ON CHAETOGNATHA COLLECTED IN MADEIRAN WATERS IN 1979.

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With 4 figures and 46 tables

ABSTRACT. In the present study a series of observations on the Chaetognatha collected in the waters surrounding the island of Madeira in February 1979 are presented. The results of the investigations are based on three genera (*Sagitta, Pterosagitta* and *Eukrohnia*) containing 13 species (*Eukrohnia fowleri, Sagitta lyra, S. hexaptera, S. planctonis, S. zetesios, S. bipunctata, S. macrocephala, Eukrohnia hamata, Pterosagitta draco, Sagitta sibogae, S. inflata, S. serratodentata* and *S. tasmanica*) all of which were taken in the relevant sampling stations.

INTRODUCTION

The opportunity of examining a collection of Chaetognatha taken in waters surrounding the island of Madeira in February kindly lent us by the Director of the Museu Municipal do Funchal led us to undertake a study of the Chaetognatha of Madeira and present the following data referring to these specimens.

MATERIAL & METHODS

The material here studied results from a cruise carried out by the R.R.S. "Challenger" in February 1979 in the waters surrounding Madeira, organized by the Marine Biological Association of the United Kingdom. The seven sampling stations (see fig. 1 and table 1) were typically oceanic and in deep waters so that the chaetognatha of this study present in the samples are characteristic of the meso- and bathyplankton.

The net used for collecting the samples was an RMT 8+7, and consisted of a combination of two nets of 8 and 7m^2 opening, with a mesh diameter of 4.5mm. This net after being lowered to the required depth opened and was then towed horizontally at a speed of two nots.

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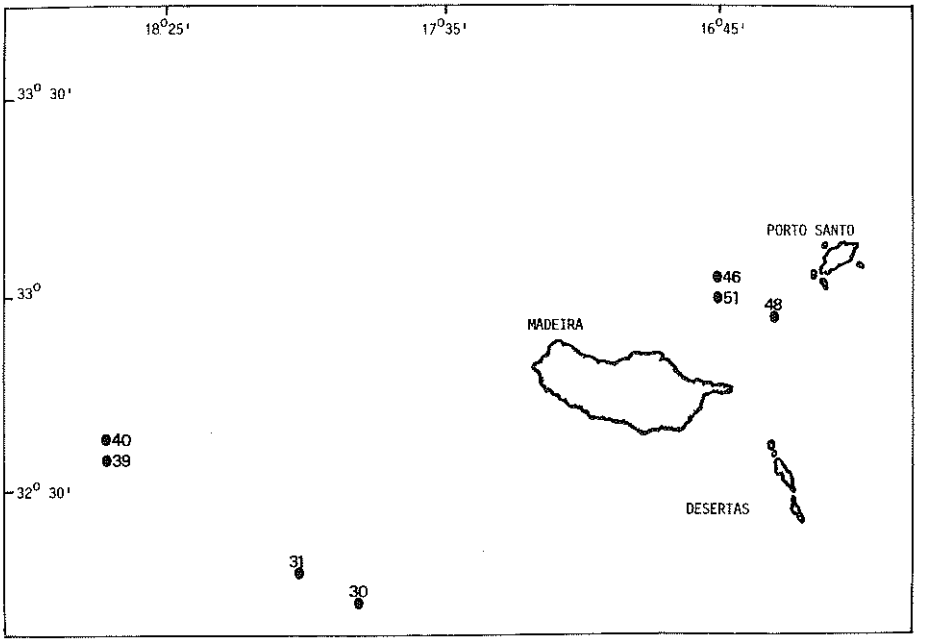


Figure 1. — Location of sampling stations.

Station	Sample	Date	Position	Gear	Wire out	Bottom	Time	Vessel
30	1	13-2-1979	32° 12'N 17° 53'W	RMT 8+7	2000 m. D*	>4500 m.	2 h	"CHALLENGER"
31	2	13-2-1979	32° 16'N 18° 03'W	RMT 8+7	2500 m. D*	>4500 m.	2 h	"CHALLENGER"
39	3	14-2-1979	32° 35'N 18° 42'W	RMT 8+7	400 m. N*	>4200 m.	2 h	"CHALLENGER"
40	4	15-2-1979	32° 38'N 18° 42'W	RMT 8+7	400 m. N*	4000 m.	2 h	"CHALLENGER"
46	5	16-2-1979	33° 03'N 16° 46'W	RMT 8+7	2000 m. D*	>2000 m.	2 h	"CHALLENGER"
48	6	17-2-1979	32° 55'N 16° 35'W	RMT 8+7	200-400-600 N*	2200 m.	1h/	"CHALLENGER"
51	7	17-2-1979	32° 58'N 16° 46'W	RMT 8+7	1600-1200 m.D*	>2000 m.	1h/1600 m. 20'/1200 m.	"CHALLENGER"

* D=day, N=night.

Table 1. — Station observations.

The samples of plancton were stored in the above mentioned museum from whom we received the specimens of Chaetognatha after being

separated from the collective samples by the personnel of the said museum.

M e t h o d . — Each one of the specimens of the present study (3633) was taxonomically determined and a sexual stage was assigned to it, for which a simplified scale developed by Furnestin (1957) and Casanova (1977) was used. A series of measurements was taken on the specimens after being placed completely extended on a micrometric slide under the sterioscopic microscope or the light microscope using a millimetric eye piece to observe smaller details. The measurements taken were total length (LA) caudal length (LC) and ovarian length (LO), and ovarian and caudal percentages of the size were worked out. (See fig. 2).

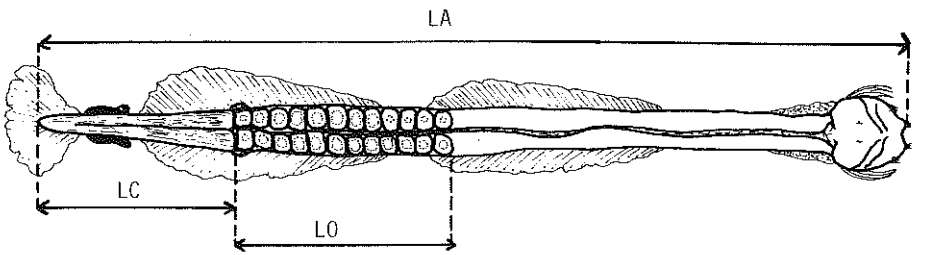


Figure 2. — Measurements given for each specimen.

