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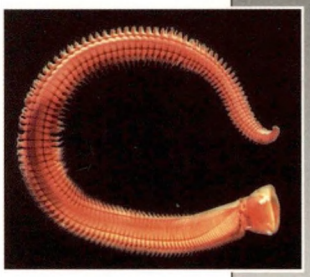

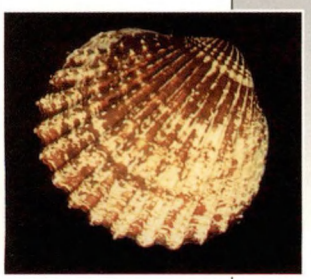

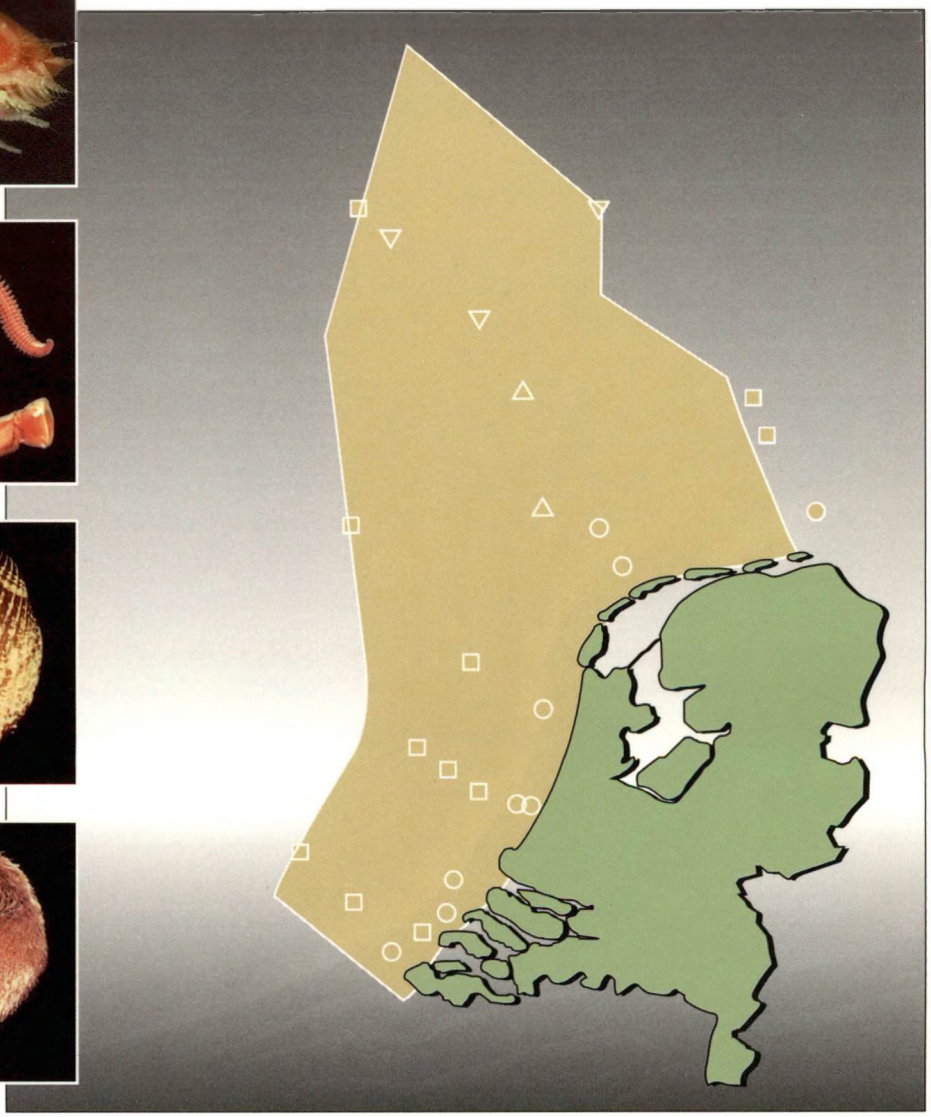

Nederlands Instituut voor Onderzoek der Zee

Monitoring Macrozoöbenthos of the North Sea

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THE MACROBENTHIC FAUNA IN THE DUTCH SECTOR OF THE NORTH SEA IN 1994 AND A COMPARISON WITH PREVIOUS DATA

S.E. HOLTMANN, J.J.M. BELGERS, B. KRACHT, G.C.A. DUINEVELD

This report presents data of the monitoring program of macrozoobenthos in the Dutch Continental Shelf (DCS) of the North Sea, a cooperation between the National Institute for Coastal and Marine Management/RIKZ (Rijkswaterstaat), the North Sea Directorate (Rijkswaterstaat) and the Department of Benthic Systems (NIOZ)

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1. SUMMARY

This report contains the results of a macrozoobenthos survey on the Dutch Continental Shelf (DCS) in spring 1994 and a comparison with previous data. This survey is the fourth since 1991 and forms part of the EXP*BMN project of Rijkswaterstaat. The macrobenthos surveys have the aim to obtain an insight into the year-to-year variations of the macrobenthic community and to detect trend-like changes, that possibly indicate anthropogenic influences on the marine environment (e.g. eutrophication, beam-trawl fishery). The monitoring project of the macrozoobenthos is an initiative of the National Institute for Coastal and Marine Management/RIKZ (Rijkswaterstaat) in cooperation with the North Sea Directorate of Rijkswaterstaat and the department of Benthic Systems of the NIOZ.

During the past 4 years (1991-1994) each spring a series of bottom samples was collected at 25 stations distributed over 4 transects perpendicular and 1 transect parallel to the Dutch coast. At each station 5 replicate samples were taken with a boxcorer. The station grid includes 6 stations that were studied in 1986 during the North Sea Benthos Survey (NSBS) of ICES and 5 stations of the pilot study (EXP*BMN) in 1990 (Holtmann et al., 1990). These stations belongs to the station grid of 25 locations sampled in 1991-1994.

This report presents a summary of the results from the period 1991-1994 because from 1995 onwards a different station grid is used composed of 100 randomly selected stations where only 1 sample per station is taken. This grid ensures a better coverage of the Dutch Continental Shelf than the 25 stations hitherto sampled and hence provides improved insight into large-scale changes of the macrofauna. In accordance with the previous report (Duineveld & Belgers, 1994) the present data set has been analysed with a focus on irregular and unidirectional (trend-like) changes in the abundance and biomass of selected species and of separate phyla and in descriptive properties of the whole community.

On the basis of the results of the 1991 survey, it was shown that the 25 stations contained a representative selection of the macrobenthic communities that were found in the Dutch Continental Shelf during the ICES - NSBS in 1986 (Duineveld, 1992). The 25 stations could be classified into 4 station-groups (clusters) each more or less coinciding with a particular subregion of the DCS. Two clusters are situated in the Oyster Ground, i.e. one in southern and the other in the central plus northern part. The third cluster comprises the stations along the Dutch coast, and the fourth cluster consists of scattered stations located offshore in the Southern Bight, the western part of the Dogger Bank and north of the island Rottum. The four clusters differ clearly in terms of abiotic and biotic parameters.

After the analysis of results from three successive surveys (1991-1993), Duineveld and Belgers (1994) made a first attempts to recover trend-like changes over this admittedly short period. The authors found a substantial amount of variation at the scale of individual stations (declining trends: META2 and N70, inclining trends: TS30, N30, VD1 and SM37), but little variation at larger scales, i.e. on the level of separate stations and of the pooled clusters. Expansion of the data with observations from 1986 led in many cases to a disappearance of the

temporal trends. This could have been caused by differences in treatment of the samples on board of the ship, such as washing of he macrobenthos.

Reanalysing these data after including the latest 1994 results showed that some of the trends described for the period 1991-1993 become insignificant when 1994 is added and in some cases even the sign of the slope reverses. A change from an upward into a downward trend is for instance observed for the abundance of the ophiuroid *Amphiura filiformis* and for total echinoderm density at station RHC4 and for the abundance of the polychaete *Nephtys cirrosa* at station N2. Conversely, a change from a negative into a positive slope, is found for the density of the amphipod *Urothoe poseidonis* and for total macrobenthic density at station VD4. This is also the case with the index for dominance at station N50. However, at some stations continuation of earlier trends was found, such as at SM37 where various parameters consistently increase over the whole period. At other stations, e.g. R50, SM20, a significant trends appears with the addition of the 1994 results.

Almost none of the abiotic or biotic properties of the 4 clusters showed a major change over the years, the only one being total macrobenthos density which turned out to be higher in all four subregions in 1994 as compared to other years. A partial explanation for this marked difference may be the fact that sampling in 1994 was delayed until early summer which is a time of macrobenthos settlement. Indeed many juvenile specimens were found which were as far as possible excluded from subsequent analyses of the samples. The presence of juveniles is also evident from the fact that in spite of enhanced total numbers, total biomass didn't appreciable change over the different years.

Summarizing the results of the whole period of investigation, more increasing than decreasing trends have been found in 1991-1994. Moreover, the total data set of 1991-1994 show more significant changes than these of 1991-1993. Because of the large year-to-year variations in the macrobenthic fauna, conclusions about clear gradual trends into a distinct direction can only be made if information will be available from more than the investigated four years.

2. SAMENVATTING

Dit rapport geeft de resultaten van een macrozoobenthos onderzoek op het Nederlands Continentaal Plat (NCP) in het voorjaar 1994 en een vergelijking met voorgaande onderzoeksgegevens. De bemonstering is de vierde in een reeks (1991-1994) en maakt deel uit van het EXP*BMN project van Rijkswaterstaat. Het macrobenthos onderzoek heeft tot doel jaarlijkse fluctuaties en lange termijn trends in het macrobenthos te onderscheiden die een aanwijzing kunnen zijn voor eventuele anthropogene invloeden op het mariene milieu. Hierbij wordt o.a. gedacht aan effecten van eutrofiering en boomkorvisserij. Het monitoring project van het macrozoobenthos is een initiatief van het Rijksinstituut voor Kust en Zee (RIKZ) van Rijkswaterstaat en wordt uitgevoerd in samenwerking met de Directie Noordzee (Rijkswaterstaat) en de afdeling Benthische Systemen van het NIOZ.

De afgelopen 4 onderzoeksjaren (1991-1994) zijn in het voorjaar een reeks bodemmonsters verzameld op 25 stations verdeeld over 4 raaien loodrecht en 1 raai parallel aan de Nederlandse kust. Op ieder station zijn 5 boxcoremonsters genomen en geanalyseerd. De resultaten van 6 stations die zijn bemonsterd tijdens het ICES North Sea Benthos Survey (NSBS) in 1986 en van 5 stations afkomstig van de pilot studie (EXP*BMN) in 1990 (Holtmann et al., 1990) zijn in het data set geïntegreerd. Deze stations behoren ook tot het monsternet van 25 lokaties die in de periode 1991-1994 bemonsterd zijn.

In het rapport is een uitgebreid overzicht gegeven van de gehele periode 1991-1994. De reden hiervoor is, dat het onderzoek van 1994 het laatste is van een reeks waarbij van 25 stations elk 5 deelmonsters onderzocht zijn. Vanaf 1995 wordt een monsternet gebruikt, waarbij op 100 random geselecteerde stations nog maar 1 bodemmonster wordt genomen. Met deze bemonsteringsstrategie wordt een hogere bedekkingsgraad van het Nederlands Continentaal Plat bereikt, in vergelijking met de oude methode. Bovendien kan deze methode een beter beeld geven van eventuele grootschalige veranderingen van de benthische gemeenschap op het NCP. Evenals bij het vorige rapport (Duineveld & Belgers, 1994) is de aandacht bij de analyse van de data gericht geweest op mogelijke fluctuaties en trends in de dichtheden en biomassa's van een aantal geselecteerde soorten en van afzonderlijke phyla, en tevens op een aantal algemene gemeenschaps- kenmerken.

De gegevens van het eerste jaar van bemonstering in 1991 laten zien dat het gekozen monsternet representatief is voor de macrobenthos gemeenschappen die in de zuidelijke Noordzee onderscheiden werden tijdens ICES onderzoek (NSBS) in 1986 (Duineveld, 1992). De 25 stations kunnen worden ingedeeld in 4 stationsgroepen (clusters) die elk min of meer overeenkomen met een geografisch te onderscheiden gebied op het NCP. Twee clusters zijn gesitueerd in de Oester Gronden, te weten één groep van stations in het zuidelijke deel en een tweede groep in het centrale en noordelijke deel. Het derde cluster bevat de stations langs de Nederlandse kust, terwijl het vierde cluster gesitueerd is in de zuidelijke Bocht, westelijk van de Dogger Bank en noordelijk van het eiland Rottum. Deze clusters verschillen duidelijk van elkaar op grond van abiotische en biotische parameters.

Op grond van de resultaten van drie opeenvolgende jaren (1991-1993) is er door Duineveld en Belgers (1994) een eerste analyse gedaan naar eventuele trendmatige veranderingen van het macrobenthos over deze nog relatief korte periode. Deze auteurs constateerden een behoorlijke variatie in het macrobenthos op een aantal individuele stations (afnemende trends: METAZ and N70, toenemende trends: TS30, N30, VD1 en SM37), maar weinig variatie op grotere schaal, zoals op het niveau van de afzonderlijke stations en samengestelde clusters. Het uitbreiden van de dataset door toevoeging van de resultaten van 1986 leidde in veel gevallen tot het verdwijnen van de tijdelijke trends. Dit kan veroorzaakt zijn door de verschillen in de bewerking van de monsters aan boord van het schip, zoals b.v. het spoelen van het macrobenthos.

Wanneer de resultaten van 1994 aan de dataset worden toegevoegd laat de data analyse zien dat een aantal van de trends die gevonden zijn voor de periode 1991-1993, niet meer significant zijn of soms zelfs in richting omkeren. Zo is een verandering van een toenemende in een afnemende trend te zien voor de dichtheid van de slangenster *Amphiura filiformis* op station RHC4, voor de totale dichtheid van de echinodermen op station RHC4 en voor de dichtheid van de polychaet *Nephtys cirrosa* op station N2. Een verandering van een afnemende in een toenemende trend is gevonden voor de dichtheid van de amphipode *Urothoe poseidonis* op station VD4. Dit is ook het geval met de Simpson-dominantie index op station N50. Er zijn echter ook stations waar een trend zich voortzet zoals op station SM37, waar verschillende parameters een eenduidig toenemende trend laten zien. Op enkele stations, zoals R50 en SM20, verschijnt er een significante trend als de data van 1994 wordt toegevoegd.

Geen van de gemeten parameters (abiotisch/biotisch) van de 4 clusters laten een duidelijke verandering zien over de jaren, met uitzondering van de totale macrobenthos dichtheid, welke in 1994 van alle deelgebieden hoger was dan in de voorgaande jaren. Een mogelijke verklaring voor deze toename kan zijn dat de bemonsteringsperiode was verschoven naar de vroege zomer wanneer de broedval van de meeste macrobenthos soorten plaatsvindt. Er zijn inderdaad veel juveniele exemplaren in de monsters gevonden en deze zijn dan ook zo veel mogelijk buiten de analyses gehouden. De aanwezigheid van veel juvenielen wordt ook duidelijk door het feit dat, in tegenstelling tot de gevonden grotere dichtheden, de totale biomassa waarden niet zijn noemenswaard veranderd voor de verschillende jaren.

Samenvattend voor de gehele onderzoeksperiode (1991-1994), zijn er meer toenemende dan afnemende trends gevonden. Bovendien geeft de totale dataset voor 1991-1994 meer significante veranderingen in het macrobenthos dan die van 1991-1993. Door de grote jaarlijkse fluctuaties van het macrobenthos, kunnen conclusies over geleidelijke trends in een bepaalde richting pas worden getrokken als er ook gegevens van de komende jaren beschikbaar zijn.

3. INTRODUCTION

The present report evaluates the results of a macrobenthic survey on the Dutch Continental Shelf carried out in spring 1994 in the context of previous data. This survey is the fourth in the long term monitoring program, which is an initiative of the National Institute for Coastal and Marine Management/RIKZ (Rijkswaterstaat) in cooperation with the North Sea Directorate of Rijkswaterstaat and the department of Benthic Systems of the NIOZ. The aim of this project is to study year-to-year variations and detect possible changes of the macrobenthos in the Dutch Sector of the North Sea.

In the period between 1991 and 1994 every year 5 replicate boxcore samples were collected from 25 locations on the Dutch Continental Shelf (DCS). These four campaigns were preceded by a pilot survey which was carried out at 5 of the present 25 stations (Holtmann et al., 1990). The 25 stations are located on 4 transects perpendicular and 1 transect parallel to the Dutch coast.

A recent contribution to the knowledge about the distribution of macro-and meiobenthic assemblages in the North Sea has been the ICES North Sea Benthos Survey (NSBS) in spring 1986 (Künitzer et al., 1992; Heip et al., 1992). The results of this ICES survey can be used as basis information of the zoobenthos of the North Sea and therefore the results of 6 stations sampled in 1986 (SM1, SM20, SM37, SM30, SM58 and RHC4) were included into the data set because these stations were also sampled in 1991-1994.

On the basis of the results from the first three surveys it was shown that the station grid represented an adequate cross section of the communities present on the DCS and, moreover, that no drastic changes had taken place in the gross structure of the communities in the intervening period (Duineveld & Belgers, 1994). The same conclusion was reached when earlier results from the ICES North Sea Benthos Survey (1986) were added to the data. A detailed analysis of the variations in species densities, biomass and community attributes such as diversity, revealed considerable variation on the scale of individual stations, but less so on larger scales, i.e. on the level of station-groups. On a number of stations unidirectional changes were observed in densities of selected species and of whole community attributes. Significant variations in biomass were strikingly scarce.

The emphasis in the analysis of the data from the 1994 survey will be put on the question how well they fit into the pattern discerned over the proceeding 3 years. One reason for evaluating results from the past 4 years at this stage is the fact that from 1995 onwards a new sampling strategy is adopted. Instead of taking 5 replicates at 25 stations, 1 sample will be collected at 100 random stations (Essink, 1995). This strategy will improve the power of any statements about large scale changes of the macrobenthos on the DCS.

4. MATERIAL AND METHODS

Sampling and sorting of the samples was done in accordance with the prescribed standard methods for macrobenthos sampling in the Dutch Sector of the North Sea (Essink, 1991). A detailed description of the methods used can be found in Duineveld (1992); only the most relevant aspects will be summarized in the following sections.

4.1. Sampling and sorting

The geographical positions of the sampling stations are given in Appendix-2 and were plotted in Fig. 1. The 25 stations are located on 4 transects perpendicular (Terschelling (TS), Noordwijk (N), Rottum (R), Walcheren (W)) and 1 transect parallel to the Dutch coast (Voordelta (VD)). At each station 5 boxcore samples (0.068 m^2 each) with a minimal depth of 15 cm were taken while the ship was anchored. The majority of the stations (19 locations) were sampled with the RV. Holland in the period of 30 May to 2 June 1994. On 14 June 1994 four stations in the north-eastern part of the studied area (SM58, R70, R50 and R30) were visited. Two stations in the Voordelta, with a water depth below 10 m, *viz.* VD2 and VD3 were sampled on 25 May 1994 with the RV. Bieselinge. More information about the treatment of the sampling can be found in the cruise report (Anonymous, 1994).

The macrobenthic fauna was identified to species level, except for some notoriously difficult taxa such as anthozoans, hydrozoans, phoronids, priapulids and nemerteans, and counted. Sizes (nearest 0.5 mm) were recorded for most species of the molluscs and echinoderms to calculate the ashfree dry weight (g AFDW/m^2) by means of length-weight relationships. Because of the late sampling in 1994 (late spring to early summer) many juveniles were found in this year. When possible a distinction between juvenile and adult individuals was made. The juveniles were not used for the statistic data analysis. In some cases, especially of the polychaete taxa, discrimination between juveniles and adults was very difficult and therefore it is not sure that all juveniles have been effectively excluded from the data set.

4.2. Ashfree Dry weight

The ashfree dry weight (AFDW) of the different taxa was determined in one of the following ways:

- Molluscs, echinoids - by means of length-AFDW relationships of the form $\mathbf{W=aL^b}$ (**W**=AFDW and **L**=length in mm's)

- Polychaetes, worms, larger crustaceans, ophiuroids - indirectly, by converting the (blotted) wet weight into AFDW by means of conversion factors provided by Rumohr et al. (1987). Wet weights were measured with a Mettler PJ300 balance to the nearest mg.
- Remaining taxa - directly, by drying a sample at 60 °C for 60 hours and subsequently incinerating at 520 °C for two hours (Duineveld & Witte, 1987).

Small molluscs, amphipods and cumaceans were assigned an average individual AFDW of 0.2-0.5 mg. The same figure is used by Holtmann & Groenewold (1992; 1994) in their analysis of macrobenthos from the MILZON-BENTHOS project in the southern North Sea in 1991-1993. This estimated individual weight is based on previous determinations of the AFDW of the taxa in question (Duineveld; Holtmann, unpubl.).

4.3. Classification and statistics

Changes in species assemblages at the separate stations in the period of 1990-1994 were depicted by means of a DECORANA ordination (Hill, 1979) of the joined data sets. The input data in this case consisted of untransformed mean species abundances per station in order to emphasize any deviation. For the statistical analysis of changes in species attributes (density and biomass), all data were log(x+1) transformed. The same holds for community attributes such as total biomass, density and diversity.

The diversity is represented by three variables:

1. species density (i.e. the number of species per sample),
2. Shannon-Wiener index (H'; with logarithm to the base e) (Shannon & Weaver, 1949) and
3. Simpson's index (SI) for dominance (Simpson, 1949).

The relationship between these diversity measures and Hill's diversity numbers (N_0, N_1, N_2; Hill, 1973), which have been used in the MILZON-BENTHOS reports on the spatial distribution of the benthic fauna in the Dutch Continental Shelf of the North Sea (Holtmann & Groenewold, 1992; 1994), is as follow: N_0= species density, N_1= exp (H') and N_2=1/SI.

For selected variables, comparison plots were made to show the mean values for each year in the period 1986-1994 together with their respective 95 % comparison limits (T'-method, Sokal & Rohlf, 1981). Non-overlapping comparison limits in these plots denote a significant difference between corresponding means. Means and comparison limits were back-transformed before being plotted.

Differences in species and community attributes at single stations during the period of investigation were tested for significance with a one-way ANOVA (Sokal & Rohlf, 1981). In

cases where variances remained unequal after transformation, we used a Kruskal-Wallis-test which is the non-parametric equivalent of a one-way ANOVA.

Congruous changes at the level of station-groups (clusters) were determined by means of a two-way ANOVA. Stations were grouped on the basis of the clusters derived from the 1991 data. For a discussion of the various available ANOVA-models and their implications, the reader is referred to Van der Meer (in prep.). For the present data set we used a MIXED model where stations are regarded as randomly selected sites representing subregions of the North Sea.

Trends of variables at separate stations were determined with the linear regression model $\mathbf{Y=a+bX}$ with the sampling year as **X** and the log(x+1) transformed variables as **Y**. The distribution of significant trends in the sampling area is depicted in maps with symbols of which the shape and size depends on the sign and magnitude of the regression coefficient (slope). For the regression analysis with the pooled data of station-groups we used a similar model as with the two-way ANOVA whereby the year effect was tested against the interaction term (year*station) as error source. This is equivalent to a T-test of the group of regression slopes of individual stations against zero (i.e. no regression). SYSTAT 4.1 (SYSTAT inc., Evanston, USA) was used for the statistical procedures as well as for the production of the graphs.

4.4. Sediment analysis

At each station shown in Fig. 1, two subsamples (3.4 cm diameter) were taken from an intact boxcore sample and subsequently pooled for laboratory analysis of the sediment composition (e.g. grain size, content of calcium carbonate). The results of the grain size analysis (Malvern) of these samples were provided by the Middelburg laboratory of the National Institute for Coastal and Marine Management.

Two parameters were derived from the grain size data: the percentage (by weight) of mud (particles < 63 μm) and the median grain size (μm). The latter value was calculated using the entire size range (thus including the mud fraction). Sediment types were classified on the basis of the median grain size as follows:

Characterization of the sedimenttype according to the median grain size (after Gullentops et al., 1977).

< 175 μm	Very fine sand
175 - 250 μm	Fine sand
250 - 300 μm	Fine-medium sand
300 - 350 μm	Medium-coarse sand
> 350 μm	Coarse sand

5. RESULTS

5.1. Changes in sediment composition (1991-1994)

Table 1 summarizes the results of the grain size analyses of the sediments collected in the period 1991-1994. The median grain sizes at stations belonging to the Oyster Ground clusters 1 & 2 range between 90 and 150 µm with little year-to-year variation during the period 1991-1994. All locations in this area have sediments consisting of very fine sand with high mud contents (up to 20 %), though the percentages of mud were markedly lower in 1994. At station RHC4 the mud content in 1991-1993 was estimated to be ca. 6 % while in 1994 a percentage of 0.8 % was found. The median grain size at RHC4 in contrast showed no variation between 1991 and 1994. The highest mud content was found at the Frisian Front area (META2, TS100), but again with comparatively lower values in 1994.

The sediment in the sandy offshore area showed more year-to-year variation in grain size than other areas. The highest median grain size (> 350 µm=coarse sand) can be found at stations W70, W30, N50 and R50. These four stations showed the largest variations in median grain size of all sampling stations. At all the offshore locations the mud content was found to range between 0-3 %, whereas in 1991-1993 values up to 10 % (SM20) were measured.

The median grain size at the stations in the coastal area ranged from 167 µm north of the Wadden island Rottum (R3) to 315 µm off Noordwijk (N10) in 1994. The corresponding percentages of mud did exceed 3 %, whereas values between 0-10 % were found in the proceeding period 1991-1993. The stations N2 and N10 showed the highest year-to-year variation of the whole coastal area.

5.2. Distribution of the macrobenthic fauna

The data of the 1991 survey have been classified by means of the TWINSPAN ordination based on the species abundance (Duineveld et al., 1990). This classification confirms that the 25 selected stations cover the major macrobenthic communities that were previously distinguished in the Dutch part of the North Sea. Fig. 1 shows the four TWINSPAN clusters that were found in 1991. The station-groups can be described in terms of their geographic distribution as follows: One cluster is situated in the southern part and the second cluster in the central and northern part of the Oyster Ground. A third group of stations can be found along the Dutch coast, whereas the stations of the fourth cluster are located in the Southern Bight, at the western part of the Dogger Bank and north of the Dutch island Rottum.

5.2.1. Density, biomass and diversity in 1994

A total of 216 species were identified in the 125 boxcore samples. Of 19 species adult individuals in combination with juveniles were found. Because of the late sampling period (late spring to early summer 1994) many juvenile individuals were found in the samples, resulting in enhanced values of the total density. For this reason the juvenile specimens were if possible not included in the data analysis (see Chap. 4.1).

In Appendix-1 all the 216 macrobenthic species that were found at the 25 stations (presence/absence), are summarized with their full scientific names. The databases on species abundances (ind./m^2), biomass (g AFDW/m^2) and diversity of the 5 boxcores, together with the mean values of each station are given in Appendix-2. This Appendix-2 also contains the geographical position of the stations, the date of sampling and the measured abiotic parameters.

5.2.2. Comparison of species assemblages from 1990-1994

Table 2 (a/b) presents an overview (1991-1994) of the principal abiotic and biotic properties (mean values) of the four TWINSPAN clusters. In each year of investigation the four clusters differed clearly in terms of abiotic parameters and macrobenthos characteristics. The muddy fine sand in the Oyster Ground yields the highest number of species per sample (28-30 species). At the two locations (TS100 and META2) composing the Oyster Ground 1 cluster or the so-called Frisian Front, the mean biomass was found to be higher than in the Oyster Ground 2 cluster. In the sandy offshore area a low number of macrobenthos species was found in combination with low values for total density and biomass. In the period of 1991-1994 the highest values of biomass (42-90 g AFDW/m^2) were measured in the rich coastal zone as a result of the dense patches of bivalves. The mean total density of the macrobenthos in 1994 was found to be much higher than previous years (Table 2 (a/b)).

The data from five years monitoring the DCS (1990-1994) produce a total of 344 macrobenthos species. Fig. 2 depicts the changes in species assemblages of the separate stations between 1990 and 1994 by means of a DECORANA ordination. The stations of the 1994 survey can be found in the ordination plot next to the corresponding stations from earlier years, which implies a certain stability of the species distribution. Because of the difference in the species sets in the muddy Oyster Ground and in the sandy habitats of the Dutch Continental Shelf (offshore & coastal cluster) these subregions are clearly separated in the DECORANA plot. The stations belonging to the coastal zone and the area of the Oyster Ground form a tight group, whereas the offshore stations are more widely distributed. The intermediate geographical position of some stations (TS30, N30) between the coastal and offshore area is reflected in the position of these stations in the DECORANA ordination. Likewise the offshore station VD2 is found next to the coastal cluster, as a consequence of their species composition. The Voordelta station VD3 and the coastal station N2 of the 1994 survey show in the DECORANA plot much

more distance from the other locations. This phenomenon was also described for VD3 and SM1 of the period 1991-1993 in the 1993 report, in which the coastal stations (VD3 and SM1) were separated from the others (Duineveld & Belgers, 1994). This trend was not found at SM1 in 1991-1994 (Fig. 2).

5.2.3. Variations in density of selected species

The selection of species discussed in this section is composed of widely distributed species that are either characteristic for a specific cluster or sensitive to physical disturbance (see Duineveld & Belgers, 1993). The characteristic species were selected on the basis of the 1991 TWINSPAN classification (Duineveld, 1992) while the selection of the sensitive species was based on Bergman et al. (1990).

The selected macrobenthic species are:

Polychaetes:
Lanice conchilega
Magelona papillicornis
Nephtys cirrosa
Nephtys hombergii
Scoloplos armiger
Spiophanes bombyx

Crustaceans:
Bathyporeia elegans
Callianassa subterranea
Urothoe poseidonis

Bivalves:
Mysella bidentata
Spisula subtruncata
Tellina fabula

Echinoderms:
Amphiura filiformis
Echinocyamus pusillus

The bar-plots of Fig. 3 (a-n) show the mean density together with the comparison intervals for every selected species in each of the years 1991-1994 (cf. Duineveld & Belgers, 1994). All basic information about the abundance of the species can be found in these plots. The 95 % comparison limits are presented as bars. Non overlapping bars denote a significant difference between the corresponding means of the species. The data for the 6 locations of the ICES survey of 1986 and the 5 stations of the 1990 survey (Holtmann et al., 1990) are included in these bar-plots.

The significance of the annual variation in the density of selected species were assessed by means of a one-way ANOVA the result of which are summarized in Table 3 and visualised by the symbol ▒. In cases where variances are unequal, a non-parametric Kruskal-Wallis-test was used. Significant trends over the period of investigation are indicated by > for an upward

and by < for a downward trend. Fig. 4 (a-d) shows the geographical distribution of significant trends as well as the sign and magnitude of the trend (regression coefficient) by means of symbols of different form and size. These different techniques are used to present a clear illustration of the occurring variations in the macrobenthic communities of the whole period of monitoring.

In the period of 1991-1994 all selected macrobenthic species showed significant changes in their abundance (Table 3). These changes often showed a downward trend but more often an upward trend was found. Significant differences were most frequently observed in the heterogenous coastal area. Less variation was found in the offshore area and in the Oyster Ground. Near the Dutch shore the polychaetes *Lanice conchilega*, *Nephtys cirrosa* and *Spiophanes bombyx* showed on 10 or more stations positive or negative trends (Fig. 4 (a/b)). These three species were very abundant in the studied area and occurred on 56 to 85 % of all stations in 1994. The two typical inhabitants of the offshore muddy areas in the DCS, *viz. Amphiura filiformis* and *Callianassa subterranea* had quite stable densities between 1991 to 1994. Some trends were found on 4 resp. 2 of the 9 locations where these species were observed. Low number of trends, often with a low magnitude, was also observed in *Tellina fabula*, *Urothoe poseidonis* and the polychaetes *Nephtys hombergii* and *Scoloplos armiger* (Fig. 4 (a-c)). These four macrobenthos species were found at approx. 40 % of all stations in 1994.

In many cases the trends in density of species remained significant when data of 1986 and 1990 were included in the analysis. At the stations SM30, SM1 and SM37, *Spiophanes bombyx*, *Mysella bidentata*, *Lanice conchilega* and *Urothoe poseidonis* showed consistently increasing trends between 1986 and 1994. The density of *Scoloplos armiger*, in contrast shows a monotonously decreasing trend on stations SM30 and N50 (1990-1994).

To get an idea about fluctuation in subareas (clusters) of the DCS as opposed to local variation, a trend analysis was made of the species densities grouped per cluster (see Table 3). It is necessary to note that only 5 of the 25 stations are placed in the Oyster Ground and the interpretation of the changes in this area is very difficult. Species densities show less variation at the scale of clusters than at single stations (Table 3). With half of the selected species no significant variation was found over the period 1986-1994 in any of the clusters. The density of the mudshrimp *Callianassa subterranea* shows an increasing trend in the Oyster Ground only if the data from 1986 are included in the analysis. The increasing trends of the polychaetes *Magelona papillicornis* and *Scoloplos armiger* over the period 1990-1994 in the coastal area disappeared when 1986 was added to the time series. A persistent decreasing trend can only be observed at the offshore cluster, namely in the polychaete *Nephtys cirrosa*.

5.2.4. Variations in community and phylum attributes

For a comprehensive overview of variation in community and phyla attributes (e.g. diversity, total density and biomass) bar-plots of the mean values and corresponding comparison limits were drawn for the period 1986-1994 (Fig. 5 (a-p)). On all stations the number of echinoderm species never surpassed 3. Therefore, no bar-plots of this taxon are present. Temporal trends in the selected attributes are shown in Fig. 6 (a-d) and summarized in the Table 4; here, data on echinoderms are given.

The density of the separate taxa and the number of species changed at many stations in the period between 1991-1994, but the biomass of the taxa did not show much variation. It is striking that the number of polychaete species and the total abundance of the polychaetes show an increasing trend in almost the whole coastal area and on many stations of the offshore cluster, whereas the biomass of this taxa was quite stable at all these locations.

Comparatively little variation was recorded in the Oyster Ground clusters. At station SM30 an increasing trend of the total biomass and the echinoderm biomass was found. This trend can also be found when earlier data of 1986 are included. The downward shift in the total number of species at the Dogger Bank station RHC4 between 1991-1994 changed into an upward direction if the data of 1986 are also used for the analysis.

Earlier observations (1986, 1990) from the coastal and offshore stations fitted well in the trends over the period 1991-1994; this is the case at stations TS4 and N2 and stations N50 and SM37. Besides many increasing trends in species number and total density, some positive trends in biomass were observed as well, *viz.* Polychaeta at N2, TS4, and Crustacea at N2, SM37.

Variations of community and phyla attributes on the scale of subregions (clusters) are also presented in Table 4. In contrast to the results for single stations, no variation was found in the Shannon-Wiener and Simpson's diversity indices of the separate clusters. The total number of species showed an increasing trend in the coastal area only. No trends were found in the Oyster Ground, not even when earlier data were included. In the coastal cluster an increasing trend was recorded for the number of Mollusca and Polychaeta species and for polychaete density while the abundance of the echinoderms showed a decreasing trend. The latter trend was also observed in the offshore cluster. Trends in biomass were only found in the offshore cluster, *viz.* a decreasing trend in total macrobenthos and in echinoderm biomass.

6. DISCUSSION

The macrobenthic fauna of the North Sea forms an important part of the bottom ecosystem because of their high biomass values and high number of species. In the Dutch part of the North Sea about 500 species can be identified (Holtmann et al., in prep.) and biomass values up to 90 g AFDW/m^2 were measured (Table 2 (a): coastal cluster). The North Sea bottom is influenced by many human activities (e.g. beam-trawl fishery, sand- and gravel extraction, oil-spills). All these anthropogenic influences can result into a certain disturbance of the macrobenthic community. The effect can be very local and confined to the immediate area where the disturbance takes place (fishery), but the effect can also expand over a larger area (eutrophication).

Previous studies on the macrobenthic fauna showed that differences exist in the sensitivity of individual species to human activities (Daan et al., 1990; Bergman et al., 1990; Welleman, 1989). Of all 14 species that were selected for detailed presentation in this report, the density changed between 1991-1994 (Table 3), but no species showed an unidirectional trend that can be explained in terms of an anthropogenic disturbance. Moreover, in some species the trends identified over the period 1991-1993 (Duineveld & Belgers, 1994) changed direction after addition of the 1994 data, e.g. from upward into downward for *Amphiura filiformis*, at RHC4 and for *Nephtys cirrosa* at N2 or reversibly for *Urothoe poseidonis* at VD4. Thus extending the database with the results of one year (1994) is enough to break the trends that were found to be significant in 1991-1993.

On many stations the density of the three polychaetes *Lanice conchilega*, *Magelona papillicornis* and *Spiophanes bombyx* showed a clear upward trend for the period 1991-1994. However, Bergman et al., 1990 found a reduction of tubicolous polychaetes, as *Lanice conchilega* and *Spiophanes bombyx*, caused by beam-trawl fishery. Also the total density of the four clusters was much higher in 1994 than in the earlier years (Table 2 (a/b)). The increasing total density and polychaete density may have been caused by the late sampling, which coincided with the settling season of many macrobenthos species. Only the animals that could clearly be identified as juvenile individuals from the settlement period of 1994 were not used in the analysis of the macrobenthic density. Of some species, especially of some polychaetes, the distinction between adults and juveniles was not sharp enough and therefore could not be made. This shows that standardisation of the time of sampling is very important to make the comparison of data between years successful.

Besides the analysis on the level of individual species, anthropogenic effects can also be studied on community level. For this purpose principal community attributes such as diversity, total density and total biomass were used (Table 4). In the DECORANA figure (Fig. 2) the distribution of the macrobenthic communities are visualised, using the combined data sets of species abundance from the period 1990-1994. This figure reflects the geographical position of a single station and shows a clear separation of the four macrobenthic communities classified by means of TWINSPAN ordination. In the DECORANA plot the area of the muddy Oyster

Ground is found to be separated from the sandy offshore area. The stations that showed much variation in sediment composition (Table 1: W70, W30, R50) are also more widely spread over the ordination figure. For that reason it can be concluded that the configuration of the locations in Fig. 2 is mainly caused by sediment composition. The type of sediment forms an important factor in the distribution of the macrobenthos, besides the water depth, the annual variations of water temperature and the availability of food (Künitzer et al., 1992; Heip & Craeymeersch, 1994). Moreover, the stations with an intermediate geographic position between two clusters (SM20, TS30, N30, VD2) are placed at the border between the respective two subareas in the DECORANA ordination plot. The coastal location VD3 are further separated from the rest of the coastal stations in the period 1991-1994. This is also found of N2 in 1994. These stations (VD3 and N2) showed a high number of some particular polychaetes (*Lanice conchilega*, *Magelona papillicornis*, *Capitella capitata*, *Harmothoe spec.*) in 1994 (Appendix-2). Furthermore, the station VD3 showed much variation between the 5 samples taken in any year.

Comparing the results of 1991-1993 (Duineveld & Belgers, 1994) with those from 1991-1994 it is remarkable that much more trends of the measured parameters could be found when the data of 1994 were included. These trends are mainly observed in the offshore and coastal area and often showed an upward shift. Analyses of changes in benthic communities in response to environmental variations usually include estimates of changes in biomass of the fauna (Pearson & Rosenberg, 1978). During the present study (1991-1994) the number of species and their abundance showed more variation than the biomass of the macrobenthos. This was also noticed for the 1993 data. However, studies on the effect of eutrophication, over a period of at least 10 years, have shown a clear increase in macrobenthic biomass and changes of species composition (Beukema & Cadée, 1986; Josefson, 1990).

The Oyster Ground seems to be much more stable in every respect than the other subareas of the Dutch Continental Shelf. None of the characteristic attributes in this area showed a trend between 1991-1994, not even when the data of 1986 (ICES) and 1990 (pilot-study) were included. The increasing trend of the crustacean *Callianassa subterranea* is the only significant change that occurred in the Oyster Ground cluster 1 in the period 1991-1994. Considering the period 1990-1994, however, no trend in *C. subterranea* could be found. The changes in the offshore and coastal subregion are much more complex that than in the Oyster Ground. The number of species of the respective taxa showed just increasing trends, whereas the density of the taxa showed increasing trends (for molluscs and polychaetes) as well as a decreasing trend (for echinoderms). The total species numbers, abundance and biomass are less dynamic than the values of the separate taxa. In the coastal area the total number of species increased between 1991-1994 whereas the total density increased when the ICES data of 1986 were included. Furthermore, the total biomass showed no variation in the subregions except for a decrease in the offshore cluster in the period 1990-1994. Neither were clear trends observed for the community attributes in any of the four subregions. Possibly, the number of stations per subregions (offshore= 11, coast= 9, Oyster Ground= 5) is not enough to allow conclusions on variations or trends of the macrobenthic communities in each of the discerned subareas of the

DCS. For that reason from spring 1995 onwards a different sampling strategy is used for the monitoring project. During this survey at 100 randomly selected stations one bottom sample is taken (Essink, 1995).

The analysis of the 1991-1994 data gives in general the same results of the macrobenthos as described in 1991-1993. However, in some cases trend-breaks could be observed when 1994 data were included. Therefore, it can be concluded that the presented data of the period 1991-1994 mainly illustrate the year-to-year variations of the macrobenthos. It appears that the database is not yet adequate to corroborate trend-like changes of the macrozoobenthos of the DCS.

7. CONCLUSIONS

The results of the macrozoobenthos survey of the DCS in spring 1994 together with information from earlier studies (ICES 1986; monitoring macrozoobenthos 1990, 1991-1993) lead to the following conclusions:

* In the whole area of investigation 4 station-groups (clusters) can be distinguished: One cluster is found in the southern and a second cluster in the central and northern part of the Oyster Ground. A third group of stations is located along the Dutch coast and the fourth cluster in the Southern Bight, at the western part of the Dogger Bank and north of the Dutch island Rottum. The clusters are relatively stable (i.e. geographic position) over the years.
* These clusters differ clearly in terms of abiotic and biotic parameters. The offshore and coastal clusters showed much more year-to-year variations in macrobenthic parameters than the two Oyster Ground clusters.
* Because of late sampling in 1994 (late spring-early summer) more juveniles were found in this year. The animals that could clearly be identified as juvenile individuals were not used in the calculation of the macrobenthic density. The increasing trends of the polychaetes *Lanice conchilega*, *Magelona papillicornis* and *Spiophanes bombyx* in 1994 were not found in 1993. This could have been caused by small individuals that were not identified as settlement of 1994.
* The density and the number of species of the macrobenthic taxa was found to be much more dynamic over the years than the biomass of the taxa.
* More increasing than decreasing trends were found at the Dutch sector of the North Sea in the period between 1991-1994.
* Trends as observed in 1991-1993 did seldom continue through 1994. The trends even changed from increasing to decreasing (RHC4: *Amphiura filiformis*, echinoderms density; N2: *Nephtys cirrosa*) or from decreasing to increasing (VD4: *Urothoe poseidonis*, total density; N50: Simpson dominance).
* Only at one location the same trend as observed in 1991-1993 was also present over 1991-1994 (increasing trend: SM37). At other stations an obvious trend was only found after inclusion of the results of 1994 (increasing trend: R50, SM20).
* In the period 1991-1994 significant trends were often found locally at single stations. Only in some cases the trends are also found in the larger areas of the station-groups (clusters).
* The observed changes in 1991-1994 show no distinct trend in one direction (increasing/decreasing) and therefore seem mainly due to the yearly variation or sampling variance and less to trend-like changes of the macrozoobenthic community in the North Sea.
* No dramatic or adverse changes took place in the benthic fauna of the DCS during 1991-1994.

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Figures and Tables

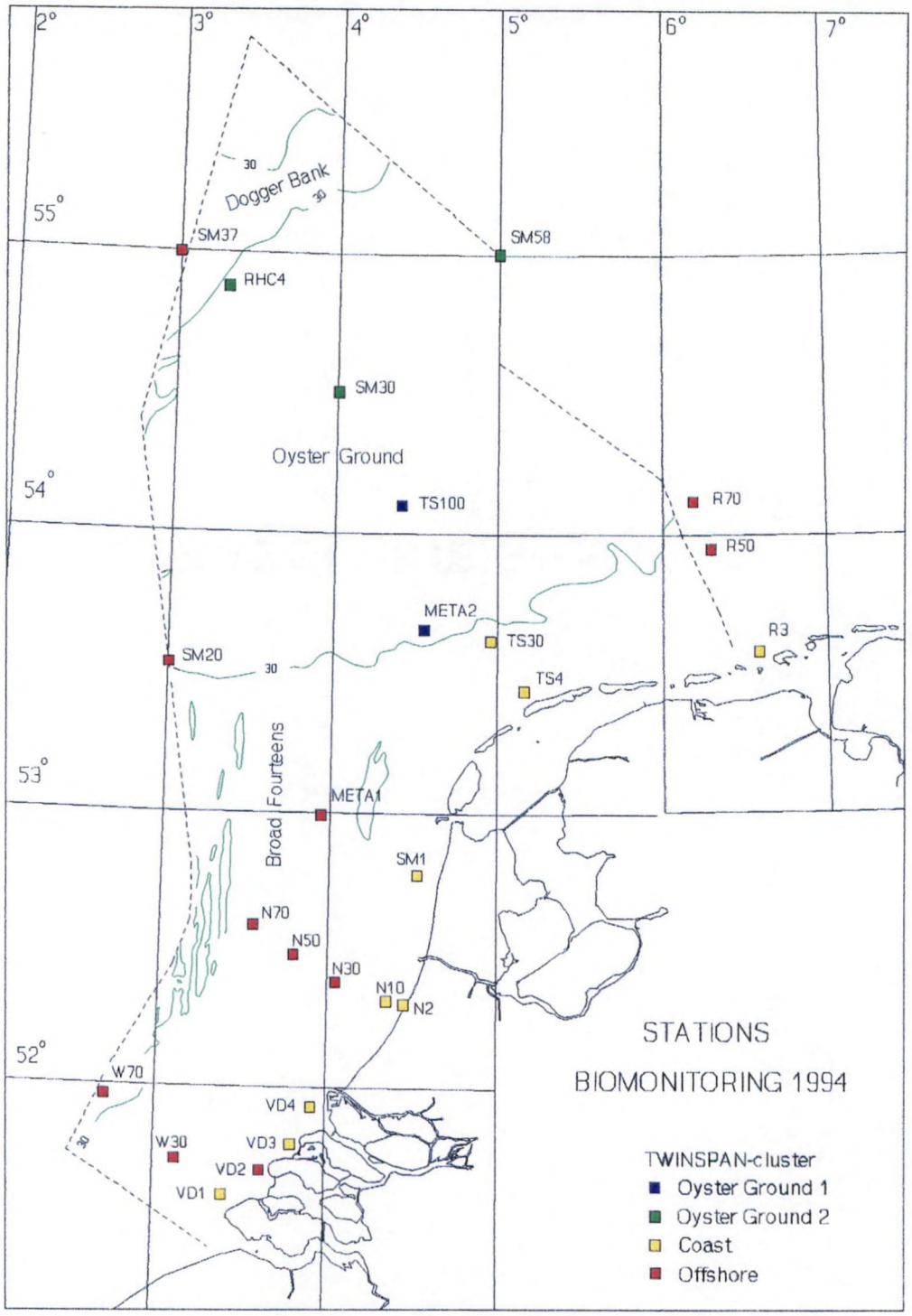

Fig. 1. Locations of the sampling stations which have been visited during the survey's in 1991, 1992, 1993 and 1994. The stations TS4, TS100, N2, N10 and N50 were previously sampled in 1990. The stations SM1, SM20, SM30, SM37, SM58 and RHC4 were previously sampled during the ICES-NSBS in 1986. The colour coding of the stations in the figure indicate the 4 clusters, distinguished by a TWINSPAN clustering of data, obtained in 1991.

