE CHIAJE	17	0.10	1000	2.43	13	0.16	660	2.20
<i>Stichopus regalis</i> (CUV.)	-	-	-	-	1	0.01	210	0.70
<i>Cucumaria planci</i> (BRANDT)	12	0.08	465	1.13	12	0.15	480	1.60
<i>Marthasterias glacialis</i> (LINNE)	1	0.01	350	0.85	1	0.01	380	1.26
<i>Astropeceten irregularis pentacanthus</i> (DELLE CHIAJE)	44	0.28	430	1.04	11	0.13	55	0.18
Total:	15720		41220		8227		30070	

D3

Depth (m): Date	56 27.4.1982.				63 11.11.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
PORIFERA								
<i>Geodia cydonium</i> (JAMESON)	26	1.08	13000	9.57	4	0.17	6400	6.58
<i>Polymastia mamillaris</i> (MÜLLER)	-	-	-	-	1	0.04	85	0.09
<i>Tethya aurantium</i> (PALL.)	-	-	-	-	1	0.04	90	0.09
<i>Cliona celata</i> GRANT	-	-	-	-	1	0.04	100	0.10
<i>Icrinia muscarum</i> (SCHMIDT)	1	0.04	430	0.32	-	-	-	-
CNIDARIA								
<i>Alcyonium palmatum</i> PALLAS	-	-	-	-	7	0.31	70	0.07
ARTHROPODA								
<i>Solenocera membranacea</i> (RISSO)	67	2.79	150	0.11	-	-	-	-
<i>Processa nouveli</i> AL ADHUB & WILLIAM.	11	0.46	20	0.01	-	-	-	-
<i>Nephrops norvegicus</i> LINNE	-	-	-	-	3	0.13	250	0.26
<i>Pagurus variabilis</i> (A.M.EDW. & BOUV.)	1	0.04	40	0.03	2	0.09	80	0.08
<i>Liocarcinus depurator</i> (LINNE)	86	3.58	1700	1.26	498	21.77	9000	9.25
MOLLUSCA								
<i>Nucula sulcata</i> BRONN	-	-	-	-	35	1.53	35	0.04
<i>Pecten jacobaeus</i> LINNE	1	0.04	280	0.21	1	0.04	250	0.26
<i>Ostrea edulis</i> LINNE	-	-	-	-	3	0.13	90	0.09

ANNEX - continued

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
ECHINODERMATA								
<i>Holothuria forskali</i> DELLE CHIAJE	2082	86.77	91570	67.42	1563	68.31	65300	67.10
<i>Stichopus regalis</i> (CUV.)	23	0.96	10300	7.58	1	0.04	230	0.23
<i>Cucumaria planci</i> (BRANDT)	-	-	-	-	7	0.31	350	0.36
<i>Echinus acutus</i> LAMARCK	-	-	-	-	1	0.04	470	0.48
<i>Marthasterias glacialis</i> (LINNE)	23	0.96	5150	3.79	21	0.92	6460	6.64
<i>Astropeceten irregularis pentacanthus</i> (DELLE CHIAJE)	-	-	-	-	83	3.63	415	0.43
TUNICATA								
<i>Phallusia mammilata</i> (CUVIER)	23	0.96	3430	2.53	35	1.53	4860	4.99
<i>Microcosmus sulcatus</i> COQEBERT	55	2.29	9750	7.18	21	0.92	2780	2.87
Total:	2399		135820		2288		97315	

D4

Depth (m): Date	60 27.4.1982.				64 11.11.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
PORIFERA								
<i>Geodia cydonium</i> (JAMESON)	1	0.05	2000	2.44	3	0.07	1450	1.01
<i>Polymastia mammilaris</i> (MÜLLER)	6	0.32	2300	2.80	1	0.02	80	0.06
<i>Tethya aurantium</i> (PALL.)	5	0.27	130	0.16	18	0.39	460	0.32
<i>Cliona celata</i> GRANT	5	0.27	1200	1.46	37	0.81	6650	4.62
<i>Axinella canabina</i> (ESPER)	1	0.05	35	0.04	-	-	-	-
<i>Mycale tunicata</i> (SCHMIDT)	32	1.76	1060	1.29	83	1.81	2490	1.73
<i>Spongia officinalis</i> LINNE	-	-	-	-	1	0.02	155	0.11
<i>Hippospongia communis</i> (LAMARCK)	-	-	-	-	1	0.02	620	0.43
<i>Ircinia foetida</i> (SCHMIDT)	11	0.60	4370	5.32	9	0.20	1470	1.02
<i>Ircinia muscarum</i> (SCHMIDT)	-	-	-	-	1	0.02	1700	1.18
CNIDARIA								
<i>Lytocarpia myriophyllum</i> (LINNE)	-	-	-	-	369	8.06	460	0.32
<i>Calliactis parasitica</i> (COUCH)	-	-	-	-	37	0.81	140	0.10
<i>Alcyonium palmatum</i> PALLAS	5	0.27	80	0.10	-	-	-	-
<i>Pennatula phosphorea</i> LINNE	1	0.05	5	-	46	1.00	180	0.13
ANNELIDA								
<i>Aphrodisia aculeata</i> LINNE	1	0.05	40	0.05	-	-	-	-

ANNEX - continued

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
ARTHROPODA								
<i>Solenocera membranacea</i> (RISSO)	-	-	-	-	545	11.90	1500	1.04
<i>Nephrops norvegicus</i> LINNE	1	0.05	35	0.04	4	0.09	200	0.14
<i>Pagurus variabilis</i> (A.M.EDW. & BOUV.)	5	0.27	320	0.39	27	0.59	460	0.32
<i>Inachus dorsettensis</i> (PENN.)	33	1.81	25	0.03	-	-	-	-
<i>Maia squinado</i> (HERBST)	-	-	-	-	1	0.02	500	0.35
<i>Liocarcinus depurator</i> (LINNE)	32	1.76	640	0.78	858	18.73	10400	7.23
<i>Pilumnus hirtellus</i> (LINNE)	16	0.88	55	0.06	46	1.00	140	0.10
MOLLUSCA								
<i>Pecten jacobaeus</i> LINNE	1	0.05	215	0.26	1	0.02	150	0.10
ECHINODERMATA								
<i>Holothuria forskali</i> DELLE CHIAJE	1616	88.65	60900	74.21	2280	49.78	93230	64.79
<i>Stichopus regalis</i> (CUV.)	5	0.27	1970	2.40	3	0.07	490	0.34
<i>Cucumaria planci</i> (BRANDT)	5	0.27	320	0.39	9	0.20	400	0.28
<i>Echinocardium cordatum</i> (PENN.)	1	0.05	35	0.04	-	-	-	-
<i>Marthasterias glacialis</i> (LINNE)	11	0.60	1920	2.34	5	0.11	1230	0.85
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	-	-	-	-	65	1.42	230	0.16
TUNICATA								
<i>Distoma adriaticum</i> DRASCHE	1	0.05	130	0.16	-	-	-	-
<i>Phallusia mammilata</i> (CUVIER)	11	0.60	1650	2.01	46	1.00	8300	5.77
<i>Botryllus schlosseri</i> (PALLAS)	1	0.05	65	0.08	1	0.02	195	0.14
<i>Microcosmus sulcatus</i> COQUEBERT	16	0.88	2570	3.12	83	1.81	10620	7.38
Total:	1823		82070		4580		143900	

ANNEX - continued

D5

Note: Seaweed: *Lithothamnium fruticulosum* (KUTZ.) FOSLIE.

Species list	Nº/h	61		59		Nº/h	%	g/h	%
		Date	27.4.1982.	12.11.1982.					
PORIFERA									
<i>Geodia cydonium</i> (JAMESON)	5	0.14	1200	1.77	6	0.13	4750	3.12	
<i>Tethya aurantium</i> (PALL.)	5	0.14	360	0.53	32	0.69	740	0.49	
<i>Cliona celata</i> (GRANT)	24	0.69	3800	5.60	95	2.06	12130	7.98	
<i>Mycale tunicata</i> (SCHMIDT)	44	1.26	2370	3.50	-	-	-	-	
<i>Spongia officinalis</i> LINNE	1	0.03	145	0.21	7	0.15	1500	0.99	
<i>Tedania anhelans</i> (LIEBERKÜHN)	-	-	-	-	21	0.46	3400	2.24	
<i>Pachymatisma johnstonia</i> (BOWERB.)	-	-	-	-	17	0.37	2550	1.68	
<i>Hippopspongia communis</i> (LAMARCK)	-	-	-	-	14	0.30	7470	4.91	
<i>Ircinia foetida</i> (SCHMIDT)	6	0.17	4100	6.05	39	0.84	11470	7.54	
CNIDARIA									
<i>Adamsia palliata</i> (BOHADSCH)	-	-	-	-	127	2.75	210	0.14	
<i>Alcyonium palmatum</i> PALLAS	5	0.14	75	0.11	-	-	-	-	
ANNELIDA									
<i>Aphrodisia aculeata</i> LINNE	10	0.29	245	0.36	-	-	-	-	
ARTHROPODA									
<i>Pagurus variabilis</i> (A.M.EDW. & BOUV.)	35	1.00	490	0.73	30	0.65	745	0.49	
<i>Paguristes oculatus</i> (FABR.)	94	2.69	300	0.44	-	-	-	-	
<i>Pagurus prideaux</i> LEACH	-	-	-	-	63	1.36	850	0.56	
<i>Macropodia rostrata</i> (LINNE) and									
<i>Macropodia longipes</i> (A.M.EDW. & BOUV.)	74	2.12	150	0.22	-	-	-	-	
<i>Maia squinado</i> (HERBST)	-	-	-	-	2	0.04	1000	0.64	
<i>Liocarcinus depurator</i> (LINNE)	69	1.98	660	0.97	477	10.32	6900	4.52	
<i>Pilumnus hirtellus</i> (LINNE)	25	0.72	130	0.19	116	2.51	450	0.29	
MOLLUSCA									
<i>Chlamys opercularis</i> (LINNE)	2347	67.17	23130	34.09	1846	39.97	15300	10.06	
<i>Pecten jacobaeus</i> LINNE	3	0.09	520	0.76	1	0.02	150	0.10	
<i>Laevicardium oblongum</i> (GMELIN)	2	0.06	60	0.09	-	-	-	-	

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
ECHINODERMATA								
<i>Holothuria forskali</i> DELLE CHIAJE	574	16.43	18060	26.62	1371	29.69	46280	30.44
<i>Holothuria tubulosa</i> GMELIN	24	0.69	4320	6.37	64	1.39	11840	7.79
<i>Stichopus regalis</i> (CUV.)	5	0.14	1680	2.48	3	0.06	870	0.57
<i>Cucumaria planci</i> (BRANDT)	15	0.43	735	1.08	-	-	-	-
<i>Echinus acutus</i> LAMARCK	3	0.09	400	0.59	115	2.27	12130	7.98
<i>Marthasterias glacialis</i> (LINNE)	5	0.14	1350	1.99	13	0.28	780	0.51
<i>Echinaster sepositus</i> (RETZ.)	10	0.29	200	0.29	44	0.95	790	0.52
<i>Anseropoda placenta</i> (PENN.)	10	0.29	100	0.15	53	1.15	740	0.49
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	54	1.55	220	0.33	9	0.19	40	0.03
TUNICATA								
<i>Phallusia mammilata</i> (CUVIER)	10	0.29	1360	2.00	21	0.45	2640	1.74
<i>Botryllus schlosseri</i> (PALLAS)	5	0.14	200	0.29	-	-	-	-
<i>Microcosmus sulcatus</i> COQUEBERT	10	0.29	1480	2.18	42	0.91	6320	4.16
Total:	3494		67840		4618		152035	

D6

Note: Seaweed: *Lithothamnium calcareum* (PALLAS) ARESCHE, *Laurencia obtusa* (HUDS.) LAM., *Dasyopsis plana* (C.AG.) ZANARD., *Hallymenia microphylla* L.AG., *Phyllophora nervosa* (DE CAUD.) GREV., *Vidalia volugilis* (L.) J.AG., *Halopteris filicina* (GRATEL.) KUTZ., *Dictyota dichotoma* (HUDS.) LAM., *Dictyopteris membranacea* (STACKH.) BATT., *Cystoseira dubia* VALIANTE.