E v a l u a t i o n o f d a t a. — The biometric and meristic data of the 3,633 specimens of Chaetognatha, after being examined, were arranged in tables using a code to facilitate their consequent treatment and were fed into a data bank of the University of la Laguna (Tenerife, Canaries), a DIGITAL VT 100, connected to C.P.V. VAX/VMS DIGITAL version 4.1. The data were fed into the said terminal using the DTR system as data base to facilitate the processing.

The data regarding Madeira being stored a series of programs of the statistical package BMDP were applied, i.e. the P2D (DETAILED DATA DESCRIPTION, INCLUDING FREQUENCIES) to obtain the statistics of each one of the species and P6D (BIVARIATE SCATTER PLOTS) to calculate some correlations of interest.

The affinity between species was calculated by means of the Jaccard index (MARGALEF, 1974) and applying the 1M program (CLUSTER ANALYSIS OF VARIABLES) to the computer (see figs. 3 & 4). Apart from this the diversity of each one of the samples was studied using the Shannon-Weaver index (MARGALEF, 1974). (See table 2).

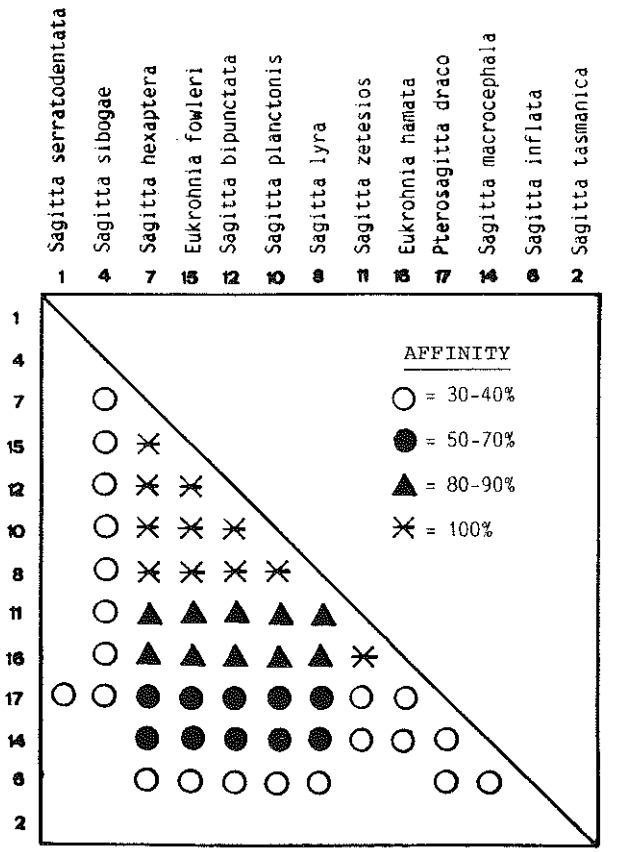


Figure 3. — Representation of the analogy for the species of the present study.

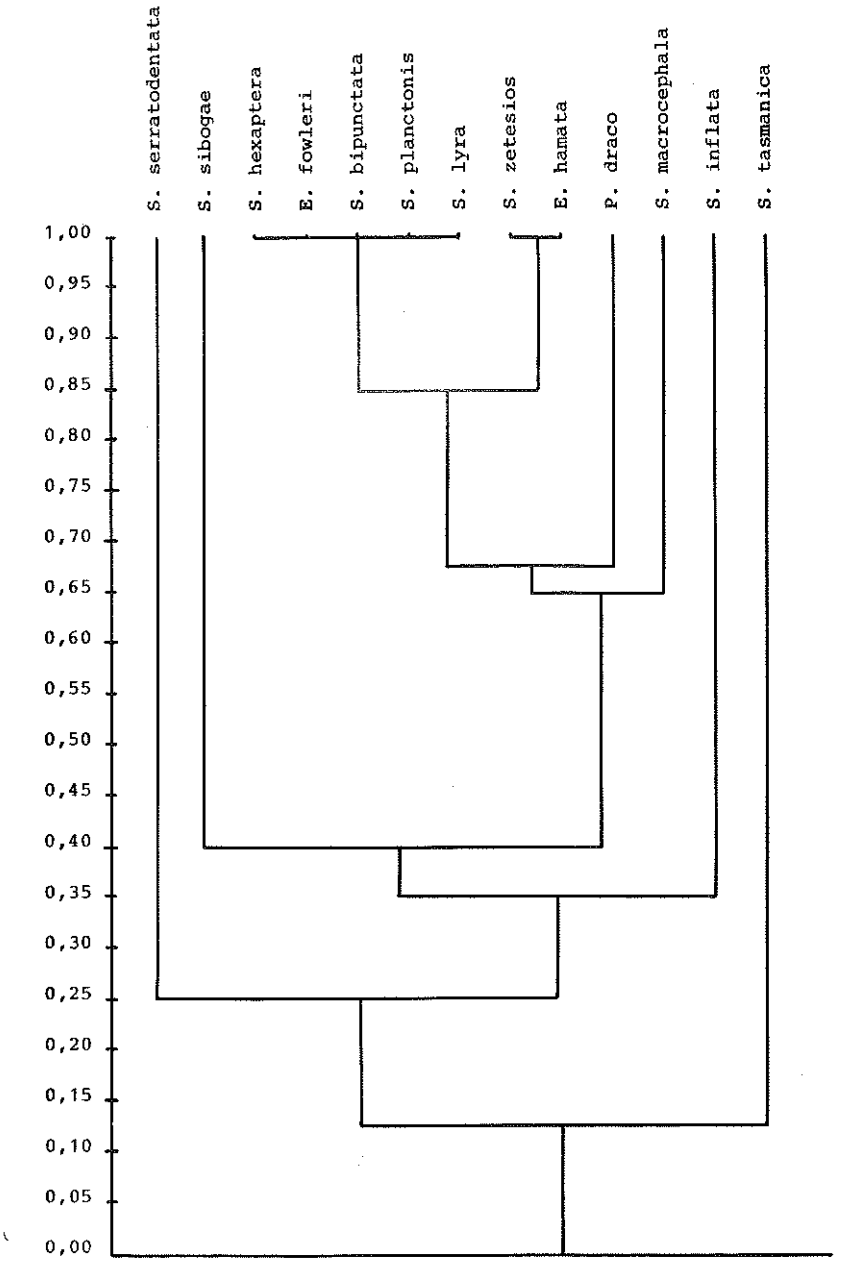


Figure 4. — Dendrogram of similarity between the species of the present study.