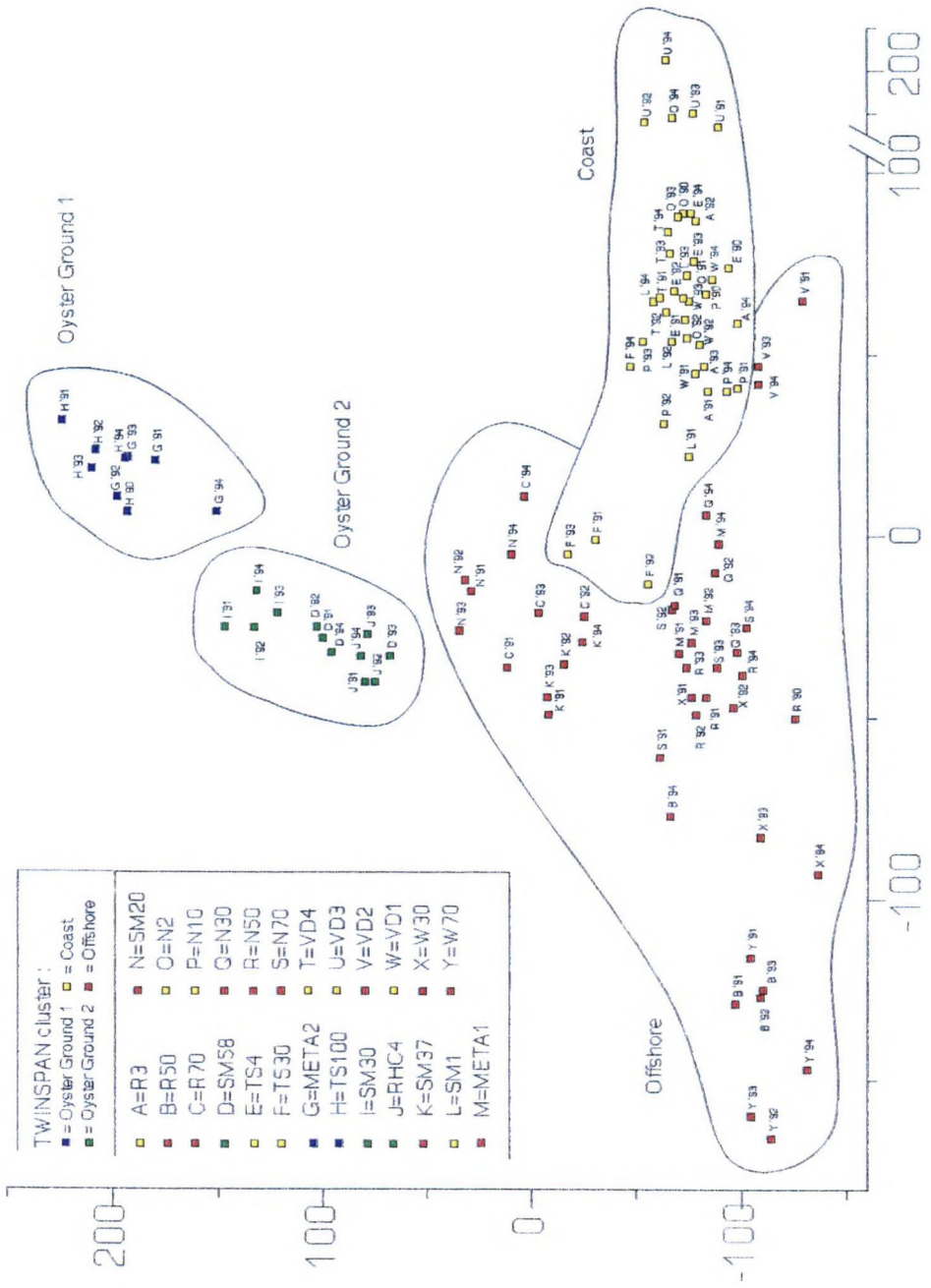

Fig.2. DECORANA ordination of the combined datasets from: -1- monitoring project (1991 - 1994; 25 stations), -2- 1990 monitoring survey (stations TS4, TS100, N2, N10, N50) and -3- ICES-NSBS (1986; stations SM1, SM20, SM30, SM37, SM58 and RHC4). Stationnames have been replaced by lettercodes (see inset) which have been appended with the year of observation.

Table 1. Median grainsize (MED.; in μm.) and percentage mud (MUD; particles < 63 μm.) of the sediment at the sampling stations in spring 1991, 1992, 1993 and 1994. Stations are arranged according to the TWINSPAN division of 1991. For clusternames, see rightmost column. A - denotes a missing value.

STATION	MED. (μm.)				% MUD				CLUSTERS	
	1991	1992	1993	1994	1991	1992	1993	1994		
META2	105	105	100	104	21.3	19.7	20.6	15.6	1	OYSTER
TS100	93	94	92	93	17.0	14.4	16.6	13.8		
SM30	112	113	107	110	7.9	9.3	10.9	6.2	2	
RHC4	142	147	143	147	6.0	6.2	5.7	0.8		
SM58	148	151	147	147	7.3	7.2	6.9	2.1		
R3	161	144	163	167	3.0	10.4	2.3	0.2		COASTAL
TS4	210	215	214	217	0.5	1.1	1.5	0.0		
TS30	215	215	213	221	0.4	2.1	0.7	1.5		
SM1	226	226	225	230	1.9	2.5	0.7	0.0		
N2	218	252	240	249	5.0	3.9	3.4	2.8		
N10	327	326	301	315	1.0	2.0	2.2	1.3		
VD4	202	205	193	201	2.6	3.3	2.4	1.0		
VD3	-	256	-	-	-	1.9	-	-		
VD1	255	264	252	260	0.5	1.7	1.1	0.0		
R50	357	316	352	358	0.5	2.6	0.9	1.6		OFFSHORE
R70	215	-	216	226	2.2	-	3.0	1.5		
META1	249	246	251	254	0.6	1.8	0.6	0.0		
SM20	138	134	134	139	10.5	9.0	7.5	3.1		
N30	334	320	320	323	0.9	1.6	0.7	0.0		
N50	277	-	280	360	0.4	-	0.9	0.0		
N70	282	293	285	301	0.5	1.1	0.0	0.0		
VD2	-	265	-	-	-	1.7	-	-		
W30	328	308	348	356	0.4	2.7	0.8	0.0		
W70	392	411	476	396	0.4	2.5	0.8	1.0		
SM37	188	193	192	196	1.8	2.5	1.2	0.1		

Table 2a. Mean values of abiotic and biotic parameters for the two Oyster ground TWINSPAN clusters, in the years 1991, 1992, 1993 and 1994. The values in each second column of a cluster (C.V.), are the coefficients of variation (=s.d./mean).

TWINSPAN-CLUSTERS	OYSTER GROUND 1								OYSTER GROUND 2							
Year	1991		1992		1993		1994		1991		1992		1993		1994	
No. of stations	2	C.V.	2	C.V.	2	C.V.	2	C.V.	3	C.V.	3	C.V.	3	C.V.	3	C.V.
Median Grainsize (µm)	99.5	0.09	99.5	0.07	96.3	0.06	98.8	0.06	133.7	0.14	135.3	0.12	127.5	0.22	134.8	0.14
Perc. Mud (%)	19.1	0.16	16.6	0.19	18.6	0.15	14.7	0.06	7.0	0.11	7.4	0.16	8.9	0.32	3.0	0.79
Depth (m)	43.5	0.21	43.5	0.13	44.0	0.16	43.3	0.14	42.7	0.07	42.3	0.06	43.6	0.06	41.5	0.07
No. species per core	30.9	0.03	29.7	0.16	29.9	0.25	28.5	0.16	30.9	0.26	35.3	0.17	30.0	0.31	27.4	0.13
Shannon- Wiener diversity	2.12	0.32	2.31	0.25	2.60	0.20	2.10	0.33	2.11	0.15	2.25	0.13	1.97	0.17	2.25	0.21
Simpson's dominance	0.24	0.47	0.19	0.54	0.13	0.60	0.25	0.60	0.23	0.33	0.22	0.34	0.28	0.30	0.21	0.52
No. individuals (m.$^{-2}$)																
Crustaceans	279.0	0.26	272.0	0.54	382.0	0.34	378.9	0.35	217.0	0.50	307.0	0.58	330.0	0.71	248.7	0.63
Echinoderms	1188.0	0.64	1058.0	0.81	631.0	0.79	617.4	0.44	1544.0	0.14	1530.0	0.41	2260.0	0.63	1085.8	0.64
Molluscs	2460.0	1.30	914.0	0.88	748.0	0.64	2093.6	0.97	1395.0	0.30	753.0	0.60	1174.0	0.26	853.4	0.41
Polychaetes	556.0	0.02	625.0	0.34	528.0	0.38	3067.9	0.97	654.0	0.15	2322.0	1.09	919.0	0.71	801.7	0.61
Miscellaneous	58.0	0.42	110.0	0.69	119.0	0.89	173.9	0.54	370.0	0.99	147.0	1.48	65.0	0.80	211.7	0.75
TOTAL	4543.0	0.89	2979.0	0.61	2407.0	0.41	6314.3	0.70	4178.0	0.22	5062.0	0.68	4748.0	0.41	3111.3	0.20
Biomass (g. AFDW.m^{-2})																
Crustaceans	6.2	0.57	12.2	0.83	20.0	2.11	10.9	0.58	1.9	1.08	2.0	1.00	1.9	1.19	1.7	1.64
Echinoderms	14.7	1.19	13.9	0.88	4.8	1.22	8.2	0.88	16.1	0.24	11.5	0.62	16.8	0.96	18.9	0.42
Molluscs	1.0	1.29	0.6	1.50	1.0	2.26	1.3	1.08	8.3	1.46	1.6	1.44	1.7	1.84	4.2	2.66
Polychaetes	11.7	0.49	10.6	0.70	19.9	0.51	13.0	1.27	2.5	1.00	1.6	0.81	1.2	0.78	1.7	1.01
Miscellaneous	1.2	0.71	0.4	1.00	1.8	0.67	2.1	2.10	2.4	0.81	0.6	2.50	0.2	2.56	0.4	2.20
TOTAL	34.9	0.50	37.7	0.43	47.6	1.00	35.3	0.58	31.1	0.57	17.2	0.48	21.8	0.82	25.7	0.56

Table 2b. Mean values of abiotic and biotic parameters for the coastal and offshore TWINSPAN clusters, in the years 1991, 1992, 1993 and 1994. The values in each second column of a cluster (C.V.), are the coefficients of variation (=s.d./mean).

TWINSPAN-CLUSTERS	COASTAL								OFFSHORE							
Year	1991		1992		1993		1994		1991		1992		1993		1994	
No. of stations	9	C.V.	9	C.V.	9	C.V.	9	C.V.	11	C.V.	11	C.V.	11	C.V.	11	C.V.
Median Grainsize (µm)	226.4	0.21	232.0	0.20	222.5	0.19	225.4	0.13	274.5	0.29	275.5	0.28	285.4	0.34	290.8	0.28
Perc. Mud (%)	1.6	0.97	3.1	0.84	1.7	0.55	0.8	1.18	1.8	1.75	2.9	0.81	0.8	0.02	0.7	1.44
Depth (m)	16.1	0.31	16.6	0.26	12.2	0.10	15.8	0.30	31.3	0.19	30.8	0.20	35.6	0.33	29.9	0.18
No. species per core	14.6	0.25	14.9	0.33	15.7	0.34	19.4	0.33	17.2	0.41	17.6	0.38	18.2	0.49	19.6	0.52
Shannon- Wiener diversity	1.67	0.26	1.65	0.29	1.98	0.25	1.62	0.28	2.13	0.18	2.21	0.17	2.25	0.22	2.02	0.27
Simpson's dominance	0.32	0.61	0.32	0.56	0.22	0.74	0.35	0.49	0.17	0.54	0.16	0.47	0.15	0.60	0.25	0.56
No. individuals (m^{-2})																
Crustaceans	569.0	0.97	495.0	1.07	471.0	1.36	393.0	1.19	289.0	1.14	329.0	1.52	309.0	1.67	308.0	1.27
Echinoderms	49.0	0.86	41.0	1.10	35.0	1.05	52.5	1.23	94.0	0.98	74.0	1.25	78.0	1.20	104.5	1.10
Molluscs	1175.0	1.42	1016.0	1.47	735.0	1.29	1604.7	1.71	75.0	1.01	90.0	0.92	90.0	1.30	219.2	0.99
Polychaetes	1343.0	1.81	1339.0	1.62	717.0	0.73	5851.4	1.44	628.0	0.96	847.0	1.35	761.0	0.83	1287.4	0.88
Miscellaneous	27.0	0.69	161.0	3.71	75.0	1.01	107.3	1.15	400.0	3.00	91.0	1.55	136.0	2.00	137.7	1.38
TOTAL	3163.0	0.88	3053.0	0.97	2033.0	0.79	7817.6	1.08	1487.0	1.18	1431.0	1.02	1374.0	0.93	1944.5	0.82
Biomass (g. AFDW.m^{-2})																
Crustaceans	0.3	1.43	0.2	1.06	0.2	1.29	0.2	1.13	0.7	2.11	0.3	1.58	0.6	2.22	0.2	1.57
Echinoderms	10.2	1.04	11.1	1.34	10.8	1.48	14.7	0.77	6.6	1.56	4.2	2.10	3.6	1.93	3.9	1.43
Molluscs	25.2	1.24	63.9	1.47	72.8	1.80	48.0	1.39	0.9	1.66	2.2	2.93	0.8	2.76	3.1	4.02
Polychaetes	5.6	1.24	6.8	2.02	4.8	1.28	16.4	2.56	2.1	1.00	3.3	2.48	2.2	1.14	1.8	0.98
Miscellaneous	0.5	0.68	1.4	3.78	1.0	2.64	2.3	2.03	0.6	2.84	0.3	3.56	0.4	2.01	0.6	4.09
TOTAL	41.8	0.87	83.4	1.27	89.6	1.47	68.0	1.18	10.9	1.00	10.3	1.25	7.6	1.17	7.2	2.16

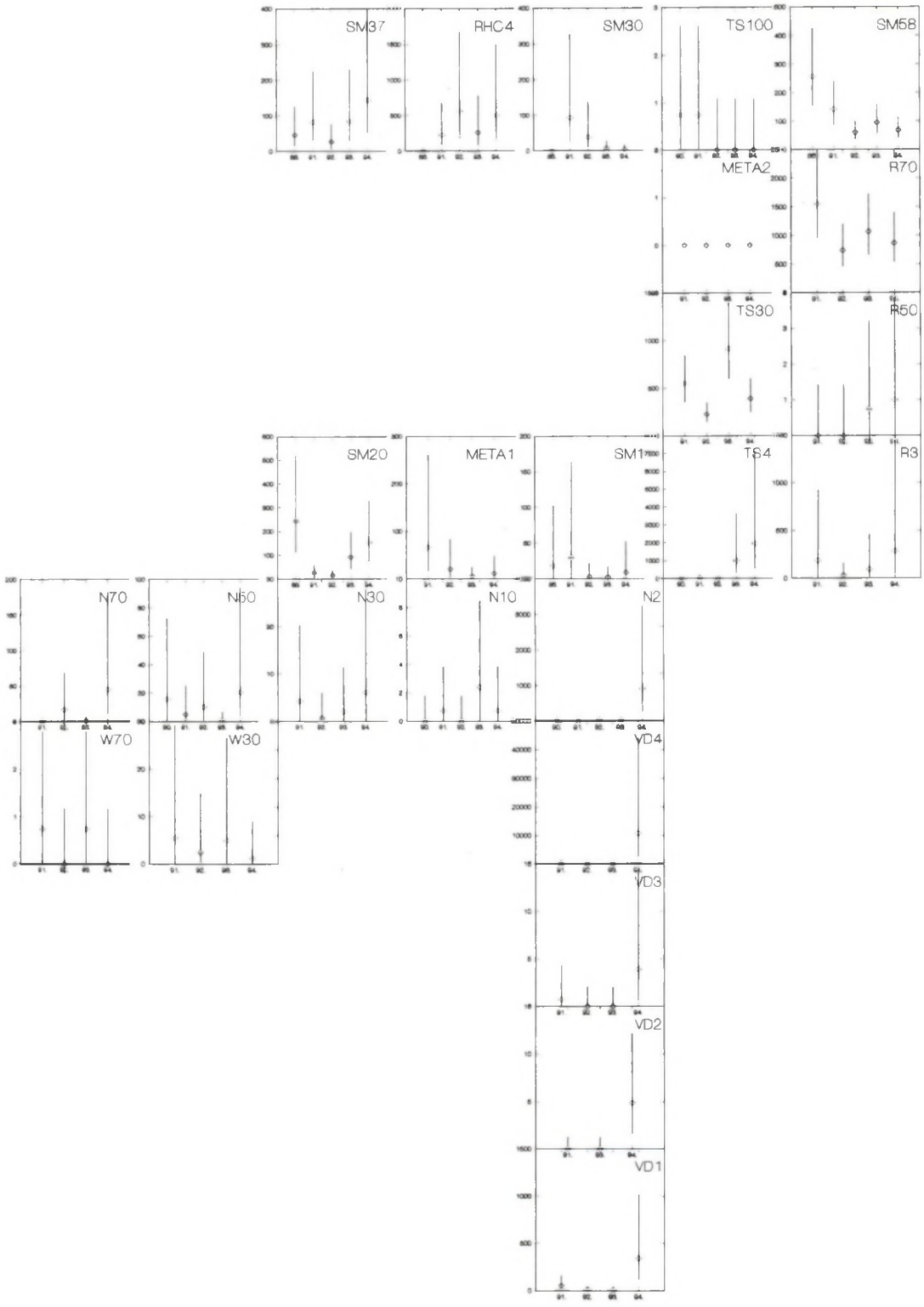

Fig. 3a. Comparison plots of *Magelona papillicornis* (ind/m^2), for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

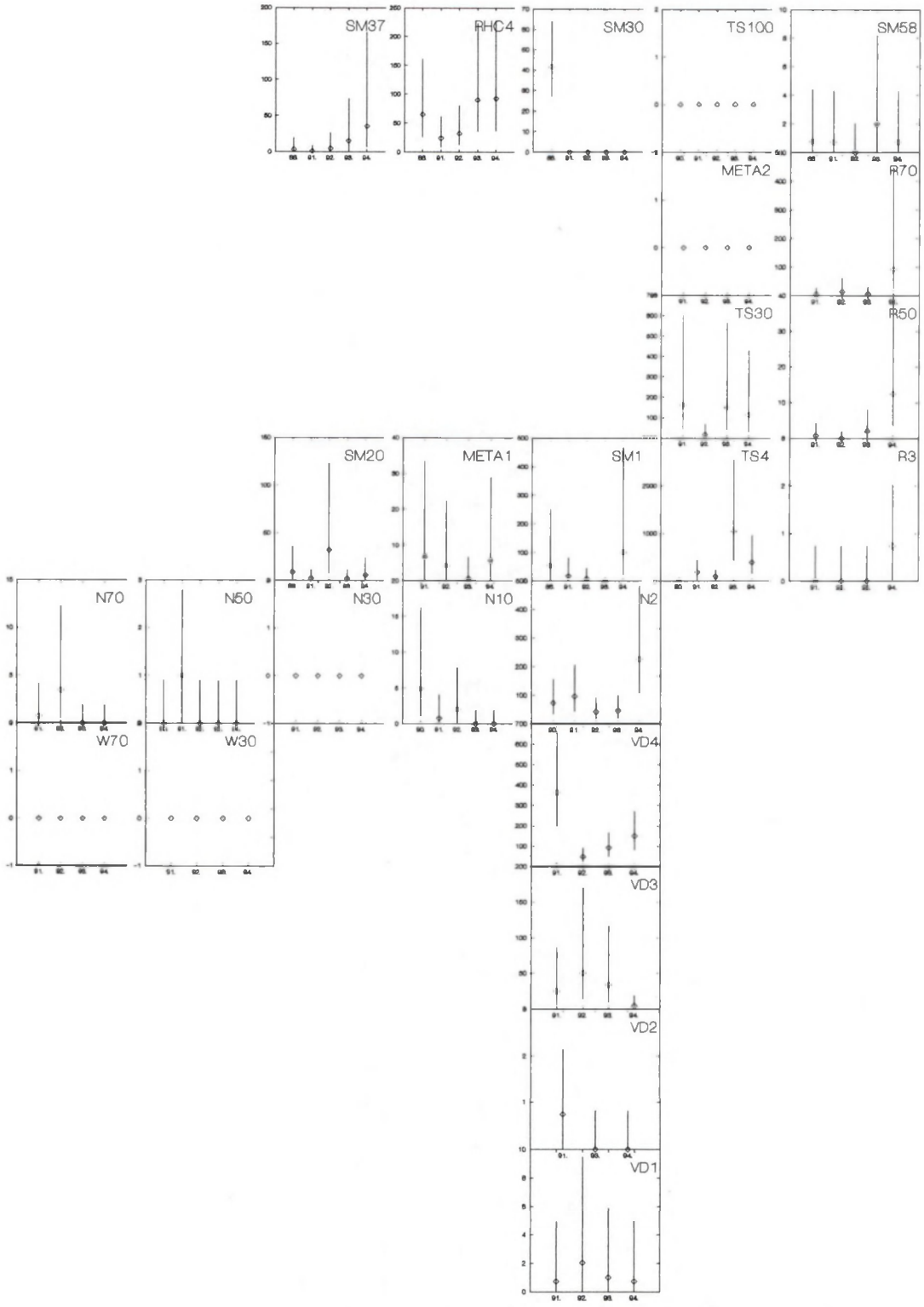

Fig. 3b. Comparison plots of *Tellina fabula* (ind/m^2), for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

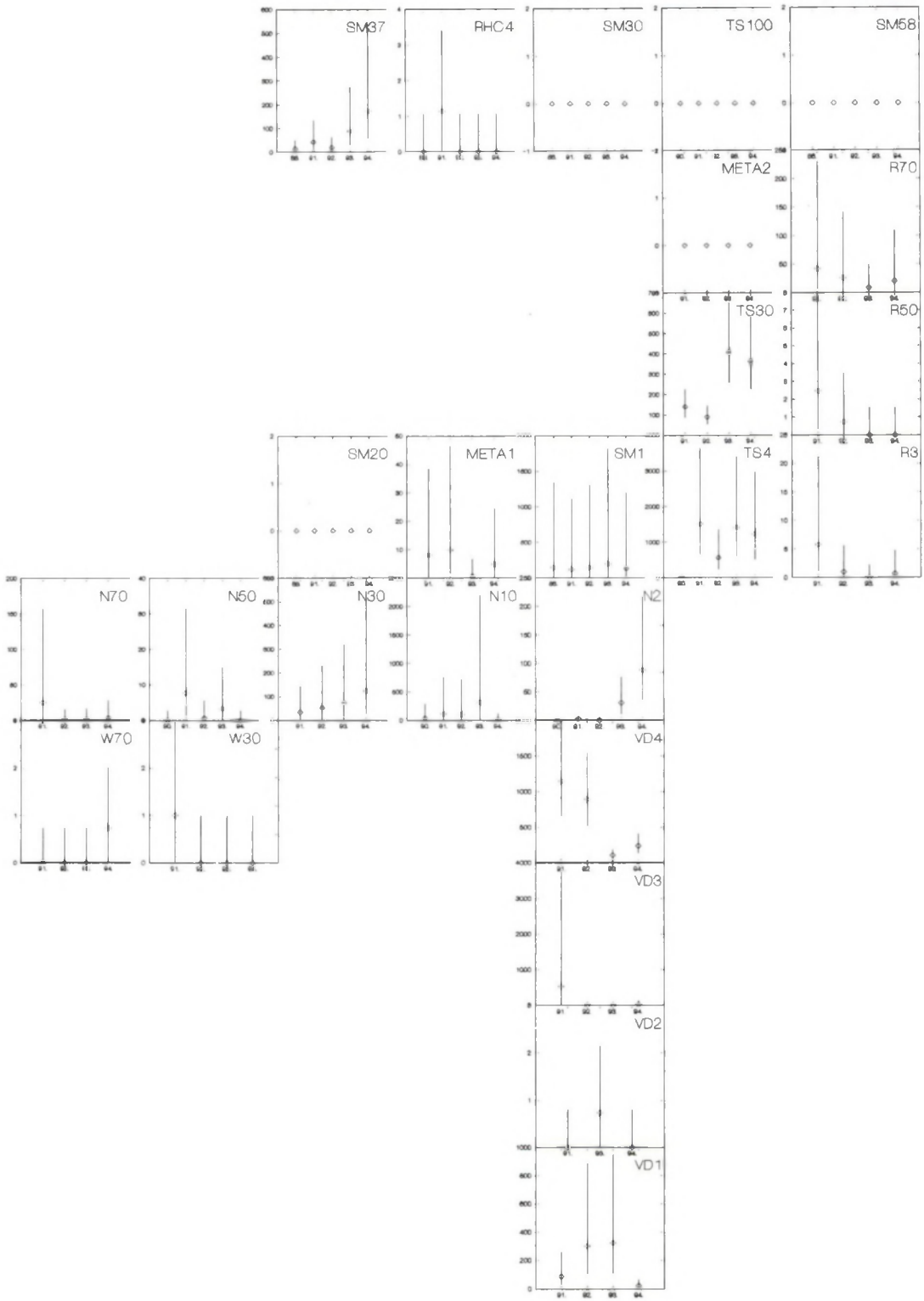

Fig. 3c. Comparison plots of *Urothoe poseidonis* (ind/m^2), for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

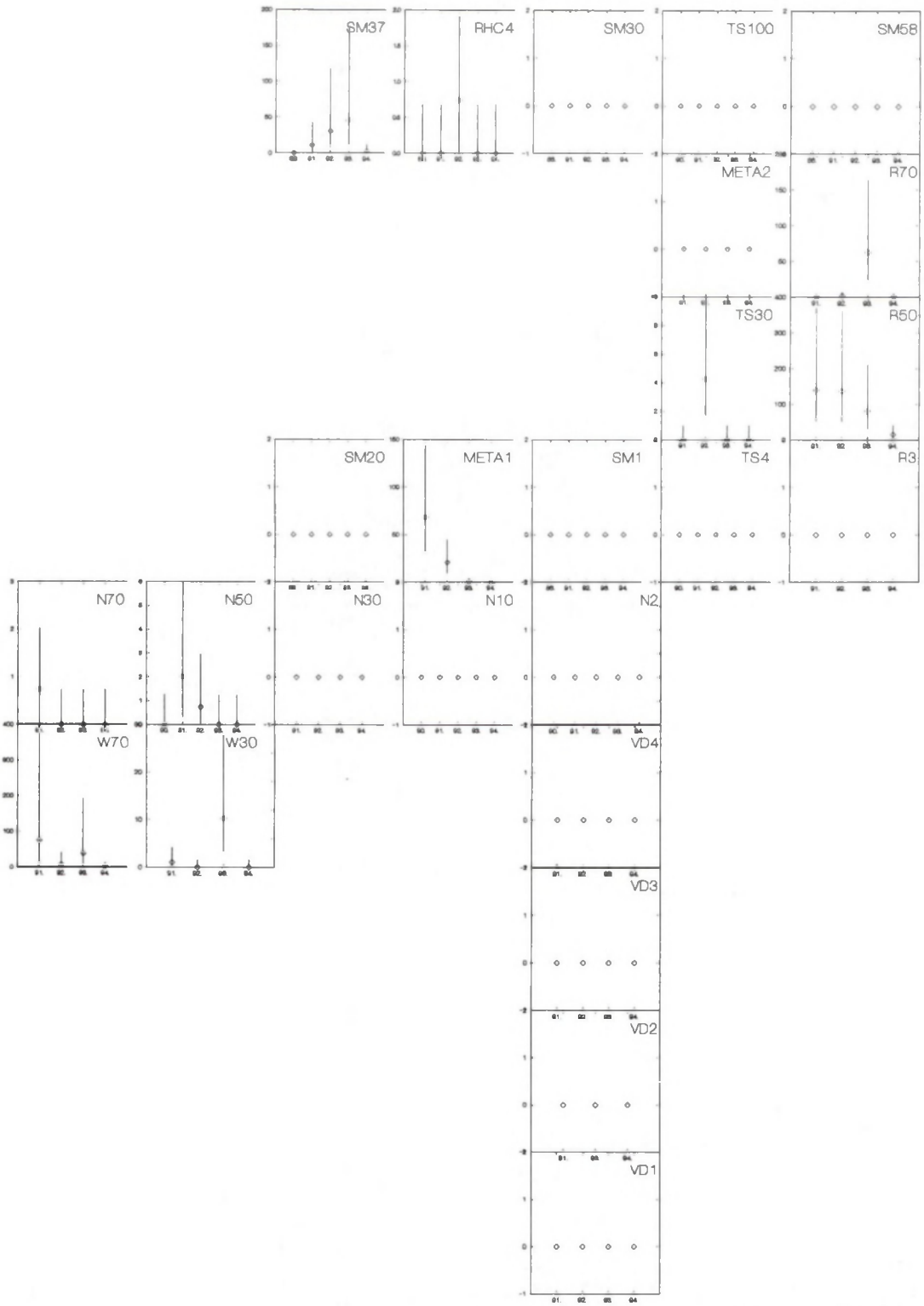

Fig. 3d. Comparison plots of *Echicyamus pusillus* (ind/m^2), for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

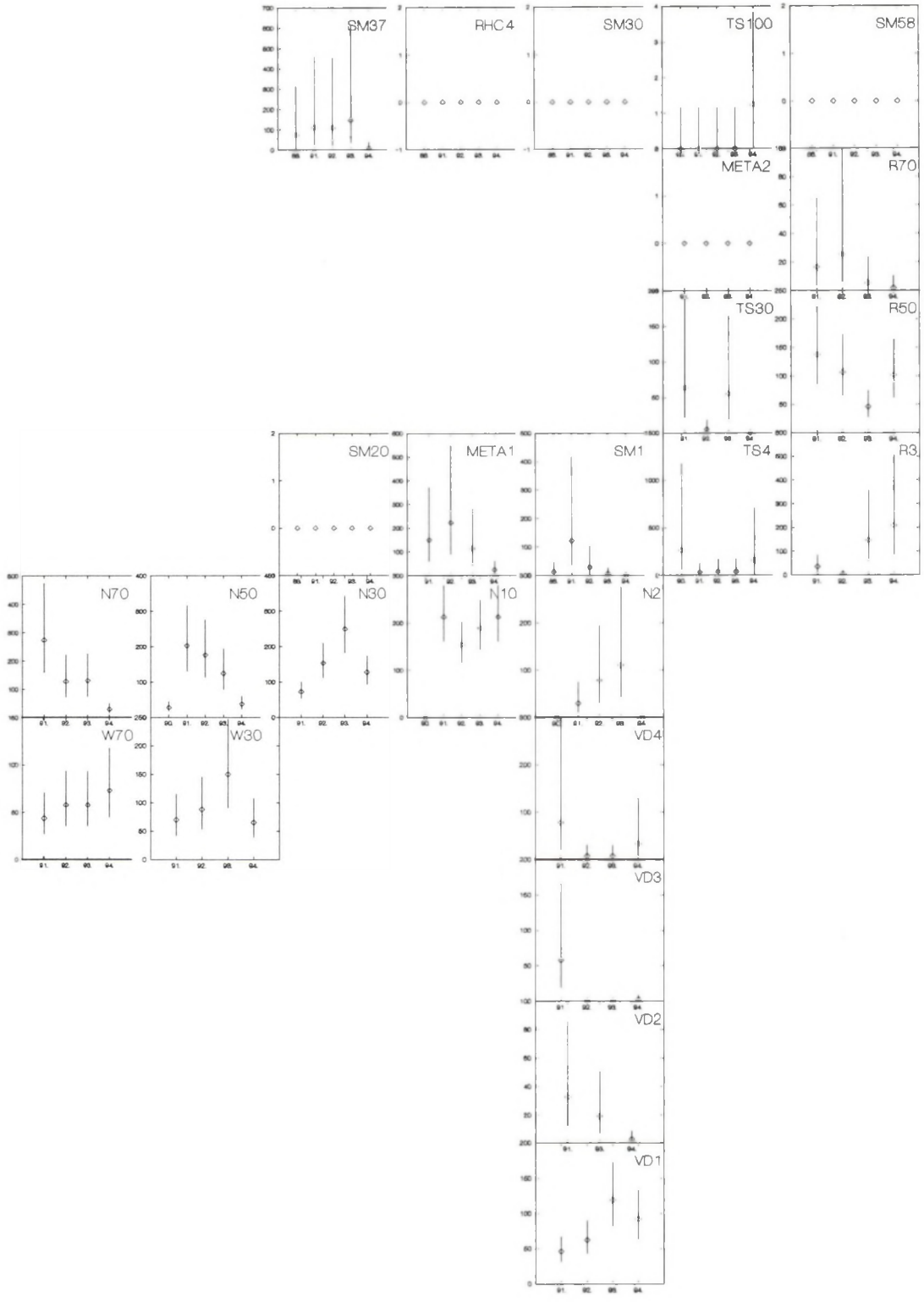

Fig. 3e. Comparison plots of *Nephtys cirrosa* (ind/m^2), for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

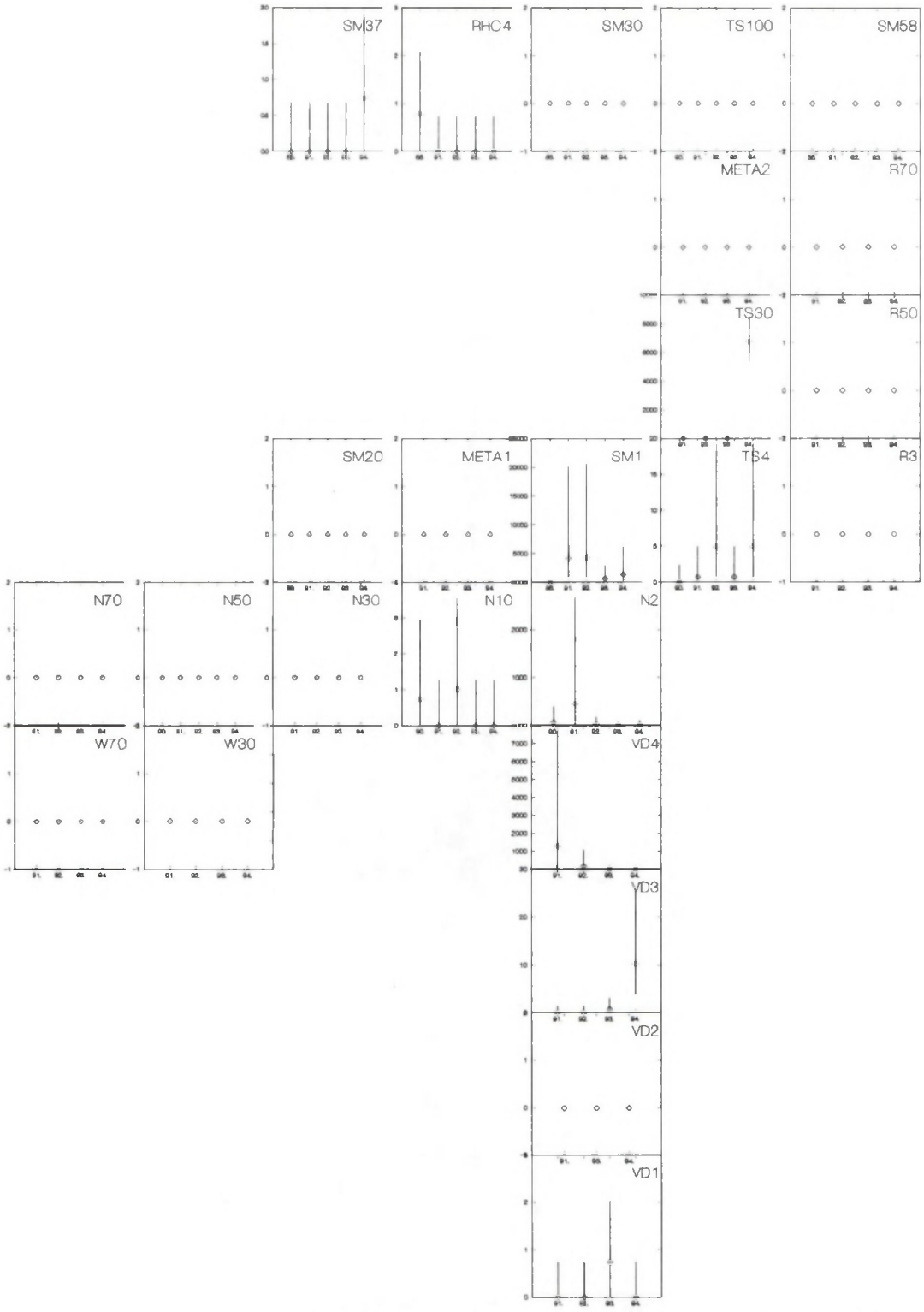

Fig. 3f. Comparison plots of *Spisula subtruncata* (ind/m^2), for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

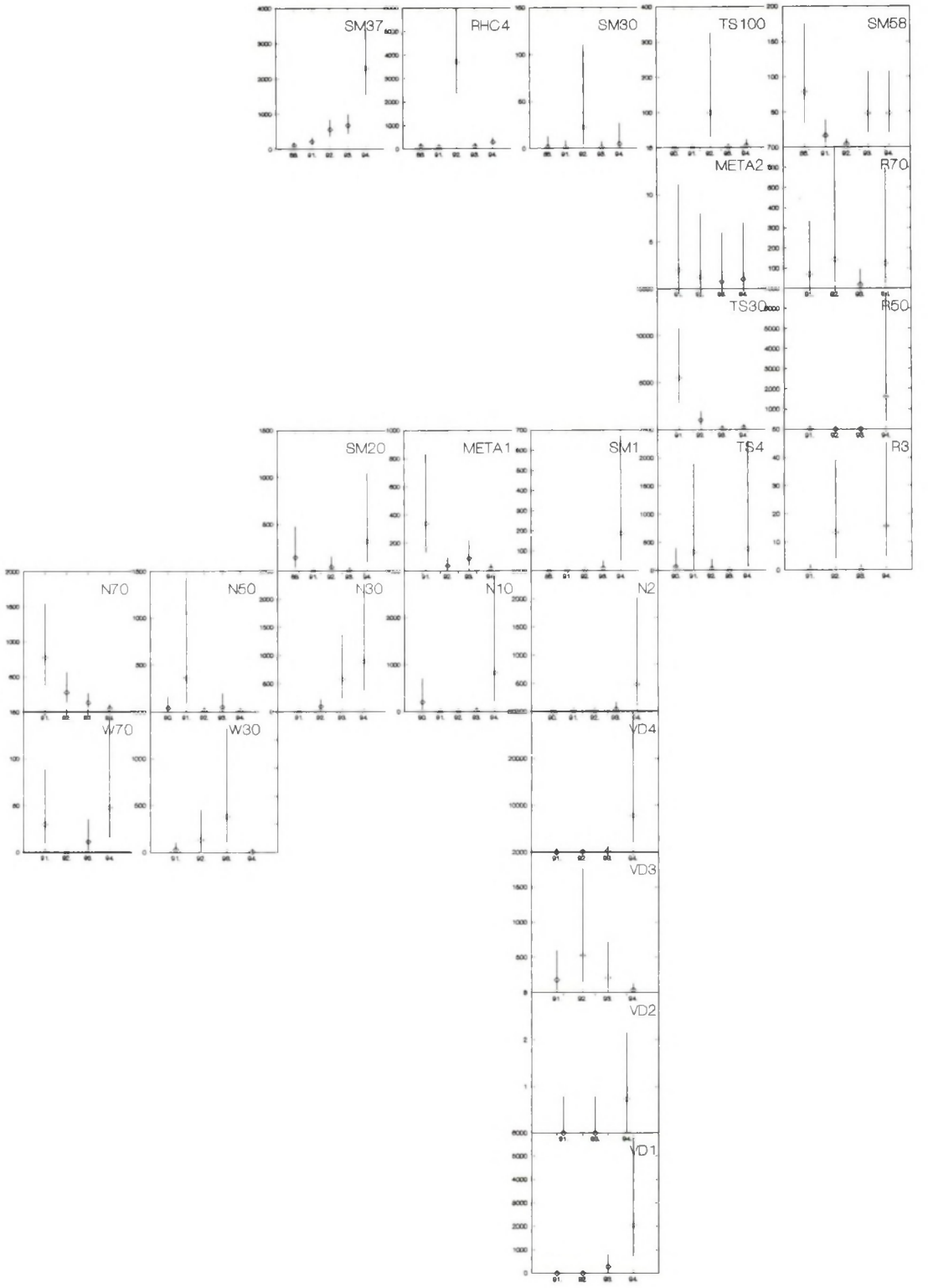

Fig. 3g. Comparison plots of *Spiophanes bombyx* (ind/m^2), for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

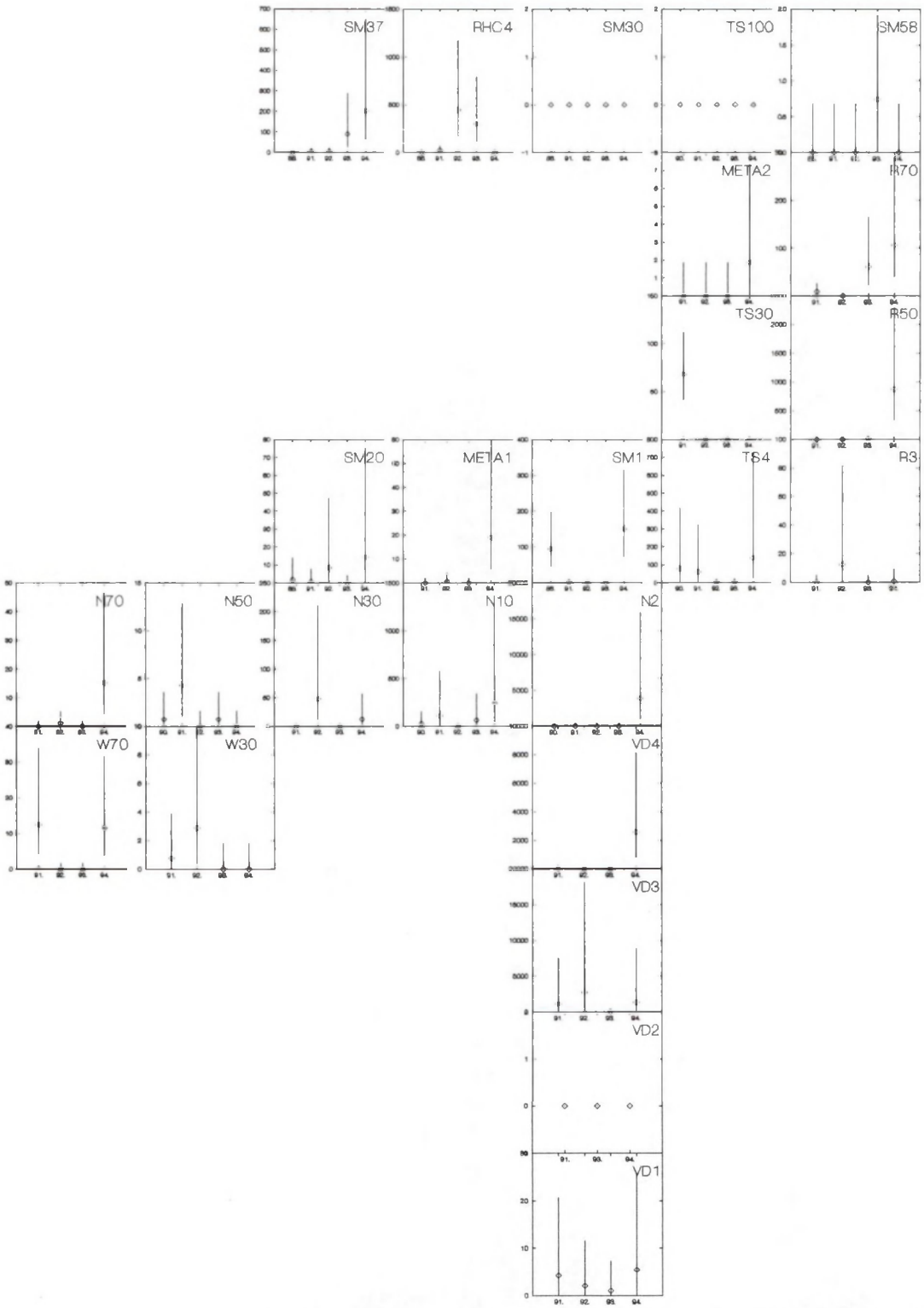

Fig. 3h. Comparison plots of *Lanice conchilega* (ind/m^2), for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

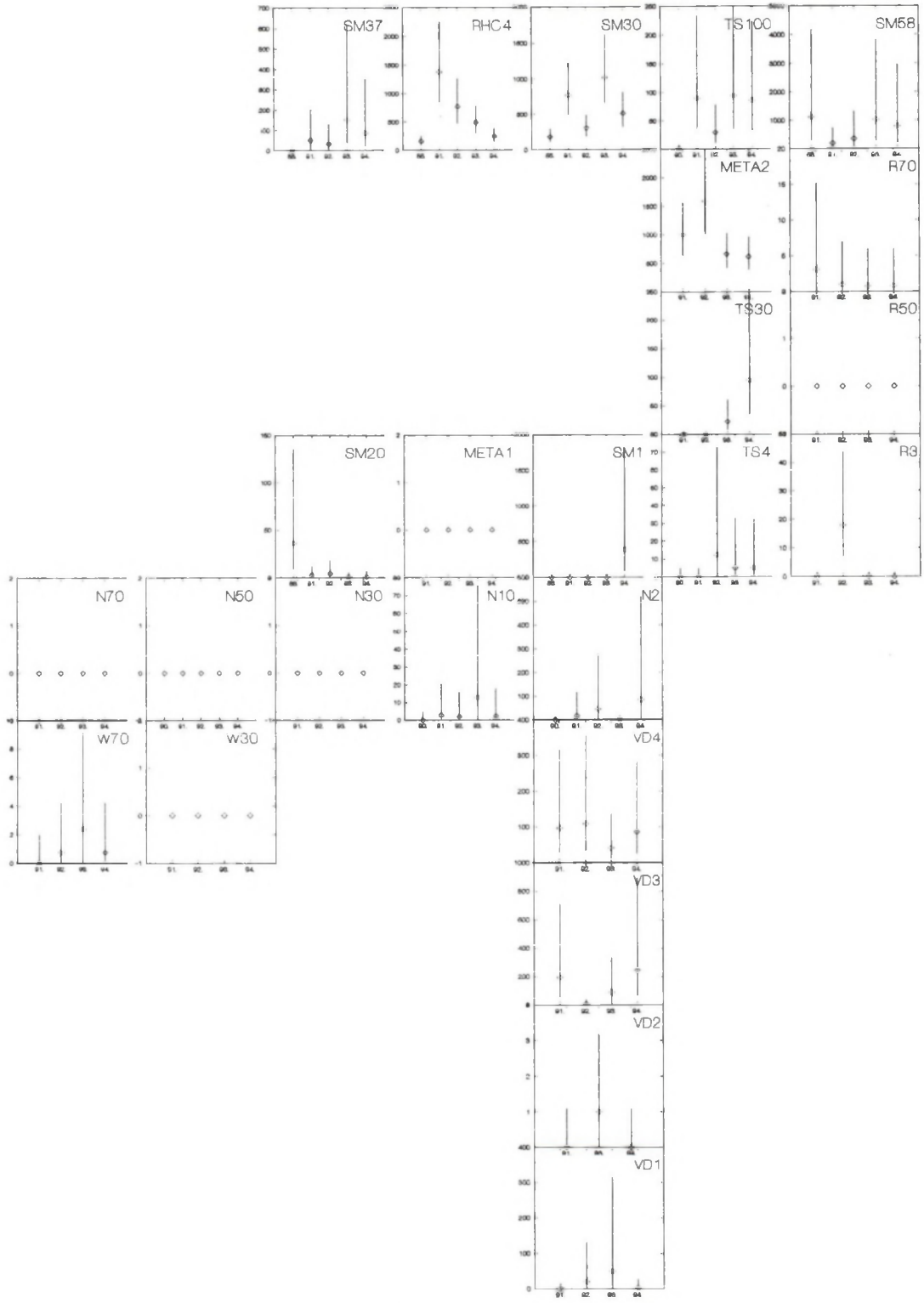

Fig. 3i. Comparison plots of *Mysella bidentata* (ind/m^2), for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

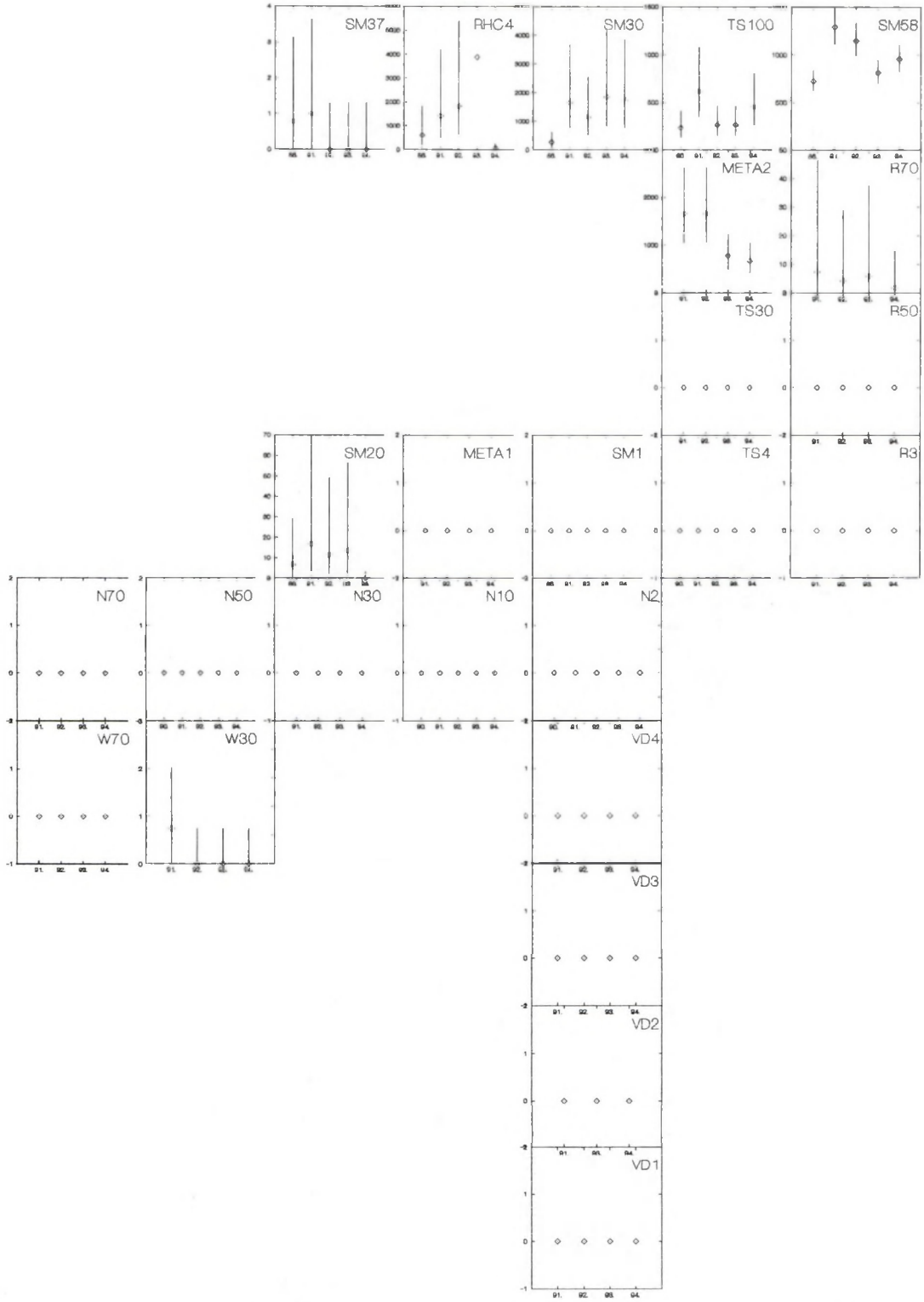

Fig. 3j. Comparison plots of *Amphiura filiformis* (ind/m^2), for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