Species list	Depth (m): Date	54 29.4.1982.				56 12.11.1982.			
		Nº/h	%	g/h	%	Nº/h	%	g/h	%
PORIFERA									
<i>Verongia cavernicola</i> VACELET	-	-	-	-	-	7	0.02	2430	0.49
<i>Geodia cydonium</i> (JAMESON)	27	0.23	12300	4.15	24	0.07	12530	2.55	
<i>Axinella cannabina</i> (ESPER)	1	0.01	45	0.02	2	0.01	50	0.01	
<i>Axinella verrucosa</i> SCHMIDT	-	-	-	-	1	-	100	0.02	
<i>Crambe crambe</i> (SCHMIDT)	-	-	-	-	18	0.05	370	0.07	
<i>Cliona celata</i> (GRANT)	109	0.93	20500	6.92	73	0.21	14730	2.99	
<i>Siphonochalina crassa</i> TOPSENT	164	1.40	4100	1.38	210	0.59	3680	0.75	
<i>Dysidea fragilis</i> (MONTAGU)	-	-	-	-	25	0.07	500	0.10	
<i>Spongia officinalis</i> LINNE	19	0.16	5000	1.69	24	0.07	4800	0.97	
<i>Hippopongia communis</i> (LAMARCK)	50	0.43	21235	7.17	55	0.16	14230	2.89	
<i>Ircinia foetida</i> (SCHMIDT)	14	0.12	6300	2.13	-	-	-	-	
<i>Dictyonella incisa</i> (SCHMIDT)	-	-	-	-	14	0.04	1445	0.29	
CNIDARIA									
<i>Calliactis parasitica</i> (COUCH)	-	-	-	-	221	0.62	660	0.14	
<i>Adamsia palliata</i> (BOHADSCH)	-	-	-	-	368	1.03	740	0.15	
ANNELIDA									
<i>Aphrodita aculeata</i> LINNE	-	-	-	-	15	0.04	155	0.03	
ARTHROPODA									
<i>Paguristes oculatus</i> (FABR.)	929	7.91	12300	4.15	-	-	-	-	
<i>Pagurus prideaux</i> LEACH	-	-	-	-	221	0.62	2570	0.52	
<i>Galathea</i> sp.	-	-	-	-	1078	3.03	270	0.05	
<i>Inachus dorsettensis</i> (PENN.)	492	4.19	980	0.33	-	-	-	-	
<i>Amphiura</i> sp.	-	-	-	-	782	2.20	125	0.03	
<i>Pisa nodipes</i> LEACH	-	-	-	-	24	0.07	240	0.05	
<i>Maia squinado</i> (HERBST)	2	0.02	1090	0.37	1	-	590	0.12	
<i>Liocarcinus depurator</i> (LINNE)	-	-	-	-	368	1.03	4420	0.90	

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
MOLLUSCA								
<i>Gibbula magus</i> LINNE	-	-	-	-	15	0.04	40	0.01
<i>Archimediella triplicata</i> (BROCCHI)	20	0.57	30	0.01	6	0.02	15	-
<i>Fimbria fimbria</i> (BOHADSCH)	-	-	-	-	12	0.03	1290	0.26
<i>Chlamys opercularis</i> (LINNE)	8938	76.15	134070	45.26	30057	84.45	366150	74.42
<i>Pecten jacobaeus</i> LINNE	9	0.07	560	0.19	3	0.01	260	0.05
ECHINODERMATA								
<i>Holothuria forskali</i> (DELLE CHIAJE)	383	3.26	12150	4.10	476	1.34	14530	2.95
<i>Holothuria tubulosa</i> GMELIN	54	0.46	9720	3.28	40	0.11	7200	1.47
<i>Stichopus regalis</i> (CUV.)	27	0.23	4100	1.38	6	0.02	800	0.16
<i>Cucumaria planci</i> (BRANDT)	25	0.21	250	0.08	-	-	-	-
<i>Echinus acutus</i> LAMARCK	109	0.93	21865	7.38	73	0.21	11800	2.40
<i>Marthasterias glacialis</i> (LINNE)	27	0.23	6850	2.31	1	-	200	0.04
<i>Echinaster sepositus</i> (RETZ.)	55	0.47	820	0.28	147	0.41	1920	0.39
<i>Anseropoda placenta</i> (PENN.)	82	0.70	550	0.19	295	0.83	1850	0.37
<i>Ophiothrix quinquemaculata</i> (DELLE CHIAJE)	-	-	-	-	706	1.98	175	0.04
TUNICATA								
<i>Aplidium conicum</i> OLIVI	-	-	-	-	2	0.01	930	0.19
<i>Diazona violacea</i> SAVIGNY	1	0.01	900	0.30	-	-	-	-
<i>Ascidia mentula</i> (MÜLLER)	55	0.47	1100	0.37	-	-	-	-
<i>Botryllus schlosseri</i> (PALLAS)	84	0.72	5740	1.94	73	0.21	4000	0.81
<i>Microcosmus sulcatus</i> COQEBERT	82	0.70	13660	4.61	147	0.41	16200	3.29
Total:	11738		296190		35590		491995	

Species list	26 10.5.1982.				28 25.11.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
CNIDARIA								
<i>Virgularia mirabilis</i> (MÜLLER)	-	-	-	-	10	0.03	25	0.08
ANNELIDA								
<i>Aphrodisia aculeata</i> LINNE	1	-	70	0.11	-	-	-	-
ARTHROPODA								
<i>Squilla mantis</i> FABR.	21	0.03	1100	1.66	99	0.34	4720	14.42
<i>Alpheus glaber</i> (OLIVI)	11	0.02	40	0.06	-	-	-	-
<i>Penaeus kerathurus</i> (FORSKAL)	-	-	-	-	7	0.02	200	0.61
<i>Anapagurus bicorniger</i> M.EDW. & BOUV.	705	1-12	150	0.23	-	-	-	-
<i>Macropodia rostrata</i> (LINNE) and								
<i>Macropodia longipes</i> (A.M.EDW. & BOUV.)	131	0.21	150	0.23	-	-	-	-
<i>Inachus dorsettensis</i> (PENN.)	137	0.22	410	0.62	81	0.28	190	0.58
<i>Liocarcinus depurator</i> (LINNE)	1	-	15	0.02	352	1.21	4100	12.53
<i>Gonoplax angulata</i> (PENN.)	1	-	5	0.01	-	-	-	-
MOLLUSCA								
<i>Turritella communis</i> RISSO	272	0.43	480	0.72	390	1.34	560	1.71
<i>Aporrhias pespelecani</i> (LINNE)	2284	3.63	10280	15.51	420	1.45	2290	7.00
<i>Naticarius stercusmuscarum</i> (GMELIN)	52	0.08	440	0.66	22	0.08	200	0.61
<i>Galeodea echinophora</i> (LINNE)	10	0.02	550	0.83	4	0.01	200	0.61
<i>Murex brandaris</i> LINNE	32	0.05	600	0.90	8	0.03	160	0.49
<i>Sphaeronassa mutabilis</i> (LINNE)	152	0.24	440	0.66	40	0.14	120	0.37
<i>Hinia limata</i> (CHEMNITZ)	36	0.06	80	0.12	-	-	-	-
<i>Hadriania craticulata</i> (BROCCHI)	17	0.03	40	0.06	-	-	-	-
<i>Philine aperta</i> (LINNE)	52	0.08	380	0.57	39	0.13	290	0.89
<i>Fimbria fimbria</i> (BOHADSCH)	17	0.03	3150	4.75	-	-	-	-
<i>Pinna pectinata</i> LINNE	15	0.02	3750	5.66	7	0.02	1600	4.89
<i>Ostrea edulis</i> LINNE	44	0.07	4200	6.33	18	0.06	1350	4.12
<i>Mytilus galloprovincialis</i> LAMARCK	40	0.06	850	1.28	28	0.10	420	1.28
<i>Cardium paucicostatum</i> SOWERBY	60	0.10	150	0.23	-	-	-	-
<i>Venerupis aurea</i> (GMELIN)	4	0.01	20	0.03	-	-	-	-
<i>Alloidis gibba</i> (OLIVI)	58500	92.97	35100	52.94	26500	91.39	13250	40.48

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
ECHINODERMATA								
<i>Cucumaria planci</i> (BRANDT)	-	-	-	-	6	0.02	200	0.61
<i>Trachythione tergestina</i> (SARS)	1	-	5	0.01	1	-	5	0.02
<i>Trachythione elongata</i> (DÜB. et COR.)	1	-	10	0.01	2	0.01	10	0.03
<i>Labidoplax digitata</i> (MONTAGU)	-	-	-	-	28	0.10	90	0.27
<i>Schizaster canaliferus</i> (LAMARCK)	1	-	60	0.10	-	-	-	-
<i>Brissopsis lyrifera</i> (FORB.)	1	-	30	0.05	2	0.01	250	0.76
<i>Marthasterias glacialis</i> (LINNE)	1	-	520	0.78	-	-	-	-
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	321	0.51	3225	4.86	254	0.88	1600	4.89
<i>Ophiura texturata</i> LAMARCK	-	-	-	-	680	2.34	900	2.75
Total:	62921		66300		28998		32730	

E2

Depth (m): Date	74 14.5.1982.					70 25.11.1982.				
	Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%	
ANNELIDA										
<i>Aphrodisia aculeata</i> LINNE	1	0.02	80	0.22	-	2	0.10	155	1.07	
ARTHROPODA										
<i>Squilla mantis</i> FABR.	1	0.02	40	0.11	-	-	-	-	-	
<i>Alpheus glaber</i> (OLIVI)	57	1.21	95	0.26	-	-	-	-	-	
<i>Solenocera membranacea</i> (RISSO)	353	7.47	850	2.35	28	1.44	85	0.59		
<i>Pontophilus spinosus</i> (LEACH)	48	1.02	150	0.42	-	5	0.26	10	0.07	
<i>Nephrops norvegicus</i> (LINNE)	14	0.30	1000	2.77	-	1	0.05	60	0.41	
<i>Liocarcinus depurator</i> (LINNE)	2875	60.86	28400	78.57	1548	79.55	12770	88.22		
<i>Gonoplaex angulata</i> (PENN.)	33	0.70	360	1.00	-	6	0.31	60	0.41	
MOLLUSCA										
<i>Aporrhais pespelecani</i> (LINNE)	10	0.21	50	0.13	-	-	-	-	-	
<i>Galeoidea echinophora</i> (LINNE)	43	0.91	2760	7.64	5	0.26	360	2.49		
<i>Nucula sulcata</i> (BRONN)	60	1.27	95	0.96	44	2.26	60	0.41		
<i>Ostrea edulis</i> LINNE	1	0.02	30	0.08	-	-	-	-	-	

ANNEX - continued

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
ECHINODERMATA								
<i>Stichopus regalis</i> (CUV.)	1	0.02	230	0.64	1	0.05	190	1.31
<i>Cucumaria planci</i> (BRANDT)	2	0.04	140	0.39	1	0.05	60	0.41
<i>Trachythione elongata</i> (DÜB. et COR.)	1	0.02	5	0.01	1	0.05	5	0.03
<i>Brissopsis lyrifera</i> (FORB.)	-	-	-	-	1	0.05	160	1.11
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	1224	25.91	1860	5.14	303	15.57	500	3.45
Total:	4724		36145		1946		14475	

E3

Species list	Nº/h	%	g/h	%	74		72	
					13.5.1982.	25.11.1982.	13.5.1982.	25.11.1982.
PORIFERA								
<i>Cliona celata</i> GRANT	-	-	-	-	2	0.08	180	0.92
CNIDARIA								
<i>Virgularia mirabilis</i> (MÜLLER)	2	1.06	5	0.10	-	-	-	-
ANNELIDA								
<i>Aphrodita aculeata</i> LINNE	2	1.06	75	1.52	1	0.04	50	0.26
ARTHROPODA								
<i>Solenocera membranacea</i> (RISSO)	4	2.11	10	0.20	520	20.47	1000	5.12
<i>Processa novueli</i> AL ADHUB & WILLIAMSON	-	-	-	-	14	0.55	25	0.13
<i>Pontophilus spinosus</i> (LEACH)	32	16.93	60	1.22	122	4.80	200	1.03
<i>Nephrops norvegicus</i> (LINNE)	14	7.41	900	18.27	26	1.02	780	4.00
<i>Maia squinado</i> (HERBST)	-	-	-	-	1	0.04	360	1.84
<i>Liocarcinus depurator</i> (LINNE)	114	60.31	2550	51.78	1826	71.89	13900	71.21
<i>Gonoplax angulata</i> (PENN.)	2	1.06	5	0.10	2	0.08	5	0.03
MOLLUSCA								
<i>Aporrhais pespelecani</i> (LINNE)	2	1.06	5	0.10	-	-	-	-
<i>Galeodea echinophora</i> (LINNE)	2	1.06	120	2.44	1	0.04	55	0.28
<i>Nucula sulcata</i> (BRONN.)	4	2.11	5	0.10	4	0.16	5	0.03