SAMPLE	INDEX	NUMBER OF SPECIES
1	1.37	9
2	1.86	9
3	1.82	9
4	2.25	10
5	2.01	10
6	2.28	10
7	1.91	9

Table 2. — Diversity of Chaetognatha in the Madeira samples (Shannon-Weaver index), (values expressed by bits/exemplar).

LIST AND COMMENTS ON THE SPECIES FROM MADEIRA STUDIED IN THE PRESENT ACCOUNT.

General results based on the samples taken in Madeira (tables 3, 4 & 5). Commentaries on the species considered in this study.

Eukrohnia fowleri. — This oceanic and bathyplanktonic species is common from 800m down (Alvariño, 1969). Among the material of our study 1666 specimens were found which represent 45.85% of the total captured thus being one of the most abundant species of the sample in which it is represented in its three sexual stages.

Samples: 1, 2, 3, 4, 5, 6 and 7.

Biometrical characteristics of *E. fowleri* of this study : Tables 3-8.

Sagitta lyra. — Alvariño (1965) considers this species typical of the deep, oceanic and cosmopolitan mesoplankton of the warm and temperate waters of the Atlantic Ocean.

Among our material we found 541 specimens representing 14.89% of the total captured. The presence of this species in similar numbers of specimens in all samples studied seems to indicated a homogeneous batimetric distribution of *Sagitta lyra* in the zone under consideration. The species was present in its three sexual stages.

Samples: 1, 2, 3, 4, 5, 6 and 7.

Biometrical characteristics of *S. lyra* of this study : Tables 9-13.

Sagitta hexaptera. — This species is characteristic of the deep mesoplankton (Furnestin, 1966). Although it was collected in all samples we must point out the great abundance of specimens in the sample taken in 400m

depth. 501 specimens were examined. They represent 13.79% of the total captured. All three sexual stages were present.

Samples: 1, 2, 3, 4, 5, 6 and 7.

Biometrical characteristics of *S. hexaptera* of this study : Tables 14-19.

Sagitta planctonis. — This species considered by Pierrot-Bults (1975) as present in the Atlantic between 45°N and 40°S from 100 to 1000m depth was collected in all collecting stations, being particularly abundant at a level of 400m depth. The 323 specimens studied represent 8.89% of the total captured and are only present in their stages I and II.

Samples: 1, 2, 3, 4, 5, 6 and 7.

Biometric characteristics of *S. planctonis* of this study : Tables 20-23.

Sagitta zetesios. — This species of similar distribution to that of *E. hamata,* mesoplanktonic in the warm regions but epiplanktonic in the temperate regions (Pierot-Bults, 1970) amounted to 216 specimens in the samples taken in Madeira which represent 5.94% of the total captured, though it was not present in all the sampling stations. Only specimens of stages I and II were found.

Samples: 1, 2, 4, 5, 6 and 7.

Biometric characteristics of *S. zetesios* of this study : Tables 24-27.

Sagitta bipunctata. — An epiplanktonic and oceanic species distributed in the Atlantic from 46°N to 40°S (Alvariño, 1965), In this account 211 specimens presenting 5.80% of the total captured were examined. They were present in deep hauls as well as in hauls nearer the surface, particularly in sexual stages II and III.

Samples: 1, 2, 3, 4, 5, 6 and 7.

Biometric characteristics of *S. bipunctacta* of this study : Tables 28-31.

Sagitta macrocephala. — A species characteristic of the bathyplankton present in the deepest samples, from 1000m down. We collected 69 specimens representing 1.89% of the total, only sexual stages I and II having been found.

Samples: 1, 2, 3, 5 and 7.

Biometric characteristics of *S. macrocephala* of this study : Tables 32-35.

Eukrohnia hamata. — A "bipolar" species belonging to the epiplankton which, however, submerges to greater depths in the lower latitudes of the Atlantic, Indian and Pacific Oceans. In our material 67 specimens, representing 1.84% of the total, were found, particularly at a depth of 400m. Only specimens of sexual stages I and II were taken.

Samples: 1, 2, 4, 5, 6 and 7.

Biometric characteristics of *E. hamata* of this study : Tables 36-39.

Pterosagitta draco. — An epiplanktonic species characteristic of warm and temperate waters. Among our material only 28 specimens were present which represent 0.77% of the total. All three sexual stages were observed.

Samples: 3, 4, 5, 6 and 7.

Biometric characteristics of *P. draco* of this study : Tables 40-43.

Sagitta sibogae. — An oceanic and mesoplanktonic species. Among our material the number of specimens is very small, amounting to only 5 which represent a percentage of only 0.13% of the total taken. All of them are of sexual stage II, thus not permitting us to comment on their biometry.

Samples: 2, 4 and 6.

Sagitta inflata. — An epiplanktonic species typical of temperate and warm waters. Only three specimens were captured, all 3 of which at 400m depth and at night, their sexual stages being II and III. Their scarcity does not enable us to comment on the biometry.

Samples: 1, 3 and 4.

Sagitta serratodentata. — An oceanic species typical of temperate and warm waters of the Atlantic ocean and adjacent waters (Alvariño, 1965). Only 2 specimens were examined, representing 0.05% of the total. No commentary is made due to the scarcity of material.

Samples: 3 and 6.

Sagitta tasmanica. — A curious oceanic mesoplanktonic species of amphiboreal distribution bound to colder waters. We were only able to examine one specimen (0.02% of total) of a sample taken at station 46.