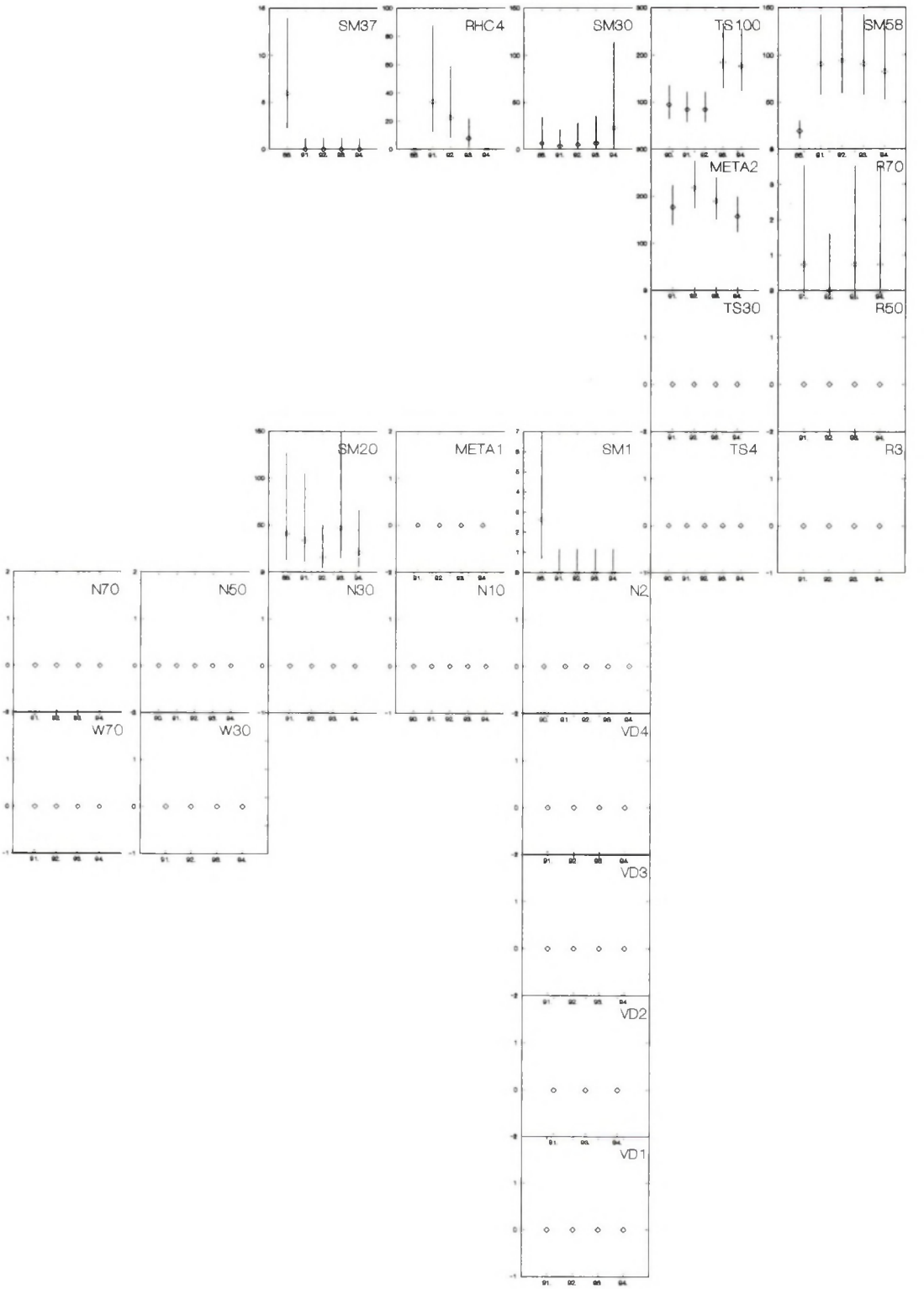

Fig. 3k. Comparison plots of *Callianassa subterranea* (ind/m^2), for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

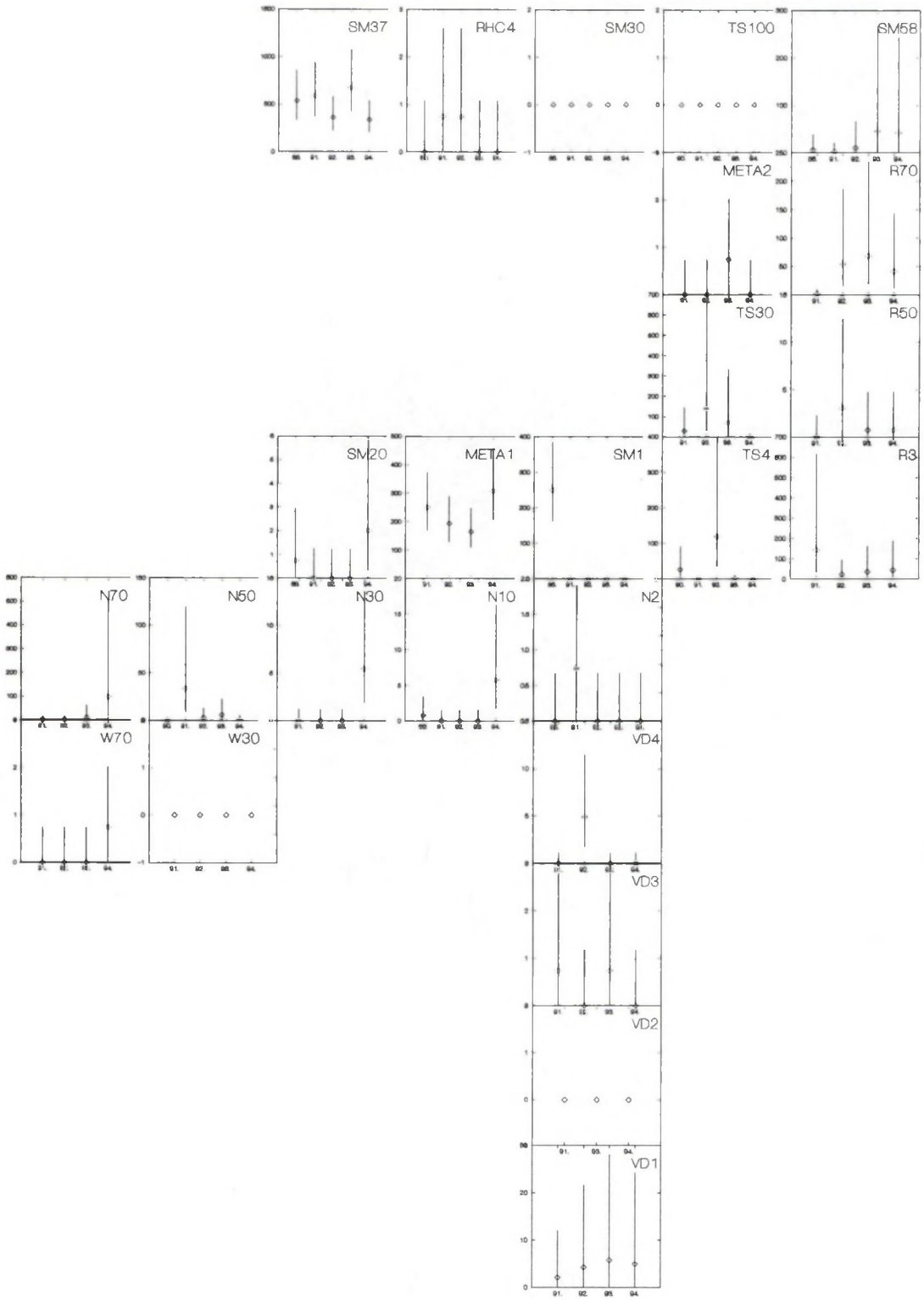

Fig. 31. Comparison plots of *Bathyporeia elegans* (ind/m^2), for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

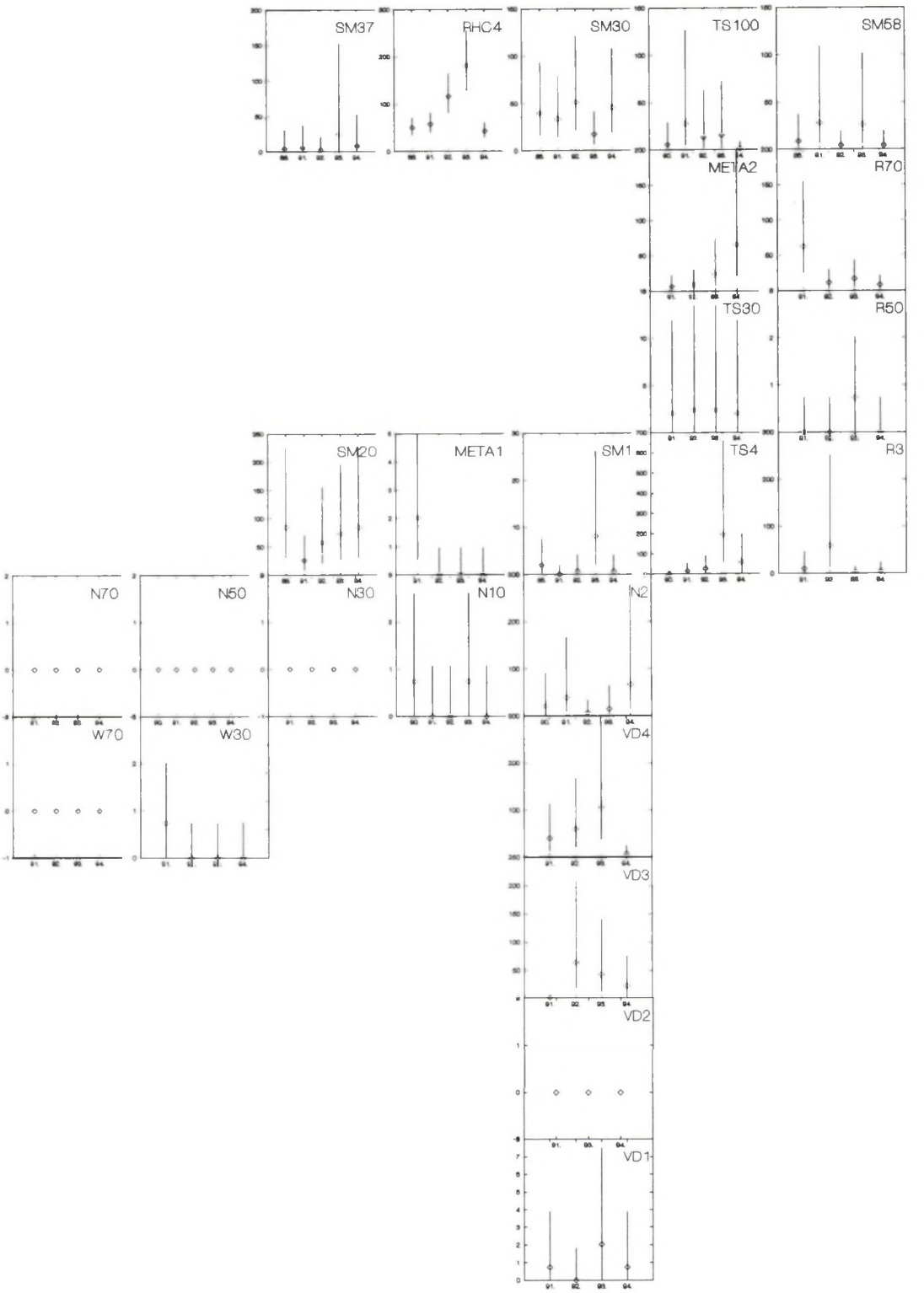

Fig. 3m. Comparison plots of *Nephtys hombergii* (ind/m^2), for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

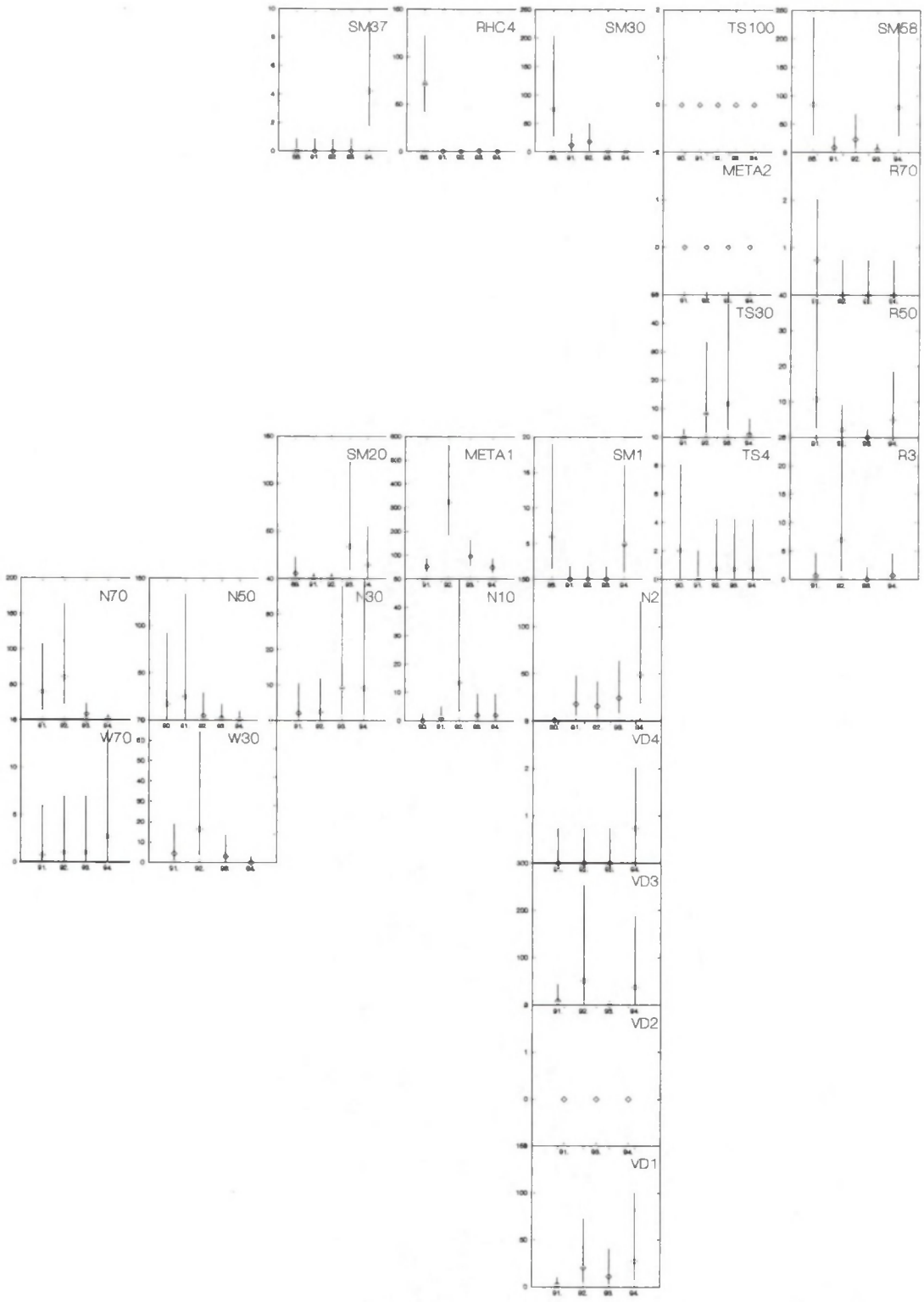

Fig. 3n. Comparison plots of *Scoloplos armiger* (ind/m^2), for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

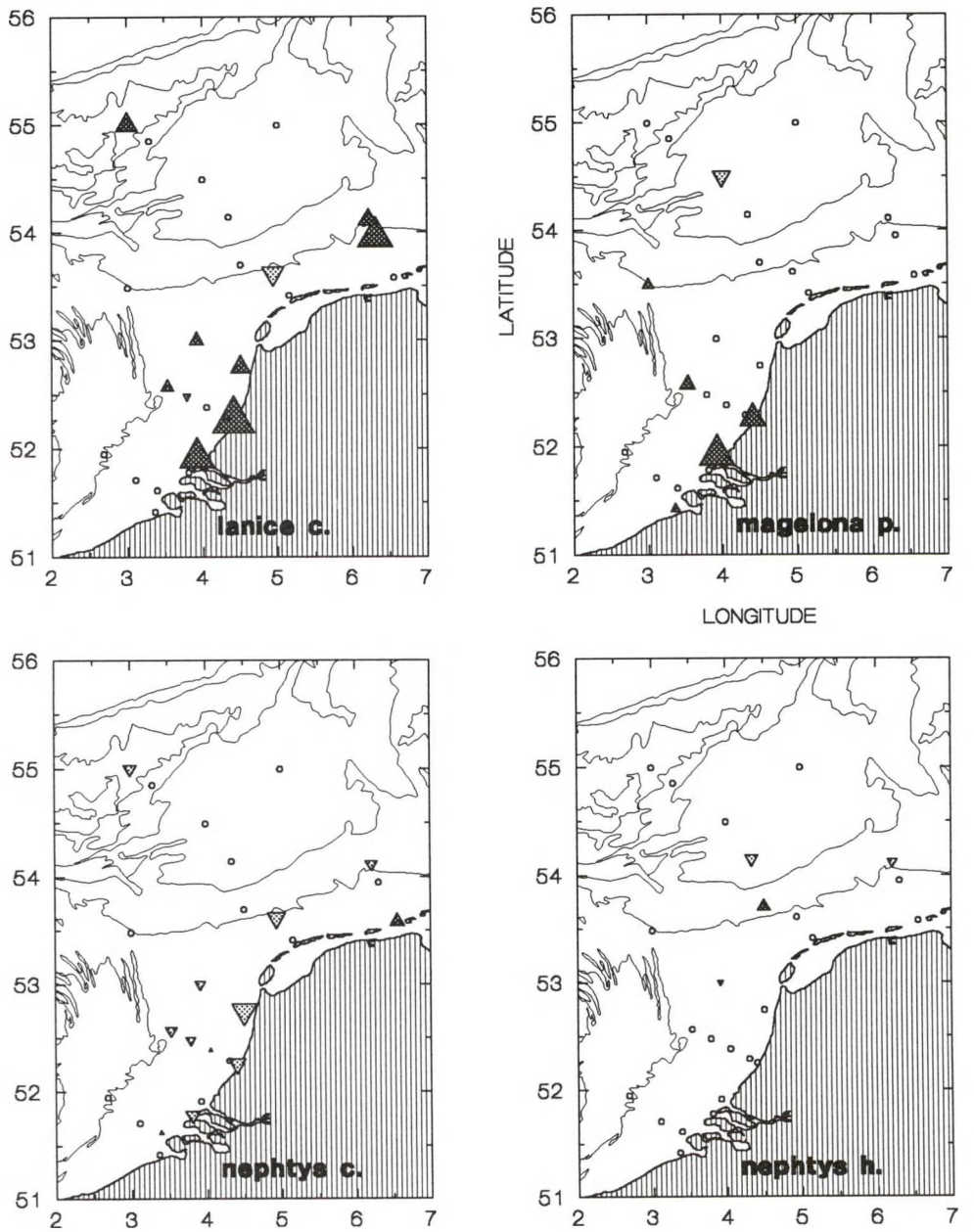

Fig. 4a. Trend-like changes in species density at the separate stations, during 1991-1994. The symbols ▲ and ▼ indicate respectively an upward or downward trend. The size of these symbols indicates the magnitude of the regression coefficient (slope). The symbol ◦ indicates no significant trend.

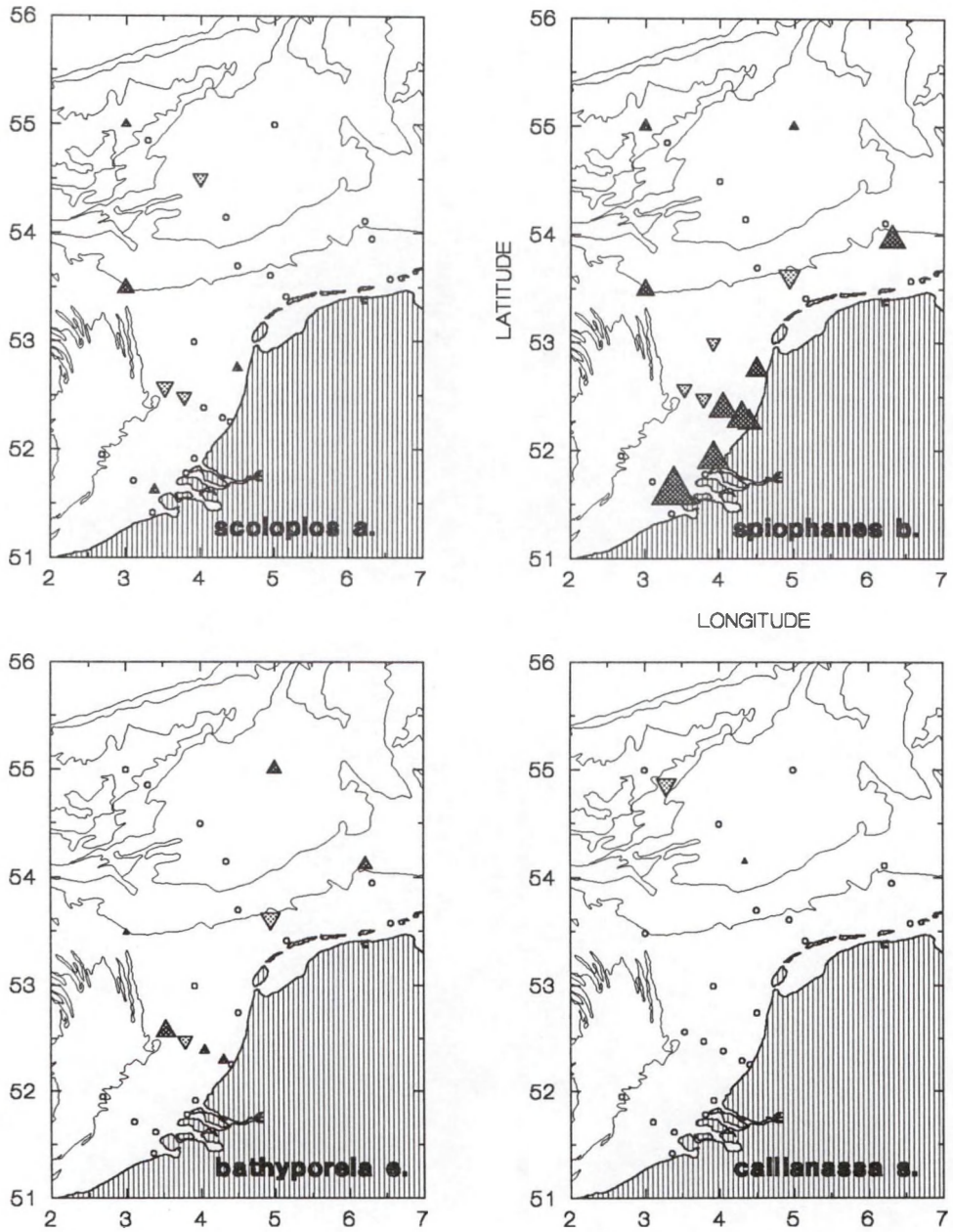

Fig. 4b. Trend-like changes in species density at the separate stations, during 1991-1994. The symbols ▲ and ▼ indicate respectively an upward or downward trend. The size of these symbols indicates the magnitude of the regression coefficient (slope). The symbol ◦ indicates no significant trend.

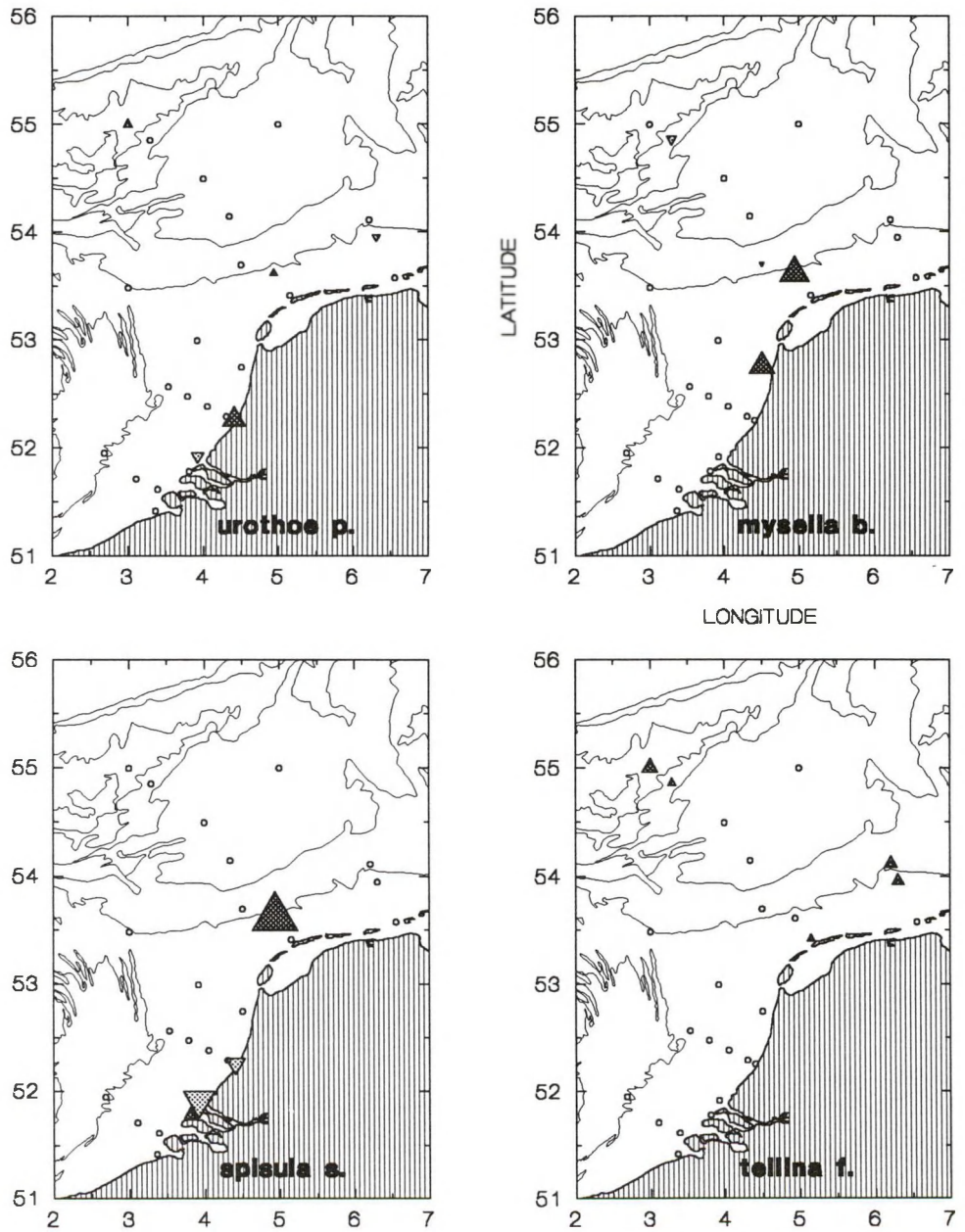

Fig. 4c. Trend-like changes in species density at the separate stations, during 1991-1994. The symbols ▲ and ▼ indicate respectively an upward or downward trend. The size of these symbols indicates the magnitude of the regression coefficient (slope). The symbol ₀ indicates no significant trend.

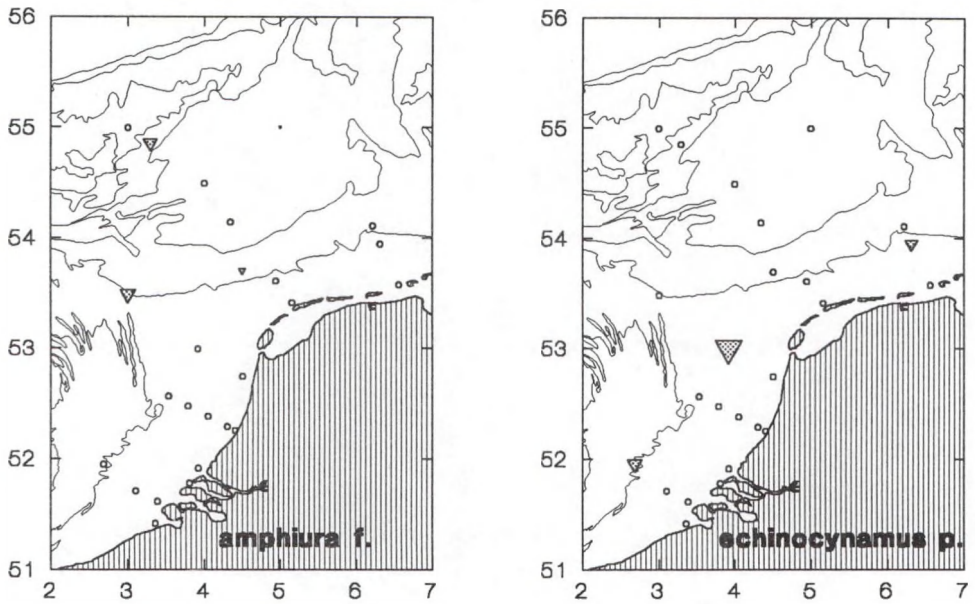

Fig. 4d. Trend-like changes in species density at the separate stations, during 1991-1994. The symbols ▲ and ▼ indicate respectively an upward or downward trend. The size of these symbols indicates the magnitude of the regression coefficient (slope). The symbol ◦ indicates no significant trend.

Table 3. Overview of differences and trends in mean density of selected species.
▒ indicates a significant difference among the mean densities of the stations in the studied years (c.f. Fig. 3a-n). Notice that for the clusters only the years of the period 1991-1994 are compared.
The symbols > and < respectively stand for an upward or downward trend in this period (c.f. Fig. 4a-d). Double arrows (> >) indicate that the trend remains significant over the extended time period, viz. 1990-1994 for stations TS4, TS100, N2, N10, N50, and 1986-1994 for stations SM30, RHC4, SM58, SM1, SM20 and SM37.

STATION	PERIOD	MAGEPAPI	TELLFABU	UROTPOSE	ECHIPUSI	NEPHCIRR	SPISSUBT	SPIOBOMB	LANICONC	MYSEBIDE	AMPHFILI	CALLSUBT	BATHEELEG	NEPHHOMB	SCOLARMI	CLUSTER
META2	91-94									<	<			>		OYSTER 1
TS100	91-94							▒				>>		<		
oyster1 cluster	90-94															
oyster1 cluster	91-94											>				
SM30	91-94	<								▒					<<	OYSTER 2
RHC4	91-94	▒	>					▒	▒	<	<	<		▒		
SM58	91-94							>		▒	<		>	▒	▒	
oyster2 cluster	86-94															
oyster2 cluster	91-94															
R3	91-94					>		▒								COASTAL
TS4	91-94	▒	>>					▒	▒				▒			
TS30	91-94	▒		>		<	>	<	<	>			<			
SM1	91-94		▒			<	▒	>>	>	>>				▒	>	
N2	91-94	>>	▒	>>		<	<<	>>	>>							
N10	91-94							>	▒				>			
VD4	91-94	>	▒	>			<	>	>							
VD3	91-94			▒		<	>		▒	▒					▒	
VD1	91-94	▒		▒		>		▒								
coastal cluster	86-94									>						
coastal cluster	90-94	>								>					>	
coastal cluster	91-94	>						▒	▒						>	
R50	91-94		>	<	<	▒		>	>							OFFSHORE
R70	91-94		>		▒			▒	>				>	<		
META1	91-94				<	<		<	>					>	▒	
SM20	91-94	>						>			<		>		>	
N30	91-94					>		>	▒				>			
N50	91-94					<		<	<				<		<<	
N70	91-94	>				<		<	>				>		<	
VD2	91-94	>				▒										
W30	91-94				▒			▒								
W70	91-94				<			▒	▒							
SM37	91-94		>	>>		<		>>	>>						>	
offshore cluster	86-94							>								
offshore cluster	90-94					<			>							
offshore cluster	91-94					<			>							

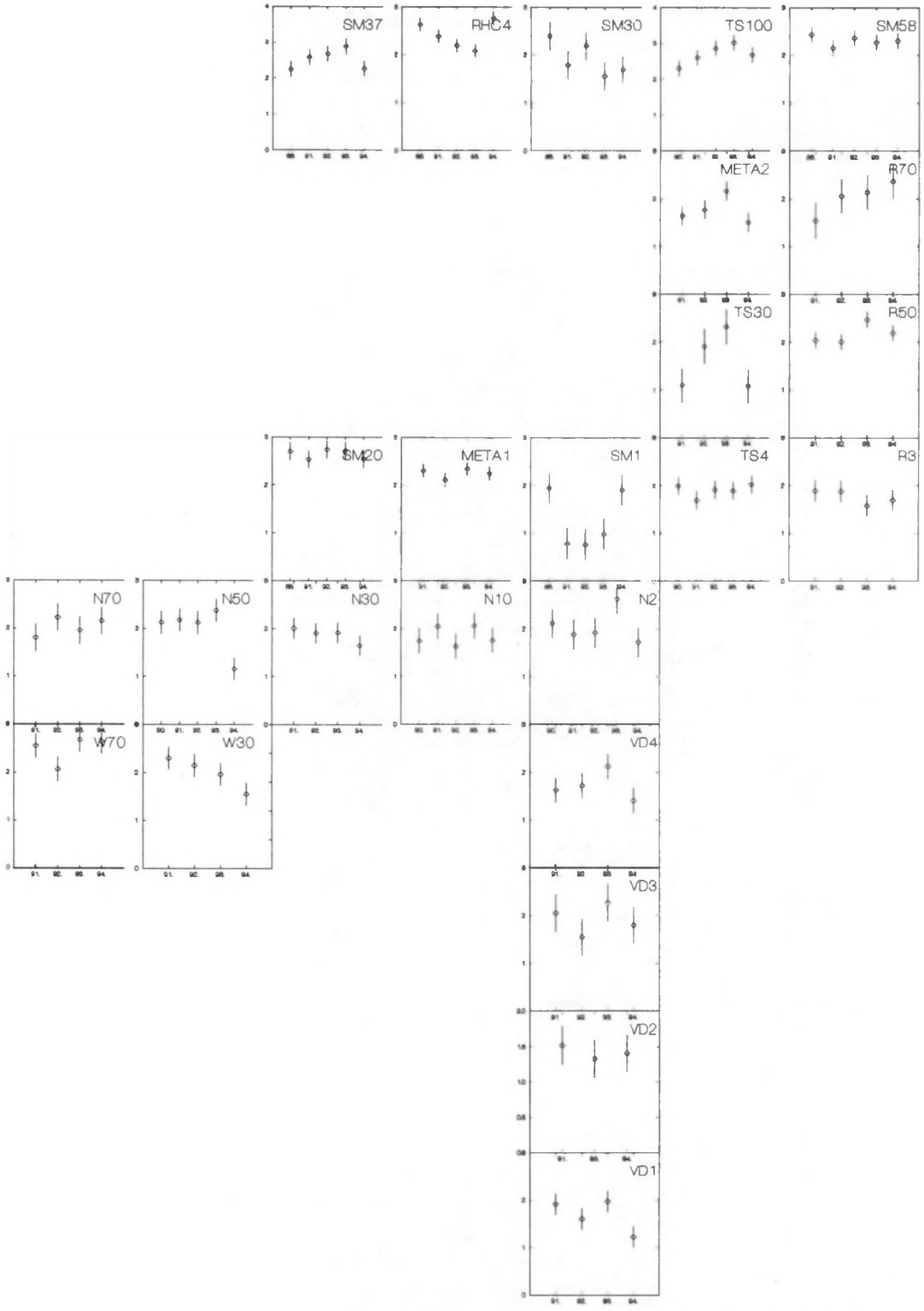

Fig. 5a. Comparison plots with Shannon-Wiener diversity figures, for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

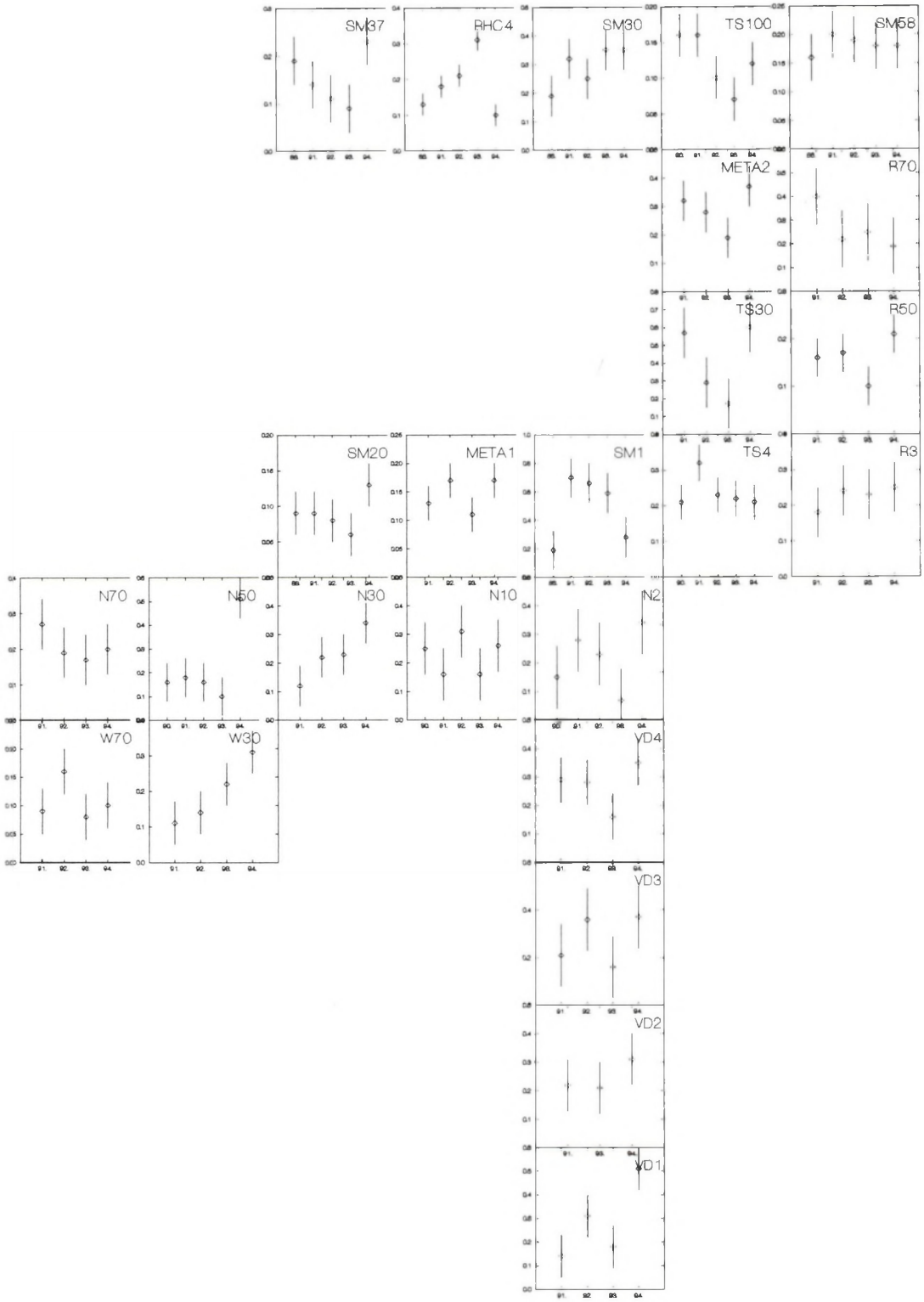

Fig. 5b. Comparison plots with Simpson's dominance figures, for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

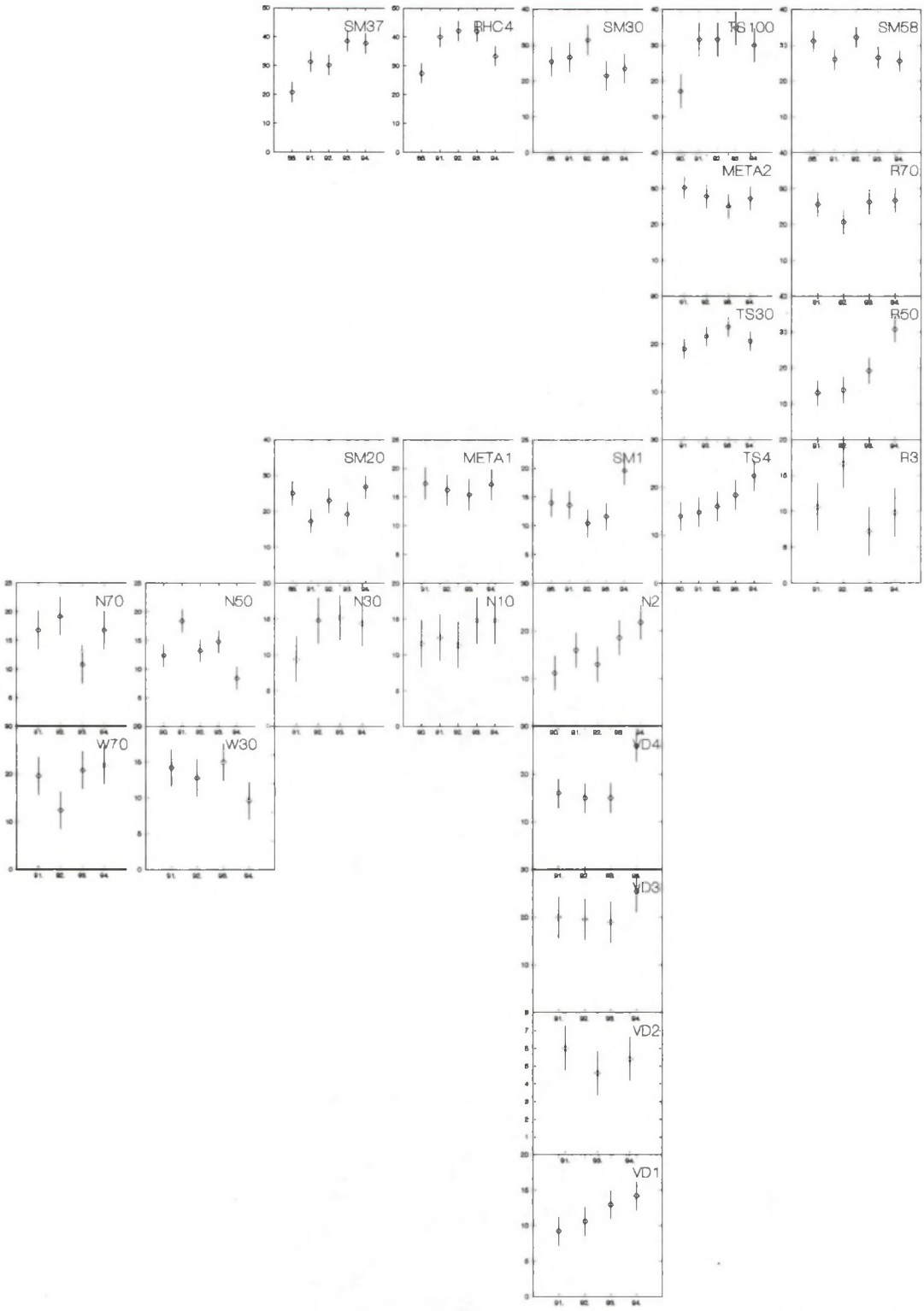

Fig. 5c. Comparison plots with the total number of species per sample, for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

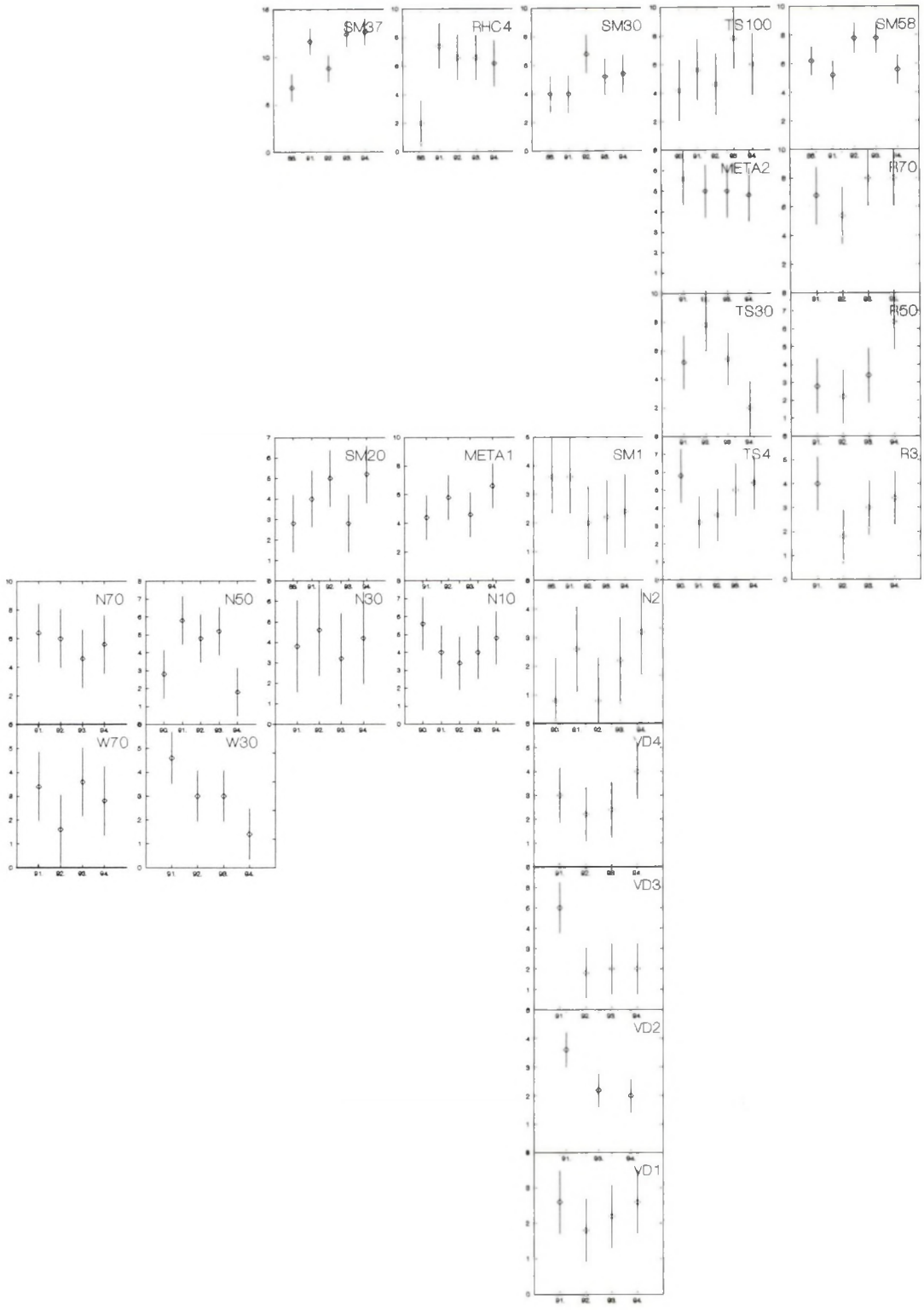

Fig. 5d. Comparison plots with the total number of Crustacean species per sample, for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