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
ECHINODERMATA								
<i>Holothuria forskali</i> DELLE CHIAJE	2	1.06	110	2.23	6	0.24	380	1.95
<i>Stichopus regalis</i> (CUV.)	1	0.53	180	3.65	2	0.08	360	1.85
<i>Cucumaria planci</i> (BRANDT)	4	2.11	180	3.65	4	0.16	200	1.02
<i>Echinaster sepositus</i> (RETZ.)	1	0.53	20	0.41	1	0.04	30	0.15
TUNICATA								
<i>Phallusia mammilata</i> (CUVIER)	1	0.53	140	2.84	2	0.08	260	1.34
<i>Microcosmus sulcatus</i> COQUEBERT	2	1.06	560	11.37	6	0.24	1730	8.86
Total:	189		4925		2540		19520	

E4

Depth (m): Date	74 13.5.1982.				73 24.11.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
PORIFERA								
<i>Geodia cydonium</i> (JAMESON)	4	0.24	4800	8.24	3	0.29	3000	6.01
<i>Cliona celata</i> GRANT	21	1.27	4600	7.89	4	0.40	595	1.19
<i>Stryphnus ponderosus</i> (BOWERB.)	8	0.49	3100	5.32	5	0.49	3400	6.81
<i>Ircinia muscarum</i> (SCHMIDT)	3	0.18	4280	7.34	1	0.10	1270	2.54
<i>Mycale tunicata</i> (SCHMIDT)	79	4.80	3400	5.83	153	14.91	6940	13.90
CNIDARIA								
<i>Alcyonium palmatum</i> PALL.	12	0.73	200	0.34	1	0.10	15	0.03
<i>Pennatula phosphorea</i> LINNE	13	0.79	50	0.09	-	-	-	-
ANNELIDA								
<i>Aphrodita aculeata</i> LINNE	4	0.24	210	0.36	-	-	-	-
ARTHROPODA								
<i>Solenocera membranacea</i> (RISSO)	-	-	-	-	5	0.49	15	0.03
<i>Nephrops norvegicus</i> (LINNE)	2	0.12	200	0.32	-	-	-	-
<i>Maia squinado</i> (HERBST)	-	-	-	-	1	0.10	220	0.44
<i>Liocarcinus depurator</i> (LINNE)	58	3.53	1165	2.00	460	44.83	5520	11.05

ANNEX - continued

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
MOLLUSCA								
<i>Trivia europaea</i> (MONTAGU)	2	0.12	5	-	-	-	-	-
ECHINODERMATA								
<i>Holothuria forskali</i> DELLE CHIAJE	233	14.16	17500	30.03	356	34.70	21450	42.95
<i>Stichopus regalis</i> (CUV.)	12	0.73	2800	4.81	3	0.29	700	1.40
<i>Cucumaria planci</i> (BRANDT)	8	0.49	330	0.57	3	0.29	85	0.17
<i>Echinus acutus</i> LAMARCK	1	0.06	200	0.34	-	-	-	-
<i>Marthasterias glacialis</i> (LINNE)	17	1.03	1330	2.29	-	-	-	-
<i>Echinaster sepositus</i> (RETZ.)	1	0.06	20	0.03	1	0.10	20	0.04
<i>Ophiothrix quinquemaculata</i> (DELLE CHIAJE)	1100	66.87	250	0.43	-	-	-	-
TUNICATA								
<i>Phallusia mammilata</i> (CUV.)	21	1.28	3585	6.15	4	0.39	580	1.16
<i>Microcosmus sulcatus</i> COQUEBERT	46	2.80	10250	17.59	26	2.53	6130	12.27
Total:	1645		58275		1026		49940	

E5

Depth (m):	72				73			
	13.5.1982.				24.11.1982.			
Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
PORIFERA								
<i>Geodia cydonium</i> (JAMESON)	11	0.22	9750	3.11	5	0.08	5300	1.43
<i>Tethya aurantium</i> (PALL.)	14	0.89	4650	1.48	28	0.45	2535	0.69
<i>Cliona celata</i> GRANT	66	1.33	9300	2.97	56	0.89	7000	1.89
<i>Spongia officinalis</i> LINNE	14	0.28	4600	1.46	26	0.41	8950	2.42
<i>Hippopongia communis</i> (LAMARCK)	34	0.69	16600	5.30	65	1.04	23250	6.29
<i>Verongia cavernicola</i> VACELET	-	-	-	-	4	0.06	880	0.24
<i>Ircinia muscarum</i> (SCHMIDT)	7	0.14	8565	2.73	4	0.06	6000	1.62
<i>Mycale tunicata</i> (SCHMIDT)	133	2.69	8420	2.69	225	3.59	12430	3.63
<i>Pachymatista johnstonia</i> (BOWERBANK)	44	0.89	3100	0.99	56	0.89	3950	1.07
ANNELIDA								
<i>Aphrodisia aculeata</i> LINNE	9	0.18	275	0.09	11	0.18	280	0.08

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
ARTHROPODA								
<i>Dromia vulgaris</i> MILNE EDW.	-	-	-	-	1	0.02	245	0.06
<i>Liocarcinus depurator</i> (LINNE)	354	7.15	7300	2.33	602	9.59	9200	2.49
<i>Pilumnus hirtellus</i> (LINNE)	89	1.80	340	0.11	282	4.49	1130	0.31
MOLLUSCA								
<i>Trivia europaea</i> (MONTAGU)	-	-	-	-	2	0.03	5	-
<i>Scaphander lignarius</i> (LINNE)	133	2.69	3990	1.27	112	1.78	3100	0.84
ECHINODERMATA								
<i>Holothuria tubulosa</i> GMELIN	46	0.93	6700	2.14	80	1.27	11200	3.03
<i>Holothuria forskali</i> DELLE CHIAJE	3388	68.44	119600	38.17	3930	62.62	149000	40.28
<i>Stichopus regalis</i> (CUV.)	155	3.13	32100	10.24	113	1.80	24850	6.27
<i>Echinus acutus</i> LAMARCK	110	2.22	39430	12.59	112	1.78	40200	10.87
<i>Marthasterias glacialis</i> (LINNE)	22	0.44	1770	0.57	8	0.13	1300	0.35
<i>Echinaster sepositus</i> (RETZ.)	3	0.06	65	0.02	31	0.49	300	0.08
<i>Anseropoda placenta</i> (PENN.)	-	-	-	-	3	0.05	25	0.01
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	-	-	-	-	42	0.67	100	0.02
TUNICATA								
<i>Phallusia mammillata</i> (CUVIER)	89	1.80	12850	4.10	56	0.89	7900	2.14
<i>Bothryllus schlosseri</i> (PALLAS)	-	-	-	-	168	2.68	21000	5.68
<i>Microcosmus sulcatus</i> COQUEBERT	199	4.02	23925	7.64	254	4.05	29790	8.05
Total:	4950		313330		6276		369910	

F1

Depth (m): Date	17 10.5.1982.				15 4.12.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
ARTHROPODA								
<i>Squilla mantis</i> FABR.	50	0.12	2700	6.10	291	1.04	10260	17.54
<i>Callianassa tyrrhena</i> (PETAGNA)	2	-	5	0.01	-	-	-	-
<i>Anapagurus bicorniger</i> M.EDW. & BOUV.	1905	4.73	450	1.02	565	2.03	160	0.27
<i>Macropodia rostrata</i> (LINNE) and <i>Macropodia longipes</i> (A.MILNE EDW. & BOUV.)	534	1.33	485	1.10	325	1.17	160	0.27
<i>Inachus dorsettensis</i> (PENN.)	825	2.05	1500	3.39	665	2.39	1320	2.26
<i>Parthenope angulifrons</i> LATR.	2	-	10	0.02	1	-	5	0.01
<i>Parthenope massena</i> ROUX	-	-	-	-	1	-	5	0.01
<i>Liocarcinus depurator</i> (LINNE)	557	1.38	3600	8.13	635	2.28	5730	9.79
<i>Gonoplax angulata</i> (PENN.)	23	0.06	170	0.38	15	0.05	150	0.26
<i>Penaeus kerathurus</i> (FORSKAL)	-	-	-	-	3	0.01	60	0.10
<i>Ilia nucleus</i> (HERBST)	-	-	-	-	2	0.01	5	0.01
MOLLUSCA								
<i>Turritella communis</i> RISSO	81	0.20	170	0.38	1300	4.67	2700	4.61
<i>Calyptaea chinensis</i> (LINNE)	140	0.35	60	0.14	-	-	-	-
<i>Aporrhais pespelecani</i> LINNE	5214	12.96	16850	38.07	2834	10.17	8520	14.56
<i>Naticarius stercusmuscarum</i> (GMELIN)	23	0.06	230	0.52	170	0.61	1400	2.39
<i>Galeodea echinophora</i> (LINNE)	-	-	-	-	1	-	55	0.10
<i>Sphaeronassa mutabilis</i> (LINNE)	244	0.61	930	2.10	883	3.17	2700	4.61
<i>Hinia reticulata</i> (LINNE)	4	0.01	10	0.02	-	-	-	-
<i>Philine aperta</i> (LINNE)	1440	3.58	1970	4.45	991	3.56	1550	2.65
<i>Cardium echinatum</i> LINNE	1	-	80	0.18	5	0.02	600	1.03
<i>Cardium aculeatum</i> LINNE	1	-	70	0.16	-	-	-	-
<i>Cardium paucicostatum</i> SOWERBY	35	0.09	120	0.27	1579	5.67	1550	2.65
<i>Venerupis aureus</i> (GMELIN)	197	0.49	930	2.10	317	1.14	1550	2.65
<i>Aloidis gibba</i> (OLIVI)	24155	60.03	5570	12.58	5940	21.32	2700	4.61
<i>Spisula subtruncata</i> (DA COSTA)	140	0.35	230	0.52	-	-	-	-
<i>Mytilus galloprovincialis</i> LAMARCK	-	-	-	-	10	0.04	160	0.27
<i>Ostrea edulis</i> LINNE	-	-	-	-	7	0.03	250	0.43
<i>Venerupis rhomboides</i> (PENN.)	-	-	-	-	124	0.45	620	1.06
<i>Fimbria fimbria</i> (BOHADSCH)	-	-	-	-	23	0.08	970	1.66

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
ECHINODERMATA								
<i>Cucumaria planci</i> (BRANDT)	-	-	-	-	15	0.05	400	0.69
<i>Thyone cherbonnierii</i> REYS	23	0.06	115	0.26	-	-	-	-
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	1208	3.00	6380	14.41	1657	5.95	4630	7.91
<i>Ophiura texturata</i> LAMARCK	3432	8.53	1630	3.68	9406	33.76	5650	9.66
<i>Schizaster canaliferus</i> (LAMARCK)	-	-	-	-	93	0.33	4650	7.95
Total:	40236		44265		27858		58510	