CONCLUSIONS

Among the material under consideration 13 species belonging to 3 genera of chaetognatha have been found and are studied. For the time of the year in which the samples were collected biometric data of interest of the various parameters studied are furnished and the correlations between them are determined. Furthermore the indices of diversity are calculated taking into account the method of sampling and its characteristics as well as the analogy between the species.

ACKNOWLEDGEMENTS

I am grateful to Dr. M.J. Biscoito, Director of the Municipal Museum of Funchal, for kindly loaning me the material studied here.

Eukrohnia fowleri

LA

MAXIMUM	39.0000000
MINIMUM	14.0000000
RANGE	25.0000000
VARIANCE	4.6912737
ST.DEV.	2.1659348
(Q3-Q1)/2	0.5000000
MX.ST.SC.	5.34
MN.ST.SC.	-6.20

		ST.ERROR
MEAN	27.4327736	0.0530650
MEDIAN	28.0000000	0.2886753
MODE	28.0000000	

EACH "-" ABOVE = 1.0000
L= 11.0000
U= 43.0000
CASE NO. OF MIN. VAL. = 772
CASE NO. OF MAX. VAL. = 1273

	VALUE	VALUE/S.E.
SKEWNESS	-0.56	-9.41
KURTOSIS	3.60	31.68

Q1= 27.0000000
Q3= 28.0000000
S-= 25.2668381
S+= 29.5987091

VALUE	COUNT	PERCENTS CELL	CUM
14.00	1	0.1	0.1
18.00	1	0.1	0.1
19.00	5	0.3	0.4
20.00	13	0.8	1.2
21.00	19	1.1	2.3
22.00	16	1.0	3.3
23.00	16	1.0	4.3
33.00	14	0.8	99.5
34.00	4	0.2	99.7
35.00	2	0.1	99.8
36.00	2	0.1	99.9
39.00	1	0.1	100.0

VALUE	COUNT	PERCENTS CELL	CUM
23.50	1	0.1	4.3
24.00	42	2.5	6.8
25.00	70	4.2	11.0
26.00	223	13.4	24.4
26.50	2	0.1	24.5
27.00	403	24.2	48.7
27.50	1	0.1	48.8

VALUE	COUNT	PERCENTS CELL	CUM
28.00	459	27.6	76.4
28.50	3	0.2	76.5
29.00	205	12.3	88.8
30.00	90	5.4	94.2
31.00	42	2.5	96.8
32.00	30	1.8	98.6
32.50	1	0.1	98.6

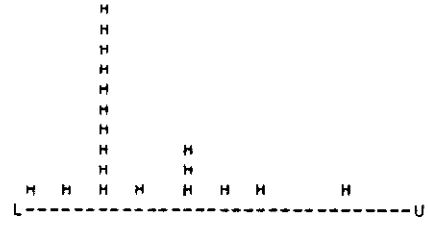
Tab. 3

Eukrohnia fowleri

LO

MAXIMUM	4.0000000
MINIMUM	0.0000000
RANGE	4.0000000
VARIANCE	0.3975425
ST.DEV.	0.6305097
(Q3-Q1)/2	0.0000000
MX.ST.SC.	4.38
MN.ST.SC.	-1.96

		ST.ERROR
MEAN	1.2385955	0.0154474
MEDIAN	1.0000000	0.0000000
MODE	1.0000000	



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U=	4.8000
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CASE NO. OF MAX. VAL. =	958

	VALUE	VALUE/S.E.
SKEWNESS	1.53	25.46
KURTOSIS	4.11	34.24

Q1=	1.0000000
Q3=	1.0000000
S-=	0.6080858
S+=	1.8691052

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
0.0000	75	4.5	4.5
0.5000	10	0.6	5.1
3.0000	43	2.6	98.8
4.0000	20	1.2	100.0

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
1.0000	1176	70.6	75.7
1.5000	23	1.4	77.1

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
2.0000	317	19.0	96.1
2.5000	2	0.1	96.2

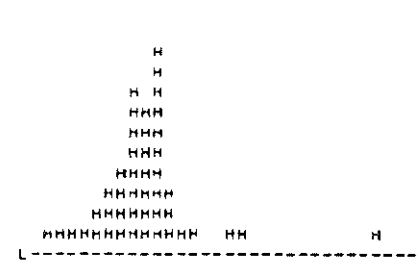
Tab. 4

Eukrohnia fowleri

LC x 100

LA

MAXIMUM		42.9000015
MINIMUM		15.8999996
RANGE		27.0000019
VARIANCE		3.7898469
ST.DEV.		1.9467529
(Q3-Q1)/2		1.5500002
MX.ST.SC.		10.21
MN.ST.SC.		-3.66
	ST.ERROR	
MEAN	23.0165157	0.0476951
MEDIAN	23.1000004	0.0000000
MODE	25.0000000	



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U=	46.0000
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CASE NO. OF MAX. VAL. =	772

	VALUE	VALUE/S.E.
SKEWNESS	0.36	5.97
KURTOSIS	6.56	54.66

Q1=	21.8999996
Q3=	25.0000000
S-=	21.0697632
S+=	24.9632683

Tab. 5

Eukrohnia fowleri

LC x 100

LA

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
15.90	1	0.1	0.1	20.40	4	0.2	7.1	22.40	4	0.2	43.6
16.00	5	0.3	0.4	20.50	2	0.1	7.3	22.50	2	0.1	43.8
16.70	6	0.4	0.7	20.60	1	0.1	7.3	22.60	33	2.0	45.7
17.40	2	0.1	0.8	20.70	99	5.9	13.3	22.70	10	0.6	46.3
17.90	1	0.1	0.9	20.80	20	1.2	14.5	22.80	1	0.1	46.4
18.20	3	0.2	1.1	21.10	5	0.3	14.8	22.90	6	0.4	46.8
18.50	2	0.1	1.2	21.20	21	1.3	16.0	23.10	187	11.2	58.0
18.80	6	0.4	1.6	21.40	120	7.2	23.2	23.20	5	0.3	58.3
19.00	9	0.5	2.1	21.50	1	0.1	23.3	23.30	65	3.9	62.2
19.20	10	0.6	2.7	21.70	14	0.8	24.1	23.40	1	0.1	62.2
19.40	9	0.5	3.2	21.80	1	0.1	24.2	23.50	3	0.2	62.4
19.60	3	0.2	3.4	21.90	23	1.4	25.6	23.80	10	0.6	63.0
20.00	57	3.4	6.8	22.00	2	0.1	25.7	23.90	1	0.1	63.1
20.30	1	0.1	6.9	22.20	295	17.7	43.4	24.00	33	2.0	65.1
24.10	110	6.6	71.7								
24.20	2	0.1	71.8								
25.00	353	21.2	93.0								
25.80	2	0.1	93.1								
25.90	94	5.6	98.7								
26.10	1	0.1	98.8								
26.30	1	0.1	98.9								
26.70	3	0.2	99.0								
26.90	11	0.7	99.7								
27.30	1	0.1	99.8								
27.60	1	0.1	99.8								
30.60	1	0.1	99.9								
31.60	1	0.1	99.9								
42.90	1	0.1	100.0								