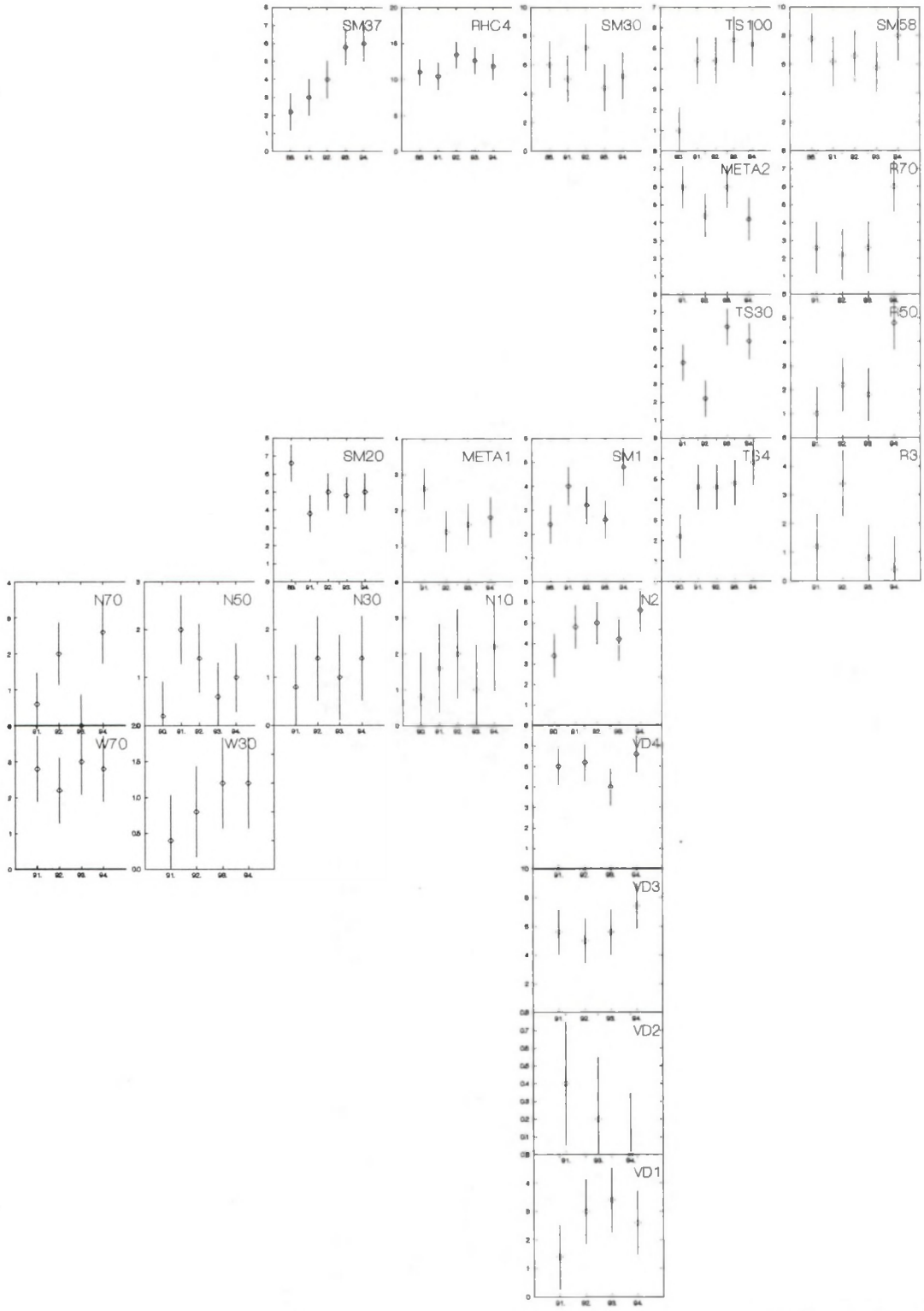

Fig. 5e. Comparison plots with the total number of Mollusc species per sample, for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

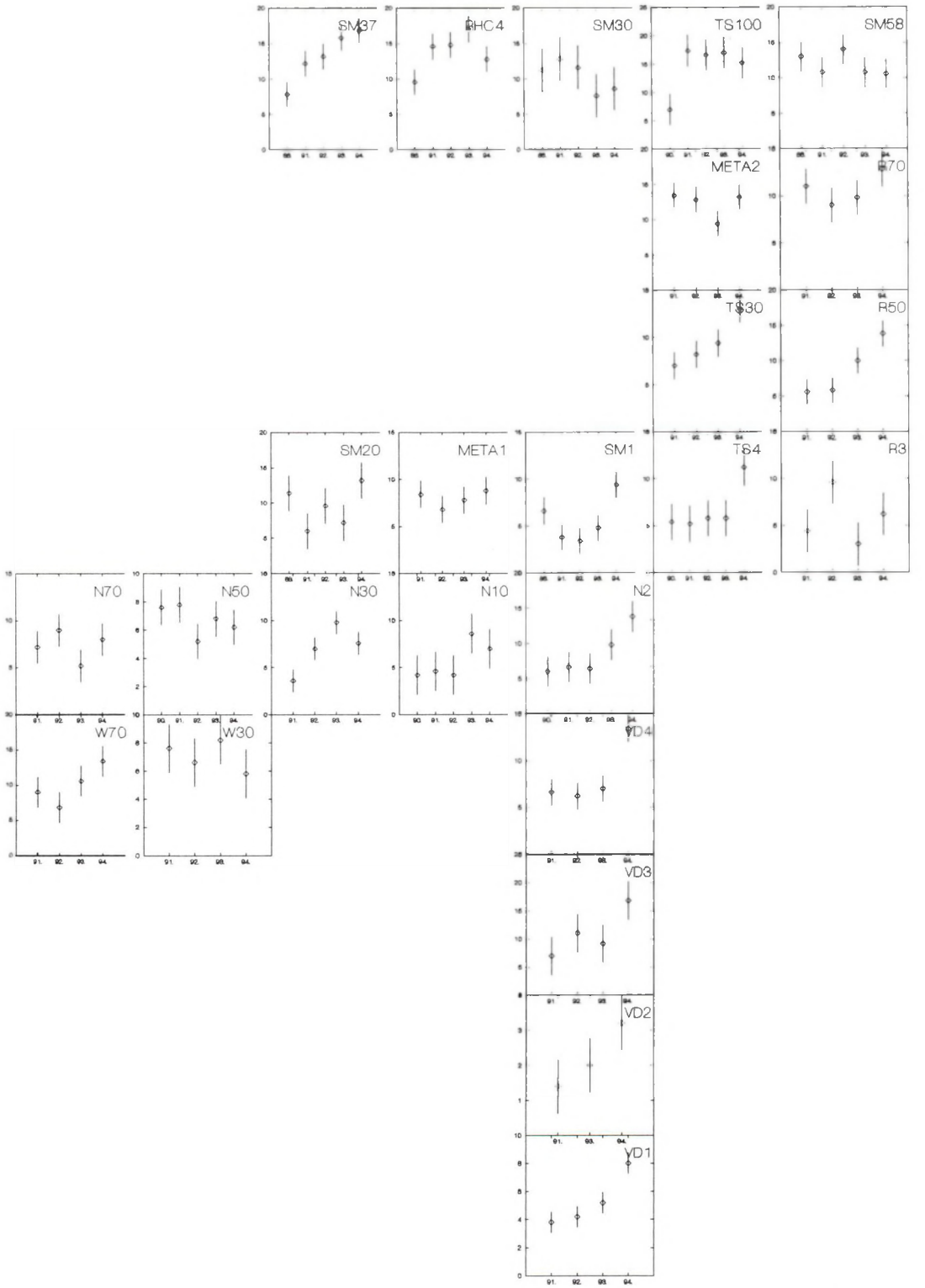

Fig. 5f. Comparison plots with the total number of Polychaete species per sample, for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

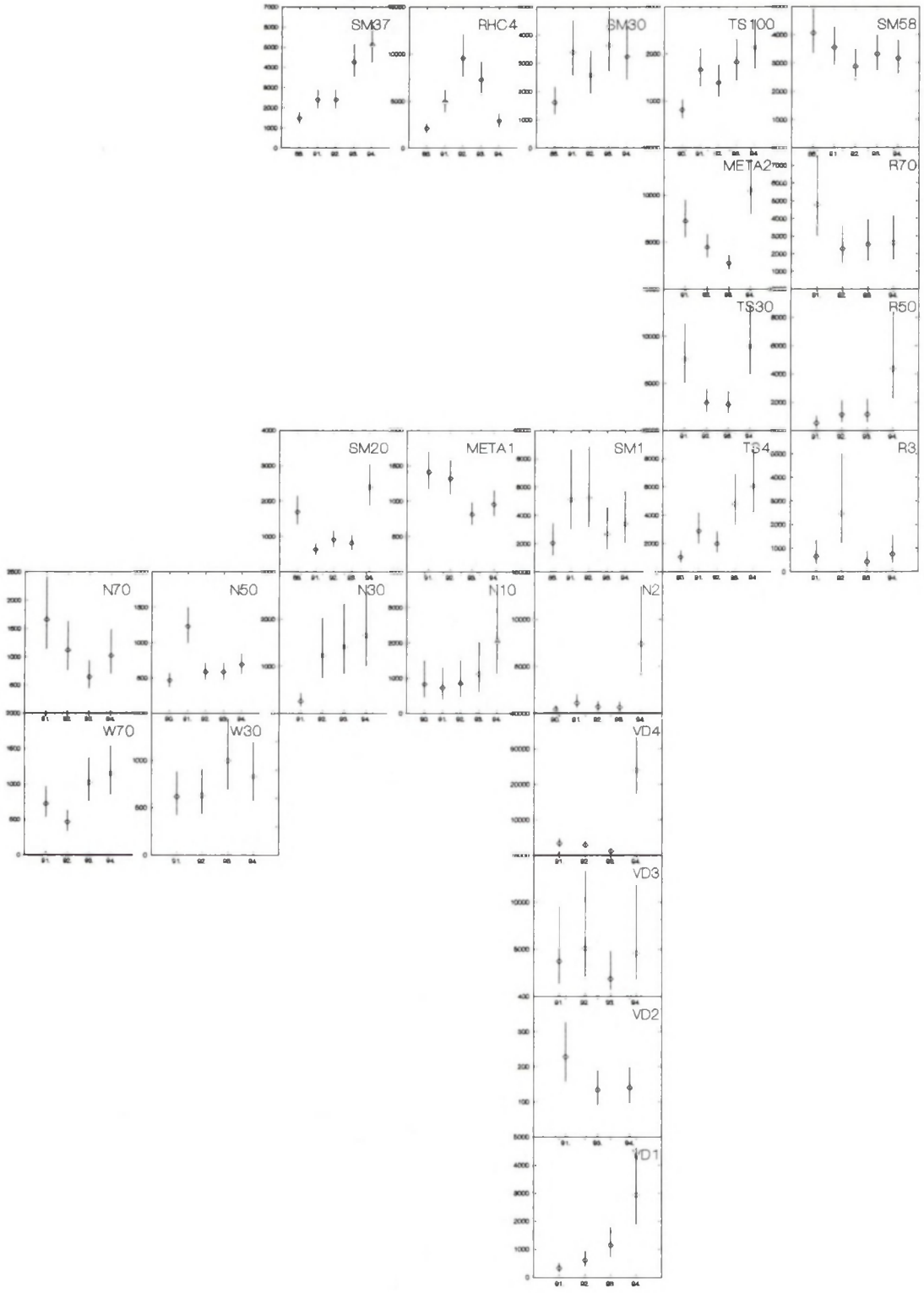

Fig. 5g. Comparison plots with the total density (ind./m^2), for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

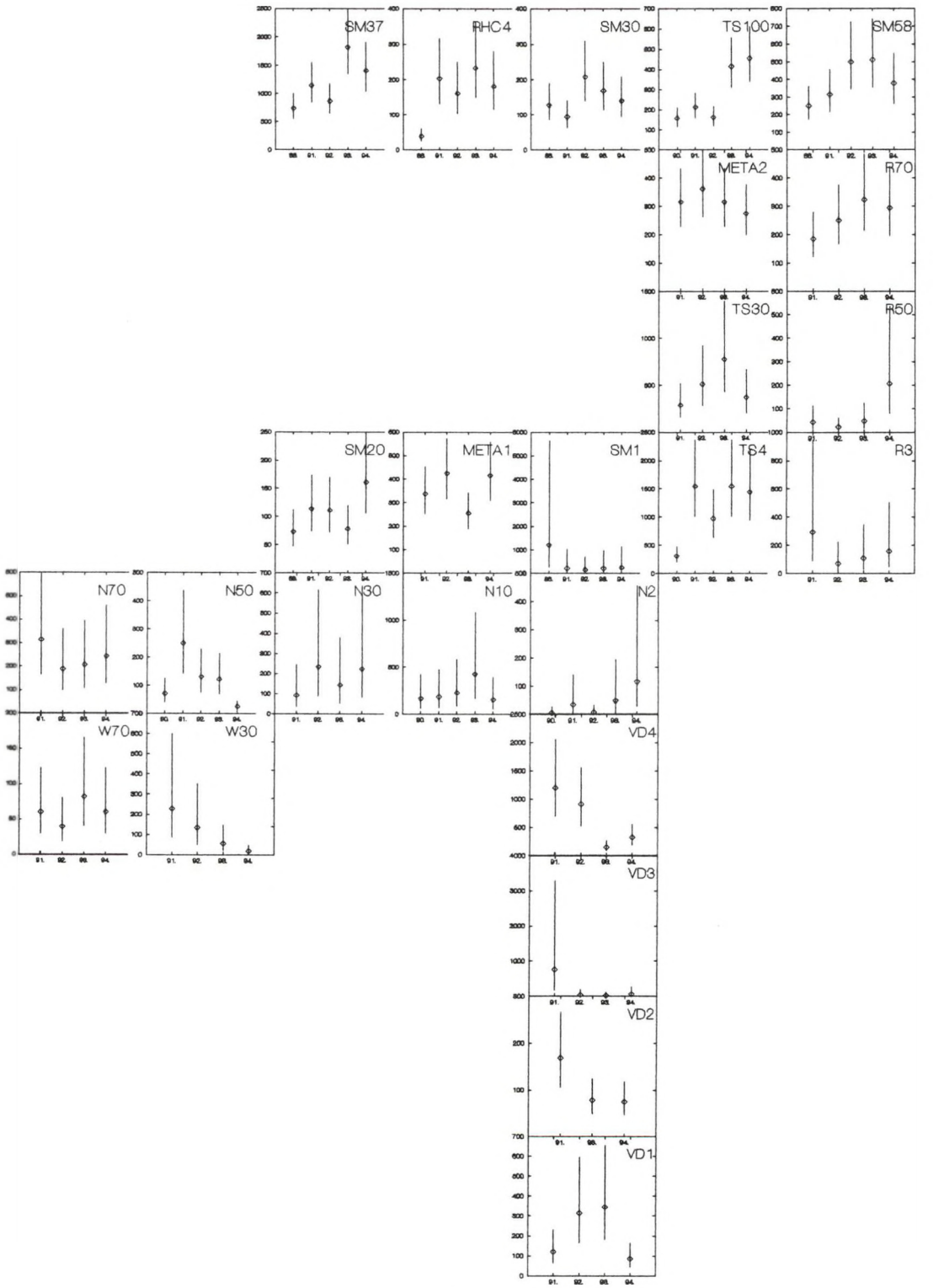

Fig. 5h. Comparison plots with the density of the Crustaceans (ind./m^2), for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

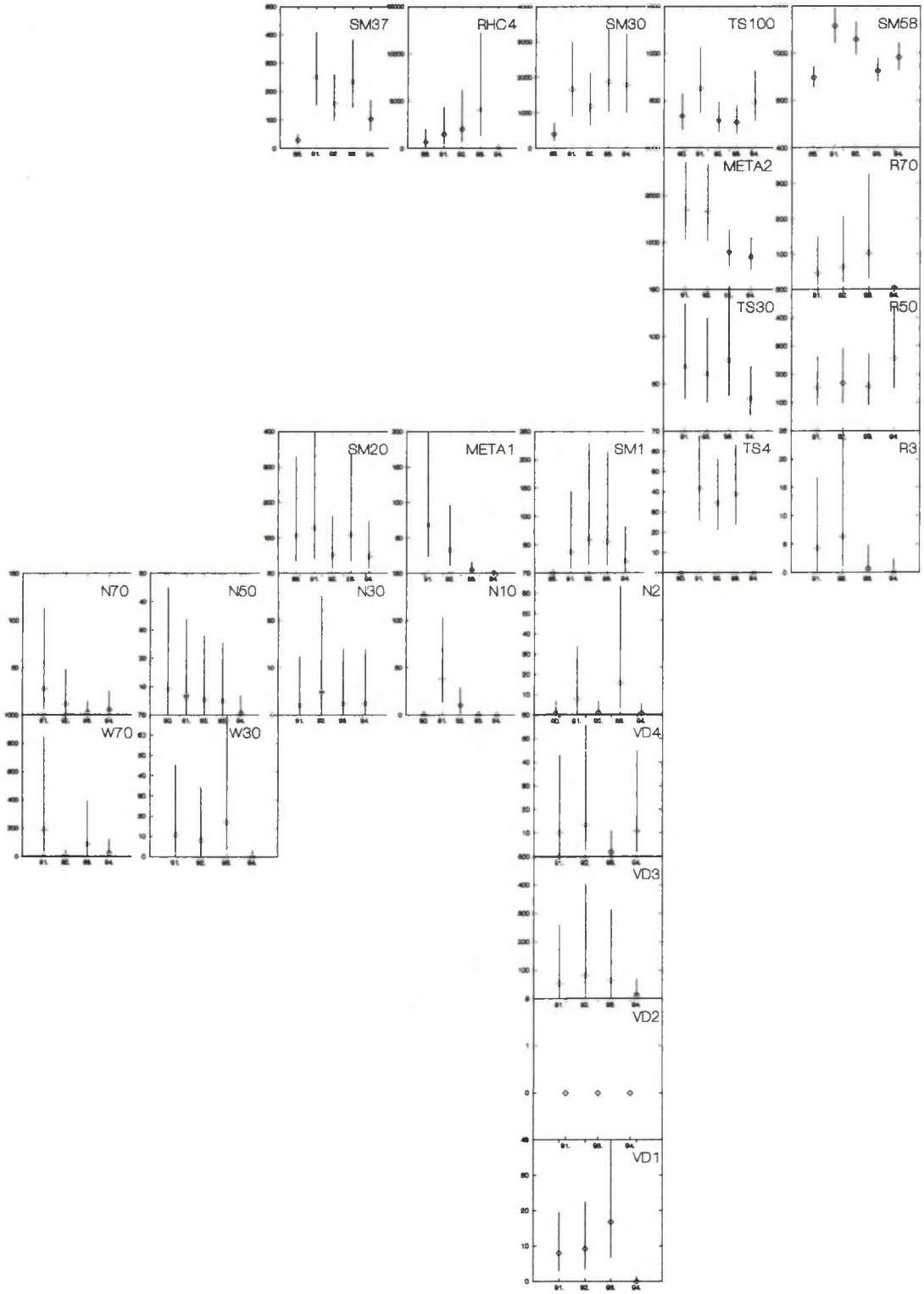

Fig. 5i. Comparison plots with the density of the Echinoderms (ind./m^2), for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

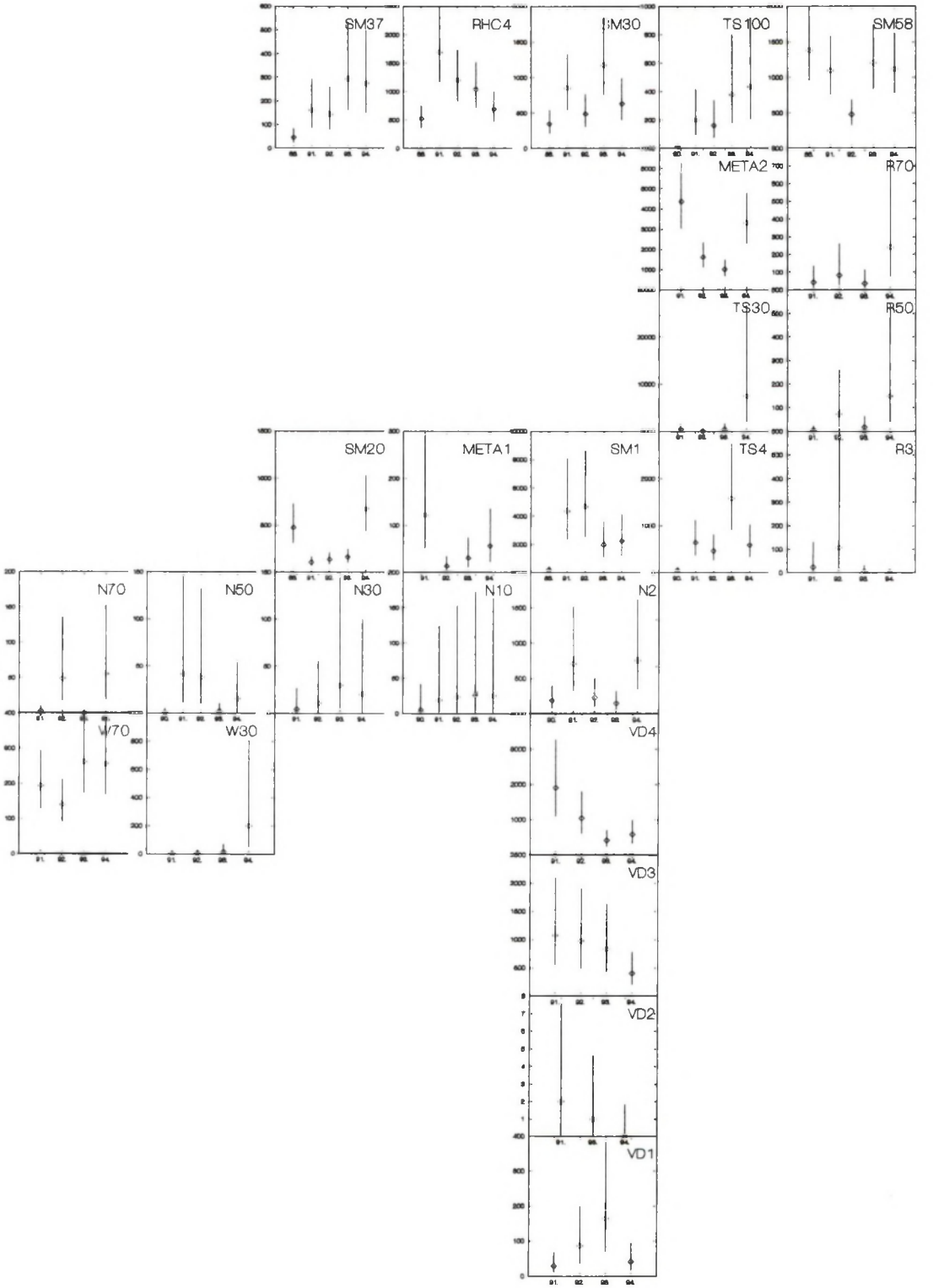

Fig. 5j. Comparison plots with the density of the Molluscs (ind./m^2), for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

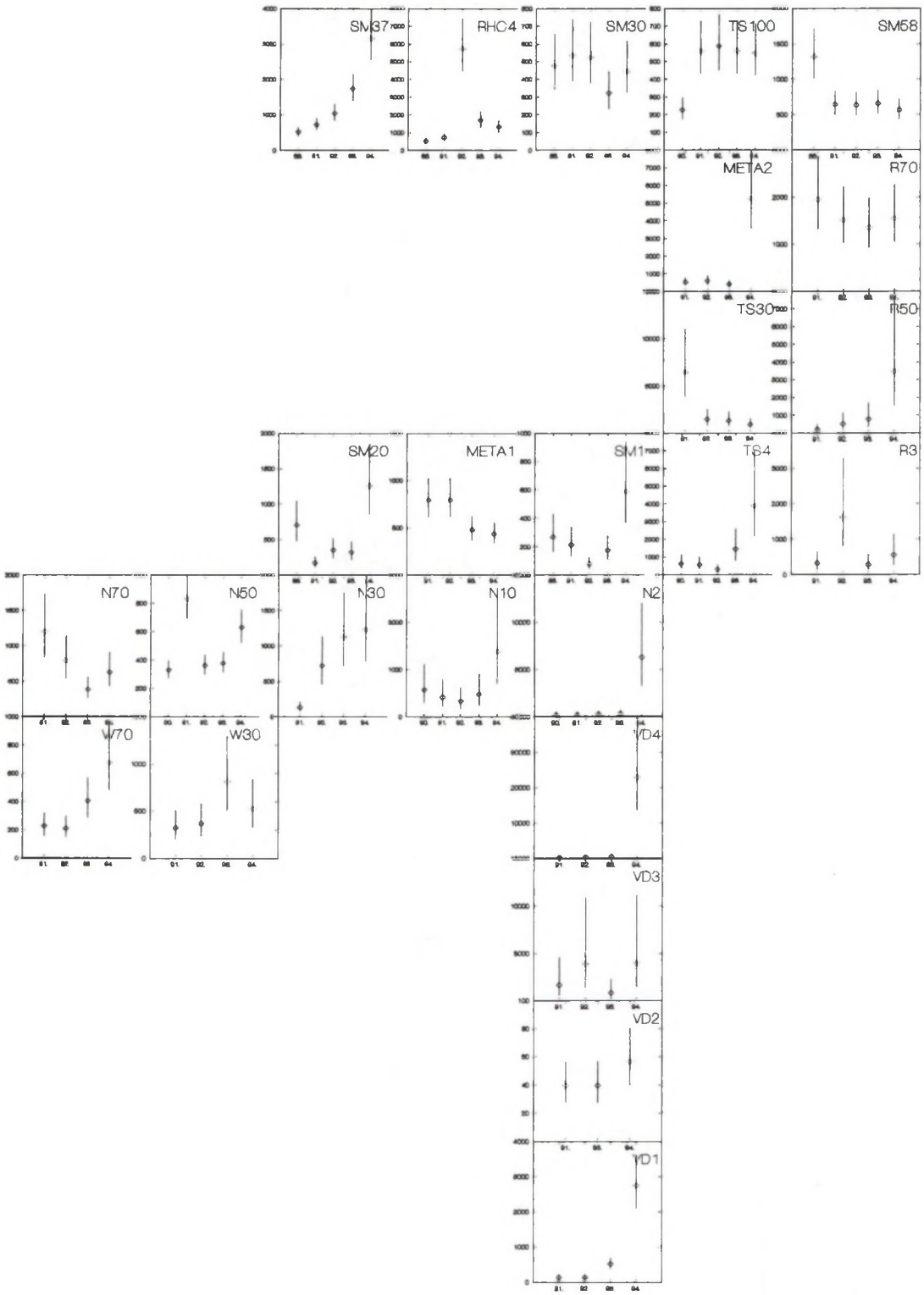

Fig. 5k. Comparison plots with the density of the Polychaetes (ind./m^2), for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

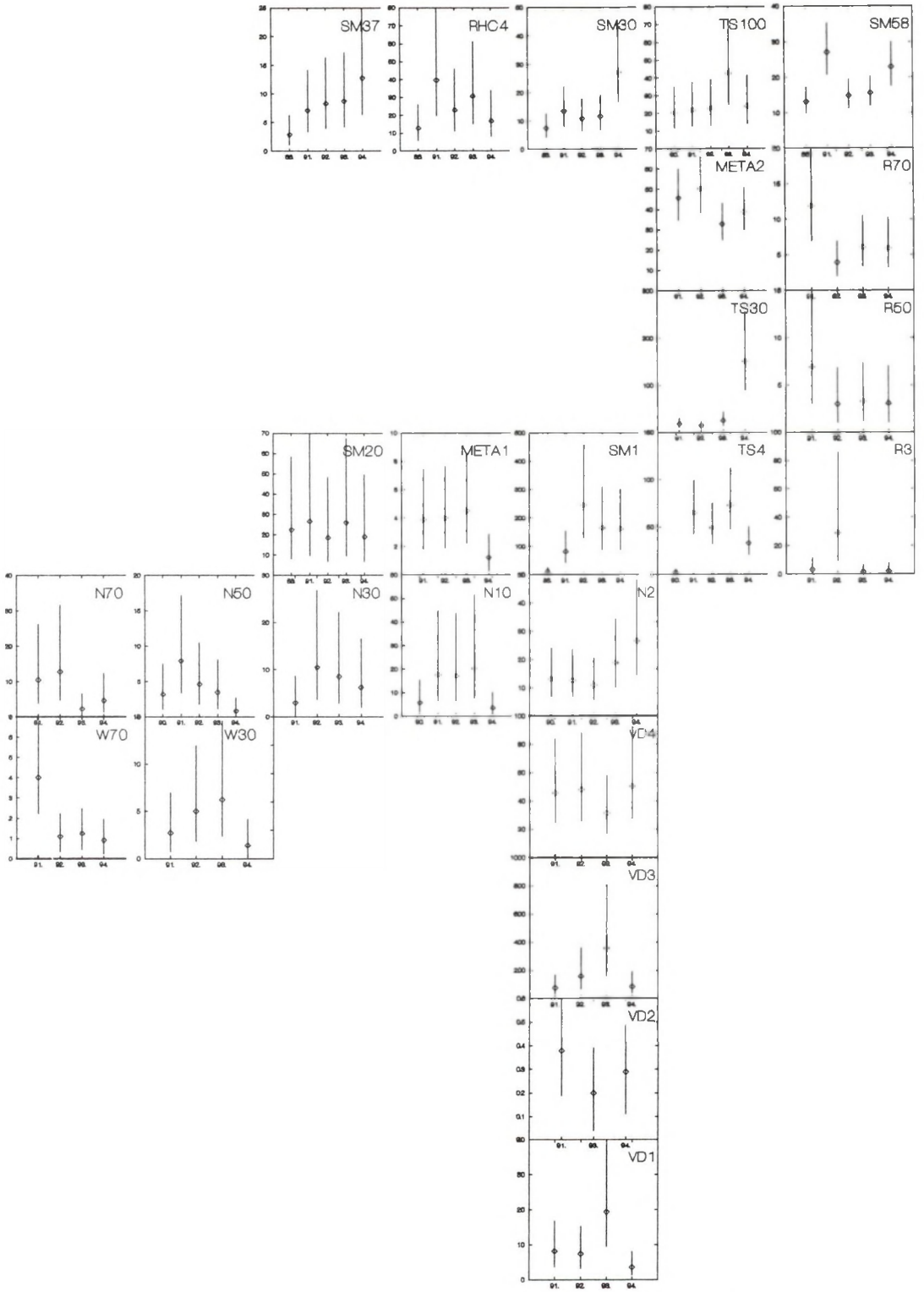

Fig. 51. Comparison plots with the total biomass of the species (g.AFDW./m^2), for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

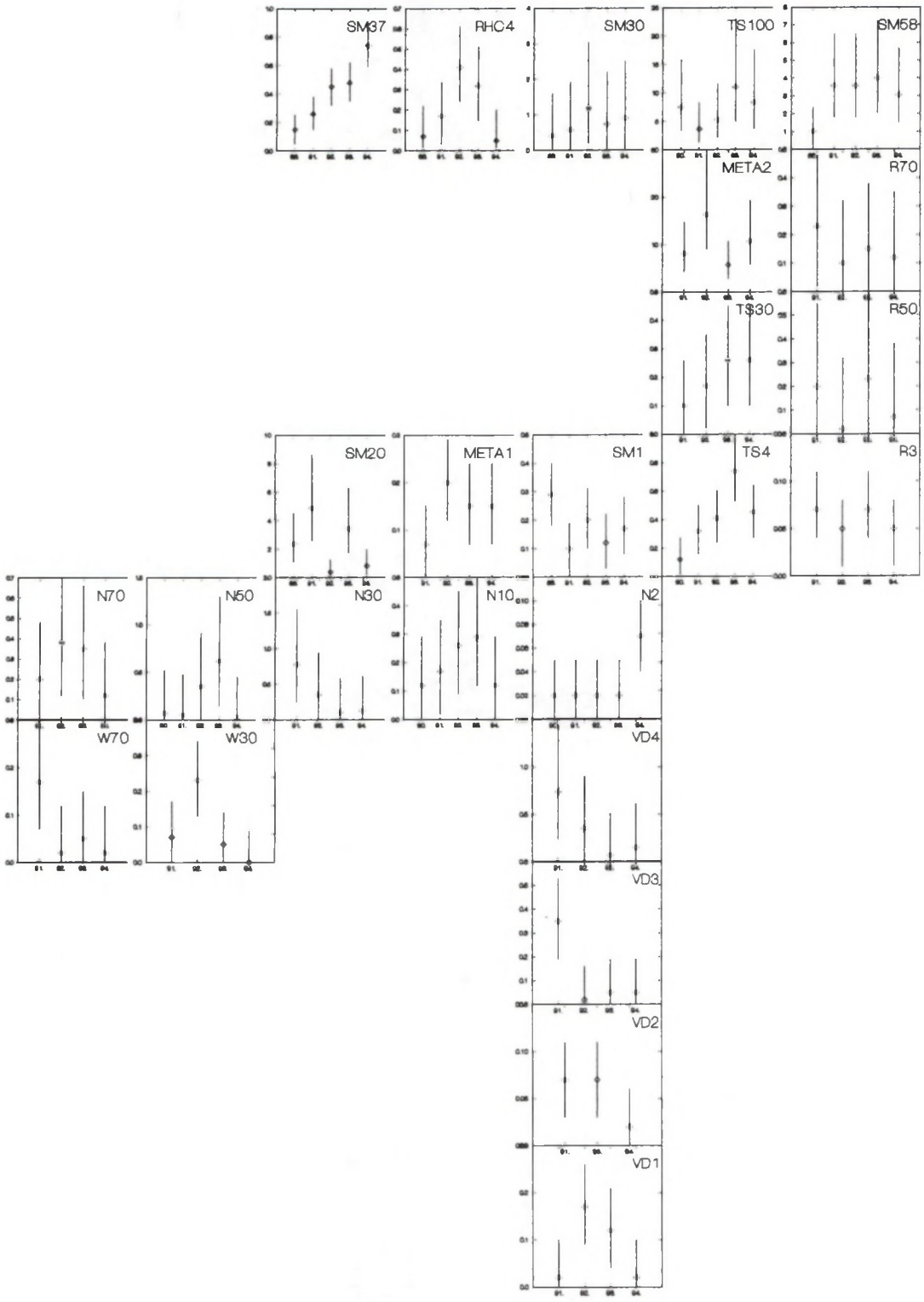

Fig. 5m. Comparison plots with the total biomass of the Crustaceans (g.AFDW./m^2), for the period 1986 -1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

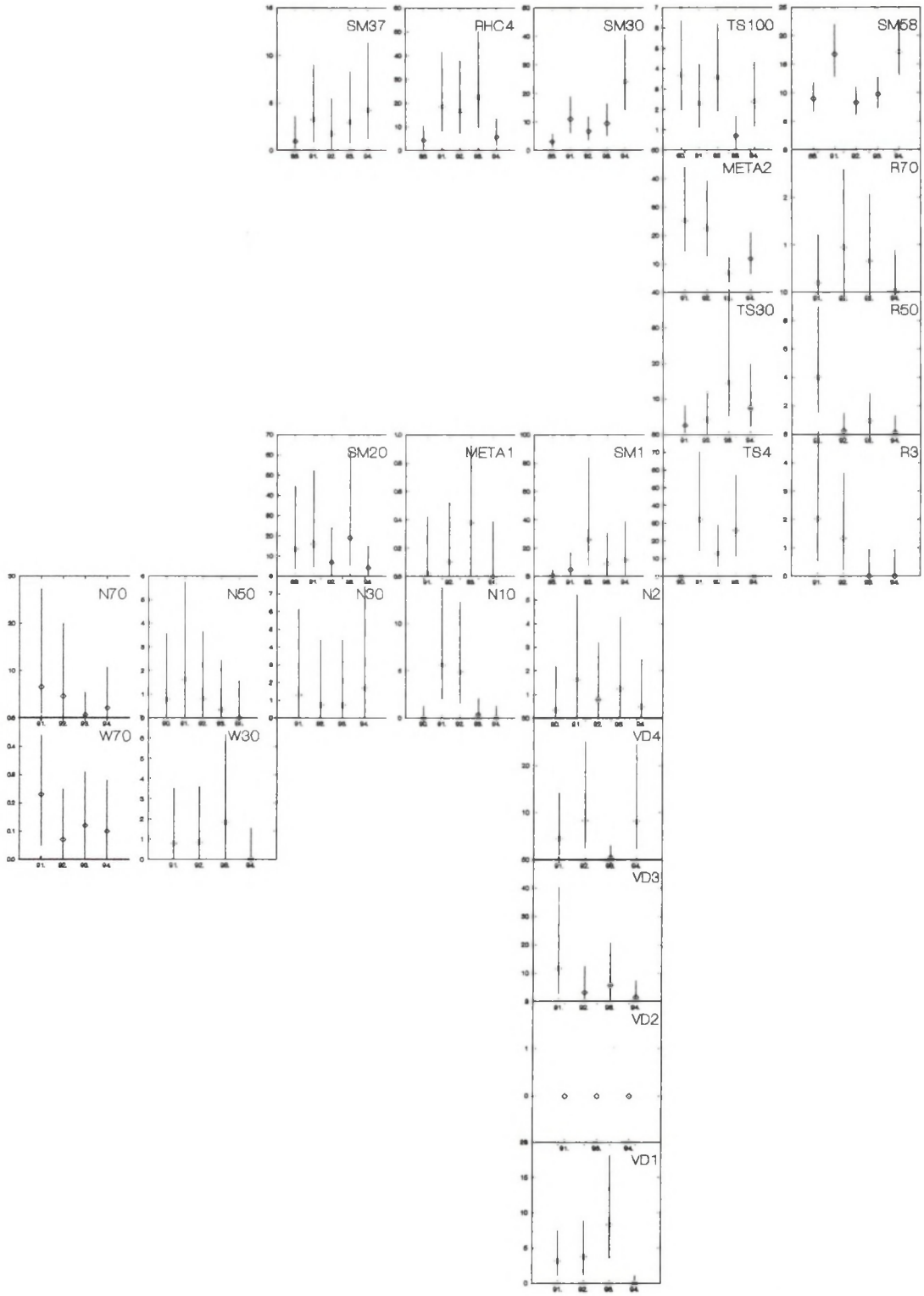

Fig. 5n. Comparison plots with the total biomass of the Echinoderms (g.AFDW./m^2), for the period 1986 -1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

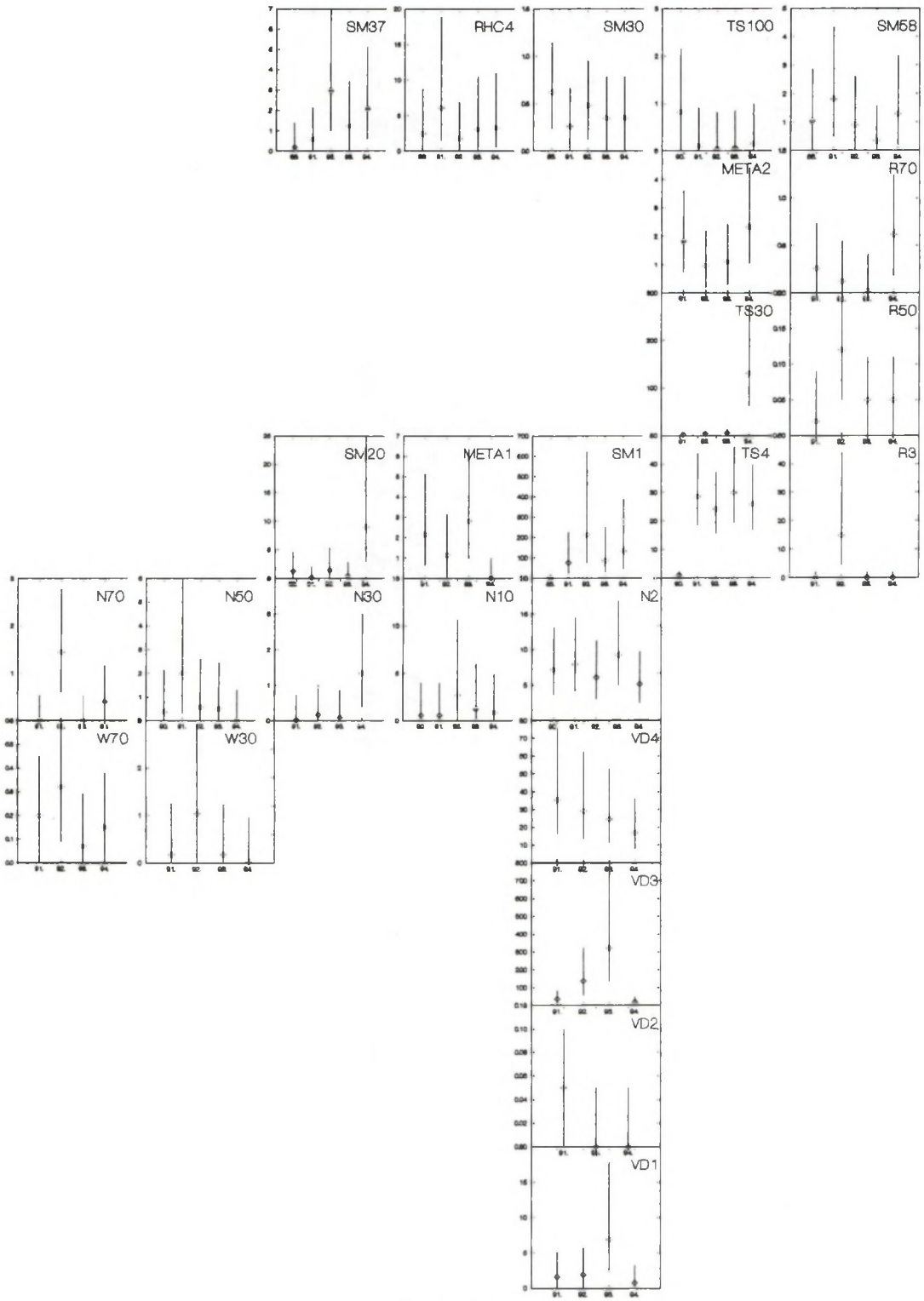

Fig. 5o. Comparison plots with the total biomass of the Molluscs (g.AFDW./m^2), for the period 1986 - 1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

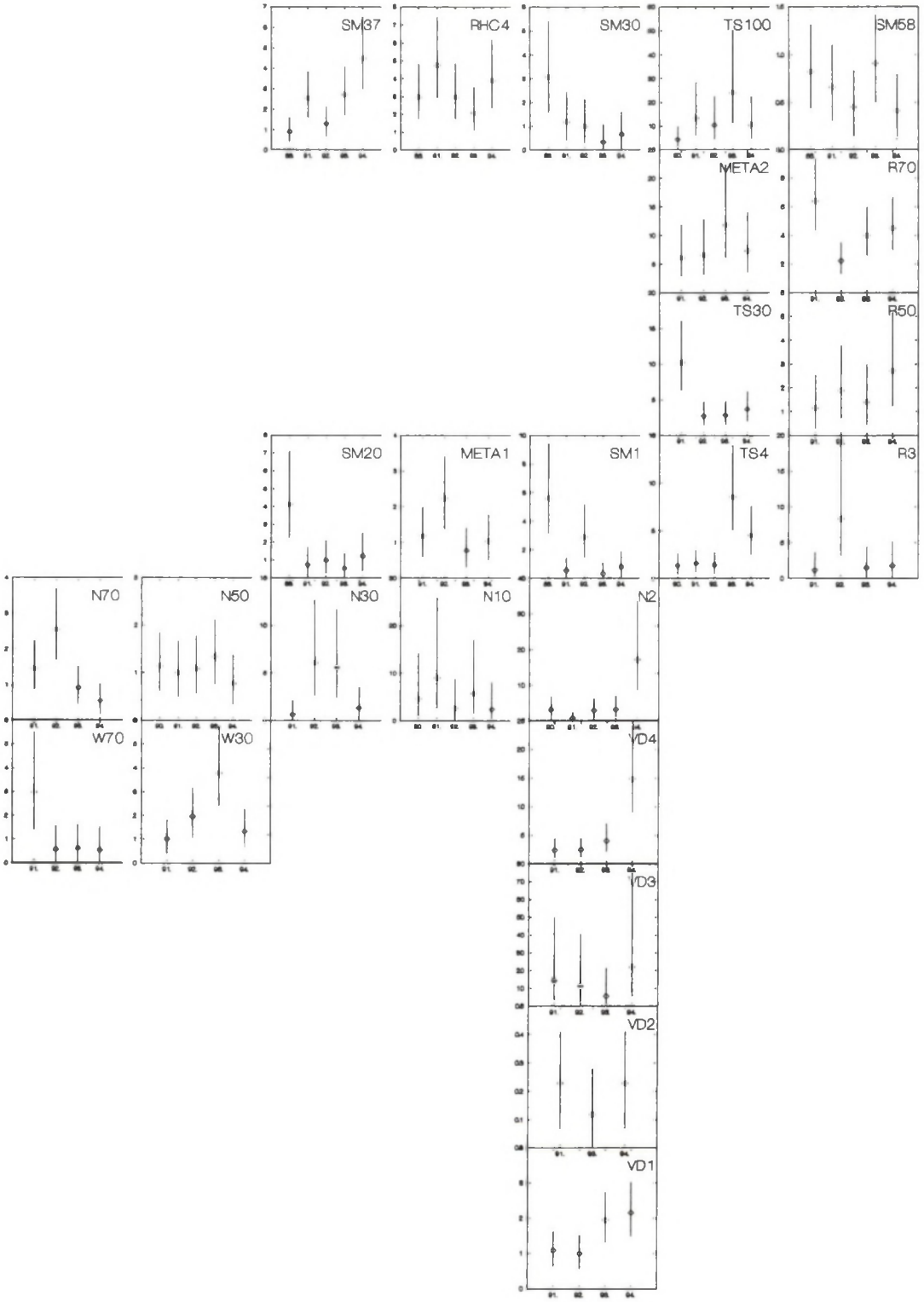

Fig. 5p. Comparison plots with the total biomass of the Polychaetes (g.AFDW./m^2), for the period 1986 -1994 (Note that only part of the stations were sampled prior to 1991). The 95% comparison limits are presented as bars; non overlapping bars denote a significant difference between the corresponding means.

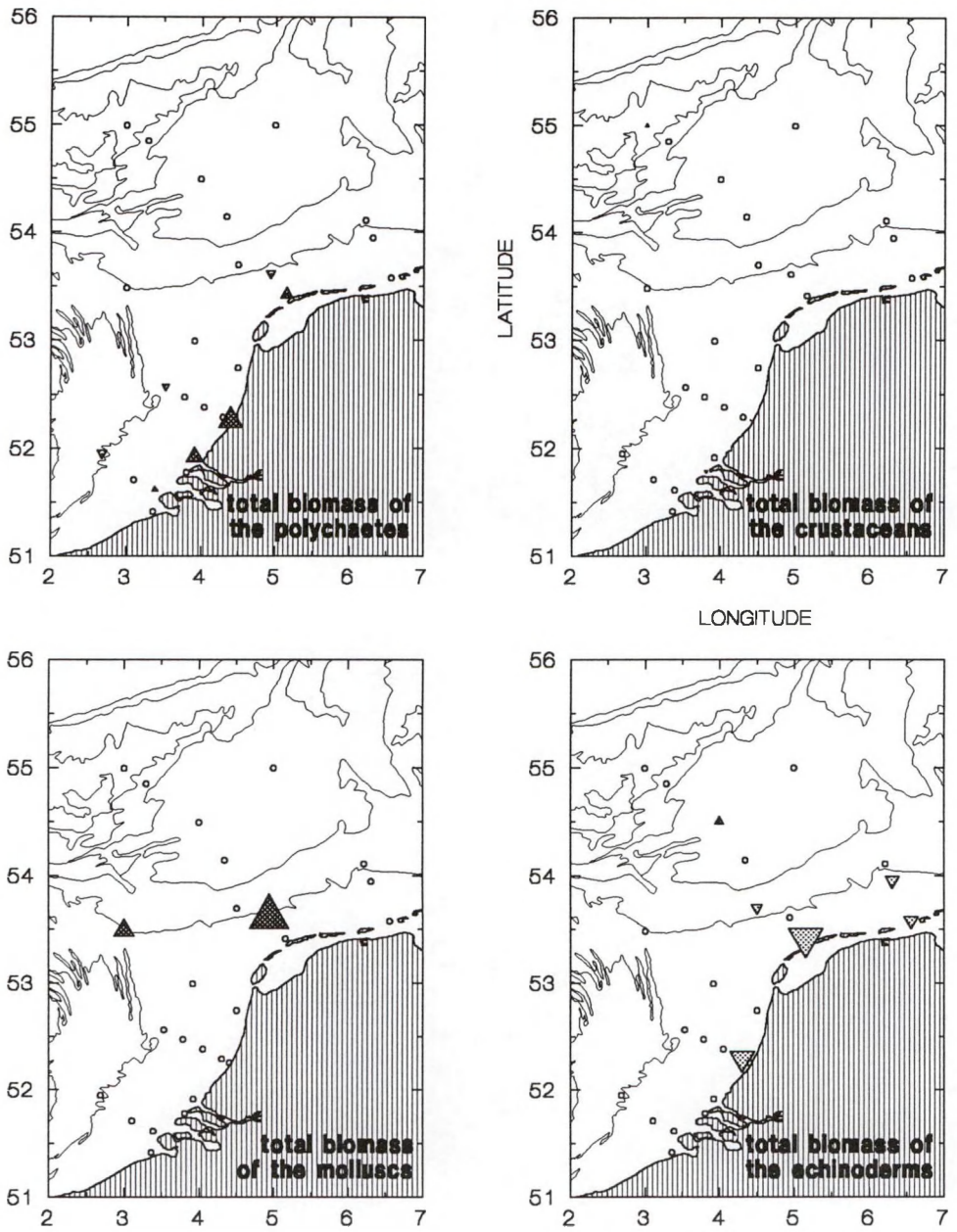

Fig. 6a. Trend-like changes in community atributes at the separate stations, during 1991-1994. The symbols ▲ and ▼ indicate respectively an upward or downward trend. The size of these symbols indicates the magnitude of the regression coefficient (slope). The symbol ◦ indicates no significant trend.