F2

Depth (m): Date	74 11.5.1982.				69-72 15.12.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
PORIFERA								
<i>Suberites domuncula</i> (JOHNSTON)	-	-	-	-	1	0.06	20	0.12
CNIDARIA								
<i>Alcyonium palmatum</i> PALL.	-	-	-	-	1	0.06	10	0.06
<i>Amphianthus dohrnii</i> (V. KOCH)	-	-	-	-	18	1.00	20	0.12
ARTHROPODA								
<i>Pontophylus spinosus</i> (LEACH)	7	3.52	15	0.52	44	2.44	70	0.42
<i>Solenocera membranacea</i> (RISSO)	-	-	-	-	96	5.33	240	1.46
<i>Nephrops norvegicus</i> (LINNE)	4	2.01	300	11.96	5	0.28	200	1.21
<i>Munida bamffica</i> (PENN.)	1	0.50	5	0.20	-	-	-	-
<i>Liocarcinus depurator</i> (LINNE)	105	52.76	1335	53.29	1308	72.70	13000	78.21
<i>Gonoplax angulata</i> (PENN.)	2	1.00	10	0.40	6	0.33	25	0.15
<i>Alpheus glaber</i> (OLIVI)	-	-	-	-	7	0.39	5	0.03
MOLLUSCA								
<i>Turritella communis</i> RISSO	48	24.10	85	3.39	218	12.11	380	2.30
<i>Galeodea echinophora</i> (LINNE)	-	-	-	-	8	0.44	500	3.03
<i>Nucula sulcata</i> (BRONN.)	8	4.02	10	0.36	22	1.22	25	0.16
<i>Cardium echinatum</i> LINNE	-	-	-	-	1	0.06	50	0.30
<i>Mytilus galloprovincialis</i> LAMARCK	-	-	-	-	2	0.11	70	0.42

ANNEX - continued

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
<i>Ostrea edulis</i> LINNE	-	-	-	-	7	0.39	500	3.03
<i>Isocardia cor</i> (LINNE)	-	-	-	-	1	0.06	150	0.91
ECHINODERMATA								
<i>Stichopus regalis</i> (CUV.)	-	-	-	-	1	0.06	240	1.46
<i>Cucumaria planci</i> (BRANDT)	14	7.03	470	18.73	27	1.50	580	3.52
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	7	3.52	50	1.99	19	1.06	185	1.12
<i>Thyone fusus</i> O.F. MÜLLER	-	-	-	-	1	0.06	20	0.12
<i>Trachythylene tergestina</i> (SARS)	-	-	-	-	1	0.06	5	0.03
<i>Brissopsis lyrifera</i> (FORB.)	-	-	-	-	1	0.06	100	0.61
TUNICATA								
<i>Microcosmus sulcatus</i> COQUEBERT	3	1.51	230	9.17	4	0.22	100	0.61
Total:	199		2510		1799		16495	

F3

Note: seabed obstructions.

Depth (m):	81				82			
	11.5.1982.				16.12.1982.			
Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
PORIFERA								
<i>Stryphnus ponderosus</i> (BOWERBANK)	1	0.30	360	4.30	-	-	-	-
<i>Tethya aurantium</i> (PALL.)	1	0.30	45	0.54	-	-	-	-
<i>Suberites domuncula</i> (OLIVI)	7	2.08	100	1.20	5	0.73	55	0.91
CNIDARIA								
<i>Caryophyllia clavus</i> SACCHI	2	0.60	5	0.06	-	-	-	-
<i>Lytocarpia myriophyllum</i> (LINNE)	-	-	-	-	2	0.30	5	0.08
<i>Alcyonium palmatum</i> PALL.	10	2.98	120	1.43	5	0.73	85	1.41
<i>Funicularia quadrangularis</i> (PALLAS)	21	6.25	180	2.15	4	0.59	30	0.50
<i>Pennatula phosphorea</i> LINNE	13	3.87	40	0.48	6	0.88	15	0.25
ARTHROPODA								
<i>Pontophylax spinosus</i> (LEACH)	11	3.27	20	0.24	5	0.73	10	0.17
<i>Solenocera membranacea</i> (RISSO)	-	-	-	-	165	24.23	340	5.64
<i>Nephrops norvegicus</i> (LINNE)	4	1.19	300	3.59	12	1.76	670	11.10

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
<i>Munida bamffica</i> (PENN.)	15	4.46	65	0.78	11	1.62	70	1.16
<i>Macropodia rostrata</i> (LINNE) and <i>Macropodia longipes</i> (A.MILNE EDW & BOUIV.)	11	3.27	10	0.12	-	-	-	-
<i>Inachus dorsettensis</i> (PENN.)	-	-	-	-	4	0.59	10	0.17
<i>Liocarcinus depurator</i> (LINNE)	110	32.74	1360	16.26	378	55.51	3520	58.33
<i>Chlorotocus crassicornis</i> (COSTA)	-	-	-	-	8	1.17	15	0.23
MOLLUSCA								
<i>Calliostoma granulatum</i> (BORN)	-	-	-	-	2	0.29	5	0.08
<i>Turritella communis</i> RISSO	21	6.25	30	0.36	32	4.70	50	0.18
<i>Aporrhais pespelecani</i> (LINNE)	11	3.27	40	0.48	-	-	-	-
<i>Galeodea echinophora</i> (LINNE)	-	-	-	-	1	0.15	70	1.16
<i>Fusinus rostratus</i> (OLIVI)	31	9.23	85	1.02	20	2.94	40	0.66
<i>Nucula sulcata</i> (BRONN.)	12	3.57	10	0.12	11	1.62	10	0.17
ECHINODERMATA								
<i>Holothuria forskali</i> DELLE CHIAJE	2	0.60	300	3.58	2	0.29	300	4.97
<i>Stichopus regalis</i> (CUV.)	7	2.08	2200	26.30	1	0.15	340	5.63
<i>Cucumaria planci</i> (BRANDT)	11	3.27	320	3.82	2	0.29	30	0.50
<i>Marthasterias glacialis</i> (LINNE)	1	0.30	240	2.87	1	0.15	180	2.98
<i>Echinaster sepositus</i> (RETZIUS)	1	0.30	30	0.36	-	-	-	-
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	6	1.79	30	0.36	-	-	-	-
TUNICATA								
<i>Phallusia mammilata</i> (CUVIER.)	2	0.60	340	4.07	-	-	-	-
<i>Microcosmus sulcatus</i> COQUEBERT	25	7.44	2135	25.52	4	0.59	185	3.07
Total:	336		8365		681		6035	

F4

Species list	Nº/h	92 11.5.1982.			96 9.12.1982.			
		%	g/h	%	Nº/h	%	g/h	
PORIFERA								
<i>Geodia cydonium</i> (JAMESON)	-	-	-	-	2	0.47	800	7.78
<i>Stryphnus ponderosus</i> (BOWERBANK)	2	0.48	3400	26.79	-	-	-	-
<i>Tethya aurantium</i> (PALL.)	3	0.73	80	0.63	2	0.48	50	0.49
<i>Suberites domuncula</i> (OLIVI)	4	0.96	60	0.48	3	0.71	30	0.29
<i>Tedania anhelans</i> (LIEBERKÜHN)	12	2.89	150	1.18	11	2.62	200	1.95
<i>Siphonochalina crassa</i> TOPSENT	2	0.48	25	0.20	2	0.48	40	0.39
<i>Cacospongia scalaris</i> SCHMIDT	-	-	-	-	1	0.24	400	3.89
CNIDARIA								
<i>Lytocarpia myriophyllum</i> (LINNE)	6	1.45	25	0.20	4	0.95	15	0.15
<i>Alcyonium palmatum</i> (PALL.)	5	1.20	40	0.32	2	0.48	20	0.19
<i>Funiculina quadrangularis</i> (PALL.)	29	6.99	260	2.05	129	30.71	1040	10.12
<i>Pennatula phosphorea</i> LINNE	10	2.41	25	0.20	23	5.48	60	0.58
ARTHROPODA								
<i>Squilla mantis</i> FABR.	1	0.24	40	0.31	-	-	-	-
<i>Lysiosquilla eusebia</i> RISSO	2	0.48	20	0.16	-	-	-	-
<i>Solenocera membranacea</i> (RISSO)	75	18.07	225	1.77	-	-	-	-
<i>Nephrops norvegicus</i> (LINNE)	9	2.17	500	3.94	9	2.14	570	5.54
<i>Munida bamffica</i> (PENN.)	7	1.69	30	0.24	-	-	-	-
<i>Macropodia rostrata</i> (LINNE) and <i>Macropodia longipes</i> (A.M.EDW. & BOUV.)	14	3.37	10	0.08	-	-	-	-
<i>Liocarcinus depurator</i> (LINNE)	174	41.93	2140	16.87	184	43.81	2155	20.96
<i>Pilumnus hirtellus</i> (LINNE)	2	0.48	10	0.08	-	-	-	-
MOLLUSCA								
<i>Aporrhais pespelecani</i> (LINNE)	9	2.17	25	0.20	-	-	-	-

ANNEX - continued

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
ECHINODERMATA								
<i>Holothuria forskali</i> DELLE CHIAJE	2	0.48	220	1.73	3	0.71	360	3.50
<i>Stichopus regalis</i> (CUV.)	6	1.45	1670	13.16	5	1.19	1350	13.13
<i>Cucumaria planci</i> (BRANDT)	13	3.13	420	3.31	9	2.14	270	2.63
<i>Marthasterias glacialis</i> (LINNE)	-	-	-	-	1	0.24	180	1.75
<i>Echinaster sepositus</i> (RETZIUS)	1	0.24	20	0.16	-	-	-	-
TUNICATA								
<i>Phallusia mammilata</i> (CUVIER)	8	1.93	1170	9.22	2	0.48	220	2.14
<i>Microcosmus sulcatus</i> COQUEBERT	19	4.58	2125	16.74	28	6.67	2520	24.51
Total:	415		12690		420		10280	

F5

Species list	Nº/h	99 12.5.1982.			99-96 16.12.1982.			
		%	g/h	%	Nº/h	%	g/h	
PORIFERA								
<i>Stryphnus ponderosus</i> (BOWERBANK)	40	0.23	14800	2.44	9	0.07	4500	0.86
<i>Geodia cydonium</i> (JAMESON)	505	2.89	55000	9.08	200	1.52	25800	4.93
<i>Pachymatisma johnstonia</i> (BOWERBABK)	-	-	-	-	15	0.11	950	0.18
<i>Erylus discophorus</i> (SCHMIDT)	54	0.31	20000	3.30	20	0.15	9900	1.89
<i>Polymastia mamillaris</i> (MÜLLER)	13	0.07	400	0.07	6	0.05	215	0.04
<i>Tethya aurantium</i> (PALL.)	235	1.35	7050	1.16	129	0.98	3900	0.75
<i>Cliona celata</i> GRANT	610	3.49	27900	4.60	600	4.56	30700	5.87
<i>Mycale syringa</i> (SCHMIDT)	80	0.46	1600	0.26	131	0.99	2000	0.38
<i>Mycale massa</i> (SCHMIDT)	64	0.37	7500	1.24	59	0.45	8300	1.59
<i>Tedania anhelans</i> (LIEBERKÜHN)	517	2.96	17860	2.95	305	2.32	12000	2.29
<i>Cacospongia mollior</i> SCHMIDT	-	-	-	-	6	0.05	5400	1.03
<i>Cacospongia scalaris</i> SCHMIDT	-	-	-	-	2	0.01	3500	0.67
<i>Verongia cavernicola</i> (SCHMIDT)	10	0.06	1100	0.18	12	0.09	1500	0.29
ARTHROPODA								
<i>Nephrops norvegicus</i> (LINNE)	1	0.01	90	0.01	-	-	-	-
<i>Munida bamffica</i> (PENN.)	1974	11.30	11750	1.94	1160	8.81	6660	1.27
<i>Maia squinado</i> (HERBST)	1	0.01	400	0.07	1	0.01	1200	0.23
<i>Liocarcinus depurator</i> (LINNE)	1692	9.69	15040	2.48	902	6.85	7300	1.40
MOLLUSCA								
<i>Calliostoma granulatum</i> (BORN)	2	0.01	5	-	-	-	-	-
<i>Galeodea echinophora</i> (LINNE)	9	0.05	315	0.05	7	0.05	370	0.07
<i>Scaphander lignarius</i> (LINNE)	2914	16.69	28670	4.73	2191	16.64	2150	0.41
ECHINODERMATA								
<i>Holothuria forskali</i> DELLE CHIAJE	423	2.42	61500	10.15	515	3.91	74700	14.27
<i>Stichopus regalis</i> (CUV.)	893	5.11	220500	36.39	987	7.50	227300	43.44
<i>Echinus acutus</i> LAMARCK	26	0.15	12300	2.03	14	0.11	5200	1.00
<i>Marthasterias glacialis</i> (LINNE)	-	-	-	-	8	0.06	1580	0.30
<i>Chaetaster longipes</i> (RETIUS)	1	0.01	20	-	1	0.01	20	-
<i>Echinaster sepositus</i> (RETIUS)	705	4.04	13160	2.17	515	3.91	10300	1.97
<i>Anseropoda placenta</i> (PENN.)	564	3.23	12220	2.02	601	4.57	11600	2.22
<i>Sphaeriodiscus placenta</i> (MULL. TROSCH.)	19	0.11	5320	0.88	8	0.06	1800	0.34
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	5264	30.14	9870	1.63	4124	31.33	7300	1.40