Tab. 6

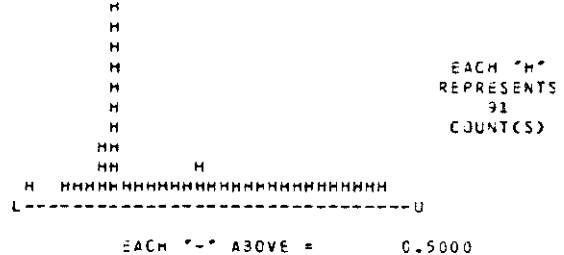
Eukrohnia fowleri

LO x 100

LA

MAXIMUM	14.8000002
MINIMUM	0.0000000
RANGE	14.8000002
VARIANCE	4.6179519
ST.DEV.	2.1489420
(Q3-Q1)/2	0.3500001
MX.ST.SC.	4.82
MN.ST.SC.	-2.07

		ST.ERROR
MEAN	4.4468789	0.0526486
MEDIAN	3.7000000	0.0000000
MODE	3.5999999	



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U= 16.0000
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CASE NO. OF MAX. VAL. = 1377

	VALUE	VALUE/S.E.
SKEWNESS	1.27	21.23
KURTOSIS	3.19	26.54

Q1= 3.5999999
Q3= 4.3000002
S-= 2.2979369
S+= 6.5958209

Tab. 7

Eukrohnia fowleri

LO x 100

LA

VALUE	COUNT	PERCENTS CELL	CUM
0.000	75	4.5	4.5
1.800	1	0.1	4.6
1.900	1	0.1	4.6
2.000	2	0.1	4.7
2.100	2	0.1	4.9
2.200	2	0.1	5.0
2.300	1	0.1	5.0
2.400	1	0.1	5.1
2.600	1	0.1	5.2
2.900	1	0.1	5.2
3.000	6	0.4	5.6
3.100	15	0.9	6.5
3.200	19	1.1	7.6
3.300	45	2.7	10.3
3.400	142	8.5	18.8
3.500	1	0.1	18.9
9.400	4	0.2	96.8
9.700	4	0.2	97.1
10.000	5	0.3	97.4
10.300	10	0.6	98.0
10.700	7	0.4	98.4
11.100	6	0.4	98.7
11.500	1	0.1	98.8
11.800	2	0.1	98.9
12.100	3	0.2	99.1
12.300	1	0.1	99.2
12.500	1	0.1	99.2
12.900	5	0.3	99.5
13.300	1	0.1	99.6
13.800	3	0.2	99.8
14.300	2	0.1	99.9
14.800	2	0.1	100.0

VALUE	COUNT	PERCENTS CELL	CUM
3.600	357	21.4	40.3
3.700	315	18.9	59.2
3.800	180	10.8	70.0
4.000	53	3.2	73.2
4.200	27	1.6	74.8
4.300	10	0.6	75.5
4.500	5	0.3	75.8
4.700	1	0.1	75.8
4.800	2	0.1	75.9
5.000	2	0.1	76.1
5.200	5	0.3	76.4
5.300	1	0.1	76.4
5.400	5	0.3	76.7
5.600	7	0.4	77.1
5.700	1	0.1	77.2
6.100	1	0.1	77.3

VALUE	COUNT	PERCENTS CELL	CUM
6.300	8	0.5	77.7
6.500	11	0.7	78.4
6.700	37	2.2	80.6
6.900	45	2.7	83.3
7.000	1	0.1	83.4
7.100	88	5.3	88.7
7.400	73	4.4	93.0
7.700	43	2.6	95.6
7.800	1	0.1	95.7
8.000	3	0.2	95.9
8.100	1	0.1	95.9
8.300	5	0.3	96.2
8.600	1	0.1	96.3
8.700	1	0.1	96.3
8.800	1	0.1	96.4
9.100	3	0.2	96.6

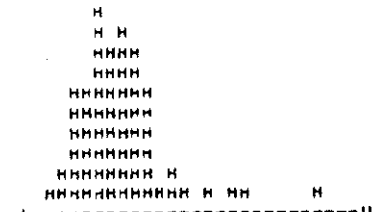
Tab. 8

Sagitta lyra

LA

MAXIMUM	38.0000000
MINIMUM	16.0000000
RANGE	22.0000000
VARIANCE	5.7831440
ST.DEV.	2.4048169
(Q3-Q1)/2	1.5000000
MX.ST.SC.	6.95
MN.ST.SC.	-2.20

		ST.ERROR
MEAN	21.2911282	0.1033911
MEDIAN	21.0000000	0.0000000
MODE	20.0000000	



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L=	14.0000
U=	41.0000
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CASE NO. OF MAX. VAL. =	498

	VALUE	VALUE/S.E.
SKEWNESS	1.01	9.60
KURTOSIS	4.45	21.13

Q1=	20.0000000
Q3=	23.0000000
S-=	18.8863106
S+=	23.6959457

VALUE	COUNT	PERCENTS CELL	CUM
16.00	1	0.2	0.2
17.00	14	2.6	2.8
18.00	55	10.2	12.9
19.00	51	9.4	22.4
20.00	95	17.6	39.9
29.00	1	0.2	99.4
31.00	1	0.2	99.6
32.00	1	0.2	99.8
38.00	1	0.2	100.0