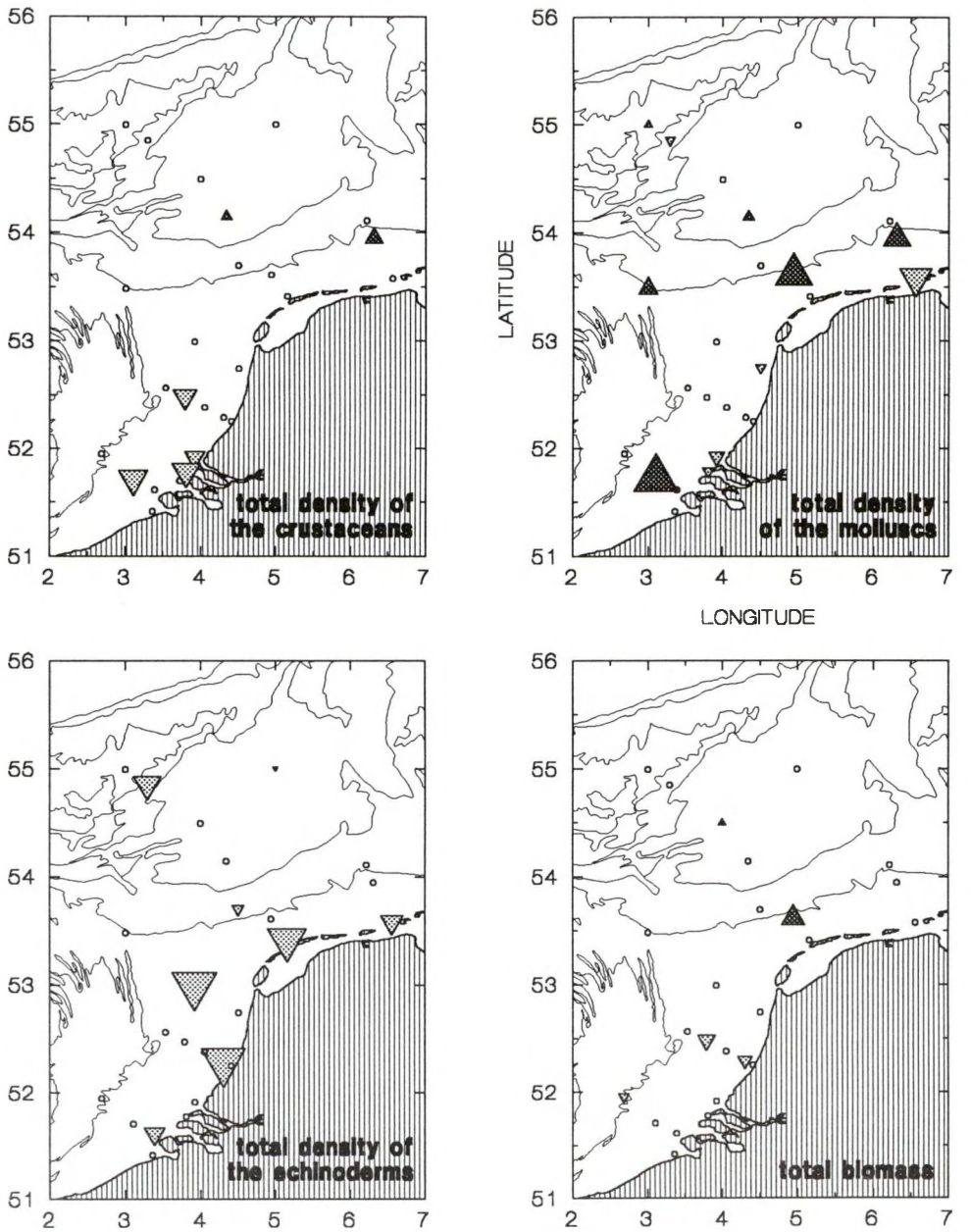

Fig. 6b. Trend-like changes in community atributes at the separate stations, during 1991-1994. The symbols ▲ and ▼ indicate respectively an upward or downward trend. The size of these symbols indicates the magnitude of the regression coefficient (slope). The symbol ◦ indicates no significant trend.

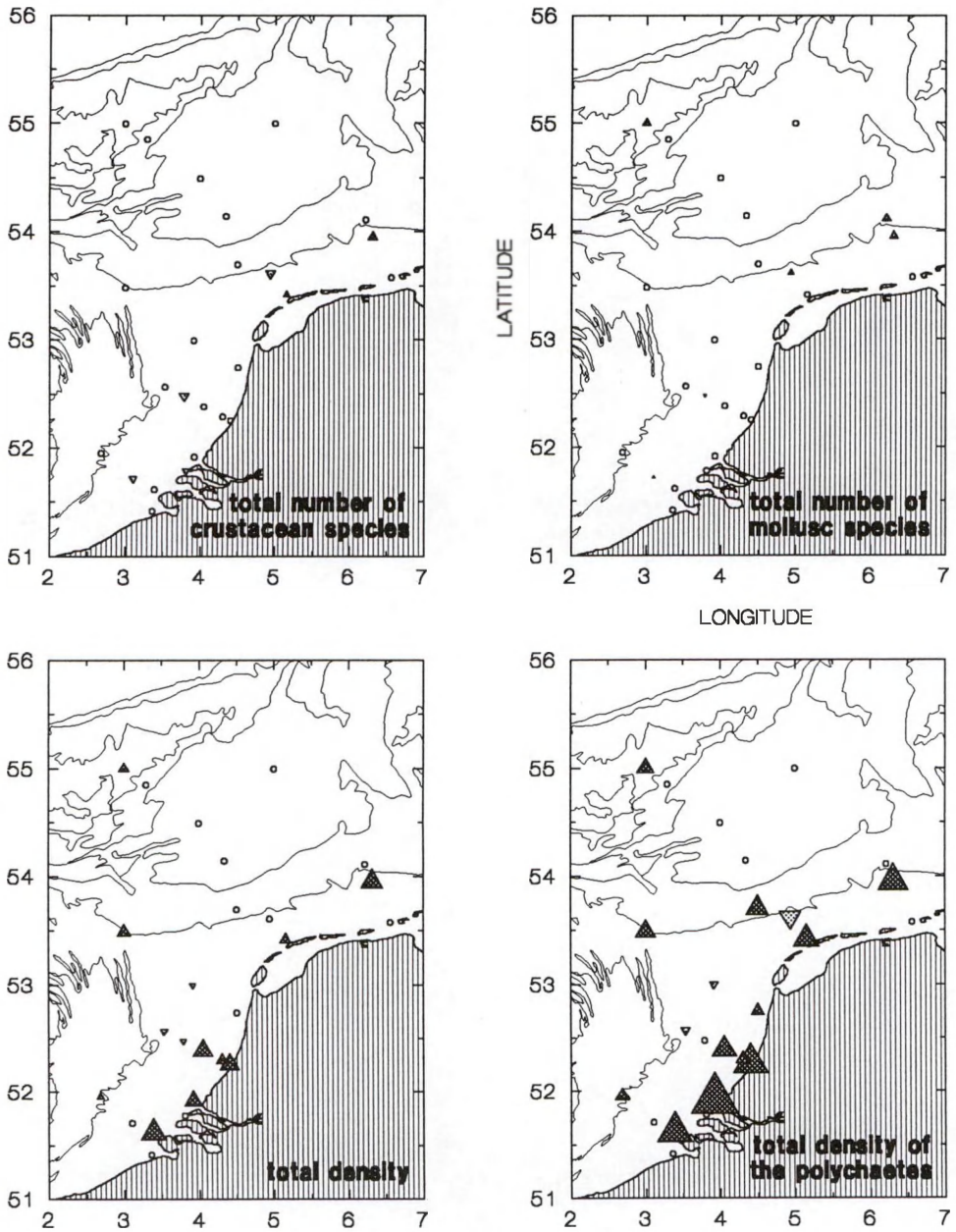

Fig. 6c. Trend-like changes in community atributes at the separate stations, during 1991-1994. The symbols ▲ and ▼ indicate respectively an upward or downward trend. The size of these symbols indicates the magnitude of the regression coefficient (slope). The symbol ∘ indicates no significant trend.

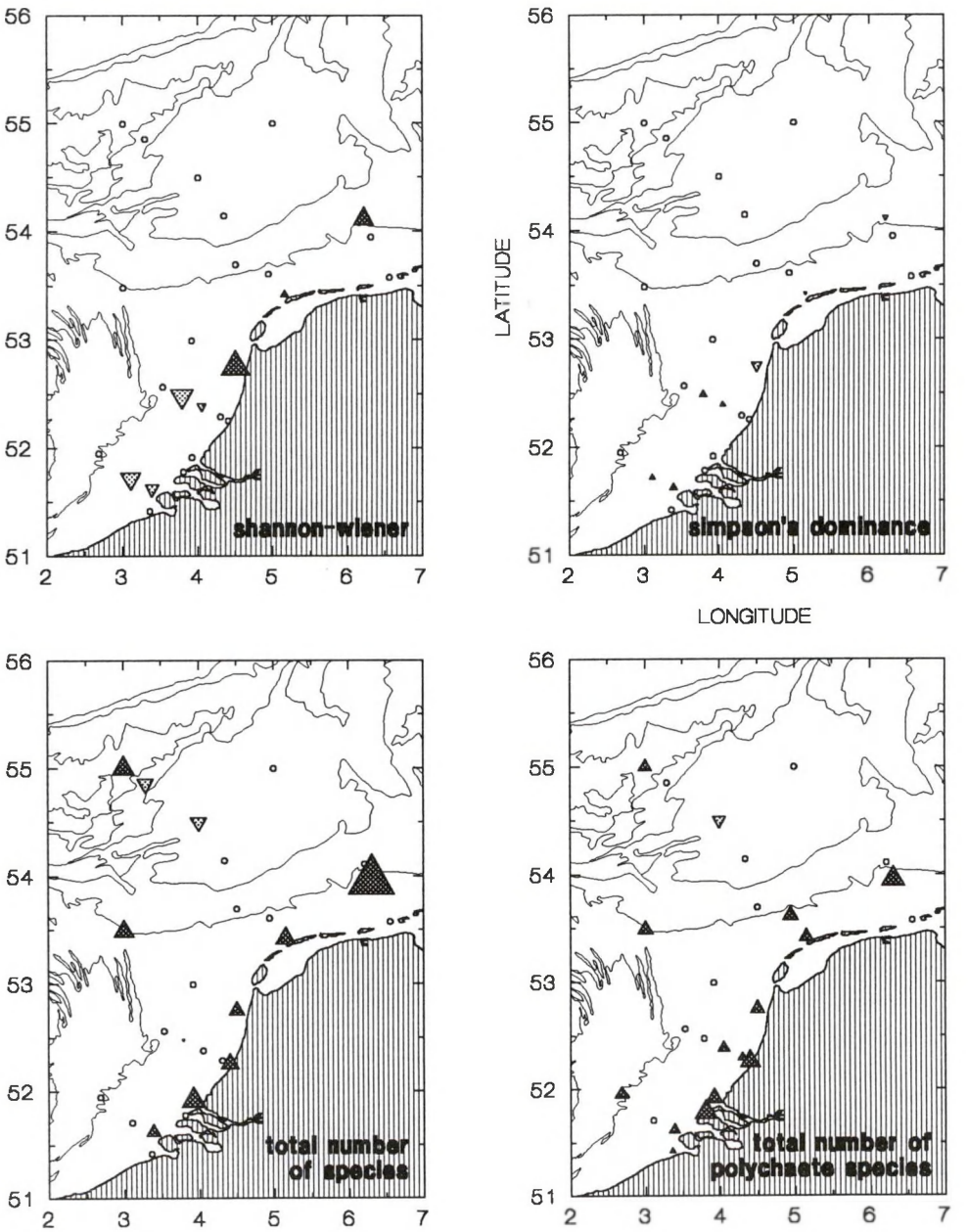

Fig. 6d. Trend-like changes in community atributes at the separate stations, during 1991-1994. The symbols ▲ and ▼ indicate respectively an upward or downward trend. The size of these symbols indicates the magnitude of the regression coefficient (slope). The symbol ₀ indicates no significant trend.

Table 4. Overview of differences and trends in attributes of the community and phyla.
▒ indicates a significant difference among the attributes of the stations in the studied years (c.f. Fig. 5a-p). Notice that for the clusters only the years of the period 1991-1994 are compared.
The symbols > and < respectively stand for an upward or downward trend in this period (c.f. Fig. 6a-d). Double arrows (>>) indicate that the trend remains significant over the extended time period, viz. 1990-1994 for stations TS4, TS100, N2, N10, N50, and 1986-1994 for stations SM30, RHC4, SM58, SM1, SM20 and SM37.

STATION	PERIOD	SH-WI	SIMPSON	TOT-SPEC	CRUSSPEC	MOLLSPEC	POLYSPEC	TOT-DENS	CRUSDENS	ECHIDENS	MOLLDENS	POLYDENS	TOT-BIOM	CRUSBIOM	ECHIBIOM	MOLLBIOM	POLYBIOM	CLUSTER
META2	91-94									>		>			<			OYSTER 1
TS100	91-94								>>		>>							
oyster1 cluster	90-94																	
oyster1 cluster	91-94																	
SM30	91-94			<			<						>>		>>			OYSTER 2
RHC4	91-94			<>						<	<							
SM58	91-94									<								
oyster2 cluster	86-94																	
oyster2 cluster	91-94																	
R3	91-94									<	<				<			COASTAL
TS4	91-94	>	<	>>	>		>>	>>		<		>>			<		>>	
TS30	91-94				<	>	>				>	<	>			>	<	
SM1	91-94	>	<	>			>				<<	>						
N2	91-94			>>			>>	>>				>>		>>			>>	
N10	91-94						>>	>>		<		>	<		<			
VD4	91-94			>			>	>	<		<	>					>	
VD3	91-94				<		>		<		<			<				
VD1	91-94	<	>	>			>	>		<		>					<	
coastal cluster	86-94			>		>	>	>										
coastal cluster	90-94			>		>	>			<								
coastal cluster	91-94			>			>			<		>						
R50	91-94			>	>	>	>	>	>		>	>			<			OFFSHORE
R70	91-94	>	<			>												
META1	91-94							<		<		<						
SM20	91-94			>			>	>			>	>				>		
N30	91-94	<	>				>	>				>						
N50	91-94	<<	>>	<<	<	<		<	<<				<					
N70	91-94							<				<					<	
VD2	91-94				<		>		<									
W30	91-94	<	>		<	>			<		>							
W70	91-94						>	>				>	<				<	
SM37	91-94			>>		>>	>>	>>			>>	>>		>>				
offshore cluster	86-94										>							
offshore cluster	90-94					>	>			<	>	>	<		<			
offshore cluster	91-94						>			<		>	<		<			

Appendices

Appendix - 1 Biomonitoring 1994

NOTE

Occurrences of the species that were collected during the Biomonitoring 1994-survey. The right-hand column shows the abbreviated species names as have been used in Appendix-2. The corresponding full latin names are shown in the left-hand column.

Appendix - 1 Biomonitoring 1994

	R3	R50	R70	SM58	TS4	TS30	META2	TS100	SM30	RHC4	SM37	SM1	META1	SM20	N2	N10	N30	N50	N70	VD4	VD3	VD2	VD1	W30	W70	
ABRA ALBA	-	-	-	+	-	+	+	-	+	-	-	-	-	+	+	-	-	-	-	-	+	-	+	-	-	ABRA ALBA
ABRA JUVENILE	-	-	+	-	-	-	-	-	-	+	-	-	-	-	+	-	-	-	-	-	+	-	-	-	-	ABRA JUVE
ABRA NITIDA	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ABRA NITI
ABRA PRISMATICA	-	-	-	+	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ABRA PRIS
ACROCNIDA BRACHIATA	-	-	-	-	-	+	-	-	-	+	+	-	-	+	-	-	-	-	-	-	-	-	-	-	-	ACRO BRAC
AMPELISCA BREVICORNIS	-	-	-	+	-	-	-	-	-	-	+	+	-	-	+	-	-	-	-	-	-	-	-	-	-	AMPE BREV
AMPELISCA TENUICORNIS	-	-	-	-	-	-	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	AMPE TENU
AMPHIPODA	-	-	+	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	AMPH IPOD
AMPHIURA FILIFORMIS	-	-	+	+	-	-	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	AMPH FILI
AMPHIURA JUVENILE	-	-	+	-	-	-	+	-	-	+	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	AMPH JUVE
AMPHIURA SPEC.	-	+	-	-	-	-	-	-	-	+	-	-	-	-	-	-	+	-	-	+	-	-	-	-	-	AMPH SPEC
ANAITIDES GROENLANDICA	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ANAI GROE
ANAITIDES MACULATA	-	+	+	+	+	+	-	-	-	+	+	+	-	-	+	+	-	-	-	+	+	-	-	-	-	ANAI MACU
ANAITIDES MUCOSA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	ANAI MUCO
ANAITIDES JUVENILE	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	ANAI JUVE
ANAITIDES SPEC.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-	-	-	-	-	-	ANAI SPEC
ANAITIDES SUBULIFERA	-	-	-	-	-	-	-	-	-	-	-	+	-	+	-	-	-	-	-	-	-	-	+	-	-	ANAI SUBU
ANTHOZOA	-	+	+	-	-	+	-	-	-	-	-	+	-	+	+	-	-	-	-	+	+	-	-	-	-	ANTH OZOA
AONIDES PAUCIBRANCHIATA	-	+	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	AONI PAUC
AONIDES SPEC.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	AONI SPEC
AORA TYPICA	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	AORA TYPI
APHERUSA CLEVEI	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	APHE CLEV
APHERUSA OVALIPES	-	-	-	-	-	-	-	-	-	-	+	-	+	+	-	-	-	-	-	-	-	-	-	-	-	APHE OVAL
ARCHIANNELIDA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	ARCH IANN
ARCTICA ISLANDICA	-	-	-	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ARCT ISLA
ARGISSA HAMATIPES	-	+	+	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ARGI HAMA
ARICIDEA JEFFREYSII	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	ARIC JEFF
ARICIDEA MINUTA	-	-	-	-	-	-	-	-	+	-	+	-	+	-	-	-	+	+	+	-	-	-	-	-	+	ARIC MINU
ASTARTE TRIANGULARIS	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ASTA TRIA
ASTERIAS JUVENILE	-	+	+	-	+	+	-	-	-	-	-	+	-	-	+	+	+	-	-	+	+	-	+	-	-	ASTE JUVE
ASTERIAS RUBENS	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	ASTE RUBE
ASTROPECTEN IRREGULARIS	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	ASTR IRRE
ATYLUS FALCATUS	-	+	+	-	+	-	-	-	-	-	+	-	-	-	+	+	+	-	-	-	-	-	+	-	-	ATYL FALC
ATYLUS SWAMMERDAMI	-	+	+	-	+	-	-	-	-	-	-	-	-	-	+	-	-	-	-	+	+	+	-	+	+	ATYL SWAM
AUTOLYTUS SPEC.	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	AUTO SPEC
BATHYPOREIA ELEGANS	+	+	+	+	-	-	-	-	-	-	+	-	+	+	-	+	+	+	+	-	-	-	+	-	+	BATH ELEG
BATHYPOREIA GUILLIAMSONIANA	+	-	+	-	+	-	-	-	-	+	+	+	+	-	-	+	+	+	+	-	-	-	-	-	-	BATH GUIL
BATHYPOREIA JUVENILE	-	-	+	-	+	-	-	-	-	-	+	-	+	-	-	+	-	-	+	-	-	-	-	-	-	BATH JUVE
BATHYPOREIA PELAGICA	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BATH PELA
BATHYPOREIA TENUIPES	-	-	-	+	-	-	-	-	+	+	+	-	-	+	-	-	-	-	-	-	-	-	-	-	-	BATH TENU
BODOTRIA ARENOSA	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	BODO AREN
BODOTRIA PULCHELLA	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BODO PULC
BODOTRIA SCORPIOIDES	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	-	-	-	-	+	-	-	-	-	-	BODO SCOR
BRANCHIOSTOMA LANCEOLATUM	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BRAN LANC
BRISSOPSIS LYRIFERA	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BRIS LYRI
CALLIANASSA SUBTERRANEA	-	-	+	+	-	-	+	+	+	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	CALL SUBT
CAPITELLA CAPITATA	+	-	-	-	+	-	-	-	-	-	-	-	-	-	+	-	-	-	-	+	+	-	+	-	-	CAPI CAPI
CAPITELLA JUVENILE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	CAPI JUVE
CAPITELLIDAE	-	+	+	-	-	+	-	-	-	-	-	-	-	-	+	-	-	-	-	+	+	-	-	-	-	CAPR ELLI
CARDIUM SPEC.	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CARD SPEC
CARDIUM JUVENILE	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CARD JUVE
CAULLERIELLA SPEC.	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	CAUL SPEC
CHAETOPTERUS VARIOPEDATUS	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CHAE VARI
CHAETOZONE SETOSA	-	-	+	+	+	+	-	-	+	+	+	+	+	+	+	-	-	+	-	+	-	-	-	-	-	CHAE SETO
CHLAMYS VARIA	-	-	-	-	+	-	-	-	-	-	-	-	+	-	-	+	-	-	-	+	-	-	-	-	-	CHLA VARI

Appendix - 1 Biomonitoring 1994

	R3	R50	R70	SM58	TS4	TS30	META2	TS100	SM30	RHC4	SM37	SM1	META1	SM20	N2	N10	N30	N50	N70	VD4	VD3	VD2	VD1	W30	W70	
CINGULA VITREA	-	-	-	+	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CING VITR
CORBULA GIBBA	-	-	-	+	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CORB GIBB
CUCUMARIA ELONGATA	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CUCU ELON
CULTELLUS PELLUCIDUS	-	+	+	+	+	-	-	+	-	+	+	-	-	+	-	-	-	-	-	-	+	-	-	-	-	CULT PELL
CYLICHNA CYLINDRACEA	-	-	+	+	-	-	+	+	+	+	+	-	-	+	-	-	-	-	-	-	-	-	-	-	-	CYLI CYLI
DIASTYLIS BRADYI	-	+	-	-	+	-	-	+	-	-	+	+	+	-	-	+	+	+	-	+	-	-	-	-	-	DIAS BRAD
DIASTYLIS RUGOSA	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	DIAS RUGO
DIPLOCIRRUS GLAUCUS	-	-	+	-	-	-	+	+	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	DIPL GLAU
DONAX VITTATUS	-	+	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	DONA VITT
DOSINIA JUVENILE	-	-	-	+	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	DOSI JUVE
DOSINIA EXOLETA	-	-	-	+	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	DOSI EXOL
DOSINIA LUPINUS	-	-	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	DOSI LUPI
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GOLFINGIA ELONGATA	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	GOLF ELON
GOLFINGIA PROCERA	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	GOLF PROC
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HARMOTHOE LONGISETIS	-	-	-	-	+	-	+	-	+	+	-	+	+	+	-	-	+	-	-	+	+	-	-	-	+	HARM LONG
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HARPINIA ANTENNARIA	-	-	-	+	-	-	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	HARP ANTE
HESIONURA AUGENERI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	+	+		HESI AUGE
HETEROMASTUS FILIFORMIS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	HETE FILI
HIPPOMEDON DENTICULATUS	-	-	+	+	-	-	-	+	-	+	+	-	-	+	-	-	-	-	+	-	-	-	-	-	-	HIPP DENT
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IONE THORACIA	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	IONE THOR
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Appendix - 1 Biomonitoring 1994

	R3	R50	R70	SM58	TS4	TS30	META2	TS100	SM30	RHC4	SM37	SM1	META1	SM20	N2	N10	N30	N50	N70	VD4	VD3	VD2	VD1	W30	W70	
LAMPROPS FASCIATA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	LAMP FASC
LANICE CONCHILEGA	+	+	+	-	+	-	+	-	-	+	+	+	+	+	+	+	+	-	+	+	+	-	+	-	+	LANI CONC
LANICE JUVENILE	-	-	+	-	+	+	+	-	-	-	-	-	-	+	-	-	-	+	-	-	+	-	-	-	-	LANI JUVE
LEPIDEPECREUM LONGICORNE	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	LEPI LONG
LEPTON SQUAMOSUM	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	LEPT SQUA
LEPTOSYNAPTA INHAERENS	-	-	-	-	-	-	+	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	LEPT INHA
LEUCOTHOE LILLJEBORGI	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	LEUC LILL
LEUCOTHOE RICHARDI	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	LEUC RICH
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MACTRA CORALLINA	-	+	+	-	+	-	-	-	-	-	-	+	-	-	+	+	+	+	+	+	-	-	+	+	+	MACT CORA
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MAGELONA JUVENILE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	MAGE JUVE
MAGELONA PAPILLICORNIS	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	MAGE PAPI
MALDANIDAE	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	MALD ANID
MEGALUROPUS AGILIS	-	+	-	-	-	+	-	-	-	+	+	-	+	-	-	+	+	+	+	-	-	-	+	+	+	MEGA AGIL
MELITA OBTUSATA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	MELI OBTU
MICROPHTALAMUS SPEC.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	MICR SPEC
MICROPROTOPUS MACULATUS	-	-	-	-	+	-	-	-	-	-	-	-	-	-	+	-	-	-	-	+	+	-	-	-	-	MICR MACU
MICROPHTALAMUS SCZELKOWII	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	MICR SCZE
MONTACUTA FERRUGINOSA	-	-	+	-	+	+	-	+	+	+	+	+	-	+	+	+	-	-	+	+	+	-	-	-	-	MONT FERR
MYSELLA BIDENTATA	-	-	+	+	+	+	+	+	+	+	+	+	-	+	+	+	-	-	-	+	+	-	+	-	+	MYSE BIDE
MYTILUS EDULIS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	+	-	-	MYTI EDUL
MYTILUS JUVENILE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	MYTI JUVE
NATICA ALDERI	-	+	+	+	-	+	+	-	-	+	+	+	+	+	-	-	+	+	+	-	-	-	-	+	+	NATI ALDE
NEMERTINI	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	NEME RTIN
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NEPHTYS CIRROSA	+	+	+	-	+	-	-	+	-	-	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+	NEPH CIRR
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OPHELIA LIMACINA	-	+	-	-	-	+	-	-	-	-	+	-	+	-	-	-	-	-	-	-	-	-	-	+	+	OPHE LIMA
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OPHIODROMUS FLEXUOSUS	-	+	+	+	-	-	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	OPHI FLEX
OPHIURA JUVENILE	-	-	-	-	-	+	-	-	-	-	-	+	+	+	+	-	+	+	+	+	-	-	-	+	+	OPHI JUVE
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PECTINARIA AURICOMA	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	PECT AURI
PECTINARIA KORENI	-	+	-	-	+	-	+	+	-	-	+	+	-	+	+	+	-	-	-	+	+	-	-	-	-	PECT KORE
PECTINARIA JUVENILE	-	-	-	-	-	+	-	-	-	-	-	-	-	-	+	-	-	-	-	-	+	-	-	-	-	PECT JUVE
PERIOCULODES LONGIMANUS	-	+	+	+	-	-	+	+	+	+	+	+	+	+	-	+	-	-	-	+	-	-	-	-	-	PERI LONG
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Appendix - 1 Biomonitoring 1994

	R3	R50	R70	SM58	TS4	TS30	META2	TS100	SM30	RHC4	SM37	SM1	META1	SM20	N2	N10	N30	N50	N70	VD4	VD3	VD2	VD1	W30	W70	
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PHOXICHILIDIUM FEMORATUM	-	-	+	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	PHOX FEMO
PISIONE REMOTA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	PISI REMO
PLATHYHELMITHES	-	-	-	-	-	-	-	-	-	+	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	PLAT HYHE
POECILOCHAETUS SERPENS	-	-	+	+	-	-	-	-	-	+	+	-	-	+	-	-	-	-	-	-	-	-	-	-	-	POEC SERP
POLYDORA	-	-	-	-	-	-	+	+	-	-	+	-	-	-	-	-	-	-	-	-	+	-	-	-	-	POLY DORA
POLYCIRRUS MEDUSA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	POLY MEDU
PONTOCRATES ALTAMARINUS	+	+	+	-	-	+	+	-	-	-	+	-	-	+	-	-	-	-	+	-	-	+	+	+	+	PONT ALTA
PONTOCRATES ARENARIUS	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	PONT AREN
PRIAPULIDA	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	PRIA PULI
PRIONOSPIO CIRRIFERA	-	-	-	+	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	PRIO CIRR
PROTODORVILLEA KEFERSTEINI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	+	PROT KEFE
PSEUDOCUMA LONGICORNIS	-	+	+	-	+	-	-	-	-	+	+	+	+	+	+	+	-	-	+	+	-	-	+	+	-	PSEU LONG
PSEUDOCUMA SIMILIS	+	+	-	-	-	-	-	-	-	-	-	+	+	+	-	-	+	+	-	-	-	-	-	+	+	PSEU SIMI
PSEUDOPOLYDORA PULCHRA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	PSEU PULC
SCALIBREGMA INFLATUM	-	-	-	+	-	-	+	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	SCAL INFL
SCOLOPLOS ARMIGER	+	+	-	+	+	+	-	-	+	-	+	+	+	+	+	+	+	+	+	+	+	-	+	-	+	SCOL ARMI
SCOLELEPIS BONNIERI	-	+	+	-	+	-	-	-	-	-	+	-	+	-	-	+	+	-	-	+	-	+	+	-	+	SCOL BONN
SCOLELEPIS JUVENILE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	SCOL JUVE
SCOLELEPIS SQUAMATA	-	-	-	-	-	+	-	-	-	-	+	-	-	-	-	-	-	+	+	-	-	-	-	-	-	SCOL SQUA
SIGALIOM MATHILDAE	-	-	+	+	+	+	-	-	+	+	+	-	-	+	+	-	-	-	-	+	-	-	-	-	-	SIGA MATH
SIPHONOECETES KROYERANUS	-	+	+	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	+	-	-	-	-	-	-	SIPH KROY
SIPUNCULIDA	-	-	+	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	SIPU NCUL
SPHAEROSYLLIS HYTRIX	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	+	SPHA HYST
SPIO FILICORNIS	+	+	-	+	+	+	-	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	SPIO FILI
SPIOPHANES BOMBYX	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	SPIO BOMB
SPIOPHANES KROYERI	-	-	-	-	-	-	-	-	+	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	SPIO KROY
SPISULA ELLIPTICA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	SPIS ELLI
SPISULA SUBTRUNCATA	-	-	-	-	+	+	-	-	-	-	+	+	-	-	+	-	-	-	-	+	+	-	-	-	-	SPIS SUBT
STHENELAIS LIMICOLA	-	-	+	-	-	-	+	+	+	+	+	-	-	+	-	-	-	-	-	-	-	-	-	-	-	STHE LIMI
STHENELAIS BOA	-	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-	-	-	-	-	+	-	-	-	-	STHE BOA
STREPTOSYLLIS WEBSTERI	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	+	STRE WEBS
SPYLLIDAE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	SYLL IDAE
SYNCHELIDIUM MACULATUM	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	SYNC MACU
SYNELMIS KLATTI	-	-	-	+	-	-	-	+	+	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	SYNE KLAT
TELLINA FABULA	+	+	+	+	+	+	-	-	-	+	+	+	+	+	+	-	-	-	-	+	+	-	+	-	-	TELL FABU
TELLINA JUVENILE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	TELL JUVE
TELLINA PYGMEA	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	TELL PYGM
TELLINA TENUIS	-	-	-	-	+	-	-	-	-	-	-	-	-	-	+	-	-	-	+	-	+	-	+	-	-	TELL TENU
THARYX MARIONI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	THAR MARI
THRACIA CONVEXA	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	THRA CONV
THRACIA PHASEOLINA	-	-	+	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	THRA PHAS
THYASIRA FLEXUOSA	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	THYA FLEX
TRAVISIA FORBESI	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	TRAV FORB
TURITELLA COMMUNIS	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	TURR COMM
UPOGEBIA DELTAURA	-	-	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	UPOG DELT
UROTHOE BREVICORNIS	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	+	+	-	-	+	-	-	-	UROT BREV
UROTHOE POSEIDONIS	+	-	+	-	+	+	-	-	-	-	+	+	+	-	+	+	+	-	+	+	+	-	+	-	+	UROT POSE
VENERUPIS PULLASTRA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	VENE PULL
VENUS STRIATULA	-	-	-	+	-	-	+	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	VENU STRI
No. Species	19	61	62	44	38	43	55	58	51	63	64	35	35	59	50	35	27	22	35	45	35	10	27	22	39	

NOTE

Explanation of abbreviations in the tables:

N	= Number of individuals per m^2
B	= Biomass in g AFDW/m^2
S.D.	= Sample standard deviation
SUMS	= Sum of densities per boxcore
NSPC	= Number of species per boxcore
SH-W	= Shannon-Wiener index of diversity in bits/ind.
SIMP	= Simpson's index of dominance

All species names have been abbreviated by the first four characters of the generic name and the first four characters of the specific name. For full latin names, see Appendix-1.

Station index:

Appendix - 2 Biomonitoring 1994

STATION : R3
GEOGR. POS. : 53° 34" 09' N 06° 33" 45' E
DATE : 14/06/94
DEPTH : 11 m
Median Grain: 166.5 µ
Perc. Mud. : 0.2 %

	BOX 1		BOX 2		BOX 3		BOX 4		BOX 5		MEAN	S.D.	MEAN	S.D.
	N	B	N	B	N	B	N	B	N	B	N		B	
CRUSTACEA														
BATHELEG	58.5	0.018	14.6	0.004	29.3	0.009	87.8	0.026	73.2	0.022	52.7(	30.3)	0.016(	0.009)
BATHGUIL	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	14.6	0.015	5.9(	8.0)	0.004(	0.006)
BATHPELA	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
PONTALTA	73.2	0.022	58.5	0.022	131.7	0.040	102.4	0.031	87.8	0.026	90.7(	28.1)	0.028(	0.008)
PSEUSIMI	14.6	0.003	0.0	0.000	14.6	0.003	0.0	0.000	14.6	0.003	8.8(	8.0)	0.002(	0.002)
UROTPOSE	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	2.9(	6.5)	0.001(	0.002)
MOLLUSCA														
MACOBALT	0.0	0.000	0.0	0.000	14.6	0.032	0.0	0.000	0.0	0.000	2.9(	6.5)	0.006(	0.014)
TELLFABU	14.6	0.202	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.040(	0.090)
POLYCHAETA														
CAPICAPI	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.002	5.9(	8.0)	0.001(	0.002)
ETEOLONG	14.6	0.004	14.6	0.008	29.3	0.010	14.6	0.002	0.0	0.000	14.6(	10.3)	0.005(	0.004)
LANICONC	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.002	2.9(	6.5)	0.000(	0.001)
MAGEPAPI	336.5	0.197	307.2	0.160	278.0	0.104	204.8	0.193	321.9	0.184	289.7(	52.1)	0.168(	0.038)
NEPHCIRR	248.7	1.896	263.3	1.427	160.9	1.388	175.6	1.356	204.8	1.672	210.7(	44.6)	1.548(	0.231)
NEPHHOMB	0.0	0.000	14.6	0.270	0.0	0.000	14.6	0.025	29.3	0.224	11.7(	12.2)	0.104(	0.132)
NEPHJUVE	73.2	0.010	204.8	0.027	175.6	0.023	219.4	0.029	131.7	0.017	160.9(	59.4)	0.021(	0.008)
SCOLARMI	0.0	0.000	14.6	0.021	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.004(	0.009)
SPIOBOMB	29.3	0.012	43.9	0.025	0.0	0.000	29.3	0.002	29.3	0.048	26.3(	16.0)	0.017(	0.020)
SPIOFILI	0.0	0.000	14.6	0.002	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
MISCELLANEOUS														
NEMERTIN	29.3	0.492	0.0	0.000	58.5	0.161	29.3	0.039	29.3	0.283	29.3(	20.7)	0.195(	0.200)
SUMS	921.7	2.86	965.6	1.97	892.4	1.77	877.8	1.70	980.2	2.50	927.5(	44.6)	2.162(	0.502)
NSPC	11		10		8		8		12					
SH-W	1.704		1.551		1.638		1.720		1.855					
SIMP	0.258		0.293		0.244		0.214		0.224					

Appendix - 2 Biomonitoring 1994

STATION : R50
GEOGR. POS. : 53° 57" 18' N 06° 18" 45' E
DATE : 14/06/94
DEPTH : 29 m
Median Grain: 357.5 µ
Perc. Mud. : 1.6 %

	BOX 1		BOX 2		BOX 3		BOX 4		BOX 5		MEAN	S.D.	MEAN	S.D.
	N	B	N	B	N	B	N	B	N	B	N		B	
CRUSTACEA														
APHECLEV	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.009	5.9(	13.1)	0.002(	0.004)
ARGIHAMA	29.3	0.009	14.6	0.004	29.3	0.009	14.6	0.004	43.9	0.013	26.3(	12.2)	0.008(	0.004)
ATYLFALC	0.0	0.000	0.0	0.000	29.3	0.009	0.0	0.000	0.0	0.000	5.9(	13.1)	0.002(	0.004)
ATYLSWAM	29.3	0.021	14.6	0.004	73.2	0.022	0.0	0.000	102.4	0.031	43.9(	42.7)	0.016(	0.013)
BATHELEG	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	2.9(	6.5)	0.001(	0.002)
BODOPULC	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.007	0.0	0.000	2.9(	6.5)	0.001(	0.003)
CAPRELLI	14.6	0.003	0.0	0.000	0.0	0.000	14.6	0.003	0.0	0.000	5.9(	8.0)	0.001(	0.002)
DIASBRAD	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.007	29.3	0.012	8.8(	13.1)	0.004(	0.005)
DIASRUGO	58.5	0.044	29.3	0.012	14.6	0.007	0.0	0.000	0.0	0.000	20.5(	24.5)	0.013(	0.018)
IPHITRIS	0.0	0.000	14.6	0.012	14.6	0.004	0.0	0.000	0.0	0.000	5.9(	8.0)	0.003(	0.005)
MEGAAGIL	0.0	0.000	14.6	0.004	0.0	0.000	29.3	0.009	0.0	0.000	8.8(	13.1)	0.003(	0.004)
PERILONG	14.6	0.009	0.0	0.000	0.0	0.000	29.3	0.009	0.0	0.000	8.8(	13.1)	0.004(	0.005)
PONTALTA	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
PSEULONG	0.0	0.000	87.8	0.018	0.0	0.000	0.0	0.000	0.0	0.000	17.6(	39.3)	0.004(	0.008)
PSEUSIMI	58.5	0.012	0.0	0.000	117.0	0.035	0.0	0.000	43.9	0.009	43.9(	48.5)	0.011(	0.014)
SIPHKROY	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
ECHINODERMATA														
AMPHSPEC	0.0	0.000	0.0	0.000	14.6	0.002	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
ASTEJUVE	0.0	0.000	43.9	0.013	58.5	0.018	117.0	0.035	204.8	0.061	84.9(	79.1)	0.025(	0.024)
ASTERUBE	102.4	0.016	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	20.5(	45.8)	0.003(	0.007)
ECHIFLAV	73.2	0.038	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6(	32.7)	0.008(	0.017)
ECHIJUVE	263.3	0.039	1404.5	0.197	307.2	0.043	1097.3	0.154	1038.7	0.145	822.2(	509.7)	0.116(	0.071)
ECHIPUSI	0.0	0.000	102.4	0.097	14.6	0.032	43.9	0.058	14.6	0.032	35.1(	40.9)	0.044(	0.036)
OPHIALBI	14.6	0.003	43.9	0.015	117.0	0.351	43.9	0.018	87.8	0.010	61.4(	40.6)	0.079(	0.152)
OPHISPEC	146.3	0.021	263.3	0.037	131.7	0.018	58.5	0.008	29.3	0.004	125.8(	91.1)	0.018(	0.013)
ASTATRIA	0.0	0.000	87.8	0.010	0.0	0.000	43.9	0.004	0.0	0.000	26.3(	39.3)	0.003(	0.004)
MOLLUSCA														
CULTPELL	0.0	0.000	29.3	0.002	0.0	0.000	43.9	0.002	43.9	0.004	23.4(	22.2)	0.002(	0.002)
DONAVITT	14.6	0.023	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.005(	0.010)
MACTCORA	58.5	0.007	58.5	0.007	58.5	0.004	73.2	0.026	146.3	0.034	79.0(	38.2)	0.016(	0.014)
NATIALDE	14.6	0.003	14.6	0.007	14.6	0.006	29.3	0.007	14.6	0.004	17.6(	6.5)	0.005(	0.002)
TELLFABU	29.3	0.002	29.3	0.002	0.0	0.000	29.3	0.010	14.6	0.002	20.5(	13.1)	0.003(	0.004)
TELLPYGM	0.0	0.000	29.3	0.006	14.6	0.004	14.6	0.002	14.6	0.063	14.6(	10.3)	0.015(	0.027)
POLYCHAETA														
ANAIMACU	14.6	0.002	43.9	0.004	14.6	0.002	14.6	0.004	29.3	0.006	23.4(	13.1)	0.004(	0.002)
AONIPAUC	0.0	0.000	14.6	0.004	73.2	0.006	14.6	0.002	29.3	0.008	26.3(	28.1)	0.004(	0.003)
ETEOLONG	0.0	0.000	14.6	0.004	0.0	0.000	14.6	0.008	14.6	0.004	8.8(	8.0)	0.003(	0.003)
EXOGHEBE	0.0	0.000	0.0	0.000	29.3	0.002	14.6	0.010	0.0	0.000	8.8(	13.1)	0.002(	0.004)
EXOGNAID	29.3	0.004	29.3	0.002	131.7	0.010	131.7	0.006	307.2	0.006	125.8(	113.6)	0.006(	0.003)
GLYCLAPI	0.0	0.000	0.0	0.000	175.6	0.184	0.0	0.000	0.0	0.000	35.1(	78.5)	0.037(	0.082)
GONIBOBR	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
GONIMACU	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	2.9(	6.5)	0.001(	0.002)
HARMSPEC	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
LANICONC	804.7	0.095	892.4	0.133	790.0	0.180	731.5	0.141	1199.7	0.158	883.7(	185.8)	0.141(	0.032)
MAGEPAPI	29.3	0.006	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	13.1)	0.001(	0.003)
NEPHCIRR	117.0	0.587	102.4	0.894	146.3	0.664	73.2	0.211	87.8	0.885	105.3(	28.1)	0.648(	0.279)
OPHELIMA	14.6	0.002	0.0	0.000	43.9	0.844	29.3	0.518	14.6	0.006	20.5(	16.7)	0.274(	0.389)
OPHIFLEX	14.6	0.006	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.003)
OWENFUSI	14.6	0.006	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.003)
PARAGRAC	14.6	0.002	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
PECTKORE	146.3	0.021	43.9	0.021	29.3	0.015	14.6	0.004	0.0	0.000	46.8(	58.0)	0.012(	0.010)
PHOLMINU	0.0	0.000	14.6	0.004	0.0	0.000	14.6	0.002	0.0	0.000	5.9(	8.0)	0.001(	0.002)
SCOLARMI	0.0	0.000	14.6	0.010	14.6	0.012	29.3	0.284	0.0	0.000	11.7(	12.2)	0.061(	0.125)
SCOLBONN	14.6	0.184	0.0	0.000	0.0	0.000	14.6	0.006	29.3	1.402	11.7(	12.2)	0.318(	0.611)
SPHAHYST	29.3	0.004	43.9	0.004	29.3	0.002	0.0	0.000	14.6	0.002	23.4(	16.7)	0.002(	0.002)
SPIOBOMB	1989.7	1.033	2092.1	1.016	1082.6	0.359	1799.5	1.250	1331.3	1.574	1659.0(	434.8)	1.046(	0.445)
SPIOFILI	234.1	0.060	907.1	0.261	160.9	0.133	292.6	0.068	541.3	0.112	427.2(	304.0)	0.127(	0.081)
TRAVFORB	14.6	0.083	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	5.9(	8.0)	0.017(	0.037)
MISCELLANEOUS														
ANTHOZOA	14.6	0.006	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.003)
BRANLANC	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.015	2.9(	6.5)	0.003(	0.007)
HYDROZOA	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	2.9(	6.5)	0.001(	0.002)
NEMERTIN	219.4	0.010	131.7	0.132	117.0	0.093	58.5	0.019	117.0	0.068	128.7(	58.0)	0.064(	0.051)
OLIGOCHA	0.0	0.000	0.0	0.000	73.2	0.158	131.7	0.006	14.6	0.002	43.9(	57.6)	0.033(	0.070)
PHORONID	0.0	0.000	907.1	0.363	0.0	0.000	0.0	0.000	0.0	0.000	181.4(	405.6)	0.073(	0.162)
SUMS	4667.0	2.37	7563.7	3.31	3920.8	3.23	5135.1	2.91	5617.9	4.69	5380.9(	1371.4)	3.301(	0.857)
NSPC	33		31		28		34		28					
SH-W	2.110		2.164		2.438		2.100		2.147					
SIMP	0.247		0.186		0.156		0.255		0.192					

Appendix - 2 Biomonitoring 1994

STATION : R70
GEOGR. POS. : 54° 7" 2' N 06° 12" 48' E
DATE : 14/06/94
DEPTH : 33 m
Median Grain: 225.7 µ
Perc. Mud. : 1.5 %