ANNEX - continued

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
TUNICATA								
<i>Diazona violacea</i> SAVIGNY	1	0.01	960	0.16	6	0.05	2850	0.54
<i>Ascidia mentula</i> (MÜLLER)	94	0.54	950	0.15	43	0.33	665	0.13
<i>Ascidia virginea</i> (MÜLLER)	282	1.61	6100	1.00	172	1.31	3850	0.74
<i>Phallusia mammilata</i> (CUVIER)	47	0.27	4230	0.70	27	0.20	2950	0.56
<i>Microcosmus sulcatus</i> COQUEBERT	423	2.42	49350	8.14	387	2.94	46800	8.95
Total:	17463		605960		13163		523270	

F6

Depth (m):	114			
Date:	16.12.1982.			
Species list:	Nº/h	%	g/h	%
PORIFERA				
<i>Geodia cydonium</i> (JAMESON)	3	0.37	9200	11.08
<i>Tethya aurantium</i> (PALL.)	7	0.85	145	0.17
<i>Cliona celata</i> GRANT	38	4.63	1000	1.20
<i>Cacospongia scalaris</i> SCHMIDT	3	0.37	8400	10.11
CNIDARIA				
<i>Alcyonium palmatum</i> (PALL.)	12	1.46	120	0.14
ARTHROPODA				
<i>Munida bamffica</i> (PENN.)	22	2.68	125	0.15
<i>Liocarcinus depurator</i> (LINNE)	41	4.99	330	0.39
MOLLUSCA				
<i>Galeodea echinophora</i> (LINNE)	3	0.37	120	0.14
<i>Scaphander lignarius</i> (LINNE)	140	17.05	145	0.17
ECHINODERMATA				
<i>Holothuria forskali</i> DELLE CHIAJE	175	21.31	25400	30.58
<i>Stichopus regalis</i> (CUV.)	130	15.83	30100	36.24
<i>Echinus acutus</i> LAMARCK	10	1.22	3850	4.64

ANNEX - continued

Species list:	Nº/h	%	g/h	%
<i>Marthasterias glacialis</i> (LINNE)	3	0.37	900	1.08
<i>Chaetaster longipes</i> (RETZIUS)	5	0.61	100	0.12
<i>Echinaster sepositus</i> (RETZIUS)	34	4.14	200	0.24
<i>Anseropoda placenta</i> (PENN.)	34	4.14	380	0.46
<i>Sphaeriodiscus placenta</i> (MÜLL. TROSCH.)	12	1.46	1200	1.44
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	125	15.23	300	0.36
<i>Cidaris cidaris</i> (LINNE)	5	0.61	285	0.34
<i>Spatangus purpureus</i> MÜLLER	2	0.24	270	0.33
TUNICATA				
<i>Ascidia virginea</i> (MÜLLER)	7	0.85	90	0.10
<i>Microcosmus sulcatus</i> COQUEBERT	10	1.22	390	0.47
Total:	821		83050	

G1

Depth (m): Date	31 23.5.1982.				30-36 8.12.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
PORIFERA								
<i>Suberites domuncula</i> OLIVI	2	0.12	15	0.14	-	-	-	-
<i>Suberites carnosus</i> (JOHNSTON)	2	0.12	10	0.10	-	-	-	-
CNIDARIA								
<i>Amphianthus dohrnii</i> (V.KOCH)	423	26.62	295	2.83	413	14.95	220	2.23
<i>Alcyonium palmatum</i> PALL.	19	1.20	450	4.30	5	0.18	150	1.52
<i>Virgularia myrabilis</i> (MÜLLER)	4	0.25	10	0.10	4	0.14	10	0.10
ANNELIDA								
<i>Sternapsis scutata</i> (RENIER)	3	0.19	5	0.05	2	0.07	5	0.05

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
ARTHROPODA								
<i>Squilla mantis</i> FABR.	-	-	-	-	31	1.12	1360	13.78
<i>Solenocera membranacea</i> (RISSO)	11	0.69	35	0.33	-	-	-	-
<i>Penaeus kerathurus</i> (FORSKAL)	-	-	-	-	2	0.07	60	0.61
<i>Alpheus glaber</i> (OLIVI)	59	3.71	100	0.96	17	0.62	30	0.30
<i>Pontophyllus spinosus</i> (LEACH)	73	4.59	100	0.96	-	-	-	-
<i>Munida bamffica</i> (PENN.)	64	4.03	400	3.82	-	-	-	-
<i>Liocarcinus depurator</i> (LINNE)	459	28.89	4820	46.10	221	8.00	1980	20.06
<i>Gonoplaix angulata</i> (PENN.)	11	0.69	50	0.48	5	0.18	20	0.20
MOLLUSCA								
<i>Turritella communis</i> RISSO	345	21.71	600	5.74	1838	66.55	2625	26.60
<i>Aporrhais pespelecani</i> (LINNE)	8	0.50	45	0.42	-	-	-	-
<i>Galeodea echinophora</i> (LINNE)	1	0.06	80	0.77	-	-	-	-
<i>Murex brandaris</i> LINNE	1	0.06	50	0.48	-	-	-	-
<i>Fusinus rostratus</i> (OLIVI)	1	0.06	5	0.05	2	0.07	5	0.05
<i>Fimbria fimbria</i> (BOHADSCH)	1	0.06	50	0.48	21	0.76	1350	13.68
<i>Nucula sulcata</i> BRONN	-	-	-	-	2	0.07	5	0.05
<i>Pinna pectinata</i> LINNE	-	-	-	-	1	0.04	250	2.53
<i>Ostrea cochlear</i> POLI	1	0.06	30	0.29	-	-	-	-
<i>Cardium paucicostatum</i> SOWERBY	-	-	-	-	114	4.13	160	1.62
<i>Pteria hirundo</i> LINNE	1	0.06	30	0.29	-	-	-	-
ECHINODERMATA								
<i>Cucumaria planci</i> (BRANDT)	71	4.46	2700	25.82	18	0.65	530	5.37
<i>Labidoplax digitata</i> (MONTAGU)	-	-	-	-	5	0.18	10	0.10
<i>Marthasterias glacialis</i> (LINNE)	-	-	-	-	1	0.04	350	3.55
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	21	1.32	280	2.68	54	1.96	450	4.56
TUNICATA								
<i>Microcosmus sulcatus</i> COQUEBERT	8	0.50	295	2.82	6	0.22	300	3.04
Total:	1589		10455		2762		9870	

G2

Species list	115 23.5.1982.				136 8.12.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
PORIFERA								
<i>Suberites carnosus</i> (JOHNSTON)	1	0.30	5	0.14	-	-	-	-
CNIDARIA								
<i>Amhianthus dohrnii</i> (V.KOCH.)	-	-	-	-	26	3.18	10	0.22
<i>Alcyonium palmatum</i> PALL.	8	2.37	135	3.90	2	0.24	10	0.22
ARTHROPODA								
<i>Solenocera membranacea</i> (RISSO)	-	-	-	-	42	5.14	170	3.71
<i>Chlorotocus crassicornis</i> (COSTA)	-	-	-	-	13	1.59	40	0.87
<i>Alpheus glaber</i> (OLIVI)	2	0.59	5	0.14	-	-	-	-
<i>Processa nouveli</i> AL ADHUB & WILLIAM.	-	-	-	-	3	0.37	5	0.11
<i>Pontophilus spinosus</i> (LEACH)	8	2.37	10	0.29	31	3.79	65	1.42
<i>Nephrops norvegicus</i> (LINNE)	73	21.60	1600	46.18	46	5.63	1220	26.64
<i>Munida bamffica</i> (PENN.)	138	40.83	300	8.66	484	59.24	1250	27.30
<i>Macropodia rostrata</i> LINNE and <i>Macropodia longipes</i> (A.MILNE EDW. & BOUV.)	-	-	-	-	11	1.35	5	0.11
<i>Liocarcinus depurator</i> (LINNE)	55	16.27	480	13.85	97	11.87	880	19.20
<i>Gonoplaix angulata</i> (PENN.)	5	1.48	20	0.58	41	5.02	200	4.37
MOLLUSCA								
<i>Turritella communis</i> RISSO	16	4.73	30	0.87	-	-	-	-
<i>Galeodea echinophora</i> (LINNE)	11	3.25	460	13.27	12	1.47	570	12.44
ECHINODERMATA								
<i>Cucumaria planci</i> (BRANDT)	1	0.30	25	0.72	-	-	-	-
<i>Sphaeriodiscus placenta</i> (MULL.TROSCH.)	1	0.30	20	0.58	-	-	-	-
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	12	3.55	90	2.60	5	0.61	20	0.44
TUNICATA								
<i>Microcosmus sulcatus</i> COQUEBERT	7	2.07	285	8.22	4	0.49	135	2.95
Total:	358		3465		817		4580	

G3

Depth (m): Date	177 23.5.1982.				196-176 8.12.1982.			
	N°/h	%	g/h	%	N°/h	%	g/h	%
Species list								
PORIFERA								
<i>Thenea muricata</i> (BOWERB.)	8	0.65	25	0.53	38	2.94	110	3.01
CNIDARIA								
<i>Lytocarpia myriophyllum</i> (LINNE)	-	-	-	-	2	0.15	5	0.14
ARTHROPODA								
<i>Solenocera membranacea</i> (RISSO)	-	-	-	-	54	4.18	200	5.47
<i>Parapenaeus longirostris</i> (LUCAS)	1	0.08	10	0.21	-	-	-	-
<i>Chlorotocus crassicornis</i> (COSTA)	-	-	-	-	21	1.63	60	1.64
<i>Processa nouveli</i> AL ADHUB & WILLIAMS.	-	-	-	-	6	0.46	10	0.27
<i>Pontophilus spinosus</i> (LEACH)	11	0.89	20	0.43	16	1.24	30	0.82
<i>Nephrops norvegicus</i> (LINNE)	98	7.90	1800	38.59	14	1.08	300	8.21
<i>Munida bamffica</i> (PENN.)	1104	89.03	2620	56.16	1123	86.92	2790	76.33
<i>Liocarcinus depurator</i> (LINNE)	2	0.16	20	0.43	3	0.23	20	0.55
MOLLUSCA								
<i>Lunatia guillemini</i> (PAYRAUDEAU)	3	0.24	20	0.43	3	0.23	15	0.41
ECHINODERMATA								
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	11	0.89	45	0.96	7	0.54	30	0.82
TUNICATA								
<i>Microcosmus sulcatus</i> COQUEBERT	1	0.08	90	1.93	3	0.23	60	1.64
<i>Styela plicata</i> LESUR	1	0.08	15	0.32	2	0.15	25	0.69
Total:	1240		4665		1292		3655	

G4

Species list	219 23.5.1982.				224-246 9.12.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
PORIFERA								
<i>Thenea muricata</i> (BOWERB.)	26	0.88	125	1.09	16	1.39	50	1.80
<i>Suberites carnosus</i> (JOHNSTON)	2	0.07	10	0.09	1	0.09	20	0.72
<i>Rhizaxinella pyrifera</i> (DELLE CHIAJE)	-	-	-	-	1	0.09	5	0.18
CNIDARIA								
<i>Lytocarpia myriophyllum</i> (LINNE)	-	-	-	-	1	0.09	5	0.18
ARTHROPODA								
<i>Solenocera membranacea</i> (RISSO)	10	0.34	40	0.35	37	3.21	120	4.32
<i>Parapenaeus longirostris</i> (LUCAS)	2	0.07	20	0.17	-	-	-	-
<i>Chlorotocus crassicornis</i> (COSTA)	-	-	-	-	11	0.95	20	0.72
<i>Processa nouveli</i> AL ADHUB & WILLIAMS.	-	-	-	-	4	0.35	10	0.36
<i>Pontophilus spinosus</i> (LEACH)	44	1.49	70	0.61	15	1.30	30	1.08
<i>Nephrops norvegicus</i> (LINNE)	401	13.58	5400	47.29	12	1.04	250	9.01
<i>Munida bamffica</i> (PENN.)	2434	82.42	5280	46.23	1044	90.62	2100	75.68
<i>Liocarcinus depurator</i> (LINNE)	8	0.27	70	0.62	1	0.04	10	0.36
MOLLUSCA								
<i>Lunatia guillemini</i> (PAYRAUDEAU)	4	0.14	20	0.18	1	0.09	5	0.18
ECHINODERMATA								
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	15	0.51	60	0.53	4	0.35	15	0.54
TUNICATA								
<i>Microcosmus sulcatus</i> COQUEBERT	5	0.17	300	2.63	3	0.26	120	4.32
<i>Styela plicata</i> LESUR	2	0.07	25	0.22	1	0.09	15	0.54
Total:	2953		11420		1152		2775	