VALUE	COUNT	PERCENTS CELL	CUM
21.00	76	14.0	54.0
21.50	1	0.2	54.2
22.00	88	16.3	70.4
22.50	4	0.7	71.2
23.00	68	12.6	83.7

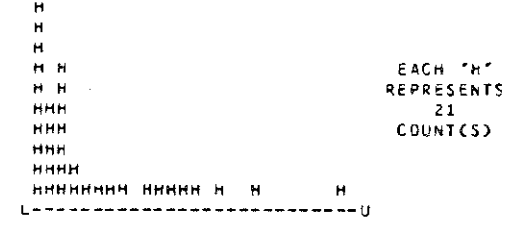
VALUE	COUNT	PERCENTS CELL	CUM
23.50	6	1.1	84.8
24.00	48	8.9	93.7
25.00	9	1.7	95.4
26.00	17	3.1	98.5
27.00	4	0.7	99.3

Sagitta lyra

LO

MAXIMUM	19.0000000
MINIMUM	0.0000000
RANGE	19.0000000
VARIANCE	6.2619457
ST.DEV.	2.5023880
(Q3-Q1)/2	1.0000000
MX.ST.SC.	6.87
MN.ST.SC.	-0.73

		ST.ERROR
MEAN	1.8160813	0.1075861
MEDIAN	1.0000000	0.1443376
MODE	0.0000000	



EACH "-" ABOVE = 0.7500
L= 0.0000
U= 20.2500
CASE NO. OF MIN. VAL. = 4
CASE NO. OF MAX. VAL. = 498

	VALUE	VALUE/S.E.
SKEWNESS	2.45	23.30
KURTOSIS	7.70	36.56

Q1= 0.0000000
Q3= 2.0000000
S-= -0.6863067
S+= 4.3184695

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
0.0000	205	37.9	37.9
0.5000	1	0.2	38.1
1.0000	74	13.7	51.8
1.5000	24	4.4	56.2
2.0000	130	24.0	80.2
9.5000	2	0.4	97.2
10.0000	10	1.8	99.1
12.0000	3	0.6	99.6
14.0000	1	0.2	99.8
19.0000	1	0.2	100.0

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
2.5000	14	2.6	82.8
3.0000	20	3.7	86.5
3.5000	1	0.2	86.7
4.0000	18	3.3	90.0
5.0000	3	0.6	90.6

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
6.0000	12	2.2	92.8
7.0000	13	2.4	95.2
7.5000	1	0.2	95.4
8.0000	4	0.7	96.1
9.0000	4	0.7	96.9

Tab. 10

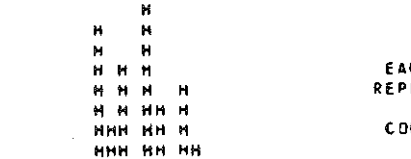
Sagitta lyra

LC x 100

LA

MAXIMUM	23.5000000
MINIMUM	12.5000000
RANGE	11.0000000
VARIANCE	3.2453103
ST.DEV.	1.8014745
(Q3-Q1)/2	1.1999998
MX.ST.SC.	3.95
MN.ST.SC.	-2.16

		ST.ERROR
MEAN	16.3855820	0.0774514
MEDIAN	16.7000008	0.2309406
MODE	16.7000008	



EACH "M" REPRESENTS 11 COUNT(S)

EACH "-" ABOVE = 0.5000
L= 11.5000
U= 25.0000

CASE NO. OF MIN. VAL. = 148
CASE NO. OF MAX. VAL. = 489

	VALUE	VALUE/S.E.
SKEWNESS	0.53	5.04
KURTOSIS	1.19	5.65

Q1= 15.0000000
Q3= 17.3999996
S-= 14.5841074
S+= 18.1870556

VALUE	COUNT	PERCENTS CELL	CUM
12.50	11	2.0	2.0
12.60	1	0.2	2.2
13.00	9	1.7	3.9
13.30	2	0.4	4.3
13.60	18	3.3	7.6
14.30	18	3.3	10.9
14.60	11	2.0	12.9
14.80	2	0.4	13.3
14.90	4	0.7	14.0
15.00	73	13.5	27.5
20.00	7	1.3	98.0
20.50	1	0.2	98.2
20.60	1	0.2	98.3
20.70	1	0.2	98.5
21.10	1	0.2	98.7
22.20	2	0.4	99.1
22.50	1	0.2	99.3
22.60	1	0.2	99.4
23.50	3	0.6	100.0

VALUE	COUNT	PERCENTS CELL	CUM
15.20	22	4.1	31.6
15.40	16	3.0	34.6
15.60	2	0.4	34.9
15.80	41	7.6	42.5
15.90	24	4.4	47.0
16.00	8	1.5	48.4
16.70	108	20.0	68.4
17.00	1	0.2	68.6
17.40	37	6.8	75.4
17.50	14	2.6	78.0

VALUE	COUNT	PERCENTS CELL	CUM
17.60	10	1.8	79.9
18.00	1	0.2	80.0
18.20	45	8.3	88.4
18.40	10	1.8	90.2
18.50	2	0.4	90.6
18.60	1	0.2	90.8
18.80	2	0.4	91.1
19.00	25	4.6	95.7
19.20	1	0.2	95.9
19.40	4	0.7	96.7

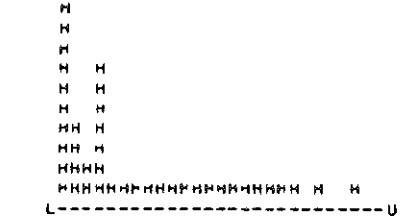
Sagitta lyra

LO x 100

LA

MAXIMUM	60.9000015
MINIMUM	0.0000000
RANGE	60.9000015
VARIANCE	112.4230194
ST.DEV.	10.6029720
(Q3-Q1)/2	4.7500000
MX.ST.SC.	4.99
MN.ST.SC.	-0.75