	BOX 1		BOX 2		BOX 3		BOX 4		BOX 5		MEAN	S.D.	MEAN	S.D.
	N	B	N	B	N	B	N	B	N	B	N		B	
CRUSTACEA														
AMPHIPOD	0.0	0.000	0.0	0.000	29.3	0.004	0.0	0.000	0.0	0.000	5.9(	13.1)	0.001(	0.002)
ARGIHAMA	14.6	0.004	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	8.0)	0.002(	0.002)
ATYLFALC	0.0	0.000	0.0	0.000	29.3	0.009	0.0	0.000	0.0	0.000	5.9(	13.1)	0.002(	0.004)
ATYLSWAM	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	2.9(	6.5)	0.001(	0.002)
BATHELEG	131.7	0.040	87.8	0.026	73.2	0.022	0.0	0.000	160.9	0.048	90.7(	61.6)	0.027(	0.018)
BATHGUIL	29.3	0.009	43.9	0.013	14.6	0.007	0.0	0.000	43.9	0.026	26.3(	19.1)	0.011(	0.010)
BATHJUVE	43.9	0.013	29.3	0.009	0.0	0.000	0.0	0.000	0.0	0.000	14.6(	20.7)	0.004(	0.006)
CALLSUBT	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.037	2.9(	6.5)	0.007(	0.017)
CAPRELLI	29.3	0.006	0.0	0.000	14.6	0.003	0.0	0.000	14.6	0.003	11.7(	12.2)	0.002(	0.003)
HIPPDENT	0.0	0.000	0.0	0.000	43.9	0.022	0.0	0.000	0.0	0.000	8.8(	19.6)	0.004(	0.010)
LEUCINCI	0.0	0.000	29.3	0.021	14.6	0.004	14.6	0.004	0.0	0.000	11.7(	12.2)	0.006(	0.009)
PERILONG	14.6	0.004	29.3	0.009	14.6	0.004	14.6	0.004	14.6	0.004	17.6(	6.5)	0.005(	0.002)
PHOXFEMO	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
PONTALTA	131.7	0.040	43.9	0.013	102.4	0.031	0.0	0.000	0.0	0.000	55.6(	59.8)	0.017(	0.018)
PSEULONG	0.0	0.000	14.6	0.004	0.0	0.000	43.9	0.022	0.0	0.000	11.7(	19.1)	0.005(	0.010)
SIPHKROY	0.0	0.000	14.6	0.004	58.5	0.018	0.0	0.000	0.0	0.000	14.6(	25.3)	0.004(	0.008)
UROTPOSE	14.6	0.004	43.9	0.018	73.2	0.029	73.2	0.029	0.0	0.000	41.0(	33.4)	0.016(	0.014)
ECHINODERMATA														
AMPHFILI	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	160.9	0.106	32.2(	72.0)	0.021(	0.047)
AMPHJUVE	29.3	0.004	73.2	0.010	87.8	0.012	117.0	0.016	0.0	0.000	61.4(	46.7)	0.008(	0.006)
ASTEJUVE	14.6	0.002	14.6	0.002	0.0	0.000	117.0	0.016	0.0	0.000	29.3(	49.6)	0.004(	0.007)
ECHIJUVE	0.0	0.000	87.8	0.012	58.5	0.008	58.5	0.008	0.0	0.000	41.0(	39.3)	0.006(	0.005)
ECHIPUSI	0.0	0.000	0.0	0.000	14.6	0.012	0.0	0.000	0.0	0.000	2.9(	6.5)	0.002(	0.005)
MOLLUSCA														
ABRAJUVE	14.6	0.002	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
CULTPELL	0.0	0.000	29.3	0.002	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	13.1)	0.000(	0.001)
CYLICYLI	0.0	0.000	14.6	0.006	14.6	0.002	0.0	0.000	14.6	0.003	8.8(	8.0)	0.002(	0.002)
DOSISPEC	0.0	0.000	0.0	0.000	14.6	0.002	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
ENSIJUVE	0.0	0.000	29.3	0.006	14.6	0.003	14.6	0.003	0.0	0.000	11.7(	12.2)	0.002(	0.003)
ENSISPEC	0.0	0.000	14.6	3.319	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.664(	1.484)
MACTCORA	0.0	0.000	29.3	0.004	14.6	0.035	14.6	0.002	0.0	0.000	11.7(	12.2)	0.008(	0.015)
MONTFERR	0.0	0.000	29.3	0.061	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	13.1)	0.012(	0.027)
MYSEBIDE	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.003	0.0	0.000	2.9(	6.5)	0.001(	0.001)
NATIALDE	0.0	0.000	43.9	0.037	29.3	0.041	87.8	0.111	73.2	0.233	46.8(	34.9)	0.084(	0.092)
NUCUTURG	14.6	0.009	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.002(	0.004)
TELLFABU	58.5	0.138	160.9	0.149	117.0	0.173	87.8	0.016	73.2	0.004	99.5(	40.6)	0.096(	0.080)
THRAPHAS	29.3	0.004	87.8	0.091	14.6	0.003	131.7	0.114	117.0	0.083	76.1(	52.1)	0.059(	0.052)
POLYCHAETA														
ANAIMACU	0.0	0.000	29.3	0.657	0.0	0.000	43.9	0.033	0.0	0.000	14.6(	20.7)	0.138(	0.290)
CHAESETO	29.3	0.014	0.0	0.000	0.0	0.000	14.6	0.004	58.5	0.015	20.5(	24.5)	0.007(	0.007)
DIPLGLAU	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
EUMISANG	0.0	0.000	73.2	0.006	58.5	0.004	131.7	0.006	0.0	0.000	52.7(	55.3)	0.003(	0.003)
GONIMACU	14.6	0.025	14.6	0.133	14.6	0.008	73.2	0.110	117.0	0.446	46.8(	46.7)	0.144(	0.177)
HARMLUNU	0.0	0.000	14.6	0.002	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
LANICONC	43.9	1.582	497.4	0.224	73.2	2.744	526.7	5.164	14.6	0.052	231.2(	257.5)	1.953(	2.102)
LANIJUVE	102.4	0.014	0.0	0.000	336.5	0.016	351.1	0.018	131.7	0.006	184.3(	153.6)	0.011(	0.008)
MAGEALLE	29.3	0.037	0.0	0.000	0.0	0.000	0.0	0.000	43.9	0.073	14.6(	20.7)	0.022(	0.033)
MAGEPAPI	1492.3	2.412	1024.1	1.416	643.7	0.958	1038.7	1.443	512.0	0.328	942.2(	384.9)	1.311(	0.763)
NEPHCIRR	0.0	0.000	0.0	0.000	14.6	0.015	14.6	0.068	0.0	0.000	5.9(	8.0)	0.017(	0.029)
NEPHHOMB	14.6	1.721	0.0	0.000	14.6	0.178	14.6	0.021	14.6	0.649	11.7(	6.5)	0.514(	0.724)
NEPHJUVE	14.6	0.056	43.9	0.004	29.3	0.002	58.5	0.006	160.9	0.025	61.4(	58.0)	0.019(	0.023)
NERELONG	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.002	0.0	0.000	2.9(	6.5)	0.000(	0.001)
NOTOLATE	0.0	0.000	14.6	0.307	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.061(	0.137)
OPHIFLEX	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.002	2.9(	6.5)	0.000(	0.001)
OWENFUSI	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.035	73.2	0.027	20.5(	32.1)	0.012(	0.017)
PHOLMINU	0.0	0.000	29.3	0.004	14.6	0.002	73.2	0.008	58.5	0.004	35.1(	30.3)	0.004(	0.003)
POECSERP	0.0	0.000	0.0	0.000	14.6	0.002	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
SCOLBONN	58.5	0.572	0.0	0.000	0.0	0.000	29.3	0.203	0.0	0.000	17.6(	26.2)	0.155(	0.249)
SIGAMATH	0.0	0.000	58.5	1.170	43.9	0.141	73.2	0.747	58.5	0.404	46.8(	28.1)	0.492(	0.474)
SPIOBOMB	131.7	0.021	190.2	0.021	29.3	0.010	131.7	0.031	292.6	0.072	155.1(	96.3)	0.031(	0.024)
STHELIMI	0.0	0.000	29.3	0.241	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	13.1)	0.048(	0.108)
MISCELLANEOUS														
ANTHOZOA	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.010	0.0	0.000	2.9(	6.5)	0.002(	0.004)
NEMERTIN	102.4	0.026	160.9	0.029	219.4	0.238	380.4	0.103	248.7	0.064	222.4(	104.7)	0.092(	0.087)
PHORONID	73.2	0.029	117.0	0.047	234.1	0.094	14.6	0.006	395.0	0.158	166.8(	150.8)	0.067(	0.060)
SIPUNCUL	0.0	0.000	14.6	1.016	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.203(	0.454)
SUMS	2677.3	6.79	3291.7	9.10	2604.1	4.86	3833.1	8.37	2882.1	2.87	3057.7(	509.2)	6.398(	2.557)
NSPC	20		32		31		27		23					
SH-W	1.707		2.515		2.638		2.362		2.606					
SIMP	0.382		0.158		0.133		0.164		0.101					

Appendix - 2 Biomonitoring 1994

STATION : SM58
GEOGR. POS. : 55° 00" 01' N 04° 59" 56' E
DATE : 14/06/94
DEPTH : 41 m
Median Grain: 147.4 µ
Perc. Mud. : 2.1 %

	BOX 1		BOX 2		BOX 3		BOX 4		BOX 5		MEAN	S.D.	MEAN	S.D.
	N	B	N	B	N	B	N	B	N	B	N		B	
CRUSTACEA														
AMPEBREV	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.015	0.0	0.000	2.9(	6.5)	0.003(	0.007)
BATHELEG	0.0	0.000	58.5	0.018	117.0	0.035	102.4	0.031	204.8	0.061	96.6(	75.7)	0.029(	0.023)
BATHTENU	87.8	0.026	73.2	0.022	73.2	0.022	73.2	0.022	58.5	0.018	73.1(	10.3)	0.022(	0.003)
CALLSUBT	29.3	0.878	117.0	1.911	102.4	4.025	58.5	1.925	175.6	10.902	96.6(	56.3)	3.928(	4.063)
EUDODEFO	0.0	0.000	43.9	0.018	58.5	0.018	87.8	0.026	58.5	0.023	49.7(	32.1)	0.017(	0.010)
HARPANTE	29.3	0.009	190.2	0.057	43.9	0.022	43.9	0.022	87.8	0.026	79.0(	65.9)	0.027(	0.018)
HIPPDENT	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.009	5.9(	13.1)	0.002(	0.004)
IONETHOR	14.6	0.015	29.3	0.037	0.0	0.000	0.0	0.000	0.0	0.000	8.8(	13.1)	0.010(	0.016)
PERILONG	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	2.9(	6.5)	0.001(	0.002)
ECHINODERMATA														
AMPHFILI	877.8	14.497	921.7	18.274	1170.4	20.035	980.2	17.313	863.2	17.260	962.7(	124.7)	17.476(	2.008)
MOLLUSCA														
ABRAALBA	14.6	0.002	14.6	0.002	0.0	0.000	0.0	0.000	14.6	0.002	8.8(	8.0)	0.001(	0.001)
ABRAPRIS	0.0	0.000	14.6	0.022	0.0	0.000	14.6	0.238	0.0	0.000	5.9(	8.0)	0.052(	0.104)
CINGVITR	58.5	0.010	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	11.7(	26.2)	0.002(	0.004)
CORBGIBB	14.6	0.003	190.2	0.041	117.0	0.026	263.3	0.058	87.8	0.022	134.6(	95.6)	0.030(	0.021)
CULTPELL	14.6	0.002	14.6	0.002	0.0	0.000	29.3	0.003	0.0	0.000	11.7(	12.2)	0.001(	0.001)
CYLICYLI	29.3	0.010	0.0	0.000	43.9	0.076	43.9	0.136	0.0	0.000	23.4(	22.2)	0.044(	0.060)
DOSIEXOL	0.0	0.000	29.3	1.381	29.3	2.276	0.0	0.000	0.0	0.000	11.7(	16.0)	0.731(	1.050)
DOSIJUVE	0.0	0.000	0.0	0.000	14.6	0.002	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
EULIALBA	14.6	0.015	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.003(	0.007)
MYSEBIDE	702.2	0.140	716.9	0.143	848.5	0.170	1009.5	0.202	760.8	0.152	807.6(	126.4)	0.161(	0.026)
NATIALDE	0.0	0.000	14.6	0.002	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
NUCUTENU	73.2	0.044	131.7	0.107	102.4	0.100	117.0	0.108	14.6	0.004	87.8(	46.3)	0.073(	0.047)
NUCUTURG	43.9	0.369	43.9	0.168	0.0	0.000	29.3	0.142	0.0	0.000	23.4(	22.2)	0.136(	0.152)
TELLFABU	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.007	0.0	0.000	2.9(	6.5)	0.001(	0.003)
VENUSTRI	14.6	0.003	14.6	0.007	29.3	2.486	0.0	0.000	14.6	0.002	14.6(	10.3)	0.500(	1.110)
POLYCHAETA														
ANAIMACU	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
CHAESETO	29.3	0.006	58.5	0.025	43.9	0.008	29.3	0.004	29.3	0.008	38.0(	13.1)	0.010(	0.008)
GONIMACU	14.6	0.002	29.3	0.004	14.6	0.004	0.0	0.000	0.0	0.000	11.7(	12.2)	0.002(	0.002)
MAGEPAPI	43.9	0.014	102.4	0.015	73.2	0.008	102.4	0.023	43.9	0.006	73.2(	29.3)	0.013(	0.007)
NEPHHOMB	14.6	0.004	14.6	0.077	0.0	0.000	14.6	0.342	0.0	0.000	8.8(	8.0)	0.085(	0.148)
NEPHJUVE	14.6	0.004	0.0	0.000	29.3	0.006	0.0	0.000	29.3	0.006	14.6(	14.6)	0.003(	0.003)
OPHEACUM	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.075	0.0	0.000	2.9(	6.5)	0.015(	0.034)
OPHIFLEX	14.6	0.010	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.002(	0.004)
PHOLMINU	131.7	0.025	190.2	0.037	219.4	0.046	321.9	0.054	87.8	0.015	190.2(	89.6)	0.035(	0.016)
POECSERP	14.6	0.017	14.6	0.029	0.0	0.000	0.0	0.000	14.6	0.004	8.8(	8.0)	0.010(	0.013)
PRIOCIRR	0.0	0.000	0.0	0.000	14.6	0.002	14.6	0.002	0.0	0.000	5.9(	8.0)	0.001(	0.001)
SCALINFL	0.0	0.000	0.0	0.000	14.6	0.433	0.0	0.000	0.0	0.000	2.9(	6.5)	0.087(	0.194)
SCOLARMI	29.3	0.037	131.7	0.209	160.9	0.176	58.5	0.102	87.8	0.184	93.6(	53.4)	0.142(	0.071)
SIGAMATH	0.0	0.000	14.6	0.035	14.6	0.044	0.0	0.000	0.0	0.000	5.9(	8.0)	0.016(	0.022)
SPIOBOMB	43.9	0.006	58.5	0.025	117.0	0.027	29.3	0.004	29.3	0.006	55.6(	36.4)	0.014(	0.011)
SPIOFILI	14.6	0.004	0.0	0.000	58.5	0.008	29.3	0.004	14.6	0.002	23.4(	22.2)	0.004(	0.003)
SYNEKLAT	87.8	0.012	0.0	0.000	58.5	0.008	43.9	0.006	73.2	0.008	52.7(	33.7)	0.007(	0.004)
MISCELLANEOUS														
OLIGOCHA	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
PHORONID	87.8	0.035	43.9	0.018	29.3	0.012	58.5	0.023	29.3	0.012	49.7(	24.5)	0.020(	0.010)
SUMS	2560.2	16.20	3291.7	22.69	3613.6	30.08	3613.6	20.89	2809.0	28.73	3177.6(	477.0)	23.718(	5.727)
NSPC	27		28		25		27		21					
SH-W	2.206		2.481		2.313		2.311		2.174					
SIMP	0.204		0.143		0.177		0.170		0.187					

Appendix - 2 Biomonitoring 1994

STATION : TS4
GEOGR. POS. : 53° 24" 54' N 05° 09" 05' E
DATE : 01/06/94
DEPTH : 12 m
Median Grain: 217.4 µ
Perc. Mud. : 0.0 %

	BOX 1		BOX 2		BOX 3		BOX 4		BOX 5		MEAN	S.D.	MEAN	S.D.
	N	B	N	B	N	B	N	B	N	B	N		B	
CRUSTACEA														
AMPHIPOD	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
ATYLFALC	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
ATYLSWAM	0.0	0.000	87.8	0.026	73.2	0.022	0.0	0.000	0.0	0.000	32.2(	44.4)	0.010(	0.013)
BATHGUIL	29.3	0.029	102.4	0.031	131.7	0.040	43.9	0.029	29.3	0.012	67.3(	47.0)	0.028(	0.010)
BATHJUVE	0.0	0.000	29.3	0.009	14.6	0.004	0.0	0.000	0.0	0.000	8.8(	13.1)	0.003(	0.004)
DIASBRAD	0.0	0.000	14.6	0.007	14.6	0.007	14.6	0.015	14.6	0.007	11.7(	6.5)	0.007(	0.005)
MICRMACU	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	14.6	0.004	5.9(	8.0)	0.002(	0.002)
PSEULONG	73.2	0.022	58.5	0.018	43.9	0.013	73.2	0.022	87.8	0.026	67.3(	16.7)	0.020(	0.005)
UROTPOSE	863.2	0.259	1068.0	0.320	819.3	0.246	1887.3	0.566	1960.4	0.588	1319.6(	560.1)	0.396(	0.168)
ECHINODERMATA														
ASTEJUVE	0.0	0.000	263.3	0.079	219.4	0.066	102.4	0.031	424.3	0.127	201.9(	161.4)	0.061(	0.048)
ECHIJUVE	0.0	0.000	29.3	0.006	102.4	0.021	29.3	0.006	117.0	0.023	55.6(	51.1)	0.011(	0.010)
MOLLUSCA														
CHLAVARI	0.0	0.000	14.6	0.002	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
CULTPELL	0.0	0.000	0.0	0.000	29.3	0.002	0.0	0.000	14.6	0.003	8.8(	13.1)	0.001(	0.001)
DONAVITT	58.5	7.610	102.4	20.500	73.2	9.820	204.8	33.586	146.3	23.977	117.0(	59.4)	19.099(	10.650)
MACOBALT	14.6	0.660	0.0	0.000	14.6	0.415	29.3	1.274	0.0	0.000	11.7(	12.2)	0.470(	0.531)
MACTCORA	0.0	0.000	14.6	0.002	0.0	0.000	29.3	0.006	14.6	0.002	11.7(	12.2)	0.002(	0.002)
MONTFERR	0.0	0.000	29.3	0.018	0.0	0.000	0.0	0.000	14.6	0.004	8.8(	13.1)	0.004(	0.008)
MYSEBIDE	0.0	0.000	0.0	0.000	14.6	0.003	29.3	0.012	14.6	0.003	11.7(	12.2)	0.004(	0.005)
SPISSUBT	0.0	0.000	29.3	0.743	0.0	0.000	14.6	0.546	14.6	0.140	11.7(	12.2)	0.286(	0.340)
TELLFABU	453.5	11.524	409.6	10.160	278.0	3.116	424.3	8.427	438.9	9.234	400.9(	70.6)	8.492(	3.218)
TELLTENU	0.0	0.000	14.6	0.002	0.0	0.000	43.9	0.003	0.0	0.000	11.7(	19.1)	0.001(	0.001)
POLYCHAETA														
ANAIMACU	14.6	0.002	219.4	0.043	292.6	0.060	190.2	0.097	321.9	0.048	207.7(	120.4)	0.050(	0.034)
CAPICAPI	0.0	0.000	29.3	0.002	0.0	0.000	14.6	0.021	29.3	0.004	14.6(	14.6)	0.005(	0.009)
CHAESETO	0.0	0.000	0.0	0.000	14.6	0.010	0.0	0.000	0.0	0.000	2.9(	6.5)	0.002(	0.004)
EUMISANG	0.0	0.000	102.4	0.043	175.6	0.077	14.6	0.012	14.6	0.015	61.4(	75.6)	0.029(	0.031)
HARMLONG	0.0	0.000	14.6	0.029	14.6	0.015	0.0	0.000	29.3	0.044	11.7(	12.2)	0.018(	0.019)
LANICONC	395.0	0.504	29.3	0.386	14.6	1.680	4520.7	0.815	58.5	6.653	1003.6(	1972.4)	2.008(	2.646)
LANIJUVE	0.0	0.000	6583.5	0.435	6773.7	0.854	0.0	0.000	8792.6	1.638	4430.0(	4135.6)	0.585(	0.687)
MAGEPAPI	1331.3	0.077	2355.4	0.230	1945.8	0.110	2984.5	0.222	1594.7	0.257	2042.3(	652.1)	0.179(	0.080)
NEPHCIRR	175.6	0.352	219.4	0.473	204.8	0.811	102.4	0.448	117.0	0.241	163.9(	52.1)	0.465(	0.214)
NEPHHOMB	58.5	1.377	58.5	0.848	43.9	1.362	73.2	2.501	58.5	2.416	58.5(	10.3)	1.701(	0.724)
PECTKORE	0.0	0.000	219.4	0.017	190.2	0.019	526.7	0.043	336.5	0.031	254.6(	194.3)	0.022(	0.016)
SCOLARMI	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.002	0.0	0.000	2.9(	6.5)	0.000(	0.001)
SCOLBONN	0.0	0.000	102.4	1.176	58.5	0.363	0.0	0.000	0.0	0.000	32.2(	46.7)	0.308(	0.510)
SIGAMATH	14.6	0.266	0.0	0.000	0.0	0.000	14.6	0.039	0.0	0.000	5.9(	8.0)	0.061(	0.116)
SPIOBOMB	190.2	0.052	365.8	0.023	921.7	0.064	380.4	0.066	365.8	0.075	444.8(	277.9)	0.056(	0.020)
SPIOFILI	29.3	0.004	87.8	0.012	0.0	0.000	0.0	0.000	73.2	0.006	38.0(	40.9)	0.004(	0.005)
MISCELLANEOUS														
NEMERTIN	73.2	0.351	43.9	2.655	146.3	0.721	117.0	1.419	102.4	1.526	96.6(	39.5)	1.334(	0.885)
SUMS	3774.5	23.09	12742.7	38.31	12625.7	19.92	11879.6	50.21	15200.6	47.10	11244.6(	4359.1)	35.726(	13.742)
NSPC	15		28		22		23		24					
SH-W	1.911		2.172		2.152		1.804		2.060					
SIMP	0.208		0.211		0.185		0.244		0.203					

Appendix - 2 Biomonitoring 1994

STATION : TS30
GEOGR. POS. : 53° 36" 52' N 04° 56" 19' E
DATE : 01/06/94
DEPTH : 25 m
Median Grain: 220.6 µ
Perc. Mud. : 1.5 %

	BOX 1		BOX 2		BOX 3		BOX 4		BOX 5		MEAN	S.D.	MEAN	S.D.
	N	B	N	B	N	B	N	B	N	B	N		B	
CRUSTACEA														
CAPRELLI	0.0	0.000	14.6	0.004	0.0	0.000	14.6	0.004	0.0	0.000	5.9(	8.0)	0.002(	0.002)
LEUCINCI	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.009	0.0	0.000	5.9(	13.1)	0.002(	0.004)
MEGAAGIL	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	2.9(	6.5)	0.001(	0.002)
PONTALTA	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.022	2.9(	6.5)	0.004(	0.010)
UROTPOSE	175.6	0.053	307.2	0.922	497.4	0.149	453.5	0.136	497.4	0.149	386.2(	141.3)	0.282(	0.360)
ECHINODERMATA														
ACROBRAC	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.088	0.0	0.000	2.9(	6.5)	0.018(	0.039)
ASTEJUVE	29.3	0.009	14.6	0.004	58.5	0.018	0.0	0.000	0.0	0.000	20.5(	24.5)	0.006(	0.008)
ECHICORD	29.3	9.910	58.5	39.523	29.3	7.796	0.0	0.000	14.6	5.709	26.3(	21.7)	12.588(	15.503)
ECHIJUVE	87.8	0.018	0.0	0.000	175.6	0.035	248.7	0.050	365.8	0.073	175.6(	141.5)	0.035(	0.028)
OPHIALBI	0.0	0.000	0.0	0.000	14.6	1.289	0.0	0.000	29.3	1.412	8.8(	13.1)	0.540(	0.741)
OPHIJUVE	29.3	0.009	14.6	0.004	14.6	0.004	0.0	0.000	0.0	0.000	11.7(	12.2)	0.003(	0.004)
MOLLUSCA														
ABRAALBA	0.0	0.000	14.6	0.002	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
DONAVITT	0.0	0.000	102.4	19.045	0.0	0.000	0.0	0.000	0.0	0.000	20.5(	45.8)	3.809(	8.517)
MONTFERR	160.9	0.094	351.1	0.269	131.7	0.072	43.9	0.037	73.2	0.048	152.2(	120.5)	0.104(	0.095)
MYSEBIDE	73.2	0.012	43.9	0.018	175.6	0.058	73.2	0.006	190.2	0.069	111.2(	66.7)	0.033(	0.029)
NATIALDE	190.2	5.495	73.2	1.873	175.6	7.766	58.5	2.540	58.5	1.704	111.2(	65.9)	3.876(	2.658)
SPISSUBT	6744.4	122.757	9641.2	173.89	11674.7	216.398	5983.7	106.966	3218.6	56.655	7452.5(	3286.4)	135.333(	61.667)
TELLFABU	131.7	0.042	380.4	21.070	87.8	0.119	43.9	0.009	102.4	0.069	149.2(	133.0)	4.262(	9.396)
POLYCHAETA														
ANAIGROE	14.6	0.718	0.0	0.000	14.6	0.108	0.0	0.000	0.0	0.000	5.9(	8.0)	0.165(	0.313)
ANAIJUVE	0.0	0.000	0.0	0.000	0.0	0.000	58.5	0.008	117.0	0.004	35.1(	52.3)	0.002(	0.004)
ANAIMACU	102.4	0.050	73.2	0.017	58.5	0.056	43.9	1.781	58.5	0.069	67.3(	22.2)	0.395(	0.775)
CHAESETO	43.9	0.008	29.3	0.004	0.0	0.000	0.0	0.000	0.0	0.000	14.6(	20.7)	0.002(	0.004)
ETEOLONG	117.0	0.025	14.6	0.002	0.0	0.000	73.2	0.010	29.3	0.004	46.8(	47.9)	0.008(	0.010)
GONIMACU	43.9	0.498	14.6	0.054	14.6	0.114	14.6	0.220	43.9	0.290	26.3(	16.0)	0.235(	0.173)
GYPTCAPE	0.0	0.000	0.0	0.000	29.3	0.006	0.0	0.000	0.0	0.000	5.9(	13.1)	0.001(	0.003)
HARMLUNU	14.6	0.027	0.0	0.000	14.6	0.002	0.0	0.000	0.0	0.000	5.9(	8.0)	0.006(	0.012)
LANIJUVE	1565.4	0.095	1653.2	0.102	2428.6	0.166	1331.3	0.110	1623.9	0.118	1720.5(	415.6)	0.118(	0.028)
LUMBLATR	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	2.9(	6.5)	0.001(	0.002)
MAGEPAPI	424.3	0.211	512.0	0.357	541.3	0.491	321.9	0.431	219.4	0.137	403.8(	133.9)	0.325(	0.148)
NEPHHOMB	0.0	0.000	0.0	0.000	14.6	0.139	0.0	0.000	14.6	0.531	5.9(	8.0)	0.134(	0.230)
NEPHJUVE	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	2.9(	6.5)	0.001(	0.002)
NERELONG	0.0	0.000	29.3	1.253	14.6	2.020	14.6	1.307	14.6	2.333	14.6(	10.3)	1.383(	0.901)
NOTOLATE	14.6	0.402	0.0	0.000	14.6	0.033	14.6	0.811	14.6	0.382	11.7(	6.5)	0.326(	0.330)
OPHELIMA	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.008	0.0	0.000	2.9(	6.5)	0.002(	0.004)
PECTJUVE	1828.8	0.176	2326.2	0.305	2370.1	0.292	1623.9	0.332	2984.5	0.558	2226.7(	530.7)	0.333(	0.139)
SCOLARMI	29.3	0.015	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	13.1)	0.003(	0.007)
SCOLSQUA	0.0	0.000	29.3	0.004	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	13.1)	0.001(	0.002)
SIGAMATH	58.5	1.481	73.2	1.918	0.0	0.000	29.3	0.102	29.3	0.006	38.0(	28.5)	0.701(	0.925)
SPIOBOMB	219.4	0.050	160.9	0.015	146.3	0.015	292.6	0.077	248.7	0.054	213.6(	60.9)	0.042(	0.027)
SPIOFILI	43.9	0.002	43.9	0.006	0.0	0.000	0.0	0.000	73.2	0.004	32.2(	31.7)	0.002(	0.003)
MISCELLANEOUS														
ANTHOZOA	29.3	3.273	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	13.1)	0.655(	1.464)
NEMERTIN	73.2	2.144	58.5	0.158	131.7	0.023	43.9	0.113	73.2	0.016	76.1(	33.4)	0.491(	0.926)
PHORONID	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.006	0.0	0.000	2.9(	6.5)	0.001(	0.003)
SUMS	12274.6	147.57	16034.5	260.82	18828.8	237.17	10855.5	115.16	10153.2	70.43	13629.3(	3688.9)	166.230(	80.799)
NSPC	21		21		19		20		22					
SH-W	1.131		0.979		0.768		0.989		1.539					
SIMP	0.601		0.647		0.721		0.628		0.424					

Appendix - 2 Biomonitoring 1994

STATION : META2
GEOGR. POS. : 53° 42" 09' N 04° 30" 02' E
DATE : 01/06/94
DEPTH : 38 m
Median Grain: 104.1 µ
Perc. Mud. : 15.6 %

	BOX 1		BOX 2		BOX 3		BOX 4		BOX 5		MEAN	S.D.	MEAN	S.D.
	N	B	N	B	N	B	N	B	N	B	N		B	
CRUSTACEA														
AMPETENU	0.0	0.000	14.6	0.015	14.6	0.015	0.0	0.000	0.0	0.000	5.9(	8.0)	0.006(	0.008)
CALLSUBT	146.3	2.943	131.7	3.606	131.7	5.537	160.9	5.304	234.1	7.257	160.9(	42.7)	4.929(	1.705)
EUDOTRUN	0.0	0.000	43.9	0.013	29.3	0.009	29.3	0.009	0.0	0.000	20.5(	19.6)	0.006(	0.006)
HARPANTE	14.6	0.004	0.0	0.000	14.6	0.004	73.2	0.022	146.3	0.044	49.7(	60.9)	0.015(	0.018)
LEUCRICH	29.3	0.009	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	13.1)	0.002(	0.004)
PERILONG	14.6	0.004	0.0	0.000	14.6	0.004	29.3	0.009	29.3	0.009	17.6(	12.2)	0.005(	0.004)
PONTALTA	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
UPOGDELT	14.6	6.463	0.0	0.000	29.3	3.110	43.9	16.046	43.9	12.015	26.3(	19.1)	7.527(	6.519)
ECHINODERMATA														
AMPHFILI	614.5	9.686	409.6	5.063	731.5	13.657	585.2	8.836	1185.0	18.628	705.2(	291.9)	11.174(	5.166)
AMPHJUVE	0.0	0.000	453.5	0.136	73.2	0.022	365.8	0.110	0.0	0.000	178.5(	215.4)	0.054(	0.065)
CUCUELON	0.0	0.000	0.0	0.000	0.0	0.000	14.6	3.663	0.0	0.000	2.9(	6.5)	0.733(	1.638)
ECHICORD	0.0	0.000	0.0	0.000	29.3	0.472	14.6	0.123	43.9	0.600	17.6(	19.1)	0.239(	0.279)
OPHIALBI	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.960	2.9(	6.5)	0.192(	0.429)
MOLLUSCA														
ABRAALBA	1389.8	0.379	5398.5	3.770	1243.6	0.971	2735.8	1.444	4023.3	2.102	2958.2(	1770.5)	1.733(	1.302)
CINGVITR	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.005	5.9(	13.1)	0.001(	0.002)
CYLICYLI	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.031	58.5	0.037	14.6(	25.3)	0.014(	0.019)
MYSEBIDE	658.3	0.132	512.0	0.102	746.1	0.149	482.8	0.097	760.8	0.152	632.0(	129.4)	0.126(	0.026)
NATIALDE	0.0	0.000	29.3	0.114	0.0	0.000	14.6	0.035	29.3	0.028	14.6(	14.6)	0.035(	0.047)
NUCUTURG	29.3	0.009	43.9	0.026	0.0	0.000	58.5	0.047	0.0	0.000	26.3(	26.2)	0.016(	0.020)
THRACONV	14.6	2.682	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.536(	1.199)
VENUSTRI	0.0	0.000	14.6	0.002	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
POLYCHAETA														
CHAEVARI	0.0	0.000	14.6	9.217	14.6	8.486	14.6	5.090	14.6	6.095	11.7(	6.5)	5.778(	3.644)
DIPLGLAU	0.0	0.000	0.0	0.000	14.6	0.014	0.0	0.000	0.0	0.000	2.9(	6.5)	0.003(	0.006)
EXOGHEBE	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.002	0.0	0.000	2.9(	6.5)	0.000(	0.001)
GATTCIRR	0.0	0.000	14.6	0.859	0.0	0.000	14.6	0.587	0.0	0.000	5.9(	8.0)	0.289(	0.408)
GLYCLAPI	14.6	0.019	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.004(	0.008)
GLYCROUX	0.0	0.000	29.3	0.015	29.3	0.062	0.0	0.000	0.0	0.000	11.7(	16.0)	0.015(	0.027)
GONIMACU	14.6	0.002	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
GYPTCAPE	14.6	0.014	0.0	0.000	29.3	0.043	43.9	0.008	73.2	0.154	32.2(	28.1)	0.044(	0.064)
HARMLONG	73.2	0.033	29.3	0.066	14.6	0.010	87.8	0.069	43.9	0.075	49.7(	30.3)	0.051(	0.028)
HARMLUNU	0.0	0.000	0.0	0.000	14.6	0.226	0.0	0.000	0.0	0.000	2.9(	6.5)	0.045(	0.101)
LANICONC	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	190.2	0.050	38.0(	85.1)	0.010(	0.022)
LANIJUVE	0.0	0.000	0.0	0.000	29.3	0.004	0.0	0.000	0.0	0.000	5.9(	13.1)	0.001(	0.002)
LUMBLATR	73.2	0.226	29.3	0.170	29.3	0.027	29.3	0.093	117.0	0.361	55.6(	39.3)	0.175(	0.128)
LUMBPSEU	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.052	0.0	0.000	2.9(	6.5)	0.010(	0.023)
NEPHHOMB	73.2	0.064	87.8	0.313	58.5	1.433	29.3	0.039	102.4	1.864	70.2(	28.1)	0.743(	0.848)
NERELONG	14.6	0.012	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.002(	0.005)
NOTOLATE	0.0	0.000	0.0	0.000	14.6	0.232	14.6	0.017	0.0	0.000	5.9(	8.0)	0.050(	0.102)
OPHEACUM	0.0	0.000	14.6	0.008	14.6	0.002	14.6	0.046	14.6	0.002	11.7(	6.5)	0.012(	0.019)
OPHIFLEX	0.0	0.000	14.6	0.064	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.013(	0.029)
OWENFUSI	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.189	2.9(	6.5)	0.038(	0.085)
PECTKORE	7022.4	1.524	4447.5	0.521	7285.7	1.369	4710.9	0.885	1872.6	0.326	5067.8(	2205.7)	0.925(	0.520)
PHOLMINU	73.2	0.025	14.6	0.004	102.4	0.027	29.3	0.014	204.8	0.072	84.9(	75.6)	0.028(	0.026)
POLYDORA	87.8	0.035	29.3	0.015	0.0	0.000	14.6	0.004	131.7	0.069	52.7(	55.3)	0.025(	0.028)
PRIOCIRR	14.6	0.002	0.0	0.000	43.9	0.017	29.3	0.008	14.6	0.006	20.5(	16.7)	0.007(	0.007)
SCALINFL	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.002	2.9(	6.5)	0.000(	0.001)
SPIOBOMB	0.0	0.000	29.3	0.006	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	13.1)	0.001(	0.003)
STHELIMI	14.6	0.023	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.029	5.9(	8.0)	0.010(	0.014)
MISCELLANEOUS														
GOLFPROC	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.324	0.0	0.000	2.9(	6.5)	0.065(	0.145)
GOLFVULG	14.6	0.125	0.0	0.000	0.0	0.000	14.6	0.798	14.6	0.054	8.8(	8.0)	0.195(	0.341)
LEPTINHA	0.0	0.000	0.0	0.000	43.9	4.930	0.0	0.000	0.0	0.000	8.8(	19.6)	0.986(	2.205)
NEMERTIN	14.6	0.003	0.0	0.000	102.4	0.154	14.6	0.006	0.0	0.000	26.3(	43.2)	0.033(	0.068)
OLIGOCHA	0.0	0.000	0.0	0.000	14.6	0.002	14.6	0.006	0.0	0.000	5.9(	8.0)	0.002(	0.003)
PHORONID	234.1	0.094	117.0	0.047	58.5	0.234	292.6	0.117	234.1	0.006	187.3(	96.2)	0.100(	0.086)
PRIAPULI	14.6	13.648	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	2.730(	6.104)
SUMS	10694.5	38.16	11938.1	24.16	10972.5	41.22	10036.2	43.94	9670.4	51.19	10662.3(	880.4)	39.734(	9.954)
NSPC	26		23		27		32		28					
SH-W	1.345		1.317		1.308		1.613		1.975					
SIMP	0.456		0.375		0.472		0.325		0.235					

Appendix - 2 Biomonitoring 1994

STATION : TS100
GEOGR. POS. : 54° 08" 58' N 04° 20" 40' E
DATE : 01/06/94
DEPTH : 49 m
Median Grain: 93.4 µ
Perc. Mud. : 13.8 %

	BOX 1		BOX 2		BOX 3		BOX 4		BOX 5		MEAN	S.D.	MEAN	S.D.
	N	B	N	B	N	B	N	B	N	B	N		B	
CRUSTACEA														
AMPETENU	0.0	0.000	0.0	0.000	14.6	0.004	14.6	0.004	0.0	0.000	5.9(	8.0)	0.002(	0.002)
AORATYPI	0.0	0.000	58.5	0.018	0.0	0.000	0.0	0.000	0.0	0.000	11.7(	26.2)	0.004(	0.008)
CALLSUBT	204.8	5.848	175.6	1.960	146.3	2.342	190.2	2.405	175.6	5.420	178.5(	21.7)	3.595(	1.875)
DIASBRAD	0.0	0.000	14.6	0.015	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.003(	0.007)
EUDOTRUN	0.0	0.000	29.3	0.009	73.2	0.022	73.2	0.022	0.0	0.000	35.1(	36.7)	0.011(	0.011)
HARPANTE	175.6	0.053	146.3	0.044	87.8	0.026	131.7	0.040	190.2	0.057	146.3(	40.1)	0.044(	0.012)
HIPPDENT	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
IONETHOR	0.0	0.000	14.6	0.015	14.6	0.015	29.3	0.029	0.0	0.000	11.7(	12.2)	0.012(	0.012)
LEUCLILL	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
LEUCRICH	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	2.9(	6.5)	0.001(	0.002)
PERILONG	0.0	0.000	0.0	0.000	14.6	0.004	14.6	0.004	0.0	0.000	5.9(	8.0)	0.002(	0.002)
UPOGDELT	29.3	1.185	131.7	15.414	29.3	2.668	102.4	8.881	14.6	0.090	61.4(	52.1)	5.648(	6.433)
ECHINODERMATA														
AMPHFILI	643.7	1.610	687.6	2.269	395.0	1.294	263.3	0.702	453.5	1.110	488.6(	176.4)	1.397(	0.588)
ASTRIRRE	0.0	0.000	0.0	0.000	0.0	0.000	14.6	8.226	0.0	0.000	2.9(	6.5)	1.645(	3.679)
BRISLYRI	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.200	5.9(	13.1)	0.040(	0.089)
MOLLUSCA														
ARCTISLA	0.0	0.000	0.0	0.000	14.6	0.004	87.8	0.013	14.6	0.002	23.4(	36.7)	0.004(	0.005)
CINGVITR	73.2	0.013	14.6	0.015	512.0	0.092	234.1	0.042	819.3	0.147	330.6(	334.4)	0.062(	0.057)
CORBGIBB	29.3	0.037	0.0	0.000	29.3	0.019	43.9	0.032	29.3	0.032	26.3(	16.0)	0.024(	0.015)
CULTPELL	0.0	0.000	0.0	0.000	29.3	0.003	0.0	0.000	0.0	0.000	5.9(	13.1)	0.001(	0.001)
CYLICYLI	0.0	0.000	0.0	0.000	43.9	0.016	29.3	0.009	14.6	0.004	17.6(	19.1)	0.006(	0.007)
LEPTSQUA	14.6	0.021	14.6	0.015	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	8.0)	0.007(	0.010)
MONTFERR	14.6	0.022	0.0	0.000	102.4	0.078	0.0	0.000	0.0	0.000	23.4(	44.6)	0.020(	0.034)
MYSEBIDE	131.7	0.026	131.7	0.026	102.4	0.021	58.5	0.012	43.9	0.009	93.6(	40.9)	0.019(	0.008)
TURRCOMM	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.015	0.0	0.000	2.9(	6.5)	0.003(	0.007)
POLYCHAETA														
AONIPAUC	0.0	0.000	14.6	0.002	0.0	0.000	117.0	0.006	58.5	0.002	38.0(	50.3)	0.002(	0.002)
CAULSPEC	0.0	0.000	29.3	0.002	14.6	0.004	14.6	0.008	0.0	0.000	11.7(	12.2)	0.003(	0.003)
CHAEVARI	0.0	0.000	102.4	53.161	14.6	8.522	14.6	6.131	14.6	1.388	29.3(	41.4)	13.840(	22.251)
DIPLGLAU	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
EXOGHEBE	0.0	0.000	14.6	0.002	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
GATTCIRR	14.6	0.525	73.2	3.293	14.6	0.626	14.6	0.958	43.9	1.095	32.2(	26.2)	1.299(	1.139)
GLYCROUX	43.9	0.008	73.2	0.029	29.3	0.941	102.4	1.182	0.0	0.000	49.7(	39.5)	0.432(	0.581)
GONIMACU	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.131	2.9(	6.5)	0.026(	0.059)
GYPTCAPE	0.0	0.000	0.0	0.000	29.3	0.010	14.6	0.006	43.9	0.029	17.6(	19.1)	0.009(	0.012)
HARMLUNU	0.0	0.000	29.3	0.081	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	13.1)	0.016(	0.036)
LUMBLATR	14.6	0.174	43.9	0.170	14.6	0.033	29.3	0.046	14.6	0.010	23.4(	13.1)	0.087(	0.079)
LUMBPSEU	0.0	0.000	0.0	0.000	29.3	0.056	0.0	0.000	0.0	0.000	5.9(	13.1)	0.011(	0.025)
NEPHCIRR	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	58.5	0.228	11.7(	26.2)	0.046(	0.102)
NEPHHOMB	0.0	0.000	0.0	0.000	58.5	0.245	0.0	0.000	0.0	0.000	11.7(	26.2)	0.049(	0.110)
NEPHINCI	117.0	1.110	29.3	0.257	43.9	0.185	14.6	0.041	14.6	0.170	43.9(	42.7)	0.353(	0.431)
NERELONG	14.6	0.058	0.0	0.000	0.0	0.000	14.6	0.037	14.6	0.116	8.8(	8.0)	0.042(	0.048)
NOTOLATE	29.3	0.461	43.9	1.344	87.8	1.068	29.3	0.664	73.2	0.803	52.7(	26.6)	0.868(	0.346)
OPHIFLEX	0.0	0.000	14.6	0.014	29.3	0.095	0.0	0.000	29.3	0.108	14.6(	14.6)	0.043(	0.054)
ORBISPEC	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.823	0.0	0.000	2.9(	6.5)	0.165(	0.368)
PARAGRAC	14.6	0.002	58.5	0.002	43.9	0.002	0.0	0.000	0.0	0.000	23.4(	26.6)	0.001(	0.001)
PECTAURI	0.0	0.000	14.6	0.008	0.0	0.000	29.3	0.006	29.3	1.970	14.6(	14.6)	0.397(	0.879)
PECTKORE	14.6	0.004	0.0	0.000	0.0	0.000	58.5	0.226	0.0	0.000	14.6(	25.3)	0.046(	0.101)
PHOLMINU	29.3	0.006	0.0	0.000	29.3	0.010	14.6	0.006	0.0	0.000	14.6(	14.6)	0.004(	0.004)
POLYDORA	58.5	0.015	87.8	0.006	73.2	0.029	0.0	0.000	0.0	0.000	43.9(	41.4)	0.010(	0.012)
PRIOCIRR	0.0	0.000	0.0	0.000	131.7	0.014	87.8	0.014	0.0	0.000	43.9(	62.1)	0.006(	0.008)
SPIOBOMB	0.0	0.000	29.3	0.004	14.6	0.015	0.0	0.000	43.9	0.025	17.6(	19.1)	0.009(	0.011)
SPIOFILI	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.002	5.9(	13.1)	0.000(	0.001)
STHELIMI	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.087	0.0	0.000	2.9(	6.5)	0.017(	0.039)
SYNEKLAT	0.0	0.000	43.9	0.006	14.6	0.006	29.3	0.006	29.3	0.004	23.4(	16.7)	0.004(	0.003)
MISCELLANEOUS														
GOLFELON	43.9	0.492	14.6	0.616	73.2	0.967	14.6	0.187	0.0	0.000	29.3(	29.3)	0.452(	0.377)
GOLFPROC	14.6	0.384	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.077(	0.172)
GOLFVULG	0.0	0.000	131.7	0.274	29.3	0.185	29.3	0.214	0.0	0.000	38.0(	54.3)	0.135(	0.127)
NEMERTIN	14.6	0.032	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.006(	0.014)
PHORONID	43.9	0.018	14.6	0.006	0.0	0.000	0.0	0.000	0.0	0.000	11.7(	19.1)	0.005(	0.008)
SUMS	1784.9	12.10	2296.9	79.08	2413.9	19.63	1975.1	31.09	2296.9	13.15	2153.5(	263.0)	31.011(	27.914)
NSPC	23		31		36		34		25					
SH-W	2.356		2.754		2.942		3.075		2.281					
SIMP	0.168		0.118		0.090		0.064		0.184					

Appendix - 2 Biomonitoring 1994

STATION : SM30
GEOGR. POS. : 54° 30" 0' N 03° 59" 50' E
DATE : 01/06/94
DEPTH : 45 m
Median Grain: 109.5 µ
Perc. Mud. : 6.2 %

	BOX 1		BOX 2		BOX 3		BOX 4		BOX 5		MEAN	S.D.	MEAN	S.D.
	N	B	N	B	N	B	N	B	N	B	N		B	
CRUSTACEA														
AMPETENU	14.6	0.004	43.9	0.013	0.0	0.000	0.0	0.000	29.3	0.009	17.6(	19.1)	0.005(	0.006)
BATHTENU	0.0	0.000	14.6	0.004	14.6	0.004	0.0	0.000	14.6	0.004	8.8(	8.0)	0.002(	0.002)
CALLSUBT	14.6	0.007	14.6	0.146	29.3	2.243	29.3	0.676	29.3	2.026	23.4(	8.0)	1.020(	1.051)
EUDODEFO	43.9	0.013	29.3	0.009	0.0	0.000	14.6	0.004	0.0	0.000	17.6(	19.1)	0.005(	0.006)
EUDOTRUN	0.0	0.000	14.6	0.004	29.3	0.009	0.0	0.000	29.3	0.009	14.6(	14.6)	0.004(	0.005)
HARPANTE	43.9	0.013	29.3	0.009	14.6	0.004	58.5	0.018	87.8	0.026	46.8(	28.1)	0.014(	0.008)
PERILONG	0.0	0.000	14.6	0.004	14.6	0.004	14.6	0.004	0.0	0.000	8.8(	8.0)	0.002(	0.002)
PHOTLONG	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	2.9(	6.5)	0.001(	0.002)
UPOGDELT	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.213	0.0	0.000	2.9(	6.5)	0.043(	0.095)
ECHINODERMATA														
AMPHFILI	1258.2	12.967	1975.1	20.507	2326.2	22.606	2121.4	23.597	1360.6	13.952	1808.3(	473.6)	18.726(	4.947)
BRISLYRI	14.6	6.720	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	1.344(	3.005)
ECHICORD	14.6	3.895	0.0	0.000	14.6	4.944	0.0	0.000	43.9	12.715	14.6(	17.9)	4.311(	5.205)
MOLLUSCA														
ABRAALBA	0.0	0.000	14.6	0.002	14.6	0.002	14.6	0.002	29.3	0.013	14.6(	10.3)	0.004(	0.005)
ARCTISLA	0.0	0.000	0.0	0.000	14.6	0.002	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
CORBGIBB	14.6	0.004	14.6	0.009	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	8.0)	0.003(	0.004)
CYLICYLI	58.5	0.022	14.6	0.010	58.5	0.019	102.4	0.060	0.0	0.000	46.8(	40.6)	0.022(	0.023)
DOSIEXOL	0.0	0.000	0.0	0.000	0.0	0.000	14.6	1.268	0.0	0.000	2.9(	6.5)	0.254(	0.567)
EULIALBA	0.0	0.000	14.6	0.012	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.002(	0.005)
MONTFERR	29.3	0.051	0.0	0.000	29.3	0.009	0.0	0.000	0.0	0.000	11.7(	16.0)	0.012(	0.022)
MYSEBIDE	248.7	0.050	716.9	0.143	702.2	0.140	716.9	0.143	380.4	0.076	553.0(	222.7)	0.110(	0.044)
NUCUTENU	0.0	0.000	14.6	0.010	14.6	0.035	14.6	0.025	14.6	0.007	11.7(	6.5)	0.015(	0.014)
NUCUTURG	29.3	0.019	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	13.1)	0.004(	0.008)
VENUSTRI	29.3	0.004	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	13.1)	0.001(	0.002)
POLYCHAETA														
ARICMINU	0.0	0.000	14.6	0.002	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
CAULSPEC	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.006	14.6	0.002	5.9(	8.0)	0.002(	0.003)
CHAESETO	14.6	0.004	14.6	0.002	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	8.0)	0.001(	0.002)
EXOGHEBE	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.002	0.0	0.000	2.9(	6.5)	0.000(	0.001)
GYPTCAPE	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	14.6	0.044	5.9(	8.0)	0.010(	0.019)
HARMLONG	0.0	0.000	0.0	0.000	14.6	0.010	0.0	0.000	0.0	0.000	2.9(	6.5)	0.002(	0.004)
HARMLUNU	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.017	5.9(	13.1)	0.003(	0.008)
MAGEPAPI	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.002	73.2	0.012	20.5(	32.1)	0.003(	0.005)
NEPHHOMB	58.5	0.172	58.5	0.589	29.3	0.461	43.9	0.270	43.9	0.792	46.8(	12.2)	0.457(	0.248)
NEPHJUVE	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.006	0.0	0.000	2.9(	6.5)	0.001(	0.003)
OPHEACUM	14.6	0.087	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.017(	0.039)
OPHIFLEX	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	2.9(	6.5)	0.001(	0.002)
OWENFUSI	0.0	0.000	14.6	0.002	0.0	0.000	14.6	0.006	0.0	0.000	5.9(	8.0)	0.002(	0.003)
PARAGRAC	0.0	0.000	0.0	0.000	14.6	0.002	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
PHOLMINU	190.2	0.211	409.6	0.182	321.9	0.054	146.3	0.033	175.6	0.041	248.7(	112.4)	0.104(	0.085)
SCOLARMI	14.6	0.014	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.003(	0.006)
SIGAMATH	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.043	29.3	0.056	8.8(	13.1)	0.020(	0.027)
SPIOBOMB	0.0	0.000	14.6	0.008	14.6	0.002	29.3	0.004	0.0	0.000	11.7(	12.2)	0.003(	0.003)
SPIOFILI	0.0	0.000	0.0	0.000	58.5	0.008	117.0	0.019	29.3	0.004	41.0(	49.0)	0.006(	0.008)
SPIOKROY	0.0	0.000	14.6	0.041	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.008(	0.018)
STHELIMI	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	14.6	0.062	5.9(	8.0)	0.013(	0.027)
SYNEKLAT	0.0	0.000	14.6	0.004	0.0	0.000	43.9	0.010	58.5	0.008	23.4(	26.6)	0.004(	0.005)
MISCELLANEOUS														
EDWACLAP	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.142	5.9(	13.1)	0.028(	0.064)
HYDROZOA	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.003	0.0	0.000	2.9(	6.5)	0.001(	0.001)
LEPTINHA	0.0	0.000	14.6	0.547	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.109(	0.245)
NEMERTIN	29.3	0.010	14.6	0.003	14.6	0.023	0.0	0.000	29.3	0.068	17.6(	12.2)	0.021(	0.028)
PHORONID	87.8	0.035	117.0	0.047	263.3	0.105	102.4	0.041	58.5	0.023	125.8(	79.9)	0.050(	0.032)
SIPUNCUL	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	3.283	2.9(	6.5)	0.657(	1.468)
SUMS	2223.8	24.30	3628.2	22.31	4023.2	30.69	3745.3	26.46	2648.0	33.40	3253.7(	774.9)	27.432(	4.559)
NSPC	20		25		22		25		25					
SH-W	1.744		1.584		1.513		1.637		1.966					
SIMP	0.344		0.350		0.376		0.365		0.293					