G5

Depth (m): Date	198 24.5.1982.				186-192 9.12.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
Species list								
PORIFERA								
<i>Thenea muricata</i> (BOWERB.)	40	1.54	170	1.72	42	3.02	155	2.57
<i>Suberites carnosus</i> (JOHNSTON)	2	0.08	5	0.05	-	-	-	-
CNIDARIA								
<i>Lytocarpia myriophyllum</i> (LINNE)	-	-	-	-	1	0.07	5	0.08
ARTHROPODA								
<i>Solenocera membranacea</i> (RISSO)	53	2.04	230	2.33	8	0.58	30	0.50
<i>Parapenaeus longirostris</i> (LUCAS)	-	-	-	-	1	0.07	15	0.25
<i>Alpheus glaber</i> (OLIVI)	23	0.89	30	0.30	-	-	-	-
<i>Pontophilus spinosus</i> (LEACH)	30	1.15	60	0.61	4	0.29	5	0.08
<i>Nephrops norvegicus</i> (LINNE)	242	9.31	3800	38.42	102	7.34	2600	43.04
<i>Munida bamffica</i> (PENN.)	2160	83.14	5000	50.56	1214	87.40	2800	46.36
<i>Liocarcinus depurator</i> (LINNE)	31	1.20	380	3.84	6	0.43	50	0.83
<i>Gonopax angulata</i> (PENN.)	5	0.19	20	0.20	2	0.14	5	0.08
MOLLUSCA								
<i>Lunatia guillemini</i> (PAYRAudeau)	1	0.04	5	0.05	-	-	-	-
<i>Galeodea echinophora</i> (LINNE)	-	-	-	-	1	0.07	40	0.66
ECHINODERMATA								
<i>Stichopus regalis</i> (CUV.)	1	0.04	100	1.00	1	0.07	190	3.15
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	9	0.35	50	0.51	3	0.22	10	0.17
TUNICATA								
<i>Microcosmus sulcatus</i> COQUEBERT	1	0.04	40	0.40	4	0.29	135	2.24
Total:	2598		9890		1389		6040	

H1

Species list	26 21.5.1982.				34-28 8.12.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
Cnidaria								
<i>Alcyonium palmatum</i> PALL.	2	0.42	5	0.12	-	-	-	-
Annelida								
<i>Sternaspis scutata</i> (RENIER)	2	0.42	5	0.12	2	0.18	5	0.03
ARTHROPODA								
<i>Squilla mantis</i> FABR.	7	1.48	500	12.33	334	29.74	11400	77.23
<i>Penaeus karathurus</i> (FORSKAL)	-	-	-	-	1	0.09	30	0.20
<i>Alpheus glaber</i> (OLIVI)	-	-	-	-	10	0.89	15	0.10
<i>Nephrops norvegicus</i> (LINNE)	1	0.21	50	1.23	1	0.09	15	0.10
<i>Doripe lanata</i> (LINNE)	1	0.21	25	0.62	-	-	-	-
<i>Liocarcinus depurator</i> (LINNE)	229	48.52	1650	40.69	130	11.58	1030	6.98
<i>Gonopax angulata</i> (PENN.)	5	1.06	55	1.35	21	1.87	180	1.22
MOLLUSCA								
<i>Turritella communis</i> RISSO	29	6.14	25	0.62	151	13.45	200	1.35
<i>Aporrhais pespelecani</i> (LINNE)	26	5.51	100	2.46	19	1.69	70	0.47
<i>Naticarius stercusmuscarum</i> (GMELIN)	1	0.21	5	0.12	4	0.36	30	0.20
<i>Murex brandaris</i> LINNE	1	0.21	30	0.74	1	0.09	25	0.17
<i>Fimbria fimbria</i> (BOHADSCH)	-	-	-	-	11	0.98	120	0.81
<i>Ostrea edulis</i> LINNE	-	-	-	-	3	0.27	60	0.41
<i>Cardium paucicostatum</i> SOWERBY	-	-	-	-	162	14.43	150	1.02
<i>Aloidis gibba</i> (OLIVI)	-	-	-	-	154	13.71	80	0.54
ECHINODERMATA								
<i>Stichopus regalis</i> (CUV.)	-	-	-	-	1	0.09	200	1.35
<i>Cucumaria planci</i> (BRANDT)	32	6.78	700	17.26	20	1.78	465	3.15
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	125	26.48	870	21.46	91	8.10	680	4.61
<i>Ophiura texturata</i> LAMARCK	10	2.12	5	0.12	7	0.62	5	0.03
Tunicata								
<i>Microcosmus sulcatus</i> COQUEBERT	1	0.21	30	0.74	-	-	-	-
Total:	472		4055		1123		14760	

H2

Depth (m): Date	104 21.5.1982.				103 7.12.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
Species list								
PORIFERA								
<i>Suberites carnosus</i> (JOHNSTON)	5	0.59	80	1.12	4	0.62	60	0.99
CNIDARIA								
<i>Alcyonium palmatum</i> PALL.	11	1.31	180	2.52	15	2.37	225	3.71
ARTHROPODA								
<i>Solenocera membranacea</i> (RISSO)	374	44.52	790	11.08	195	30.76	370	6.09
<i>Chlorotocus crassicornis</i> (COSTA)	-	-	-	-	10	1.58	15	0.25
<i>Alpheus glaber</i> (OLIVI)	11	1.31	10	0.14	-	-	-	-
<i>Processa nouveli</i> AL ADHUB & WILLIAM.	-	-	-	-	35	5.52	60	0.99
<i>Pontophilus spinosus</i> (LEACH)	18	2.14	30	0.42	15	2.37	30	0.49
<i>Nephrops norvegicus</i> (LINNE)	105	12.50	3000	42.08	31	4.89	1300	21.42
<i>Munida bamffica</i> (PENN.)	57	6.79	160	2.24	43	6.78	110	1.81
<i>Liocarcinus depurator</i> (LINNE)	191	22.74	1330	18.65	212	33.44	1900	31.30
<i>Gonoplax angulata</i> (PENN.)	3	0.36	5	0.07	-	-	-	-
MOLLUSCA								
<i>Galeoidea echinophora</i> (LINNE)	30	3.57	700	9.82	53	8.36	1670	27.51
ECHINODERMATA								
<i>Cucumaria planci</i> (BRANDT)	15	1.79	530	7.43	6	0.95	170	2.80
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	14	1.67	45	0.63	9	1.42	30	0.49
TUNICATA								
<i>Microcosmus sulcatus</i> COQUEBERT	5	0.59	260	3.65	6	0.95	130	2.14
<i>Ascidia mentula</i> (MÜLLER)	1	0.12	10	0.14	-	-	-	-
Total:	840		7130		634		6070	

H3

Depth (m): Date	137 20.5.1982.				140 7.12.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
PORIFERA								
<i>Suberites carnosus</i> (JOHNSTON)	2	0.24	35	0.39	-	-	-	-
CNIDARIA								
<i>Lytocarpia myriophyllum</i> (LINNE)	2	0.24	5	0.06	3	0.18	10	0.21
<i>Alcyonium palmatum</i> PALL.	6	0.73	70	0.77	5	0.30	65	1.34
ARTHROPODA								
<i>Solenocera membranacea</i> (RISSO)	248	30.13	500	5.53	75	4.54	140	2.89
<i>Alpheus glaber</i> (OLIVI)	5	0.61	10	0.11	-	-	-	-
<i>Pontophilus spinosus</i> (LEACH)	28	3.40	50	0.55	42	2.54	60	1.24
<i>Nephrops norvegicus</i> (LINNE)	190	23.09	5400	59.67	74	4.48	1500	30.96
<i>Munida bamffica</i> (PENN.)	106	12.88	380	4.20	90	5.45	330	6.81
<i>Liocarcinus depurator</i> (LINNE)	190	23.09	2000	22.10	130	7.87	1830	37.78
<i>Gonoplaex angulata</i> (PENN.)	-	-	-	-	2	0.12	5	0.10
MOLLUSCA								
<i>Lunatia guillemini</i> (PAYARAUDEAU)	1	0.12	10	0.11	-	-	-	-
<i>Galeodea echinophora</i> (LINNE)	10	1.22	330	3.64	2	0.12	65	1.34
<i>Pteria hirundo</i> (LINNE)	1	0.12	15	0.17	-	-	-	-
ECHINODERMATA								
<i>Sphaerodiscus placenta</i> (MÜLL.TROSCH)	4	0.49	100	1.11	-	-	-	-
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	28	3.40	90	0.99	1228	74.33	820	16.92
TUNICATA								
<i>Microcosmus sulcatus</i> COQUEBERT	1	0.12	35	0.39	1	0.06	20	0.41
<i>Ascidia mentula</i> (MÜLLER)	1	0.12	20	0.22	-	-	-	-
Total:	823		9050		1652		4845	

H4

Depth (m): Date	140 20.5.1982.				145 7.12.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
Species list								
PORIFERA								
<i>Suberites carnosus</i> (JOHNSTON)	4	1.81	20	0.75	5	1.51	35	1.21
CNIDARIA								
<i>Lytocarpia myriophyllum</i> (LINNE)	2	0.90	5	0.19	2	0.60	5	0.17
<i>Alcyonium palmatum</i> PALL.	3	1.36	30	1.13	6	1.81	55	1.90
ARTHROPODA								
<i>Lysiosquilla eusebia</i> RISSO	1	0.45	5	0.19	-	-	-	-
<i>Nephrops norvegicus</i> (LINNE)	58	26.24	2000	75.19	36	10.88	1480	51.21
<i>Munida bamffica</i> (PENN.)	8	3.62	20	0.75	15	4.53	25	0.87
<i>Macropodia rostrata</i> (LINNE) and <i>Macropodia longipes</i> (A.MILNE EDW. & BOUV.)	4	1.81	5	0.19	7	2.11	5	0.17
<i>Liocarcinus depurator</i> (LINNE)	23	10.41	290	10.90	50	15.11	550	19.03
MOLLUSCA								
<i>Lunatia guillemini</i> (PAYARAUDEAU)	1	0.45	10	0.38	10	3.02	90	3.12
<i>Galeodea echinophora</i> (LINNE)	1	0.45	25	0.94	3	0.91	150	5.19
<i>Fusinus rostratus</i> (OLIVI)	1	0.45	5	0.19	1	0.30	5	0.17
<i>Nucula sulcata</i> (BRONN)	9	4.07	10	0.37	-	-	-	-
ECHINODERMATA								
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	102	46.16	145	5.45	186	56.19	365	12.63
<i>Odonaster mediterraneus</i> MAR.	-	-	-	-	1	0.30	5	0.17
TUNICATA								
<i>Microcosmus sulcatus</i> COQUEBERT	3	1.36	80	3.01	6	1.81	100	3.46
<i>Ascidia mentula</i> (MÜLLER)	1	0.45	10	0.38	3	0.91	20	0.69
Total:	221		2660		331		2890	