		ST.ERROR
MEAN	7.9641409	0.4556574
MEDIAN	5.0000000	0.5773506
MODE	0.0000000	



EACH "-" ABOVE =	2.5000
L=	0.0000
U=	67.5000
CASE NO. OF MIN. VAL. =	4
CASE NO. OF MAX. VAL. =	74

	VALUE	VALUE/S.E.
SKEWNESS	2.15	20.40
KURTOSIS	4.91	23.32

Q1=	0.0000000
Q3=	9.5000000
S-=	-2.6388311
S+=	18.5671139

Tab. 12

Sagitta lyra

LO x 100
LA

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
0.000	205	37.9	37.9	8.500	6	1.1	62.3	15.800	1	0.2	87.1
2.300	1	0.2	38.1	8.700	29	5.4	67.7	16.000	1	0.2	87.2
3.800	4	0.7	38.8	8.900	3	0.6	68.2	16.700	3	0.6	87.8
4.000	2	0.4	39.2	9.100	28	5.2	73.4	17.400	4	0.7	88.5
4.200	6	1.1	40.3	9.500	26	4.8	78.2	18.200	5	0.9	89.5
4.300	9	1.7	42.0	9.600	1	0.2	78.4	19.000	1	0.2	89.6
4.500	23	4.3	46.2	10.000	10	1.8	80.2	19.200	2	0.4	90.0
4.800	20	3.7	49.9	10.400	3	0.6	80.8	20.000	2	0.4	90.4
5.000	7	1.3	51.2	10.500	2	0.4	81.1	21.[illegible]00	1	0.2	90.6
5.300	3	0.6	51.8	10.900	5	0.9	82.1	[illegible]00	1	0.2	90.8
5.600	1	0.2	51.9	11.400	1	0.2	82.3	[illegible]00	1	0.2	90.9
6.300	5	0.9	52.9	11.900	1	0.2	82.4	[illegible].00	1	0.2	91.1
6.500	4	0.7	53.6	12.500	5	0.9	83.4	[illegible].000	1	0.2	91.3
6.800	6	1.1	54.7	13.000	5	0.9	84.3	[illegible].100	4	0.7	92.1
7.100	6	1.1	55.8	13.200	1	0.2	84.5	26.900	2	0.4	92.4
7.500	1	0.2	56.0	13.600	4	0.7	85.2	27.300	4	0.7	93.2
7.700	3	0.6	56.6	14.300	4	0.7	86.0	29.600	2	0.4	93.5
8.000	3	0.6	57.1	14.800	3	0.6	86.5	30.400	2	0.4	93.9
8.300	22	4.1	61.2	15.000	2	0.4	86.9	30.800	2	0.4	94.3
31.800	4	0.7	95.0	38.100	1	0.2	96.3	43.500	1	0.2	98.3
32.600	1	0.2	95.2	40.000	3	0.6	96.9	45.500	2	0.4	98.7
34.500	1	0.2	95.4	40.900	1	0.2	97.0	46.200	1	0.2	98.9
35.000	2	0.4	95.7	41.700	3	0.6	97.6	46.500	1	0.2	99.1
36.800	1	0.2	95.9	42.900	2	0.4	98.0	50.000	3	0.6	99.6
38.000	1	0.2	96.1	43.200	1	0.2	98.2	54.500	1	0.2	99.8
								60.900	1	0.2	100.0

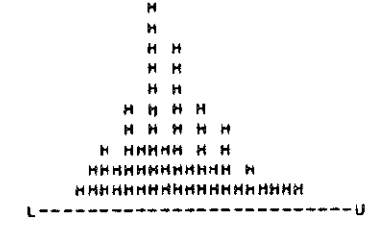
Tab. 13

Sagitta hexaptera

LA

MAXIMUM	44.0000000
MINIMUM	18.0000000
RANGE	26.0000000
VARIANCE	26.4096336
ST.DEV.	5.1390305
(Q3-Q1)/2	3.0000000
MX.ST.SC.	2.98
MN.ST.SC.	-2.08

		ST.ERROR
MEAN	28.6726551	0.2295949
MEDIAN	28.0000000	0.2886753
MODE	27.0000000	



EACH "-" ABOVE = 1.5000
L= 12.0000
U= 51.0000
CASE NO. OF MIN. VAL. = 223
CASE NO. OF MAX. VAL. = 261

	VALUE	VALUE/S.E.
SKEWNESS	0.38	3.45
KURTOSIS	-0.12	-0.56

Q1= 26.0000000
Q3= 32.0000000
S-= 23.5336246
S+= 33.8116875

VALUE	COUNT	PERCENTS CELL	CUM
18.00	2	0.4	0.4
19.00	13	2.6	3.0
20.00	16	3.2	6.2
21.00	7	1.4	7.6
22.00	17	3.4	11.0
23.00	13	2.6	13.6
24.00	34	6.8	20.4
25.00	23	4.6	25.0
40.00	7	1.4	98.4
41.00	3	0.6	99.0
42.00	2	0.4	99.4
43.00	2	0.4	99.8
44.00	1	0.2	100.0

VALUE	COUNT	PERCENTS CELL	CUM
26.00	47	9.4	34.3
26.50	1	0.2	34.5
27.00	57	11.4	45.9
28.00	33	6.6	52.5
29.00	51	10.2	62.7
30.00	29	5.8	68.5
31.00	22	4.4	72.9
32.00	24	4.8	77.6

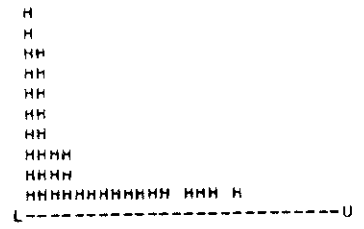
VALUE	COUNT	PERCENTS CELL	CUM
33.00	24	4.8	82.4
34.00	14	2.8	85.2
35.00	18	3.6	88.8
35.50	1	0.2	89.0
36.00	15	3.0	92.0
37.00	6	1.2	93.2
38.00	13	2.6	95.8
39.00	6	1.2	97.0

Sagitta hexaptera

LO

MAXIMUM	26.0000000
MINIMUM	0.0000000
RANGE	26.0000000
VARIANCE	18.5942593
ST.DEV.	4.3121061
(Q3-Q1)/2	2.0000000
MX.ST.SC.	5.20
MN.ST.SC.	-0.82