Appendix - 2 Biomonitoring 1994

STATION : RHC4
GEOGR. POS. : 54° 51" 26' N 03° 17" 28' E
DATE : 01/06/94
DEPTH : 39 m
Median Grain: 147.4 µ
Perc. Mud. : 0.8 %

	BOX 1		BOX 2		BOX 3		BOX 4		BOX 5		MEAN	S.D.	MEAN	S.D.
	N	B	N	B	N	B	N	B	N	B	N		B	
CRUSTACEA														
AMPETENU	0.0	0.000	14.6	0.004	14.6	0.004	29.3	0.009	0.0	0.000	11.7(	12.2)	0.003(	0.004)
ARGIHAMA	0.0	0.000	0.0	0.000	14.6	0.004	14.6	0.004	14.6	0.004	8.8(	8.0)	0.002(	0.002)
BATHGUIL	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.006	2.9(	6.5)	0.001(	0.003)
BATHTENU	102.4	0.031	73.2	0.022	29.3	0.009	87.8	0.026	58.5	0.018	70.2(	28.1)	0.021(	0.008)
EUDODEFO	0.0	0.000	0.0	0.000	29.3	0.009	29.3	0.009	58.5	0.018	23.4(	24.5)	0.007(	0.008)
GAMMMACU	0.0	0.000	0.0	0.000	29.3	0.009	0.0	0.000	0.0	0.000	5.9(	13.1)	0.002(	0.004)
HARPANTE	14.6	0.004	0.0	0.000	0.0	0.000	14.6	0.004	29.3	0.009	11.7(	12.2)	0.003(	0.004)
HIPPDENT	14.6	0.003	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	5.9(	8.0)	0.001(	0.002)
MEGAAGIL	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
PERILONG	29.3	0.009	14.6	0.004	14.6	0.004	43.9	0.013	29.3	0.009	26.3(	12.2)	0.008(	0.004)
PSEULONG	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	2.9(	6.5)	0.001(	0.002)
SYNCMACU	29.3	0.009	29.3	0.009	14.6	0.004	0.0	0.000	0.0	0.000	14.6(	14.6)	0.004(	0.005)
ECHINODERMATA														
ACROBRAC	0.0	0.000	0.0	0.000	0.0	0.000	14.6	1.346	29.3	1.045	8.8(	13.1)	0.478(	0.663)
AMPHFILI	0.0	0.000	160.9	3.064	234.1	4.428	160.9	26.249	585.2	8.054	228.2(	217.1)	8.359(	10.410)
AMPHJUVE	0.0	0.000	321.9	0.097	921.7	0.276	438.9	0.132	673.0	0.202	471.1(	349.7)	0.141(	0.105)
AMPHSPEC	643.7	2.740	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	128.7(	287.9)	0.548(	1.225)
ECHICORD	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	7.003	2.9(	6.5)	1.401(	3.132)
ECHIFLAV	0.0	0.000	0.0	0.000	0.0	0.000	14.6	4.011	0.0	0.000	2.9(	6.5)	0.802(	1.794)
MOLLUSCA														
ABRAJUVE	0.0	0.000	14.6	0.002	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
ABRANITI	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.002	5.9(	13.1)	0.000(	0.001)
ABRAPRIS	0.0	0.000	0.0	0.000	29.3	0.203	87.8	0.448	14.6	0.079	26.3(	36.4)	0.146(	0.188)
ARCTISLA	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	37.269	2.9(	6.5)	7.454(	16.667)
CARDJUVE	0.0	0.000	14.6	0.003	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.001)
CARDSPEC	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.002	0.0	0.000	2.9(	6.5)	0.000(	0.001)
CULTPELL	14.6	0.002	14.6	0.003	14.6	0.002	14.6	0.002	14.6	0.002	14.6(	0.0)	0.002(	0.000)
CYLICYLI	0.0	0.000	0.0	0.000	14.6	0.002	29.3	0.086	0.0	0.000	8.8(	13.1)	0.018(	0.038)
DOSIJUVE	0.0	0.000	0.0	0.000	14.6	0.003	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.001)
DOSILUPI	0.0	0.000	14.6	0.012	0.0	0.000	29.3	0.844	14.6	1.005	11.7(	12.2)	0.372(	0.507)
EULIALBA	14.6	0.019	29.3	0.026	43.9	0.035	87.8	0.073	102.4	0.098	55.6(	37.9)	0.050(	0.034)
LUCIBORE	0.0	0.000	0.0	0.000	14.6	0.768	0.0	0.000	0.0	0.000	2.9(	6.5)	0.154(	0.343)
MONTFERR	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.058	58.5	0.044	17.6(	26.2)	0.020(	0.028)
MYSEBIDE	175.6	0.035	190.2	0.038	204.8	0.041	204.8	0.041	643.7	0.129	283.8(	201.6)	0.057(	0.040)
NATIALDE	14.6	0.003	14.6	0.054	43.9	0.025	0.0	0.000	14.6	0.044	17.6(	16.0)	0.025(	0.024)
NUCUTENU	102.4	0.056	87.8	0.042	29.3	0.009	14.6	0.003	73.2	0.029	61.4(	37.9)	0.028(	0.022)
NUCUTURG	58.5	0.186	29.3	0.031	102.4	0.657	14.6	0.012	102.4	0.667	61.4(	40.6)	0.311(	0.328)
TELLFABU	146.3	0.035	73.2	0.025	73.2	0.003	43.9	0.012	190.2	0.386	105.3(	60.7)	0.092(	0.165)
THRAPHAS	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.003	2.9(	6.5)	0.001(	0.001)
THYAFLEX	14.6	0.045	58.5	0.038	73.2	0.193	43.9	0.038	117.0	0.108	61.4(	37.9)	0.084(	0.067)
VENUSTRI	0.0	0.000	0.0	0.000	14.6	3.587	0.0	0.000	14.6	4.050	5.9(	8.0)	1.527(	2.098)
POLYCHAETA														
ANAIMACU	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.048	5.9(	8.0)	0.010(	0.021)
CHAESETO	73.2	0.023	43.9	0.006	14.6	0.004	58.5	0.021	58.5	0.012	49.7(	22.2)	0.013(	0.009)
DIPLGLAU	43.9	0.029	29.3	0.077	43.9	0.112	29.3	0.008	29.3	0.052	35.1(	8.0)	0.056(	0.041)
EUMISANG	0.0	0.000	0.0	0.000	14.6	0.029	0.0	0.000	0.0	0.000	2.9(	6.5)	0.006(	0.013)
GATTCIRR	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.006	0.0	0.000	2.9(	6.5)	0.001(	0.003)
GLYCNORD	29.3	0.012	14.6	0.046	0.0	0.000	0.0	0.000	0.0	0.000	8.8(	13.1)	0.012(	0.020)
GONIMACU	0.0	0.000	29.3	0.017	14.6	0.017	14.6	0.066	0.0	0.000	11.7(	12.2)	0.020(	0.027)
HARMLONG	14.6	0.002	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
LANICONC	14.6	0.881	0.0	0.000	0.0	0.000	14.6	0.776	0.0	0.000	5.9(	8.0)	0.331(	0.455)
MAGEALLE	14.6	0.066	0.0	0.000	14.6	0.284	0.0	0.000	0.0	0.000	5.9(	8.0)	0.070(	0.123)
MAGEPAPI	760.8	0.241	424.3	0.106	599.8	0.230	482.8	0.247	321.9	0.116	517.9(	168.9)	0.188(	0.071)
NEPHHOMB	43.9	0.191	29.3	2.364	43.9	1.120	43.9	3.434	58.5	1.242	43.9(	10.3)	1.670(	1.252)
NEPHJUVE	14.6	0.006	0.0	0.000	0.0	0.000	0.0	0.000	43.9	0.010	11.7(	19.1)	0.003(	0.005)
NOTOLATE	0.0	0.000	0.0	0.000	43.9	1.419	14.6	0.052	29.3	1.869	17.6(	19.1)	0.668(	0.905)
OPHIFLEX	29.3	0.004	14.6	0.100	14.6	0.102	0.0	0.000	29.3	0.098	17.6(	12.2)	0.061(	0.054)
PHOLMINU	87.8	0.006	43.9	0.006	175.6	0.025	146.3	0.019	263.3	0.029	143.4(	84.3)	0.017(	0.011)
POECSERP	0.0	0.000	0.0	0.000	14.6	0.069	0.0	0.000	0.0	0.000	2.9(	6.5)	0.014(	0.031)
SIGAMATH	29.3	0.203	14.6	0.054	14.6	0.044	29.3	0.039	43.9	0.255	26.3(	12.2)	0.119(	0.102)
SPIOBOMB	278.0	0.095	336.5	0.129	409.6	0.085	175.6	0.075	307.2	0.199	301.4(	85.7)	0.117(	0.050)
SPIOFILI	0.0	0.000	14.6	0.004	0.0	0.000	43.9	0.008	73.2	0.017	26.3(	31.7)	0.006(	0.007)
STHELIMI	0.0	0.000	0.0	0.000	14.6	0.106	14.6	0.039	0.0	0.000	5.9(	8.0)	0.029(	0.046)
MISCELLANEOUS														
NEMERTIN	58.5	0.109	87.8	0.029	0.0	0.000	0.0	0.000	43.9	0.035	38.0(	38.2)	0.035(	0.045)
PHORONID	248.7	0.100	321.9	0.129	380.4	0.152	395.0	0.158	365.8	0.146	342.3(	59.1)	0.137(	0.023)
PLATHYHE	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	1.390	2.9(	6.5)	0.278(	0.622)
SUMS	3145.4	5.15	2560.2	6.54	3789.2	14.07	2969.9	38.38	4623.1	65.80	3417.6(	806.3)	25.989(	25.946)
NSPC	30		27		35		36		38					
SH-W	2.564		2.663		2.737		2.931		2.906					
SIMP	0.126		0.102		0.103		0.086		0.083					

Appendix - 2 Biomonitoring 1994

STATION : SM37
GEOGR. POS. : 55° 0" 3' N 02° 59" 53' E
DATE : 01/06/94
DEPTH : 25 m
Median Grain: 196.0 µ
Perc. Mud. : 0.1 %

	BOX 1		BOX 2		BOX 3		BOX 4		BOX 5		MEAN	S.D.	MEAN	S.D.
	N	B	N	B	N	B	N	B	N	B	N		B	
CRUSTACEA														
AMPEBREV	0.0	0.000	0.0	0.000	14.6	0.044	0.0	0.000	0.0	0.000	2.9(	6.5)	0.009(	0.020)
APHEOVAL	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
ARGIHAMA	0.0	0.000	0.0	0.000	14.6	0.004	14.6	0.004	29.3	0.009	11.7(	12.2)	0.003(	0.004)
ATYLFALC	0.0	0.000	29.3	0.009	0.0	0.000	29.3	0.009	0.0	0.000	11.7(	16.0)	0.004(	0.005)
BATHELEG	248.7	0.075	468.2	0.140	424.3	0.127	365.8	0.110	234.1	0.070	348.2(	104.2)	0.104(	0.031)
BATHGUIL	409.6	0.307	673.0	0.603	453.5	0.181	687.6	0.585	673.0	0.538	579.3(	135.9)	0.443(	0.188)
BATHJUVE	102.4	0.031	219.4	0.044	219.4	0.066	438.9	0.088	278.0	0.056	251.6(	122.6)	0.057(	0.022)
BATHTENU	0.0	0.000	73.2	0.022	29.3	0.009	14.6	0.004	14.6	0.004	26.3(	28.1)	0.008(	0.009)
DIASBRAD	14.6	0.007	14.6	0.015	14.6	0.037	29.3	0.029	14.6	0.022	17.6(	6.5)	0.022(	0.012)
HIPPDENT	0.0	0.000	14.6	0.004	0.0	0.000	14.6	0.004	43.9	0.013	14.6(	17.9)	0.004(	0.005)
IPHITRIS	14.6	0.012	0.0	0.000	29.3	0.029	14.6	0.015	14.6	0.015	14.6(	10.3)	0.014(	0.010)
LEPILONG	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
MEGAAGIL	29.3	0.009	73.2	0.022	87.8	0.026	43.9	0.013	29.3	0.009	52.7(	26.6)	0.016(	0.008)
PERILONG	0.0	0.000	14.6	0.004	14.6	0.004	14.6	0.004	29.3	0.009	14.6(	10.3)	0.004(	0.003)
PONTALTA	219.4	0.066	146.3	0.044	29.3	0.009	43.9	0.013	131.7	0.040	114.1(	78.4)	0.034(	0.024)
PSEULONG	14.6	0.004	14.6	0.004	0.0	0.000	14.6	0.004	0.0	0.000	8.8(	8.0)	0.002(	0.002)
SIPHKROY	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	87.8	0.026	20.5(	38.2)	0.006(	0.011)
UROTPOSE	146.3	0.058	190.2	0.076	248.7	0.075	102.4	0.041	204.8	0.082	178.5(	56.1)	0.066(	0.017)
ECHINODERMATA														
ACROBRAC	160.9	4.049	58.5	1.774	131.7	3.580	43.9	1.339	29.3	1.532	84.9(	58.0)	2.455(	1.262)
ECHICORD	14.6	4.698	0.0	0.000	0.0	0.000	0.0	0.000	14.6	6.907	5.9(	8.0)	2.321(	3.273)
ECHIJUVE	0.0	0.000	0.0	0.000	43.9	0.004	14.6	0.002	14.6	0.003	14.6(	17.9)	0.002(	0.002)
ECHIPUSI	0.0	0.000	14.6	0.015	0.0	0.000	29.3	0.023	0.0	0.000	8.8(	13.1)	0.008(	0.011)
MOLLUSCA														
CULTPELL	0.0	0.000	14.6	0.002	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
CYLICYLI	0.0	0.000	0.0	0.000	14.6	0.023	0.0	0.000	0.0	0.000	2.9(	6.5)	0.005(	0.010)
DOSILUPI	14.6	0.056	0.0	0.000	14.6	0.004	14.6	0.053	14.6	0.015	11.7(	6.5)	0.026(	0.027)
ENSIENSI	14.6	0.901	14.6	0.708	43.9	9.632	0.0	0.000	29.3	4.262	20.5(	16.7)	3.101(	4.006)
GARIFERV	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.007	0.0	0.000	2.9(	6.5)	0.001(	0.003)
MONTFERR	14.6	0.038	0.0	0.000	0.0	0.000	14.6	0.029	117.0	0.214	29.3(	49.6)	0.056(	0.090)
MYSEBIDE	219.4	0.044	87.8	0.018	146.3	0.029	58.5	0.012	29.3	0.006	108.3(	75.7)	0.022(	0.015)
NATIALDE	58.5	0.143	58.5	0.061	73.2	0.034	73.2	0.116	29.3	0.007	58.5(	17.9)	0.072(	0.056)
SPISSUBT	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.050	0.0	0.000	2.9(	6.5)	0.010(	0.022)
TELLFABU	58.5	0.021	29.3	0.002	29.3	0.002	14.6	0.002	73.2	0.003	41.0(	24.0)	0.006(	0.008)
POLYCHAETA														
ANAIMACU	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
ARICMINU	0.0	0.000	14.6	0.002	14.6	0.004	14.6	0.002	29.3	0.004	14.6(	10.3)	0.002(	0.002)
CHAESETO	73.2	0.008	29.3	0.017	87.8	0.019	43.9	0.010	73.2	0.027	61.4(	24.0)	0.016(	0.008)
EUMISANG	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	14.6	0.004	5.9(	8.0)	0.002(	0.002)
GONIMACU	58.5	1.159	14.6	0.083	29.3	0.043	29.3	0.170	0.0	0.000	26.3(	21.7)	0.291(	0.489)
GYPTCAPE	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	2.9(	6.5)	0.001(	0.002)
HARMLUNU	14.6	0.004	14.6	0.004	14.6	0.002	0.0	0.000	14.6	0.006	11.7(	6.5)	0.003(	0.002)
LANICONC	146.3	0.019	131.7	0.014	307.2	0.060	263.3	0.379	219.4	0.029	213.6(	75.0)	0.100(	0.157)
MAGEPAPI	234.1	0.209	87.8	0.112	146.3	0.104	131.7	0.069	160.9	0.102	152.2(	53.4)	0.119(	0.053)
MALDANID	0.0	0.000	14.6	0.004	0.0	0.000	29.3	0.006	0.0	0.000	8.8(	13.1)	0.002(	0.003)
NEPHCIRR	73.2	0.162	58.5	0.197	14.6	0.033	0.0	0.000	0.0	0.000	29.3(	34.3)	0.078(	0.094)
NEPHHOMB	14.6	0.027	0.0	0.000	14.6	0.214	14.6	0.056	14.6	0.296	11.7(	6.5)	0.119(	0.129)
NEPHJUVE	131.7	0.017	131.7	0.017	43.9	0.029	87.8	0.025	58.5	0.015	90.7(	40.6)	0.021(	0.006)
NOTOLATE	29.3	1.711	14.6	1.410	43.9	3.986	0.0	0.000	29.3	2.528	23.4(	16.7)	1.927(	1.469)
OPHELIMA	14.6	0.008	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.002(	0.004)
OWENFUSI	73.2	0.299	29.3	0.085	117.0	0.338	87.8	0.270	14.6	0.083	64.4(	42.1)	0.215(	0.122)
PECTKORE	0.0	0.000	14.6	1.114	0.0	0.000	0.0	0.000	14.6	1.949	5.9(	8.0)	0.613(	0.889)
PHOLMINU	0.0	0.000	0.0	0.000	14.6	0.012	0.0	0.000	14.6	0.012	5.9(	8.0)	0.005(	0.007)
POECSERP	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.037	0.0	0.000	2.9(	6.5)	0.007(	0.017)
POLYDORA	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	2.9(	6.5)	0.001(	0.002)
SCOLARMI	14.6	0.002	0.0	0.000	0.0	0.000	14.6	0.199	14.6	0.069	8.8(	8.0)	0.054(	0.086)
SCOLBONN	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.243	0.0	0.000	2.9(	6.5)	0.049(	0.109)
SCOLSQUA	0.0	0.000	0.0	0.000	14.6	0.062	0.0	0.000	0.0	0.000	2.9(	6.5)	0.012(	0.028)
SIGAMATH	14.6	0.261	14.6	0.116	14.6	0.195	29.3	0.964	14.6	0.361	17.6(	6.5)	0.379(	0.339)
SPIOBOMB	1770.2	0.844	2413.9	0.353	3218.6	0.967	2516.4	0.396	1784.9	0.292	2340.8(	600.3)	0.570(	0.311)
SPIOFILI	102.4	0.019	131.7	0.023	321.9	0.081	175.6	0.002	190.2	0.060	184.3(	84.4)	0.037(	0.032)
SPIOKROY	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	2.9(	6.5)	0.001(	0.002)
STHELIMI	14.6	0.093	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.019(	0.042)
STREWEBS	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.002	0.0	0.000	2.9(	6.5)	0.000(	0.001)
MISCELLANEOUS														
EDWACLAP	73.2	0.621	14.6	0.740	14.6	0.055	14.6	0.068	0.0	0.000	23.4(	28.5)	0.297(	0.354)
NEMERTIN	58.5	0.006	0.0	0.000	43.9	3.080	29.3	0.013	14.6	0.006	29.3(	23.1)	0.621(	1.375)
PHORONID	73.2	0.029	29.3	0.012	146.3	0.058	73.2	0.029	58.5	0.023	76.1(	43.2)	0.030(	0.017)
SUMS	4769.4	16.03	5383.8	7.87	6715.2	23.27	5778.8	5.51	4871.8	19.71	5503.8(	790.0)	14.477(	7.599)
NSPC	36		35		37		44		37					
SH-W	2.515		2.101		2.149		2.201		2.405					
SIMP	0.177		0.262		0.271		0.259		0.191					

Appendix - 2 Biomonitoring 1994

STATION : SM1
GEOGR. POS. : 52° 44" 58' N 04° 30" 05' E
DATE : 02/06/94
DEPTH : 21 m
Median Grain: 229.5 µ
Perc. Mud. : 0.0 %

	BOX 1		BOX 2		BOX 3		BOX 4		BOX 5		MEAN	S.D.	MEAN	S.D.
	N	B	N	B	N	B	N	B	N	B	N		B	
CRUSTACEA														
AMPEBREV	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
BATHGUIL	0.0	0.000	14.6	0.015	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.003(	0.007)
DIASBRAD	14.6	0.022	0.0	0.000	14.6	0.010	0.0	0.000	0.0	0.000	5.9(	8.0)	0.006(	0.010)
PERILONG	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	2.9(	6.5)	0.001(	0.002)
PSEULONG	0.0	0.000	0.0	0.000	14.6	0.004	14.6	0.004	43.9	0.013	14.6(	17.9)	0.004(	0.005)
UROTPOSE	0.0	0.000	614.5	0.246	687.6	0.275	263.3	0.105	365.8	0.146	386.2(	277.3)	0.154(	0.111)
ECHINODERMATA														
AMPHJUVE	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	2.9(	6.5)	0.001(	0.002)
ASTEJUVE	0.0	0.000	58.5	0.018	29.3	0.009	14.6	0.004	131.7	0.040	46.8(	52.1)	0.014(	0.016)
ECHICORD	0.0	0.000	43.9	24.355	58.5	30.764	29.3	15.083	58.5	24.113	38.0(	24.5)	18.863(	11.932)
ECHIJUVE	0.0	0.000	43.9	0.009	0.0	0.000	29.3	0.006	58.5	0.012	26.3(	26.2)	0.005(	0.005)
OPHIJUVE	0.0	0.000	43.9	0.013	14.6	0.004	0.0	0.000	0.0	0.000	11.7(	19.1)	0.003(	0.006)
MOLLUSCA														
MACTCORA	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.091	0.0	0.000	5.9(	13.1)	0.018(	0.041)
MONTFERR	0.0	0.000	160.9	0.107	234.1	0.123	73.2	0.061	307.2	0.086	155.1(	122.7)	0.075(	0.048)
MYSEBIDE	43.9	0.009	570.6	0.114	541.3	0.108	570.6	0.114	1126.5	0.225	570.6(	383.2)	0.114(	0.076)
NATIALDE	14.6	0.097	14.6	0.006	14.6	0.143	0.0	0.000	14.6	0.015	11.7(	6.5)	0.052(	0.064)
SPISSUBT	2150.6	172.012	760.8	83.414	1521.5	154.080	1389.8	152.464	1170.4	131.217	1398.6(	509.8)	138.637(	34.089)
TELLFABU	58.5	0.019	190.2	0.035	87.8	0.021	146.3	0.025	73.2	0.021	111.2(	55.3)	0.024(	0.006)
POLYCHAETA														
ANAIMACU	14.6	0.002	14.6	0.004	0.0	0.000	14.6	0.002	87.8	0.010	26.3(	34.9)	0.004(	0.004)
ANAISUBU	29.3	0.002	14.6	0.006	0.0	0.000	0.0	0.000	0.0	0.000	8.8(	13.1)	0.002(	0.003)
AUTOSPEC	0.0	0.000	131.7	0.025	43.9	0.008	29.3	0.004	146.3	0.019	70.2(	64.9)	0.011(	0.010)
CHAESETO	29.3	0.019	87.8	0.021	43.9	0.008	43.9	0.012	58.5	0.021	52.7(	22.2)	0.016(	0.006)
ETEOLONG	14.6	0.004	14.6	0.004	14.6	0.004	14.6	0.168	0.0	0.000	11.7(	6.5)	0.036(	0.074)
HARMLONG	14.6	0.008	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.021	5.9(	8.0)	0.006(	0.009)
LANICONC	102.4	0.019	190.2	0.029	73.2	0.006	307.2	0.052	175.6	0.027	169.7(	91.1)	0.027(	0.017)
MAGEPAPI	0.0	0.000	73.2	0.008	29.3	0.004	43.9	0.002	0.0	0.000	29.3(	31.0)	0.003(	0.003)
NEPHCIRR	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
NEPHHOMB	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.632	0.0	0.000	2.9(	6.5)	0.126(	0.283)
NERELONG	14.6	0.193	0.0	0.000	0.0	0.000	0.0	0.000	29.3	1.172	8.8(	13.1)	0.273(	0.509)
PECTKORE	14.6	0.002	43.9	1.008	29.3	0.004	43.9	0.251	14.6	0.002	29.3(	14.6)	0.253(	0.435)
SCOLARMI	14.6	0.014	29.3	0.039	0.0	0.000	14.6	0.025	0.0	0.000	11.7(	12.2)	0.016(	0.017)
SPIOBOMB	160.9	0.073	263.3	0.245	146.3	0.077	190.2	0.116	175.6	0.087	187.3(	45.6)	0.120(	0.072)
STHEBOA	14.6	0.095	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.019(	0.042)
MISCELLANEOUS														
ANTHOZOA	58.5	4.995	58.5	4.184	43.9	5.095	73.2	6.019	73.2	6.540	61.4(	12.2)	5.367(	0.924)
NEMERTIN	29.3	0.023	43.9	0.109	29.3	0.042	29.3	0.010	29.3	0.039	32.2(	6.5)	0.045(	0.038)
OLIGOCHA	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
SUMS	2809.0	177.61	3511.2	114.02	3672.1	190.79	3408.8	175.26	4154.9	163.83	3511.2(	485.8)	164.301(	29.694)
NSPC	19		22		18		21		18					
SH-W	1.132		2.369		1.871		2.030		2.074					
SIMP	0.592		0.131		0.242		0.222		0.189					

Appendix - 2 Biomonitoring 1994

STATION : META1
GEOGR. POS. : 53° 00" 03' N 03° 55" 04' E
DATE : 02/06/94
DEPTH : 27 m
Median Grain: 253.6 µ
Perc. Mud. : 0.0 %

	BOX 1		BOX 2		BOX 3		BOX 4		BOX 5		MEAN	S.D.	MEAN	S.D.
	N	B	N	B	N	B	N	B	N	B	N		B	
CRUSTACEA														
APHEOVAL	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	2.9(	6.5)	0.001(	0.002)
BATHELEG	351.1	0.105	278.0	0.083	248.7	0.075	409.6	0.123	292.6	0.088	316.0(	64.3)	0.095(	0.019)
BATHGUIL	58.5	0.023	43.9	0.013	0.0	0.000	29.3	0.012	14.6	0.015	29.3(	23.1)	0.013(	0.008)
BATHJUVE	0.0	0.000	0.0	0.000	43.9	0.009	29.3	0.006	29.3	0.009	20.5(	19.6)	0.005(	0.005)
BODOAREN	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
DIASBRAD	14.6	0.029	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.006(	0.013)
MEGAAGIL	14.6	0.004	29.3	0.009	0.0	0.000	14.6	0.004	0.0	0.000	11.7(	12.2)	0.003(	0.004)
PERILONG	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	2.9(	6.5)	0.001(	0.002)
PONTAREN	29.3	0.009	0.0	0.000	14.6	0.004	14.6	0.004	0.0	0.000	11.7(	12.2)	0.003(	0.004)
PSEULONG	14.6	0.004	14.6	0.004	0.0	0.000	58.5	0.018	29.3	0.009	23.4(	22.2)	0.007(	0.007)
PSEUSIMI	29.3	0.009	0.0	0.000	0.0	0.000	14.6	0.004	14.6	0.004	11.7(	12.2)	0.003(	0.004)
UROTBREV	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.012	0.0	0.000	5.9(	13.1)	0.002(	0.005)
UROTPOSE	29.3	0.012	0.0	0.000	14.6	0.006	0.0	0.000	14.6	0.006	11.7(	12.2)	0.005(	0.005)
ECHINODERMATA														
ECHIJUVE	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.002	0.0	0.000	2.9(	6.5)	0.000(	0.001)
OPHIALBI	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.029	0.0	0.000	2.9(	6.5)	0.006(	0.013)
OPHIJUVE	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
MOLLUSCA														
CHLAVARI	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.006	0.0	0.000	5.9(	13.1)	0.001(	0.003)
NATIALDE	29.3	0.007	43.9	0.012	58.5	0.034	73.2	0.025	14.6	0.004	43.9(	23.1)	0.016(	0.013)
TELLFABU	58.5	0.002	14.6	0.002	14.6	0.002	0.0	0.000	0.0	0.000	17.6(	24.0)	0.001(	0.001)
POLYCHAETA														
ARICJEFF	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.002	0.0	0.000	2.9(	6.5)	0.000(	0.001)
ARICMINU	102.4	0.021	14.6	0.002	73.2	0.006	14.6	0.006	14.6	0.004	43.9(	41.4)	0.008(	0.008)
CHAESETO	14.6	0.002	0.0	0.000	29.3	0.041	14.6	0.002	14.6	0.006	14.6(	10.3)	0.010(	0.017)
ETEOLONG	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.002	0.0	0.000	5.9(	13.1)	0.000(	0.001)
HARMLONG	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.008	0.0	0.000	2.9(	6.5)	0.002(	0.004)
LANICONC	0.0	0.000	29.3	0.004	14.6	0.004	409.6	2.151	14.6	0.012	93.6(	177.0)	0.434(	0.960)
MAGEPAPI	14.6	0.002	29.3	0.064	14.6	0.079	43.9	0.127	0.0	0.000	20.5(	16.7)	0.054(	0.054)
NEPHCAEC	0.0	0.000	0.0	0.000	0.0	0.000	87.8	0.255	0.0	0.000	17.6(	39.3)	0.051(	0.114)
NEPHCIRR	43.9	0.278	58.5	0.257	58.5	0.112	0.0	0.000	58.5	0.301	43.9(	25.3)	0.190(	0.129)
NEPHJUVE	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.004	43.9	0.006	14.6(	20.7)	0.002(	0.003)
OPHELIMA	0.0	0.000	14.6	0.010	29.3	0.095	0.0	0.000	0.0	0.000	8.8(	13.1)	0.021(	0.042)
SCOLARMI	43.9	0.315	29.3	0.209	58.5	0.160	87.8	0.715	43.9	0.382	52.7(	22.2)	0.356(	0.219)
SCOLBONN	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.465	2.9(	6.5)	0.093(	0.208)
SPIOBOMB	0.0	0.000	58.5	0.014	14.6	0.002	29.3	0.010	87.8	0.017	38.0(	35.2)	0.009(	0.007)
SPIOFILI	102.4	0.015	146.3	0.017	146.3	0.023	58.5	0.010	102.4	0.012	111.2(	36.7)	0.015(	0.005)
MISCELLANEOUS														
NEMERTIN	14.6	0.003	29.3	0.138	14.6	0.003	0.0	0.000	14.6	0.003	14.6(	10.3)	0.029(	0.061)
SUMS	980.2	0.844	833.9	0.838	863.2	0.659	1580.0	3.541	833.9	1.347	1018.2(	319.8)	1.446(	1.199)
NSPC	17		15		16		22		16					
SH-W	2.269		2.226		2.264		2.329		2.134					
SIMP	0.170		0.164		0.151		0.163		0.193					

Appendix - 2 Biomonitoring 1994

STATION : SM20
GEOGR. POS. : 53° 29" 57' N 02° 59" 57' E
DATE : 02/06/94
DEPTH : 23 m
Median Grain: 138.6 µ
Perc. Mud. : 3.1 %

	BOX 1		BOX 2		BOX 3		BOX 4		BOX 5		MEAN	S.D.	MEAN	S.D.
	N	B	N	B	N	B	N	B	N	B	N		B	
CRUSTACEA														
APHEOVAL	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.009	0.0	0.000	5.9(	13.1)	0.002(	0.004)
BATHELEG	14.6	0.004	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	8.0)	0.002(	0.002)
BATHTENU	0.0	0.000	29.3	0.009	29.3	0.009	14.6	0.004	29.3	0.009	20.5(	13.1)	0.006(	0.004)
BODOSCOR	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	2.9(	6.5)	0.001(	0.002)
CALLSUBT	87.8	1.574	0.0	0.000	58.5	0.941	29.3	0.660	29.3	1.023	41.0(	33.4)	0.840(	0.575)
HIPPDENT	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
LEUCINCI	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	14.6	0.004	5.9(	8.0)	0.002(	0.002)
PERILONG	0.0	0.000	29.3	0.009	0.0	0.000	14.6	0.004	43.9	0.013	17.6(	19.1)	0.005(	0.006)
PHOXFEMO	0.0	0.000	14.6	0.007	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.003)
PONTALTA	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
PSEULONG	29.3	0.009	58.5	0.018	29.3	0.009	58.5	0.018	73.2	0.022	49.7(	19.6)	0.015(	0.006)
PSEUSIMI	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
ECHINODERMATA														
ACROBRAC	0.0	0.000	14.6	0.755	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.151(	0.338)
ECHICORD	14.6	2.221	0.0	0.000	58.5	11.388	14.6	0.060	29.3	4.287	23.4(	22.2)	3.591(	4.704)
ECHIJUVE	0.0	0.000	73.2	0.015	29.3	0.006	43.9	0.009	87.8	0.018	46.8(	34.9)	0.010(	0.007)
OPHIALBI	43.9	3.453	58.5	0.064	0.0	0.000	14.6	3.691	0.0	0.000	23.4(	26.6)	1.442(	1.947)
OPHIJUVE	0.0	0.000	0.0	0.000	14.6	0.004	73.2	0.022	0.0	0.000	17.6(	31.7)	0.005(	0.010)
MOLLUSCA														
ABRAALBA	760.8	12.313	395.0	3.851	643.7	9.230	673.0	5.690	175.6	1.026	529.6(	240.0)	6.422(	4.440)
CULTPELL	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.002	2.9(	6.5)	0.000(	0.001)
CYLICYLI	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.006	0.0	0.000	2.9(	6.5)	0.001(	0.003)
ENSISPEC	14.6	73.075	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	14.615(	32.680)
MONTFERR	0.0	0.000	14.6	0.026	29.3	0.004	43.9	0.019	29.3	0.009	23.4(	16.7)	0.012(	0.011)
MYSEBIDE	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.006	5.9(	13.1)	0.001(	0.003)
NATIALDE	58.5	0.847	87.8	0.025	58.5	1.805	87.8	0.158	117.0	0.132	81.9(	24.5)	0.593(	0.751)
NUCUTURG	0.0	0.000	29.3	0.018	29.3	0.057	73.2	0.079	43.9	0.521	35.1(	26.6)	0.135(	0.218)
TELLFABU	0.0	0.000	14.6	0.015	58.5	0.160	14.6	0.002	0.0	0.000	17.6(	24.0)	0.035(	0.070)
POLYCHAETA														
ANAISUBU	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.002	0.0	0.000	2.9(	6.5)	0.000(	0.001)
CHAESETO	0.0	0.000	87.8	0.019	0.0	0.000	87.8	0.027	73.2	0.019	49.7(	45.8)	0.013(	0.012)
GONIMACU	14.6	0.008	14.6	0.014	14.6	0.017	14.6	0.015	29.3	0.008	17.6(	6.5)	0.012(	0.004)
GYPTCAPE	0.0	0.000	14.6	0.050	0.0	0.000	14.6	0.062	0.0	0.000	5.9(	8.0)	0.022(	0.031)
HARMLONG	0.0	0.000	0.0	0.000	14.6	0.015	14.6	0.014	73.2	0.017	20.5(	30.3)	0.009(	0.008)
LANICONC	117.0	0.014	0.0	0.000	0.0	0.000	87.8	0.010	73.2	0.014	55.6(	53.2)	0.008(	0.007)
LANIJUVE	0.0	0.000	58.5	0.004	102.4	0.010	0.0	0.000	0.0	0.000	32.2(	46.7)	0.003(	0.004)
LUMBLATR	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.027	2.9(	6.5)	0.005(	0.012)
MAGEPAPI	117.0	0.066	146.3	0.079	175.6	0.046	160.9	0.097	175.6	0.085	155.1(	24.5)	0.075(	0.020)
NEPHHOMB	43.9	0.044	160.9	1.804	131.7	1.083	58.5	0.154	73.2	0.597	93.6(	50.3)	0.736(	0.724)
OWENFUSI	0.0	0.000	43.9	0.006	0.0	0.000	0.0	0.000	14.6	0.017	11.7(	19.1)	0.005(	0.007)
PECTKORE	29.3	0.004	307.2	0.017	263.3	0.012	687.6	0.029	702.2	0.025	397.9(	291.0)	0.017(	0.010)
PHOLMINU	131.7	0.089	160.9	0.041	43.9	0.010	58.5	0.008	14.6	0.002	81.9(	61.7)	0.030(	0.036)
POECSERP	14.6	0.008	14.6	0.068	29.3	0.015	29.3	0.054	14.6	0.004	20.5(	8.0)	0.030(	0.029)
SCALINFL	0.0	0.000	0.0	0.000	43.9	0.008	87.8	0.010	29.3	0.002	32.2(	36.4)	0.004(	0.005)
SCOLARMI	0.0	0.000	29.3	0.077	14.6	0.062	43.9	0.058	43.9	0.068	26.3(	19.1)	0.053(	0.030)
SIGAMATH	0.0	0.000	14.6	0.133	14.6	0.037	73.2	0.502	29.3	0.241	26.3(	28.1)	0.183(	0.202)
SPIOBOMB	263.3	0.153	248.7	0.073	321.9	0.143	585.2	0.237	248.7	0.060	333.6(	143.9)	0.133(	0.071)
SPIOFILI	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
STHELIMI	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.010	14.6	0.004	5.9(	8.0)	0.003(	0.004)
MISCELLANEOUS														
ANTHOZOA	14.6	15.230	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	3.046(	6.811)
NEMERTIN	146.3	0.222	117.0	0.093	131.7	0.084	263.3	0.782	102.4	0.039	152.2(	64.3)	0.244(	0.308)
PHORONID	29.3	0.012	14.6	0.006	29.3	0.012	14.6	0.006	14.6	0.006	20.5(	8.0)	0.008(	0.003)
SUMS	1960.4	109.35	2282.3	7.30	2399.3	25.18	3540.5	12.52	2457.8	8.31	2528.1(	597.7)	32.530(	43.529)
NSPC	20		27		24		33		30					
SH-W	2.207		2.712		2.485		2.594		2.710					
SIMP	0.190		0.092		0.133		0.121		0.121					

Appendix - 2 Biomonitoring 1994

STATION : N2
GEOGR. POS. : 52° 15" 42' N 04° 24" 21' E
DATE : 31/05/94
DEPTH : 14 m
Median Grain: 248.5 µ
Perc. Mud. : 2.8 %

	BOX 1		BOX 2		BOX 3		BOX 4		BOX 5		MEAN	S.D.	MEAN	S.D.
	N	B	N	B	N	B	N	B	N	B	N		B	
CRUSTACEA														
AMPEBREV	0.0	0.000	14.6	0.029	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.006(	0.013)
ATYLFALC	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	2.9(	6.5)	0.001(	0.002)
ATYLSWAM	0.0	0.000	0.0	0.000	0.0	0.000	102.4	0.031	0.0	0.000	20.5(	45.8)	0.006(	0.014)
BODOSCOR	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	2.9(	6.5)	0.001(	0.002)
CAPRELLI	0.0	0.000	14.6	0.003	0.0	0.000	43.9	0.009	14.6	0.003	14.6(	17.9)	0.003(	0.004)
LAMPFASC	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	2.9(	6.5)	0.001(	0.002)
MICRMACU	29.3	0.009	0.0	0.000	0.0	0.000	29.3	0.009	0.0	0.000	11.7(	16.0)	0.004(	0.005)
PSEULONG	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.003	0.0	0.000	2.9(	6.5)	0.001(	0.001)
UROTPOSE	131.7	0.053	102.4	0.041	29.3	0.012	219.4	0.088	58.5	0.023	108.3(	73.6)	0.043(	0.030)
ECHINODERMATA														
ASTEJUVE	1682.4	0.505	2077.5	0.623	175.6	0.053	1009.5	0.303	87.8	0.026	1006.5(	885.8)	0.302(	0.266)
ECHICORD	0.0	0.000	14.6	6.442	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	1.288(	2.881)
ECHIJUVE	541.3	0.108	351.1	0.070	14.6	0.003	175.6	0.035	102.4	0.021	237.0(	210.3)	0.047(	0.042)
OPHIJUVE	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.006	0.0	0.000	5.9(	13.1)	0.001(	0.003)
MOLLUSCA														
ABRAALBA	43.9	0.740	673.0	1.683	204.8	0.018	0.0	0.000	0.0	0.000	184.3(	285.9)	0.488(	0.740)
ABRAJUVE	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.006	5.9(	13.1)	0.001(	0.003)
ENSIJUVE	1111.9	0.222	1346.0	0.269	731.5	0.146	87.8	0.018	131.7	0.026	681.8(	566.6)	0.136(	0.113)
MACOBALT	0.0	0.000	0.0	0.000	29.3	0.635	0.0	0.000	0.0	0.000	5.9(	13.1)	0.127(	0.284)
MACTCORA	117.0	0.291	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	23.4(	52.3)	0.058(	0.130)
MONTFERR	307.2	0.148	175.6	0.064	0.0	0.000	0.0	0.000	0.0	0.000	96.6(	140.2)	0.042(	0.065)
MYSEBIDE	0.0	0.000	643.7	0.135	102.4	0.019	278.0	0.056	278.0	0.063	260.4(	245.1)	0.055(	0.052)
MYTIJUVE	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.002	0.0	0.000	5.9(	13.1)	0.000(	0.001)
SPISSUBT	29.3	0.825	365.8	5.798	131.7	2.212	0.0	0.000	0.0	0.000	105.3(	155.3)	1.767(	2.428)
TELLFABU	307.2	2.742	482.8	0.825	365.8	4.787	117.0	3.912	102.4	2.686	275.0(	163.7)	2.990(	1.493)
TELLJUVE	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.006	5.9(	13.1)	0.001(	0.003)
TELLTENU	0.0	0.000	0.0	0.000	14.6	0.360	0.0	0.000	0.0	0.000	2.9(	6.5)	0.072(	0.161)
POLYCHAETA														
ANAIMACU	307.2	0.066	687.6	0.048	87.8	0.014	102.4	0.002	0.0	0.000	237.0(	275.9)	0.026(	0.029)
CAPICAPI	117.0	0.010	87.8	0.029	58.5	0.012	43.9	0.002	146.3	0.048	90.7(	41.9)	0.020(	0.018)
CHAESETO	29.3	0.019	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	13.1)	0.004(	0.008)
ETEOLONG	14.6	0.002	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
EUMISANG	292.6	0.060	321.9	0.081	29.3	0.039	131.7	0.044	0.0	0.000	155.1(	147.6)	0.045(	0.030)
HARMLUNU	336.5	0.118	204.8	0.280	29.3	0.058	146.3	0.251	43.9	0.031	152.2(	126.1)	0.148(	0.113)
HARMNODO	0.0	0.000	58.5	0.029	14.6	0.002	58.5	0.014	0.0	0.000	26.3(	30.0)	0.009(	0.013)
LANICONC	7914.8	29.342	9436.3	32.752	2296.9	4.648	3876.9	22.840	1389.8	4.824	4983.0(	3527.6)	18.881(	13.395)
MAGEPAPI	1185.0	0.110	1726.3	0.133	1009.5	0.060	409.6	0.037	746.1	0.120	1015.3(	493.4)	0.092(	0.041)
NEPHHOMB	102.4	1.779	160.9	2.041	87.8	1.582	58.5	1.271	14.6	0.064	84.9(	54.2)	1.347(	0.771)
NEPHJUVE	29.3	0.004	29.3	0.008	0.0	0.000	29.3	0.008	29.3	0.004	23.4(	13.1)	0.005(	0.003)
NERELONG	175.6	3.312	14.6	0.405	0.0	0.000	14.6	0.100	0.0	0.000	41.0(	75.6)	0.763(	1.434)
PECTJUVE	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.002	2.9(	6.5)	0.000(	0.001)
PECTKORE	0.0	0.000	263.3	0.110	43.9	0.002	14.6	0.012	0.0	0.000	64.4(	112.7)	0.025(	0.048)
PSEUPULC	0.0	0.000	29.3	0.041	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	13.1)	0.008(	0.018)
SCOLARMI	102.4	0.158	73.2	0.120	58.5	0.322	14.6	0.043	43.9	0.125	58.5(	32.7)	0.154(	0.103)
SIGAMATH	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.871	0.0	0.000	2.9(	6.5)	0.174(	0.390)
SPIOBOMB	512.0	0.168	746.1	0.122	263.3	0.052	629.1	0.091	395.0	0.230	509.1(	189.7)	0.133(	0.069)
SPIOFILI	14.6	0.002	14.6	0.006	0.0	0.000	43.9	0.006	0.0	0.000	14.6(	17.9)	0.003(	0.003)
STHEBOA	0.0	0.000	0.0	0.000	0.0	0.000	14.6	1.472	0.0	0.000	2.9(	6.5)	0.294(	0.658)
SYNEKLAT	0.0	0.000	73.2	0.004	29.3	0.004	14.6	0.002	29.3	0.003	29.3(	27.4)	0.003(	0.002)
MISCELLANEOUS														
ANTHOZOA	0.0	0.000	29.3	17.712	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	13.1)	3.542(	7.921)
HYDROZOA	0.0	0.000	29.3	0.006	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	13.1)	0.001(	0.003)
NEMERTIN	146.3	3.537	29.3	0.064	29.3	0.003	43.9	3.644	29.3	0.019	55.6(	51.1)	1.453(	1.951)
PLATHYHE	0.0	0.000	0.0	0.000	29.3	0.002	0.0	0.000	0.0	0.000	5.9(	13.1)	0.000(	0.001)
SUMS	15580.9	44.33	20277.2	69.97	5866.6	15.05	7841.7	35.19	3716.0	8.33	10656.5(	6997.2)	34.574(	24.591)
NSPC	21		27		21		27		13					
SH-W	1.518		1.769		1.875		1.709		1.729					
SIMP	0.435		0.349		0.270		0.376		0.255					

Appendix - 2 Biomonitoring 1994

STATION : N10
GEOGR. POS. : 52° 17" 53' N 04° 18" 12' E
DATE : 31/05/94
DEPTH : 19 m
Median Grain: 260.8 µ
Perc. Mud. : 1.1 %