H5

Note: numerosus outcroppings

Depth (m): Date	128 20.5.1982.				140-135 7.12.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
PORIFERA								
<i>Suberites carnosus</i> (JOHNSTON)	4	0.67	220	2.91	1	0.15	40	0.45
<i>Rxizaxinella pyrifera</i> (DELLE CHIAJE)	3	0.50	5	0.07	1	0.15	5	0.06
CNIDARIA								
<i>Lytocarpia myriophyllum</i> (LINNE)	3	0.50	10	0.13	28	4.31	100	1.13
<i>Adamsia palliata</i> (BOHADSCH)	52	8.75	50	0.66	-	-	-	-
<i>Caryophyllia clavus</i> SACCHI	2	0.34	5	0.07	-	-	-	-
<i>Alcyonium palmatum</i> PALL.	11	1.85	40	0.53	4	0.62	65	0.73
<i>Funiculina quadrangularis</i> (PALL.)	-	-	-	-	35	5.39	300	3.39
<i>Pennatula phosphorea</i> LINNE	-	-	-	-	7	1.08	15	0.17
ARTHROPODA								
<i>Solenocera membranacea</i> (RISSO)	57	9.60	100	1.32	26	4.01	60	0.68
<i>Alpheus glaber</i> (OLIVI)	2	0.34	5	0.07	-	-	-	-
<i>Processa nouveli</i> AL ADHUB & WILLIAMS.	-	-	-	-	8	1.23	10	0.11
<i>Pontophilus spinosus</i> LEACH	10	1.68	20	0.26	6	0.92	10	0.11
<i>Nephrops norvegicus</i> (LINNE)	175	29.46	4100	54.20	129	19.89	3650	41.24
<i>Pagurus prideaux</i> LEACH	-	-	-	-	52	8.01	190	2.15
<i>Munida bamffica</i> (PENN.)	9	1.52	25	0.33	-	-	-	-
<i>Macropodia rostrata</i> (LINNE) and								
<i>Macropodia longipes</i> (A.MILNE EDW. & BOUV.)	4	0.67	5	0.07	21	3.24	10	0.11
<i>Anamathia rissoana</i> (ROUX)	-	-	-	-	2	0.31	5	0.06
<i>Liocarcinus depurator</i> (LINNE)	123	20.71	940	12.42	60	9.25	800	9.04
<i>Macropipus tuberculatus</i> (ROUX)	55	9.26	450	5.95	25	3.85	250	2.83
<i>Gonopla x angulata</i> (PENN.)	2	0.34	5	0.07	-	-	-	-
MOLLUSCA								
<i>Calliostoma granulatum</i> (BORN)	-	-	-	-	2	0.31	5	0.06
<i>Lunatia guillemini</i> (PAYARA UDEAU)	3	0.50	15	0.20	4	0.62	65	0.73
<i>Galeoidea echinophora</i> (LINNE)	3	0.50	50	0.66	8	1.23	230	2.60
<i>Scaphander lignarius</i> (LINNE)	-	-	-	-	1	0.15	5	0.06
<i>Nucula sulcata</i> (BRONN)	11	1.85	10	0.13	-	-	-	-
<i>Pinna pectinata</i> LINNE	1	0.17	250	3.30	-	-	-	-

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
ECHINODERMATA								
<i>Stichopus regalis</i> (CUV.)	1	0.17	270	3.57	-	-	-	-
<i>Cidaris cidaris</i> (LINNE)	3	0.51	90	1.19	2	0.30	45	0.51
<i>Echinus acutus</i> LAMARCK	2	0.33	400	5.29	10	1.54	2200	24.86
<i>Echinus melo</i> LAMARCK	2	0.33	150	1.98	5	0.77	350	3.95
<i>Spatangus purpureus</i> (MÜLLER)	1	0.17	180	2.38	-	-	-	-
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	50	8.42	65	0.86	208	32.05	390	4.41
TUNICATA								
<i>Microcosmus sulcatus</i> COQUEBERT	3	0.50	80	1.05	1	0.15	20	0.23
<i>Ascidia mentula</i> (MÜLLER)	2	0.34	25	0.33	3	0.46	30	0.34
Total:	594		7565		649		8850	

Note: *Ostera cochlear* (shells)**H6**

Depth (m):	175				170-178			
Date	19.5.1982.				6.12.1982.			
Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
PORIFERA								
<i>Suberites domuncula</i> (OLIVI)	3	0.53	160	3.82	3	0.72	75	2.44
<i>Suberites carnosus</i> (JOHNSTON)	2	0.35	10	0.24	-	-	-	-
CNIDARIA								
<i>Amphianthus dohrnii</i> (V.KOCH)	-	-	-	-	10	2.40	15	0.49
<i>Alcyonium palmatum</i> PALL.	7	1.23	45	1.08	10	2.40	95	3.09
<i>Funiculina quadrangularis</i> (PALL.)	16	2.82	140	3.35	20	4.81	170	5.53
<i>Pennatula phosphorea</i> LINNE	2	0.35	5	0.12	25	6.01	40	1.30
ARTHROPODA								
<i>Solenocera membranacea</i> (RISSO)	55	9.70	140	3.35	62	14.90	170	5.53
<i>Processa nouveli</i> AL ADHUB & WILLIAMS.	-	-	-	-	14	3.37	30	0.98
<i>Pontophilus spinosus</i> LEACH	6	1.06	10	0.24	10	2.40	20	0.65
<i>Nephrops norvegicus</i> (LINNE)	14	2.47	400	9.58	10	2.40	400	13.01
<i>Munida bamffica</i> (PENN.)	2	0.35	5	0.12	4	0.96	10	0.33
<i>Macropodia rostrata</i> (LINNE) and <i>Macropodia longipes</i> (A.MILNE EDW. & BOUV.)	6	1.06	5	0.12	11	2.64	5	0.16
<i>Liocarcinus depurator</i> (LINNE)	375	66.14	2650	63.47	143	34.38	1350	43.90
<i>Macropipus tuberculatus</i> (ROUX)	33	5.82	300	7.19	12	2.88	100	3.25
<i>Gonopla x angulata</i> (PENN.)	1	0.18	5	0.12	8	1.92	30	0.98

ANNEX - continued

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
MOLLUSCA								
<i>Calliostoma granulatum</i> (BORN)	-	-	-	-	2	0.49	5	0.16
<i>Lunatia guillemini</i> (PAYARAUDEAU)	2	0.35	15	0.36	2	0.49	10	0.33
<i>Galeodea echinophora</i> (LINNE)	-	-	-	-	8	1.29	140	4.55
<i>Fusinus rostratus</i> (OLIVI)	1	0.18	5	0.12	5	1.20	15	0.49
ECHINODERMATA								
<i>Sphaeriodiscus placenta</i> (MÜLL.TROSCH.)	-	-	-	-	2	0.48	45	1.46
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	37	6.53	110	2.64	45	10.82	100	3.25
TUNICATA								
<i>Microcosmus sulcatus</i> COQUEBERT	4	0.71	150	3.59	9	2.16	220	7.15
<i>Ascidia mentula</i> (MÜLLER)	1	0.18	20	0.48	1	0.24	30	0.98
Total:	567		4175		416		3075	

I1

Note: Seaweed: *Ulva rigida* C.AG., *Cystoseira compressa* (ESPER) GERLOFF., *Dictyota linearis* (C.AG.) GREV., *Hypnea musciformis* (WULF.) LAM., *Rytiphloea tinctoria* (CLEMENT) C.AG.

Depth (m):	40					39				
	Date	18.5.1982.				6.12.1982.				
Species list		Nº/h	%	g/h	%					
PORIFERA										
<i>Suberites carnosus</i> (JOHNSTON)	-	-	-	-	-	1	0.07	30	0.19	
CNIDARIA										
<i>Lytocarpia myriophyllum</i> (LINNE)	2	0.13	5	0.02	-	-	-	-	-	
<i>Amphianthus dohrnii</i> (V.KOCH)	72	4.76	155	0.76	15	1.13	30	0.19		
<i>Calliactis parasitica</i> (COUCH)	-	-	-	-	11	0.83	55	0.35		
<i>Alcyonium palmatum</i> PALLAS	9	0.59	450	2.19	2	0.15	50	0.32		
ANNELIDA										
<i>Sternaspis scutata</i> (RENIER)	2	0.13	5	0.02	6	0.45	10	0.06		

ANNEX - continued

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
ARTHROPODA								
<i>Squilla mantis</i> FABR.	1	0.07	40	0.19	7	0.53	270	1.74
<i>Alpheus glaber</i> (OLIVI)	15	0.99	30	0.15	19	1.44	30	0.19
<i>Liocarcinus depurator</i> (LINNE)	576	38.04	5830	28.39	477	36.03	5650	36.30
<i>Gonopax angulata</i> (PENN.)	42	2.77	300	1.46	23	1.74	150	0.96
MOLLUSCA								
<i>Aporrhais pespelecani</i> (LINNE)	105	6.94	540	2.63	56	4.23	280	1.81
<i>Galeoidea echinophora</i> (LINNE)	18	1.19	660	3.21	8	0.60	340	2.18
<i>Murex brandaris</i> LINNE	312	20.61	3980	19.38	285	21.53	3470	22.29
<i>Trunculariopsis trunculus</i> (LINNE)	9	0.59	200	0.98	-	-	-	-
<i>Philine aperta</i> (LINNE)	81	5.35	300	1.46	224	16.91	580	3.73
<i>Fimbria fimbria</i> (BOHADSCH)	12	0.79	2700	13.15	8	0.60	1470	9.44
<i>Nucula sulcata</i> (BRONN)	-	-	-	-	10	0.76	10	0.06
<i>Ostrea edulis</i> LINNE	1	0.07	70	0.34	-	-	-	-
<i>Pteria hirundo</i> (LINNE)	54	3.57	800	3.90	23	1.74	330	2.12
ECHINODERMATA								
<i>Stichopus regalis</i> (CUV.)	-	-	-	-	1	0.07	220	1.41
<i>Cucumaria planci</i> (BRANDT)	30	1.98	1100	5.36	19	1.44	660	4.24
<i>Trachythione elongata</i> DUB. & KOR.	3	0.20	15	0.07	1	0.07	5	0.03
<i>Trachythione tergestina</i> (SARS)	-	-	-	-	1	0.07	5	0.03
<i>Labidoplax digitata</i> (MONT.)	-	-	-	-	2	0.15	5	0.03
<i>Schizaster canaliferus</i> (LAMARCK)	-	-	-	-	16	1.21	530	3.40
<i>Marthasterias glacialis</i> (LINNE)	1	0.07	20	0.10	-	-	-	-
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	156	10.30	1250	6.09	102	7.70	800	5.14
TUNICATA								
<i>Phallusia mammilata</i> (CUVIER)	12	0.79	2000	9.74	6	0.45	540	3.47
<i>Microcosmus sulcatus</i> COQUEBERT	1	0.07	85	0.41	1	0.07	45	0.29
Total:	1514		20535		1324		15565	

I2

Species list	109 18.5.1982.				110 5.12.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
PORIFERA								
<i>Suberites domuncula</i> (OLIVI)	8	2.23	90	2.72	3	1.03	50	2.11
<i>Suberites carnosus</i> (JOHNSTON)	15	4.19	190	5.74	11	3.78	190	8.04
<i>Rxizaxinella pyrifera</i> (DELLE CHIAJE)	5	1.40	25	0.75	1	0.34	5	0.21
CNIDARIA								
<i>Lytocarpia myriophyllum</i> (LINNE)	40	11.17	150	4.53	2	0.69	5	0.21
<i>Amphianthus dohrnii</i> (V.KOCH)	8	2.23	15	0.45	-	-	-	-
<i>Alcyonium palmatum</i> PALL.	3	0.84	50	1.51	1	0.34	30	1.27
ARTHROPODA								
<i>Solenocera membranacea</i> (RISSO)	-	-	-	-	30	10.31	100	4.23
<i>Chlorotocus crassiocarnis</i> (COSTA)	-	-	-	-	17	5.84	35	1.48
<i>Processa nouveli</i> AL ADHUB & WILLIAMS.	-	-	-	-	6	2.06	10	0.42
<i>Pontophilus spinosus</i> LEACH	20	5.59	40	1.21	21	7.22	40	1.69
<i>Nephrops norvegicus</i> (LINNE)	1	0.28	50	1.51	1	0.34	100	4.23
<i>Paguristes oculatus</i> (FABR.)	1	0.28	5	0.15	3	1.03	15	0.63
<i>Galathea dispersa</i> BATE	-	-	-	-	8	2.75	20	0.85
<i>Macropodia rostrata</i> (LINNE) and								
<i>Macropodia longipes</i> (A.MILNE EDW. & BOUV.)	33	9.22	25	0.76	-	-	-	-
<i>Inachus dorsettensis</i> (PENN.)	10	2.79	10	0.30	-	-	-	-
<i>Liocarcinus depurator</i> (LINNE)	25	6.98	185	5.59	61	20.96	440	18.60
MOLLUSCA								
<i>Calliostoma granulatum</i> (BORN)	8	2.23	30	0.91	9	3.09	35	1.48
<i>Lunatia guillemini</i> (PAYRAUDEAU)	5	1.40	40	1.21	3	1.03	30	1.27
<i>Galeodea echinophora</i> (LINNE)	14	3.91	200	6.04	42	14.43	700	29.60
<i>Scaphander lignarius</i> (LINNE)	13	3.63	120	3.63	2	0.69	20	0.85
<i>Fimbria fimbria</i> (BOHADSCH)	1	0.28	70	2.11	-	-	-	-
<i>Nucula sulcata</i> (BRONN)	42	11.73	30	0.90	13	4.47	10	0.42
<i>Pinna pectinata</i> LINNE	3	0.84	440	13.29	2	0.69	250	10.57
<i>Isocardia cor</i> (LINNE)	1	0.28	100	3.02	-	-	-	-
<i>Abra longicallus</i> (SCACCHI)	14	3.91	25	0.76	3	1.03	5	0.21

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
ECHINODERMATA								
<i>Stichopus regalis</i> (CUV.)	4	1.12	750	22.66	-	-	-	-
<i>Marthasterias glacialis</i> (LINNE)	1	0.28	240	7.25	-	-	-	-
<i>Sphaeriodiscus placentula</i> (MÜLL. & TROSCH.)	1	0.28	25	0.76	-	-	-	-
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	80	22.35	350	10.57	51	17.53	235	9.94
<i>Odonaster mediterraneus</i> MARENZELLER	1	0.28	5	0.15	-	-	-	-
TUNICATA								
<i>Microcosmus sulcatus</i> COQUEBERT	1	0.28	50	1.51	1	0.34	40	1.69
Total:	358		3310		291		2365	

I3

Species list	168				180-210			
	18.5.1982.				6.12.1982.			
PORIFERA								
<i>Suberites domuncula</i> (OLIVI)	5	0.26	60	0.23	1	0.04	10	0.04
<i>Rizaxinella pyrifera</i> (DELLE CHIAJE)	13	0.68	50	0.19	3	0.10	10	0.04
CNIDARIA								
<i>Lytocarpia myriophyllum</i> (LINNE)	13	0.68	50	0.19	4	0.14	10	0.04
<i>Amphianthus dohrnii</i> (V.KOCH)	477	24.92	980	3.71	1504	52.57	2700	11.25
<i>Hormathia coronata</i> (GOSSE)	259	13.53	15260	57.80	229	8.00	11220	46.74
	-	-	-	-	2	0.07	5	0.02
ARTHROPODA								
<i>Solenocera membranacea</i> (RISSO)	4	0.21	10	0.04	11	0.38	40	0.17
<i>Chlorotocus crassicornis</i> (COSTA)	-	-	-	-	4	0.14	10	0.04
<i>Processa nouveli</i> AL ADHUB & WILLIAMS.	-	-	-	-	15	0.52	25	0.10
<i>Pagurus variabilis</i> A.MEDW. & BOUV.	403	21.25	1270	4.81	528	18.46	1700	7.08
<i>Parthenope angulifrons</i> (LATR.)	-	-	-	-	1	0.04	20	0.08
<i>Liocarcinus depurator</i> (LINNE)	152	7.94	2260	8.56	168	5.87	2350	9.79

ANNEX - continued

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
MOLLUSCA								
<i>Calliostoma granulatum</i> (BORN)	29	1.52	70	0.26	38	1.33	90	0.37
<i>Lunatia guillemini</i> (PAYRAUDEAU)	1	0.05	10	0.04	-	-	-	-
<i>Galeodea echinophora</i> (LINNE)	1	0.05	30	0.11	1	0.04	30	0.12
<i>Scaphander lignarius</i> (LINNE)	299	15.62	1000	3.79	43	1.50	160	0.67
<i>Pinna pectinata</i> LINNE	2	0.10	120	0.45	1	0.04	140	0.58
ECHINODERMATA								
<i>Cidaris cidaris</i> (LINNE)	205	10.71	4000	15.15	207	7.24	4140	17.25
<i>Echinus melo</i> LAMARCK	37	1.93	500	1.89	46	1.61	640	2.67
<i>Marthasterias glacialis</i> (LINNE)	3	0.16	690	2.61	-	-	-	-
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	8	0.42	15	0.06	25	0.87	55	0.23
<i>Luidia sarsi</i> DÜBEN & KOREN	-	-	-	-	2	0.07	215	0.90
<i>Odonaster mediterraneus</i> MARENZELLER	3	0.16	25	0.09	1	0.04	5	0.02
TUNICATA								
<i>Microcosmus sulcatus</i> COQUEBERT	-	-	-	-	27	0.94	430	1.79
Total:	1914		26400		2861		24005	

I4

Depth (m): Date	280 19.5.1982.				200-260 6.12.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
CNIDARIA								
<i>Amphianthus dohrnii</i> (V.KOCH)	126	33.51	160	6.22	175	33.52	200	6.26
<i>Alcyonium palmatum</i> PALL.	-	-	-	-	7	1.34	180	5.63
<i>Funiculina quadrangularis</i> PALLAS	-	-	-	-	8	1.53	70	2.19
<i>Hormathia coronata</i> (GOSSE)	8	2.13	645	25.05	4	0.77	300	9.39
<i>Pennatula phosphorea</i> LINNE	-	-	-	-	4	0.77	10	0.31
ARTHROPODA								
<i>Solenocera membranacea</i> (RISSO)	-	-	-	-	11	2.11	30	0.94
<i>Parapenaeus longirostris</i> (LUCAS)	5	1.33	60	2.33	2	0.38	50	1.56
<i>Chlorotocus crassicornis</i> (COSTA)	12	3.19	20	0.78	6	1.15	10	0.31
<i>Alpheus glaber</i> (OLIVI)	2	0.53	5	0.19	-	-	-	-
<i>Nephrops norvegicus</i> (LINNE)	5	1.33	200	7.77	2	0.38	130	4.07
<i>Pagurus variabilis</i> A.M.EDW. & BOUV.	100	26.60	80	3.11	130	24.90	230	7.20
<i>Macropodia rostrata</i> (LINNE) and <i>Macropodia longipes</i> (A.MILNE EDW. & BOUV.)	11	2.92	5	0.19	31	5.94	25	0.78

ANNEX - continued

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
<i>Anamathia rissoana</i> (ROUX)	2	0.53	5	0.19	11	2.11	20	0.63
<i>Liocarcinus depurator</i> (LINNE)	20	5.32	290	11.26	26	4.98	280	8.77
<i>Macropipus tuberculatus</i> (ROUX)	41	10.90	600	23.30	49	9.39	540	16.90
MOLLUSCA								
<i>Lunatia guillemini</i> (PAYRAUDEAU)	1	0.27	10	0.39	-	-	-	-
<i>Ranella gigantea</i> (LAMARCK)	-	-	-	-	1	0.19	130	4.07
<i>Scaphander lignarius</i> (LINNE)	22	5.85	100	3.88	4	0.77	15	0.47
ECHINODERMATA								
<i>Cidaris cidaris</i> (LINNE)	2	0.53	40	1.55	11	2.11	240	7.51
<i>Echinus melo</i> LAMARCK	3	0.80	60	2.33	11	2.11	280	8.76
<i>Spatangus purpureus</i> (MÜLLER)	1	0.27	100	3.88	-	-	-	-
<i>Sphaeriodiscus placentula</i> (MÜLL. & TROSCH.)	-	-	-	-	1	0.19	20	0.63
<i>Astropecten irregularis pentacanthus</i> (DELLE CHIAJE)	11	2.93	20	0.78	20	3.83	45	1.41
<i>Luidia sarsi</i> DÜBEN & KOREN	3	0.80	170	6.60	5	0.96	370	11.58
<i>Sclerasterias neglecta</i> (PERRIER)	1	0.27	5	0.19	3	0.57	20	0.63
Total:	376		2575		522		3195	

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Note: seabed obstructions; rocky bottom; particles of hard bottom (200 kg).

Depth (m): Date	396 19.5.1982.				400-430 6.12.1982.			
	Nº/h	%	g/h	%	Nº/h	%	g/h	%
Species list								
PORIFERA								
<i>Geodia cydonium</i> (JAMESON)	2	0.88	90	5.63	1	0.17	40	0.69
<i>Rhizaxinella pyrifera</i> (DELLE CHIAJE)	-	-	-	-	2	0.34	5	0.09
Cnidaria								
<i>Amphianthus dohrnii</i> (V.KOCH)	-	-	-	-	21	3.57	25	0.43
<i>Caryophyllia clavus</i> SACCHI	3	1.32	5	0.31	2	0.34	5	0.09
<i>Hormathia coronata</i> (GOSSE)	15	6.61	200	12.50	-	-	-	-

Species list	Nº/h	%	g/h	%	Nº/h	%	g/h	%
ARTHROPODA								
<i>Scalpellum scalpellum</i> (LINNE)	43	18.94	10	0.62	83	14.09	20	0.35
<i>Solenocera membrnacea</i> (RISSO)	-	-	-	-	7	1.19	15	0.26
<i>Plesionika</i> sp.	6	2.64	5	0.31	-	-	-	-
<i>Parapenaeus longirostris</i> (LUCAS)	2	0.88	20	1.25	6	1.02	35	0.61
<i>Pasiphaea sivado</i> (RISSO)	19	8.37	15	0.94	36	6.11	30	0.52
<i>Chlorotocus crassicornis</i> (COSTA)	-	-	-	-	11	1.87	15	0.26
<i>Processa nouveli</i> AL ADHUB & WILL.	3	1.32	5	0.31	17	2.88	15	0.26
<i>Polycheles typhlops</i> HELLER	5	2.21	5	0.31	4	0.68	10	0.17
<i>Nephrops norvegicus</i> (LINNE)	4	1.76	80	5.00	-	-	-	-
<i>Pagurus arrosor</i> (HERBST)	-	-	-	-	2	0.34	75	1.29
<i>Pagurus variabilis</i> A.M.EDW. & BOUV.	2	0.88	5	0.31	7	1.19	15	0.26
<i>Munida intermedia</i> M.EDW. & BOUV.	8	3.52	10	0.62	3	0.51	5	0.09
<i>Macropodia rostrata</i> (LINNE) and								
<i>Macropodia longipes</i> (A.MILNE EDW. & BOUV.)	-	-	-	-	18	3.05	10	0.17
<i>Anamathia rissoana</i> (ROUX)	6	2.64	5	0.31	18	3.05	30	0.52
<i>Monadaeus couchi</i> (COUCH)	5	2.21	5	0.31	2	0.34	5	0.09
<i>Parthenope angulifrons</i> (LATR.)	1	0.44	5	0.31	-	-	-	-
<i>Liocarcinus depurator</i> (LINNE)	5	2.21	15	0.94	15	2.55	90	1.55
<i>Macropipus tuberculatus</i> (ROUX)	6	2.64	15	0.94	22	3.73	100	1.73
MOLLUSCA								
<i>Ranella gigantea</i> (LAMARCK)	1	0.44	75	4.69	2	0.34	290	5.02
<i>Epitonium spiniferum</i> (SEG.)	2	0.88	5	0.31	5	0.85	10	0.17
<i>Scaphander lignarius</i> (LINNE)	7	3.08	15	0.94	5	0.85	25	0.43
<i>Spondylus gussoni</i> O.C.COSTA	19	8.37	20	1.25	11	1.87	10	0.17
TENTACULATA								
<i>Terebratula vitrea</i> LINNE	23	10.13	115	7.19	67	11.38	695	12.01
ECHINODERMATA								
<i>Cidaris cidaris</i> (LINNE)	19	8.37	400	25.00	186	31.58	3600	62.23
<i>Echinus melo</i> LAMARCK	5	2.21	100	6.25	17	2.88	250	4.32
<i>Brisingella coronata</i> FISCHER	4	1.76	70	4.38	7	1.19	140	2.42
<i>Astropecten irregularis pentacanthus</i>								
<i>DELLE CHIAJE</i>	5	2.21	10	0.62	7	1.19	20	0.35
<i>Luidia sarsi</i> DÜBEN & KOREN	3	1.32	220	13.75	2	0.34	140	2.42
<i>Mesothuria intestinalis</i> (ASCANIUS & RATHKE)	4	1.76	75	4.69	3	0.51	60	1.04
Total:	227		1600		589		5785	