	BOX 1		BOX 2		BOX 3		BOX 4		BOX 5		MEAN	S.D.	MEAN	S.D.
	N	B	N	B	N	B	N	B	N	B	N		B	
CRUSTACEA														
ATYLFALC	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
BATHELEG	14.6	0.004	0.0	0.000	58.5	0.018	0.0	0.000	14.6	0.004	17.6(	24.0)	0.005(	0.007)
BATHGUIL	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.234	43.9	0.044	14.6(	20.7)	0.056(	0.102)
BATHJUVE	29.3	0.006	0.0	0.000	0.0	0.000	43.9	0.009	0.0	0.000	14.6(	20.7)	0.003(	0.004)
DIASBRAD	73.2	0.073	29.3	0.015	29.3	0.015	29.3	0.029	14.6	0.022	35.1(	22.2)	0.031(	0.024)
LAMPFASC	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
MEGAAGIL	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
PERILONG	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
PSEULONG	29.3	0.009	14.6	0.004	58.5	0.018	14.6	0.004	43.9	0.013	32.2(	19.1)	0.010(	0.006)
UROTPOSE	248.7	0.100	0.0	0.000	58.5	0.023	0.0	0.000	87.8	0.035	79.0(	102.2)	0.032(	0.041)
ECHINODERMATA														
ASTEJUVE	0.0	0.000	43.9	0.013	87.8	0.026	73.2	0.022	131.7	0.040	67.3(	49.2)	0.020(	0.015)
ECHIJUVE	395.0	0.079	555.9	0.111	234.1	0.047	190.2	0.038	0.0	0.000	275.0(	210.8)	0.055(	0.042)
MOLLUSCA														
CHLAVARI	14.6	0.003	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.001)
ENSISPEC	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	19.973	2.9(	6.5)	3.995(	8.932)
MACTCORA	43.9	0.009	0.0	0.000	43.9	0.007	14.6	0.002	14.6	0.004	23.4(	19.6)	0.004(	0.004)
MONTFERR	14.6	0.007	0.0	0.000	0.0	0.000	0.0	0.000	43.9	0.054	11.7(	19.1)	0.012(	0.024)
MYSEBIDE	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.003	29.3	0.006	8.8(	13.1)	0.002(	0.003)
SPISELLI	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.091	2.9(	6.5)	0.018(	0.041)
POLYCHAETA														
ANAIMACU	0.0	0.000	0.0	0.000	14.6	0.006	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.003)
ANAIMUCO	29.3	0.004	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	13.1)	0.001(	0.002)
ANAISPEC	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.002	0.0	0.000	2.9(	6.5)	0.000(	0.001)
ETEOLONG	14.6	0.004	14.6	0.002	14.6	0.006	14.6	0.006	0.0	0.000	11.7(	6.5)	0.004(	0.003)
HARMSPEC	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	2.9(	6.5)	0.001(	0.002)
LANICONC	190.2	0.033	117.0	0.012	278.0	0.054	541.3	0.068	263.3	0.270	278.0(	160.6)	0.087(	0.104)
MAGEPAPI	14.6	0.097	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.019(	0.043)
NEPHCAEC	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	8.399	2.9(	6.5)	1.680(	3.756)
NEPHCIRR	292.6	1.510	204.8	0.921	204.8	1.253	204.8	0.904	175.6	0.969	216.5(	44.4)	1.111(	0.264)
NEPHJUVE	0.0	0.000	29.3	0.004	87.8	0.012	14.6	0.002	14.6	0.002	29.3(	34.3)	0.004(	0.005)
PECTKORE	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.002	0.0	0.000	2.9(	6.5)	0.000(	0.001)
SCOLARMI	0.0	0.000	14.6	0.174	0.0	0.000	0.0	0.000	14.6	0.639	5.9(	8.0)	0.163(	0.277)
SCOLBONN	0.0	0.000	0.0	0.000	14.6	0.120	14.6	0.498	0.0	0.000	5.9(	8.0)	0.124(	0.216)
SPIOBOMB	1550.8	0.226	482.8	0.060	1316.7	0.089	804.7	0.141	526.7	0.093	936.3(	477.8)	0.122(	0.065)
SPIOFILI	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	2.9(	6.5)	0.001(	0.002)
MISCELLANEOUS														
HYDROZOA	175.6	0.018	336.5	0.034	585.2	0.058	409.6	0.041	248.7	0.025	351.1(	157.9)	0.035(	0.015)
NEMERTIN	14.6	0.045	73.2	0.129	14.6	0.016	58.5	0.064	58.5	0.187	43.9(	27.4)	0.088(	0.069)
SUMS	3174.7	2.24	1945.8	1.49	3101.6	1.77	2531.0	2.08	1770.2	30.87	2504.7(	643.8)	7.687(	12.963)
NSPC	17		11		13		16		17					
SH-W	1.621		1.716		1.591		1.755		2.128					
SIMP	0.347		0.235		0.305		0.237		0.173					

Appendix - 2 Biomonitoring 1994

STATION : N30
GEOGR. POS. : 52° 23" 11' N 04° 02" 50' E
DATE : 31/05/94
DEPTH : 24 m
Median Grain: 322.8 µ
Perc. Mud. : 0.0 %

	BOX 1		BOX 2		BOX 3		BOX 4		BOX 5		MEAN	S.D.	MEAN	S.D.
	N	B	N	B	N	B	N	B	N	B	N		B	
CRUSTACEA														
ATYLFALC	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	2.9(	6.5)	0.001(	0.002)
BATHELEG	14.6	0.004	0.0	0.000	0.0	0.000	14.6	0.004	43.9	0.018	14.6(	17.9)	0.005(	0.007)
BATHGUIL	29.3	0.022	0.0	0.000	43.9	0.044	14.6	0.022	14.6	0.015	20.5(	16.7)	0.021(	0.016)
DIASBRAD	0.0	0.000	14.6	0.015	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.003(	0.007)
MEGAAGIL	14.6	0.004	0.0	0.000	131.7	0.040	14.6	0.004	29.3	0.009	38.0(	53.4)	0.011(	0.016)
PSEUSIMI	0.0	0.000	29.3	0.009	0.0	0.000	14.6	0.004	14.6	0.004	11.7(	12.2)	0.003(	0.004)
UROTPOSE	190.2	0.076	14.6	0.006	263.3	0.105	204.8	0.082	204.8	0.082	175.6(	94.2)	0.070(	0.038)
ECHINODERMATA														
AMPHSPEC	0.0	0.000	14.6	0.003	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.001)
ASTEJUVE	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	58.5	0.018	14.6(	25.3)	0.004(	0.008)
ECHICORD	14.6	9.823	0.0	0.000	29.3	12.354	0.0	0.000	0.0	0.000	8.8(	13.1)	4.435(	6.139)
ECHIJUVE	0.0	0.000	395.0	0.079	73.2	0.015	87.8	0.018	29.3	0.006	117.0(	159.3)	0.024(	0.032)
OPHIJUVE	73.2	0.022	117.0	0.035	58.5	0.018	14.6	0.004	73.2	0.022	67.3(	36.7)	0.020(	0.011)
MOLLUSCA														
ENSIENSI	0.0	0.000	14.6	6.131	14.6	8.313	0.0	0.000	0.0	0.000	5.9(	8.0)	2.889(	4.030)
MACTCORA	0.0	0.000	14.6	0.002	58.5	0.012	87.8	0.015	14.6	0.003	35.1(	36.7)	0.006(	0.007)
NATIALDE	0.0	0.000	14.6	0.021	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.004(	0.009)
POLYCHAETA														
ARICMINU	0.0	0.000	29.3	0.004	14.6	0.006	0.0	0.000	73.2	0.010	23.4(	30.3)	0.004(	0.004)
ETEOLONG	43.9	0.012	58.5	0.021	58.5	0.077	29.3	0.010	14.6	0.010	41.0(	19.1)	0.026(	0.029)
HARMLONG	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.010	0.0	0.000	2.9(	6.5)	0.002(	0.004)
LANICONC	29.3	0.002	14.6	0.006	0.0	0.000	29.3	0.002	29.3	0.004	20.5(	13.1)	0.003(	0.002)
MAGEPAPI	14.6	0.006	73.2	0.014	0.0	0.000	14.6	0.002	0.0	0.000	20.5(	30.3)	0.004(	0.006)
NEPHCIRR	146.3	1.000	175.6	1.721	131.7	0.722	58.5	0.301	175.6	1.153	137.5(	48.1)	0.979(	0.526)
NEPHJUVE	0.0	0.000	29.3	0.004	14.6	0.002	0.0	0.000	0.0	0.000	8.8(	13.1)	0.001(	0.002)
SCOLARMI	29.3	0.222	14.6	0.062	14.6	0.417	0.0	0.000	14.6	0.461	14.6(	10.3)	0.232(	0.206)
SCOLBONN	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.243	2.9(	6.5)	0.049(	0.109)
SPIOBOMB	687.6	0.122	1155.8	0.185	702.2	0.073	1272.8	0.087	804.7	0.079	924.6(	271.4)	0.109(	0.046)
SPIOFILI	58.5	0.012	102.4	0.021	58.5	0.010	117.0	0.019	58.5	0.008	79.0(	28.5)	0.014(	0.006)
MISCELLANEOUS														
NEMERTIN	43.9	0.061	29.3	0.180	73.2	0.222	131.7	0.489	58.5	0.351	67.3(	39.5)	0.261(	0.164)
SUMS	1389.8	11.39	2311.5	8.52	1741.0	22.43	2136.0	1.08	1741.0	2.50	1863.9(	363.8)	9.183(	8.532)
NSPC	13		16		13		14		16					
SH-W	1.682		1.437		1.877		1.442		1.790					
SIMP	0.312		0.443		0.242		0.419		0.295					

Appendix - 2 Biomonitoring 1994

STATION : N50
GEOGR. POS. : 52° 28" 48' N 03° 47" 11' E
DATE : 31/05/94
DEPTH : 25 m
Median Grain: 360.2 µ
Perc. Mud. : 0.0 %

	BOX 1		BOX 2		BOX 3		BOX 4		BOX 5		MEAN	S.D.	MEAN	S.D.
	N	B	N	B	N	B	N	B	N	B	N		B	
CRUSTACEA														
BATHELEG	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.012	2.9(	6.5)	0.002(	0.005)
BATHGUIL	29.3	0.029	0.0	0.000	14.6	0.015	14.6	0.015	0.0	0.000	11.7(	12.2)	0.012(	0.012)
DIASBRAD	0.0	0.000	14.6	0.012	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.002(	0.005)
MEGAAGIL	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
PSEUSIMI	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
UROTBREV	0.0	0.000	14.6	0.015	14.6	0.015	0.0	0.000	0.0	0.000	5.9(	8.0)	0.006(	0.008)
ECHINODERMATA														
OPHIALBI	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.006	0.0	0.000	2.9(	6.5)	0.001(	0.003)
OPHIJUVE	0.0	0.000	58.5	0.018	43.9	0.013	0.0	0.000	14.6	0.004	23.4(	26.6)	0.007(	0.008)
MOLLUSCA														
MACTCORA	43.9	0.003	14.6	0.002	14.6	0.002	29.3	0.002	0.0	0.000	20.5(	16.7)	0.002(	0.001)
NATIALDE	0.0	0.000	0.0	0.000	43.9	0.012	0.0	0.000	0.0	0.000	8.8(	19.6)	0.002(	0.005)
POLYCHAETA														
ARICMINU	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	43.9	0.010	8.8(	19.6)	0.002(	0.004)
CHAESETO	14.6	0.035	14.6	0.002	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	8.0)	0.007(	0.015)
EUZOFLAB	0.0	0.000	14.6	0.010	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.002(	0.004)
HESIAUGE	0.0	0.000	29.3	0.002	43.9	0.002	0.0	0.000	14.6	0.002	17.6(	19.1)	0.001(	0.001)
LANIJUVE	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	2.9(	6.5)	0.001(	0.002)
MAGEPAPI	0.0	0.000	73.2	0.504	43.9	0.790	87.8	0.467	14.6	0.050	43.9(	37.3)	0.362(	0.333)
NEPHCIRR	14.6	0.046	43.9	0.303	58.5	0.332	73.2	0.247	29.3	0.274	43.9(	23.1)	0.240(	0.113)
NEPHJUVE	73.2	0.010	58.5	0.008	14.6	0.002	0.0	0.000	0.0	0.000	29.3(	34.3)	0.004(	0.005)
SCOLARMI	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.365	0.0	0.000	5.9(	13.1)	0.073(	0.163)
SCOLSQUA	0.0	0.000	0.0	0.000	14.6	0.147	0.0	0.000	0.0	0.000	2.9(	6.5)	0.029(	0.066)
SPIOBOMB	14.6	0.002	14.6	0.075	43.9	0.087	0.0	0.000	14.6	0.006	17.6(	16.0)	0.034(	0.043)
SPIOFILI	673.0	0.129	453.5	0.085	395.0	0.062	424.3	0.098	468.2	0.075	482.8(	110.0)	0.090(	0.026)
SUMS	863.2	0.25	804.7	1.04	775.4	1.49	673.0	1.20	629.1	0.44	749.1(	96.2)	0.883(	0.520)
NSPC	6		10		12		7		7					
SH-W	0.641		1.314		1.694		1.237		0.894					
SIMP	0.731		0.454		0.327		0.430		0.619					

Appendix - 2 Biomonitoring 1994

STATION : N70
GEOGR. POS. : 52° 34" 09' N 03° 31" 57' E
DATE : 26/04/91
DEPTH : 32 m
Median Grain: 301.3 µ
Perc. Mud. : 0.0 %

	BOX 1		BOX 2		BOX 3		BOX 4		BOX 5		MEAN	S.D.	MEAN	S.D.
	N	B	N	B	N	B	N	B	N	B	N		B	
CRUSTACEA														
BATHELEG	248.7	0.167	14.6	0.015	102.4	0.031	175.6	0.053	131.7	0.040	134.6(	86.8)	0.061(	0.061)
BATHGUIL	43.9	0.044	29.3	0.037	43.9	0.044	102.4	0.031	43.9	0.029	52.7(	28.5)	0.037(	0.007)
BATHJUVE	58.5	0.012	0.0	0.000	58.5	0.012	87.8	0.018	0.0	0.000	41.0(	39.3)	0.008(	0.008)
HIPPDENT	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
MEGAAGIL	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	5.9(	8.0)	0.002(	0.002)
PONTALTA	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
PSEULONG	0.0	0.000	14.6	0.004	14.6	0.004	29.3	0.009	58.5	0.013	23.4(	22.2)	0.006(	0.005)
SIPHKROY	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
UROTBREV	29.3	0.012	14.6	0.006	0.0	0.000	58.5	0.023	117.0	0.047	43.9(	46.3)	0.018(	0.019)
UROTPOSE	0.0	0.000	0.0	0.000	43.9	0.018	0.0	0.000	58.5	0.023	20.5(	28.5)	0.008(	0.011)
ECHINODERMATA														
ECHICORD	0.0	0.000	0.0	0.000	14.6	21.184	0.0	0.000	14.6	12.212	5.9(	8.0)	6.679(	9.680)
OPHIALBI	0.0	0.000	0.0	0.000	14.6	1.093	14.6	0.006	14.6	0.003	8.8(	8.0)	0.220(	0.488)
OPHIJUVE	73.2	0.022	0.0	0.000	29.3	0.009	73.2	0.022	0.0	0.000	35.1(	36.7)	0.011(	0.011)
MOLLUSCA														
ENSIENSI	0.0	0.000	0.0	0.000	0.0	0.000	14.6	3.960	0.0	0.000	2.9(	6.5)	0.792(	1.771)
MACTCORA	14.6	0.002	0.0	0.000	0.0	0.000	14.6	0.007	14.6	0.002	8.8(	8.0)	0.002(	0.003)
MONTFERR	0.0	0.000	0.0	0.000	43.9	0.006	0.0	0.000	14.6	0.002	11.7(	19.1)	0.002(	0.003)
NATIALDE	43.9	0.041	29.3	0.009	29.3	0.006	14.6	0.002	14.6	0.007	26.3(	12.2)	0.013(	0.016)
TELLTENU	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.002	29.3	0.002	8.8(	13.1)	0.001(	0.001)
POLYCHAETA														
ANAISPEC	14.6	0.002	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
AONISPEC	29.3	0.002	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	13.1)	0.000(	0.001)
ARICMINU	43.9	0.002	14.6	0.002	0.0	0.000	43.9	0.008	43.9	0.008	29.3(	20.7)	0.004(	0.004)
GONIMACU	0.0	0.000	14.6	0.019	0.0	0.000	0.0	0.000	14.6	0.066	5.9(	8.0)	0.017(	0.029)
LANICONC	14.6	0.002	0.0	0.000	73.2	0.006	29.3	0.008	29.3	0.004	29.3(	27.4)	0.004(	0.003)
MAGEJUVE	58.5	0.002	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	11.7(	26.2)	0.000(	0.001)
MAGEPAPI	0.0	0.000	58.5	0.010	29.3	0.014	833.9	0.056	131.7	0.006	210.7(	351.8)	0.017(	0.022)
NEPHCIRR	73.2	0.562	14.6	0.189	14.6	0.149	43.9	0.485	29.3	0.178	35.1(	24.5)	0.313(	0.195)
NEPHJUVE	0.0	0.000	14.6	0.004	58.5	0.008	58.5	0.008	0.0	0.000	26.3(	30.0)	0.004(	0.004)
PROTKEFE	14.6	0.002	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
SCOLARMI	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.087	14.6	0.236	5.9(	8.0)	0.065(	0.103)
SCOLS°UA	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.182	2.9(	6.5)	0.036(	0.081)
SPHAHYST	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.002	2.9(	6.5)	0.000(	0.001)
SPIOBOMB	73.2	0.064	29.3	0.048	73.2	0.015	58.5	0.010	58.5	0.019	58.5(	17.9)	0.031(	0.024)
SPIOFILI	146.3	0.044	321.9	0.044	278.0	0.069	512.0	0.083	292.6	0.054	310.2(	131.4)	0.059(	0.017)
MISCELLANEOUS														
NEMERTIN	43.9	0.003	0.0	0.000	29.3	0.029	29.3	0.010	29.3	0.003	26.3(	16.0)	0.009(	0.012)
OLIGOCHA	87.8	0.002	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	17.6(	39.3)	0.000(	0.001)
SUMS	1170.4	1.003	570.6	0.387	951.0	22.697	2223.8	4.888	1199.7	13.142	1223.1(	613.3)	8.423(	9.462)
NSPC	19		11		14		17		23					
SH-W	2.503		1.593		2.194		1.853		2.640					
SIMP	0.116		0.358		0.165		0.252		0.106					

Appendix - 2 Biomonitoring 1994

STATION : VD4
GEOGR. POS. : 51° 55" 24' N 03° 55" 13' E
DATE : 30/05/94
DEPTH : 13 m
Median Grain: 200.6 µ
Perc. Mud. : 1.0 %

	BOX 1		BOX 2		BOX 3		BOX 4		BOX 5		MEAN	S.D.	MEAN	S.D.
	N	B	N	B	N	B	N	B	N	B	N		B	
CRUSTACEA														
ATYLSWAM	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	43.9	0.013	8.8(	19.6)	0.003(	0.006)
BODOSCOR	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.012	2.9(	6.5)	0.002(	0.005)
CAPRELLI	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.003	2.9(	6.5)	0.001(	0.001)
DIASBRAD	43.9	0.044	14.6	0.022	131.7	0.053	58.5	0.058	43.9	0.026	58.5(	43.9)	0.041(	0.016)
MELIOBTU	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
MICRMACU	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	5.9(	8.0)	0.002(	0.002)
PERILONG	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
PSEULONG	14.6	0.004	0.0	0.000	0.0	0.000	14.6	0.004	43.9	0.013	14.6(	17.9)	0.004(	0.005)
UROTPOSE	365.8	0.146	87.8	0.035	175.6	0.070	351.1	0.140	336.5	0.135	263.3(	124.6)	0.105(	0.050)
ECHINODERMATA														
AMPHSPEC	14.6	0.004	29.3	0.009	0.0	0.000	0.0	0.000	0.0	0.000	8.8(	13.1)	0.003(	0.004)
ASTEJUVE	2238.4	0.672	2823.6	0.847	512.0	0.154	1170.4	0.351	8192.8	2.458	2987.4(	3046.0)	0.896(	0.914)
ECHICORD	14.6	11.505	0.0	0.000	14.6	12.684	58.5	31.011	14.6	10.633	20.5(	22.2)	13.167(	11.194)
ECHIJUVE	43.9	0.009	14.6	0.003	0.0	0.000	0.0	0.000	131.7	0.026	38.0(	55.3)	0.008(	0.011)
OPHIJUVE	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
MOLLUSCA														
CHLAVARI	14.6	0.002	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.003	5.9(	8.0)	0.001(	0.001)
ENSIDIRE	29.3	15.048	0.0	0.000	14.6	12.010	0.0	0.000	43.9	51.240	17.6(	19.1)	15.660(	21.036)
MACOBALT	29.3	0.002	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	13.1)	0.000(	0.001)
MACTCORA	29.3	5.859	29.3	4.110	0.0	0.000	29.3	5.315	87.8	0.010	35.1(	32.1)	3.059(	2.859)
MONTFERR	292.6	0.307	307.2	0.167	175.6	0.173	512.0	0.284	58.5	0.026	269.2(	168.9)	0.191(	0.112)
MYSEBIDE	131.7	0.026	29.3	0.006	87.8	0.018	131.7	0.026	102.4	0.021	96.6(	42.1)	0.019(	0.008)
SPISSUBT	29.3	2.015	14.6	0.546	0.0	0.000	29.3	0.395	0.0	0.000	14.6(	14.6)	0.591(	0.832)
TELLFABU	160.9	1.320	102.4	2.914	146.3	2.383	160.9	1.813	190.2	3.416	152.2(	32.1)	2.369(	0.837)
POLYCHAETA														
ANAIMACU	614.5	0.290	570.6	0.166	292.6	0.046	424.3	0.214	1506.9	0.709	681.8(	478.4)	0.285(	0.253)
CAPICAPI	58.5	0.004	14.6	0.004	14.6	0.002	0.0	0.000	175.6	0.035	52.7(	72.1)	0.009(	0.015)
CHAESETO	43.9	0.008	0.0	0.000	14.6	0.006	58.5	0.025	29.3	0.029	29.3(	23.1)	0.014(	0.013)
ETEOLONG	14.6	0.004	29.3	0.006	29.3	0.006	0.0	0.000	29.3	0.006	20.5(	13.1)	0.004(	0.003)
EUMISANG	58.5	0.004	29.3	0.004	0.0	0.000	0.0	0.000	351.1	0.025	87.8(	149.2)	0.007(	0.010)
GYPTCAPE	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.015	0.0	0.000	2.9(	6.5)	0.003(	0.007)
HARMLONG	29.3	0.035	29.3	0.015	0.0	0.000	0.0	0.000	43.9	0.010	20.5(	19.6)	0.012(	0.014)
LANICONC	3979.4	9.845	1975.1	4.229	965.6	0.825	2501.7	6.180	5632.5	15.681	3010.9(	1825.3)	7.352(	5.686)
MAGEPAPI	8105.0	1.55	16473.4	3.308	7037.0	1.34	10021.5	2.37	15288.3	2.80	11385.1(	4261.7)	2.274(	0.830)
NEPHCIRR	102.4	1.696	14.6	0.122	43.9	0.160	14.6	0.010	43.9	0.270	43.9(	35.8)	0.452(	0.702)
NEPHHOMB	58.5	1.421	29.3	3.694	0.0	0.000	29.3	0.724	0.0	0.000	23.4(	24.5)	1.168(	1.531)
NERELONG	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	58.5	0.836	11.7(	26.2)	0.167(	0.374)
NOTOLATE	0.0	0.000	29.3	2.097	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	13.1)	0.419(	0.938)
PECTKORE	102.4	1.663	102.4	0.031	102.4	0.039	146.3	0.056	248.7	0.278	140.4(	63.4)	0.413(	0.706)
SCOLARMI	14.6	0.002	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
SCOLBONN	14.6	0.180	0.0	0.000	14.6	0.214	14.6	0.162	0.0	0.000	8.8(	8.0)	0.111(	0.103)
SIGAMATH	43.9	0.668	0.0	0.000	14.6	0.813	14.6	0.021	29.3	1.203	20.5(	16.7)	0.541(	0.522)
SPIOBOMB	6159.2	3.248	7432.0	3.045	9319.3	2.955	5983.7	2.46	10972.5	3.349	7973.4(	2141.8)	3.011(	0.346)
SPIOFILI	278.0	0.085	278.0	0.043	117.0	0.025	87.8	0.017	73.2	0.015	166.8(	102.7)	0.037(	0.029)
MISCELLANEOUS														
ANTHOZOA	14.6	24.288	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	4.858(	10.862)
HYDROZOA	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	73.2	0.058	14.6(	32.7)	0.012(	0.026)
NEMERTIN	43.9	0.019	43.9	0.003	73.2	0.660	43.9	0.315	87.8	0.026	58.5(	20.7)	0.205(	0.286)
OLIGOCHA	0.0	0.000	29.3	0.006	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	13.1)	0.001(	0.003)
SUMS	23203.2	81.97	30532.8	25.43	19340.9	34.65	21871.9	51.97	43992.4	93.37	27788.2(	9968.6)	57.479(	29.440)
NSPC	32		23		22		22		30					
SH-W	1.649		1.177		1.268		1.450		1.505					
SIMP	0.275		0.432		0.388		0.334		0.305					

Appendix - 2 Biomonitoring 1994

STATION : VD3
GEOGR. POS. : 51° 47" 14' N 03° 48" 29' E
DATE : 25/05/94
DEPTH : /
Median Grain: /
Perc. Mud. : /

	BOX 1		BOX 2		BOX 3		BOX 4		BOX 5		MEAN	S.D.	MEAN	S.D.
	N	B	N	B	N	B	N	B	N	B	N		B	
CRUSTACEA														
ATYLSWAM	29.3	0.009	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	13.1)	0.002(	0.004)
CAPRELLI	29.3	0.006	73.2	0.015	29.3	0.006	0.0	0.000	0.0	0.000	26.3(	30.0)	0.005(	0.006)
MICRMACU	0.0	0.000	29.3	0.009	73.2	0.022	0.0	0.000	43.9	0.013	29.3(	31.0)	0.009(	0.009)
UROTPOSE	117.0	0.047	0.0	0.000	190.2	0.076	0.0	0.000	117.0	0.047	84.9(	83.0)	0.034(	0.033)
ECHINODERMATA														
ASTEJUVE	365.8	0.110	892.4	0.268	1009.5	0.303	0.0	0.000	1448.4	0.435	743.2(	566.8)	0.223(	0.170)
ASTERUBE	0.0	0.000	14.6	11.564	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	2.313(	5.172)
ASTRIRRE	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
OPHIALBI	292.6	5.306	43.9	1.252	0.0	0.000	0.0	0.000	29.3	0.180	73.2(	124.1)	1.348(	2.273)
MOLLUSCA														
ABRAALBA	58.5	179.115	14.6	0.129	146.3	1.440	14.6	0.063	58.5	0.562	58.5(	53.8)	36.262(	79.859)
ABRAJUVE	43.9	0.009	87.8	0.018	877.8	0.176	0.0	0.000	234.1	0.047	248.7(	362.5)	0.050(	0.073)
CULTPELL	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.003	2.9(	6.5)	0.001(	0.001)
ENSIDIRE	0.0	0.000	14.6	16.409	0.0	0.000	14.6	9.807	14.6	12.188	8.8(	8.0)	7.681(	7.399)
MACOBALT	14.6	0.265	29.3	0.002	14.6	0.578	0.0	0.000	0.0	0.000	11.7(	12.2)	0.169(	0.256)
MONTFERR	0.0	0.000	0.0	0.000	29.3	0.023	0.0	0.000	0.0	0.000	5.9(	13.1)	0.005(	0.010)
MYSEBIDE	555.9	0.111	73.2	0.015	1053.4	0.275	29.3	0.019	702.2	0.140	482.8(	433.7)	0.112(	0.107)
MYTIEDUL	29.3	0.006	14.6	0.006	0.0	0.000	0.0	0.000	0.0	0.000	8.8(	13.1)	0.002(	0.003)
SPISSUBT	14.6	0.035	43.9	0.042	14.6	0.104	0.0	0.000	14.6	0.189	17.6(	16.0)	0.074(	0.074)
TELLFABU	14.6	0.145	0.0	0.000	29.3	0.002	0.0	0.000	14.6	0.002	11.7(	12.2)	0.030(	0.064)
TELLTENU	29.3	0.443	0.0	0.000	14.6	0.004	0.0	0.000	43.9	0.382	17.6(	19.1)	0.166(	0.226)
VENEPULL	14.6	0.076	14.6	0.003	14.6	4.765	0.0	0.000	0.0	0.000	8.8(	8.0)	0.969(	2.122)
POLYCHAETA														
ANAIJUVE	0.0	0.000	0.0	0.000	175.6	0.010	0.0	0.000	0.0	0.000	35.1(	78.5)	0.002(	0.004)
ANAIMACU	43.9	0.029	73.2	0.015	160.9	0.039	0.0	0.000	58.5	0.058	67.3(	59.1)	0.028(	0.022)
CAPICAPI	395.0	0.153	43.9	0.012	877.8	0.222	14.6	0.002	468.2	0.106	359.9(	353.6)	0.099(	0.094)
CAPIJUVE	0.0	0.000	0.0	0.000	117.0	0.033	0.0	0.000	102.4	0.006	43.9(	60.3)	0.008(	0.014)
CAULSPEC	0.0	0.000	14.6	0.002	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
ETEOLONG	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	43.9	0.015	8.8(	19.6)	0.003(	0.007)
EUMIJUVE	0.0	0.000	0.0	0.000	102.4	0.008	0.0	0.000	0.0	0.000	20.5(	45.8)	0.002(	0.004)
EUMISANG	73.2	0.027	0.0	0.000	395.0	0.174	0.0	0.000	190.2	0.085	131.7(	166.5)	0.057(	0.074)
HARMJUVE	0.0	0.000	117.0	0.015	365.8	0.039	0.0	0.000	0.0	0.000	96.6(	158.8)	0.011(	0.017)
HARMLONG	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	292.6	0.114	58.5(	130.9)	0.023(	0.051)
HARMLUNU	395.0	0.180	87.8	0.031	687.6	0.767	14.6	0.006	160.9	0.162	269.2(	274.0)	0.229(	0.310)
HARMNODO	0.0	0.000	131.7	0.023	585.2	0.367	0.0	0.000	497.4	0.100	242.9(	279.4)	0.098(	0.156)
HETEFILI	102.4	0.025	58.5	0.043	482.8	0.427	43.9	0.035	14.6	0.019	140.4(	194.0)	0.110(	0.178)
LANICONC	5603.3	59.381	146.3	0.73	20525.9	209.542	14.6	0.03	16019.8	181.336	8462.0(	9372.0)	90.204(	99.541)
LANIJUVE	2253.0	0.815	0.0	0.000	3174.7	0.917	0.0	0.000	4184.2	0.902	1922.4(	1883.1)	0.527(	0.482)
MAGEPAPI	58.5	0.006	0.0	0.000	43.9	0.006	0.0	0.000	0.0	0.000	20.5(	28.5)	0.002(	0.003)
NEPHCIRR	29.3	0.019	0.0	0.000	0.0	0.000	14.6	0.014	0.0	0.000	8.8(	13.1)	0.007(	0.009)
NEPHHOMB	58.5	0.131	29.3	0.533	87.8	2.984	0.0	0.000	43.9	0.043	43.9(	32.7)	0.738(	1.273)
NEPHJUVE	14.6	0.006	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.003)
NERELONG	58.5	0.004	14.6	0.002	336.5	0.033	0.0	0.000	117.0	0.537	105.3(	137.0)	0.115(	0.236)
NOTOLATE	0.0	0.000	29.3	0.027	629.1	0.998	0.0	0.000	0.0	0.000	131.7(	278.4)	0.205(	0.443)
PARAFULG	14.6	0.002	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
PECTJUVE	0.0	0.000	0.0	0.000	146.3	0.019	0.0	0.000	0.0	0.000	29.3(	65.4)	0.004(	0.008)
PECTKORE	102.4	0.031	58.5	0.004	117.0	1.798	58.5	0.007	204.8	0.044	108.3(	60.0)	0.377(	0.795)
PHOLMINU	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
POLYDORA	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
SCOLARMI	87.8	0.079	190.2	0.014	117.0	0.218	0.0	0.000	43.9	0.041	87.8(	72.4)	0.070(	0.088)
SCOLJUVE	0.0	0.000	0.0	0.000	395.0	0.039	0.0	0.000	0.0	0.000	79.0(	176.7)	0.008(	0.017)
SPIOBOMB	117.0	0.021	43.9	0.017	585.2	0.104	0.0	0.000	29.3	0.010	155.1(	244.3)	0.030(	0.042)
SPIOFILI	43.9	0.014	0.0	0.000	58.5	0.027	43.9	0.004	87.8	0.006	46.8(	31.7)	0.010(	0.011)
STHEBOA	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.189	2.9(	6.5)	0.038(	0.085)
THARMARI	73.2	0.015	0.0	0.000	336.5	0.077	14.6	0.004	73.2	0.004	99.5(	136.6)	0.020(	0.032)
MISCELLANEOUS														
ANTHOZOA	0.0	0.000	0.0	0.000	14.6	0.473	0.0	0.000	14.6	3.672	5.9(	8.0)	0.829(	1.602)
NEMERTIN	0.0	0.000	14.6	0.319	0.0	0.000	0.0	0.000	29.3	0.006	8.8(	13.1)	0.065(	0.142)
OLIGOCHA	117.0	0.012	278.0	0.004	292.6	0.004	0.0	0.000	0.0	0.000	137.5(	143.2)	0.004(	0.005)
SUMS	11250.5	246.63	2691.9	31.53	34336.6	227.11	278.0	9.99	25426.9	201.64	14796.8(	14702.9)	143.380(	113.325)
NSPC	29		27		31		11		29					
SH-W	1.606		2.886		1.325		2.233		0.937					
SIMP	0.438		0.076		0.544		0.121		0.681					

Appendix - 2 Biomonitoring 1994

STATION : VD2
GEOGR. POS. : 51° 42" 14' N 03° 36" 0' E
DATE : 25/05/94
DEPTH : /
Median Grain: /
Perc. Mud. : /

	BOX 1		BOX 2		BOX 3		BOX 4		BOX 5		MEAN	S.D.	MEAN	S.D.
	N	B	N	B	N	B	N	B	N	B	N		B	
CRUSTACEA														
ATYLSWAM	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	2.9(	6.5)	0.001(	0.002)
PONTALTA	14.6	0.004	0.0	0.000	58.5	0.018	146.3	0.044	29.3	0.009	49.7(	58.2)	0.015(	0.018)
UROTBREV	43.9	0.018	29.3	0.009	29.3	0.012	29.3	0.012	43.9	0.018	35.1(	8.0)	0.014(	0.004)
POLYCHAETA														
MAGEPAPI	29.3	0.091	0.0	0.000	14.6	0.170	0.0	0.000	14.6	0.106	11.7(	12.2)	0.073(	0.073)
NEPHCIRR	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.029	43.9	0.620	11.7(	19.1)	0.130(	0.274)
PARAFULG	14.6	0.004	0.0	0.000	14.6	0.004	14.6	0.002	0.0	0.000	8.8(	8.0)	0.002(	0.002)
SCOLBONN	29.3	0.212	29.3	0.046	14.6	0.004	14.6	0.019	14.6	0.019	20.5(	8.0)	0.060(	0.086)
SPIOBOMB	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
SPIOFILI	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.002	14.6	0.006	5.9(	8.0)	0.002(	0.003)
MISCELLANEOUS														
NEMERTIN	29.3	0.058	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	13.1)	0.012(	0.026)
SUMS	175.6	0.39	58.5	0.06	131.7	0.21	234.1	0.11	175.6	0.78	155.1(	65.1)	0.309(	0.294)
NSPC	7		2		5		6		7					
SH-W	1.864		0.693		1.427		1.247		1.820					
SIMP	0.162		0.491		0.278		0.419		0.176					

Appendix - 2 Biomonitoring 1994

STATION : VD1
GEOGR. POS. : 51 37" 03' N 03° 23" 13' E
DATE : 30/05/94
DEPTH : 12 m
Median Grain: 259.5 µ
Perc. Mud. : 0.0 %

	BOX 1		BOX 2		BOX 3		BOX 4		BOX 5		MEAN	S.D.	MEAN	S.D.
	N	B	N	B	N	B	N	B	N	B	N		B	
CRUSTACEA														
ATYLFALC	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	14.6	0.004	5.9(	8.0)	0.002(	0.002)
BATHELEG	29.3	0.009	0.0	0.000	0.0	0.000	14.6	0.004	14.6	0.004	11.7(	12.2)	0.003(	0.004)
MEGAAGIL	0.0	0.000	0.0	0.000	43.9	0.013	0.0	0.000	0.0	0.000	8.8(	19.6)	0.003(	0.006)
PONTALTA	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
PSEULONG	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	73.2	0.022	17.6(	31.7)	0.005(	0.010)
UROTPOSE	0.0	0.000	43.9	0.018	14.6	0.006	102.4	0.041	87.8	0.035	49.7(	44.6)	0.020(	0.018)
ECHINODERMATA														
ASTEJUVE	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.009	0.0	0.000	5.9(	13.1)	0.002(	0.004)
ECHIJUVE	58.5	0.012	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.006	17.6(	26.2)	0.004(	0.005)
MOLLUSCA														
ABRAALBA	0.0	0.000	0.0	0.000	14.6	0.145	0.0	0.000	0.0	0.000	2.9(	6.5)	0.029(	0.065)
ENSIDIRE	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	29.3	6.480	5.9(	13.1)	1.296(	2.898)
MACTCORA	14.6	0.002	29.3	0.002	14.6	0.002	14.6	0.002	43.9	0.007	23.4(	13.1)	0.003(	0.002)
MYSEBIDE	0.0	0.000	0.0	0.000	14.6	0.003	0.0	0.000	87.8	0.018	20.5(	38.2)	0.004(	0.008)
MYTIEDUL	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.003	2.9(	6.5)	0.001(	0.001)
TELLFABU	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.002	2.9(	6.5)	0.000(	0.001)
TELLTENU	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.897	14.6	0.622	5.9(	8.0)	0.304(	0.427)
POLYCHAETA														
ANAISUBU	0.0	0.000	14.6	0.006	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.003)
ARCHIANN	0.0	0.000	0.0	0.000	73.2	0.006	160.9	0.010	58.5	0.006	58.5(	66.2)	0.004(	0.004)
CAPICAPI	0.0	0.000	29.3	0.004	0.0	0.000	0.0	0.000	0.0	0.000	5.9(	13.1)	0.001(	0.002)
LANICONC	14.6	0.008	0.0	0.000	0.0	0.000	14.6	0.006	43.9	0.008	14.6(	17.9)	0.004(	0.004)
MAGEPAPI	336.5	0.145	409.6	0.431	541.3	0.237	365.8	0.603	160.9	0.114	362.8(	137.4)	0.306(	0.207)
NEPHCIRR	43.9	0.591	146.3	0.570	58.5	1.058	146.3	0.218	117.0	0.500	102.4(	48.5)	0.587(	0.302)
NEPHHOMB	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.595	0.0	0.000	2.9(	6.5)	0.119(	0.266)
NOTOLATE	0.0	0.000	0.0	0.000	14.6	0.527	0.0	0.000	0.0	0.000	2.9(	6.5)	0.105(	0.236)
SCOLARMI	14.6	0.506	29.3	0.272	43.9	0.203	29.3	0.058	29.3	0.014	29.3(	10.3)	0.211(	0.196)
SCOLBONN	73.2	0.483	43.9	0.382	14.6	0.270	117.0	1.054	58.5	0.552	61.4(	37.9)	0.548(	0.302)
SPIOBOMB	2106.7	0.261	3525.8	0.431	2048.2	0.211	1872.6	0.211	1258.2	0.243	2162.3(	833.2)	0.271(	0.092)
SPIOFILI	43.9	0.010	58.5	0.015	14.6	0.008	58.5	0.019	43.9	0.008	43.9(	17.9)	0.012(	0.005)
MISCELLANEOUS														
NEMERTIN	29.3	0.052	43.9	0.583	29.3	0.006	29.3	0.003	58.5	0.312	38.0(	13.1)	0.191(	0.254)
SUMS	2794.3	2.09	4389.0	2.72	2940.6	2.70	2984.5	3.73	2253.0	8.96	3072.3(	791.7)	4.038(	2.814)
NSPC	12		12		14		14		19					
SH-W	0.925		0.845		1.089		1.400		1.834					
SIMP	0.610		0.656		0.521		0.426		0.336					

Appendix - 2 Biomonitoring 1994

STATION : W30
GEOGR. POS. : 51° 42" 08' N 03° 06" 47' E
DATE : 31/05/94
DEPTH : 31 m
Median Grain: 355.9 µ
Perc. Mud. : 0.0 %

	BOX 1		BOX 2		BOX 3		BOX 4		BOX 5		MEAN	S.D.	MEAN	S.D.
	N	B	N	B	N	B	N	B	N	B	N		B	
CRUSTACEA														
ATYLSWAM	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
MEGAAGIL	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	2.9(	6.5)	0.001(	0.002)
PONTALTA	0.0	0.000	0.0	0.000	29.3	0.009	43.9	0.013	14.6	0.004	17.6(	19.1)	0.005(	0.006)
PSEULONG	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.004	2.9(	6.5)	0.001(	0.002)
PSEUSIMI	0.0	0.000	0.0	0.000	29.3	0.009	0.0	0.000	0.0	0.000	5.9(	13.1)	0.002(	0.004)
ECHINODERMATA														
OPHIJUVE	0.0	0.000	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
MOLLUSCA														
MACTCORA	146.3	0.012	204.8	0.018	175.6	0.016	234.1	0.013	234.1	0.025	199.0(	38.2)	0.017(	0.005)
NATIALDE	0.0	0.000	14.6	0.006	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.003)
POLYCHAETA														
EUZOFLAB	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.014	0.0	0.000	2.9(	6.5)	0.003(	0.006)
EXOGNAID	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.002	2.9(	6.5)	0.000(	0.001)
GLYCLAPI	0.0	0.000	14.6	0.008	0.0	0.000	0.0	0.000	29.3	0.056	8.8(	13.1)	0.013(	0.024)
HESIAUGE	73.2	0.002	43.9	0.002	29.3	0.002	14.6	0.002	73.2	0.004	46.8(	26.2)	0.002(	0.001)
MAGEPAPI	0.0	0.000	0.0	0.000	0.0	0.000	43.9	0.185	0.0	0.000	8.8(	19.6)	0.037(	0.083)
MICRSPEC	14.6	0.002	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
NEPHCAEC	0.0	0.000	14.6	1.506	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.301(	0.674)
NEPHCIRR	102.4	0.794	14.6	0.095	73.2	0.454	102.4	0.409	102.4	1.719	79.0(	38.2)	0.694(	0.624)
OPHELIMA	0.0	0.000	0.0	0.000	14.6	0.019	0.0	0.000	0.0	0.000	2.9(	6.5)	0.004(	0.008)
SPIOBOMB	14.6	0.010	0.0	0.000	14.6	0.004	0.0	0.000	29.3	0.006	11.7(	12.2)	0.004(	0.004)
SPIOFILI	438.9	0.222	87.8	0.033	585.2	0.266	365.8	0.139	643.7	0.253	424.3(	218.5)	0.183(	0.097)
TRAVFORB	14.6	0.454	0.0	0.000	0.0	0.000	14.6	0.276	14.6	0.006	8.8(	8.0)	0.147(	0.209)
MISCELLANEOUS														
HYDROZOA	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.002	2.9(	6.5)	0.000(	0.001)
NEMERTIN	73.2	0.013	29.3	0.003	43.9	0.023	43.9	0.006	29.3	0.003	43.9(	17.9)	0.010(	0.009)
SUMS	877.8	1.51	424.3	1.67	1024.1	0.81	892.4	1.06	1214.3	2.08	886.6(	291.6)	1.427(	0.503)
NSPC	8		8		10		10		12					
SH-W	1.515		1.561		1.439		1.679		1.567					
SIMP	0.305		0.294		0.376		0.257		0.331					

Appendix - 2 Biomonitoring 1994

STATION : W70
GEOGR. POS. : 51° 57" 26' N 02° 40" 46' E
DATE : 31/05/94
DEPTH : 43 m
Median Grain: 395.9 µ
Perc. Mud. : 1.0 %

	BOX 1		BOX 2		BOX 3		BOX 4		BOX 5		MEAN	S.D.	MEAN	S.D.
	N	B	N	B	N	B	N	B	N	B	N		B	
CRUSTACEA														
ATYLSWAM	0.0	0.000	29.3	0.009	14.6	0.004	29.3	0.009	0.0	0.000	14.6(	14.6)	0.004(	0.005)
BATHELEG	0.0	0.000	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
MEGAAGIL	43.9	0.013	29.3	0.009	29.3	0.009	29.3	0.009	14.6	0.004	29.3(	10.3)	0.009(	0.003)
PONTALTA	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.002)
PSEUSIMI	58.5	0.018	0.0	0.000	29.3	0.006	14.6	0.004	0.0	0.000	20.5(	24.5)	0.006(	0.007)
UROTPOSE	0.0	0.000	0.0	0.000	14.6	0.006	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.003)
ECHINODERMATA														
ECHIJUVE	0.0	0.000	0.0	0.000	14.6	0.003	0.0	0.000	0.0	0.000	2.9(	6.5)	0.001(	0.001)
ECHIPUSI	14.6	0.053	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.002	5.9(	8.0)	0.011(	0.023)
OPHIALBI	0.0	0.000	0.0	0.000	73.2	0.429	131.7	0.085	87.8	0.016	58.5(	57.6)	0.106(	0.184)
OPHIJUVE	365.8	0.110	131.7	0.040	263.3	0.079	102.4	0.031	87.8	0.026	190.2(	120.2)	0.057(	0.036)
MOLLUSCA														
MACTCORA	0.0	0.000	58.5	0.050	43.9	0.003	29.3	0.181	14.6	0.002	29.3(	23.1)	0.047(	0.078)
MYSEBIDE	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.056	0.0	0.000	2.9(	6.5)	0.011(	0.025)
NATIALDE	58.5	0.022	43.9	0.015	29.3	0.012	0.0	0.000	43.9	0.012	35.1(	22.2)	0.012(	0.008)
TELLPYGM	131.7	0.045	87.8	0.013	175.6	0.034	614.5	0.357	131.7	0.012	228.2(	218.1)	0.092(	0.149)
POLYCHAETA														
AONIPAUC	29.3	0.008	14.6	0.008	29.3	0.010	0.0	0.000	14.6	0.004	17.6(	12.2)	0.006(	0.004)
ARICMINU	0.0	0.000	0.0	0.000	0.0	0.000	29.3	0.002	0.0	0.000	5.9(	13.1)	0.000(	0.001)
ETEOLONG	29.3	0.004	0.0	0.000	0.0	0.000	58.5	0.006	0.0	0.000	17.6(	26.2)	0.002(	0.003)
EXOGHEBE	14.6	0.004	0.0	0.000	0.0	0.000	29.3	0.002	0.0	0.000	8.8(	13.1)	0.001(	0.002)
EXOGNAID	0.0	0.000	0.0	0.000	14.6	0.002	0.0	0.000	14.6	0.002	5.9(	8.0)	0.001(	0.001)
GLYCLAPI	102.4	0.143	29.3	0.008	58.5	0.031	58.5	0.012	146.3	0.010	79.0(	45.8)	0.041(	0.058)
HARMLONG	14.6	0.019	14.6	0.012	14.6	0.010	0.0	0.000	0.0	0.000	8.8(	8.0)	0.008(	0.008)
HESIAUGE	58.5	0.004	73.2	0.002	87.8	0.002	307.2	0.006	234.1	0.004	152.2(	111.7)	0.004(	0.002)
LANICONC	43.9	0.110	29.3	0.002	14.6	0.002	14.6	0.002	0.0	0.000	20.5(	16.7)	0.023(	0.049)
MICRSCZE	0.0	0.000	0.0	0.000	0.0	0.000	14.6	0.002	0.0	0.000	2.9(	6.5)	0.000(	0.001)
NEPHCIRR	43.9	0.444	87.8	0.481	58.5	0.180	131.7	0.311	73.2	0.108	79.0(	33.7)	0.305(	0.162)
OPHELIMA	0.0	0.000	0.0	0.000	0.0	0.000	102.4	0.270	29.3	0.087	26.3(	44.4)	0.071(	0.117)
OPISPTER	43.9	0.004	14.6	0.002	14.6	0.004	14.6	0.002	29.3	0.002	23.4(	13.1)	0.003(	0.001)
PISIREMO	14.6	0.002	14.6	0.002	0.0	0.000	29.3	0.002	73.2	0.008	26.3(	28.1)	0.003(	0.003)
POLYMEDU	0.0	0.000	0.0	0.000	14.6	0.002	0.0	0.000	0.0	0.000	2.9(	6.5)	0.000(	0.001)
PROTKEFE	43.9	0.006	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	8.8(	19.6)	0.001(	0.003)
SCOLARMI	14.6	0.004	0.0	0.000	0.0	0.000	0.0	0.000	43.9	0.348	11.7(	19.1)	0.070(	0.155)
SCOLBONN	0.0	0.000	14.6	0.008	0.0	0.000	0.0	0.000	0.0	0.000	2.9(	6.5)	0.002(	0.004)
SPHAHYST	0.0	0.000	73.2	0.004	0.0	0.000	73.2	0.004	0.0	0.000	29.3(	40.1)	0.002(	0.002)
SPIOBOMB	58.5	0.023	43.9	0.023	58.5	0.017	58.5	0.025	29.3	0.006	49.7(	13.1)	0.019(	0.008)
SPIOFILI	29.3	0.014	14.6	0.004	0.0	0.000	29.3	0.015	0.0	0.000	14.6(	14.6)	0.007(	0.007)
STREWEBS	14.6	0.002	14.6	0.002	0.0	0.000	14.6	0.002	58.5	0.002	20.5(	22.2)	0.002(	0.001)
SYLLIDAE	0.0	0.000	14.6	0.004	14.6	0.002	0.0	0.000	14.6	0.002	8.8(	8.0)	0.002(	0.002)
MISCELLANEOUS														
NEMERTIN	73.2	0.019	87.8	0.129	43.9	0.068	43.9	0.058	29.3	0.045	55.6(	24.0)	0.064(	0.041)
OLIGOCHA	395.0	0.004	43.9	0.002	0.0	0.000	14.6	0.002	43.9	0.002	99.5(	166.3)	0.002(	0.001)
SUMS	1711.7	1.08	980.2	0.83	1111.9	0.92	1989.7	1.46	1228.9	0.70	1404.5(	428.2)	0.997(	0.290)
NSPC	23		22		20		24		20					
SH-W	2.639		2.865		2.685		2.443		2.626					
SIMP	0.119		0.066		0.090		0.152		0.096					

CONTENTS