		ST.ERROR
MEAN	3.5568862	0.1926507
MEDIAN	2.0000000	0.0000000
MODE	0.0000000	



EACH "-" ABOVE = 1.5000
L= 0.0000
U= 39.0000

CASE NO. OF MIN. VAL. = 44
CASE NO. OF MAX. VAL. = 181

	VALUE	VALUE/S.E.
SKEWNESS	2.36	21.55
KURTOSIS	6.53	29.82

Q1= 1.0000000
Q3= 5.0000000
S-= -0.7552199
S+= 7.8689923

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
0.000	105	21.0	21.0
1.000	50	10.0	30.9
1.500	31	6.2	37.1
2.000	88	17.6	54.7
2.500	8	1.6	56.3
3.000	51	10.2	66.5
3.500	4	0.8	67.3
18.000	3	0.6	98.0
20.000	1	0.2	98.2
21.000	4	0.8	99.0
22.000	2	0.4	99.4
23.000	1	0.2	99.6
24.000	1	0.2	99.8
26.000	1	0.2	100.0

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
4.000	32	6.4	73.7
4.500	3	0.6	74.3
5.000	30	6.0	80.2
6.000	24	4.8	85.0
7.000	16	3.2	88.2
8.000	11	2.2	90.4
9.000	6	1.2	91.6

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
10.000	11	2.2	93.8
11.000	3	0.6	94.4
12.000	1	0.2	94.6
13.000	2	0.4	95.0
14.000	4	0.8	95.8
15.000	7	1.4	97.2
16.000	1	0.2	97.4

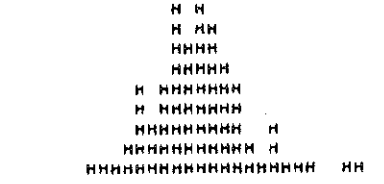
Sagitta hexaptera

LC x 100

LA

MAXIMUM	30.3999996
MINIMUM	13.8000002
RANGE	16.6000004
VARIANCE	6.4162097
ST.DEV.	2.5330238
(Q3-Q1)/2	1.5500002
MX.ST.SC.	3.94
MN.ST.SC.	-2.61

		ST.ERROR
MEAN	20.4181652	0.1131672
MEDIAN	20.6000004	0.2020729
MODE	20.0000000	



EACH "-" ABOVE =	0.7500
L=	12.7500
U=	32.2500
CASE NO. OF MIN. VAL. =	97
CASE NO. OF MAX. VAL. =	308

	VALUE	VALUE/S.E.
SKEWNESS	0.42	3.87
KURTOSIS	0.87	3.98

Q1=	18.7999992
Q3=	21.8999996
S-=	17.8851414
S+=	22.9511890

Tab. 16

Sagitta hexaptera

LC x 100
LA

VALUE	COUNT	PERCENTS CELL	CUM
13.80	1	0.2	0.2
13.90	1	0.2	0.4
14.30	1	0.2	0.6
14.80	2	0.4	1.0
15.00	1	0.2	1.2
15.20	1	0.2	1.4
15.40	1	0.2	1.6
15.60	1	0.2	1.8
15.80	3	0.6	2.4
15.90	1	0.2	2.6
16.00	8	1.6	4.2
16.10	2	0.4	4.6
16.20	1	0.2	4.8
16.30	1	0.2	5.0
16.70	23	4.6	9.6
17.00	1	0.2	9.8
17.10	7	1.4	11.2
22.60	5	1.0	84.6
22.70	8	1.6	86.2
22.90	3	0.6	86.8
23.10	20	4.0	90.8
23.30	4	0.8	91.6
23.80	2	0.4	92.0
23.90	2	0.4	92.4
24.00	1	0.2	92.6
24.10	2	0.4	93.0
25.00	19	3.8	96.8
25.90	2	0.4	97.2
26.10	2	0.4	97.6
26.90	2	0.4	98.0
27.30	6	1.2	99.2
27.60	2	0.4	99.6
30.00	1	0.2	99.8
30.40	1	0.2	100.0

VALUE	COUNT	PERCENTS CELL	CUM
17.20	2	0.4	11.6
17.50	2	0.4	12.0
17.60	7	1.4	13.4
17.90	10	2.0	15.4
18.10	1	0.2	15.6
18.20	13	2.6	19.2
18.30	2	0.4	18.6
18.40	8	1.6	20.2
18.50	13	2.6	22.8
18.60	1	0.2	23.0
18.80	17	3.4	26.3
18.90	6	1.2	27.5
19.00	6	1.2	28.7
19.10	1	0.2	28.9
19.20	21	4.2	33.1
19.40	20	4.0	37.1
19.70	2	0.4	37.5

VALUE	COUNT	PERCENTS CELL	CUM
20.00	51	10.2	47.7
20.30	2	0.4	48.1
20.40	4	0.8	48.9
20.50	1	0.2	49.1
20.60	6	1.2	50.3
20.70	41	8.2	58.5
20.80	13	2.6	61.1
21.00	2	0.4	61.5
21.10	15	3.0	64.5
21.20	13	2.6	67.1
21.40	25	5.0	72.1
21.70	11	2.2	74.3
21.90	4	0.8	75.0
22.00	2	0.4	75.4
22.20	38	7.6	83.0
22.40	2	0.4	83.4
22.50	1	0.2	83.6

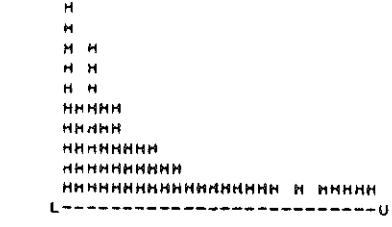
Sagitta hexaptera

LO x 100

LA

MAXIMUM	63.4000015
MINIMUM	0.0000000
RANGE	63.4000015
VARIANCE	136.2557983
ST.DEV.	11.6728659
(Q3-Q1)/2	5.7999997
MX.ST.SC.	4.48
MN.ST.SC.	-0.95

		ST.ERROR
MEAN	11.0497026	0.5215052
MEDIAN	7.6999998	0.2598078
MODE	0.0000000	



EACH "-" ABOVE = 2.5000
L= 0.0000
U= 65.0000

CASE NO. OF MIN. VAL. = 44
CASE NO. OF MAX. VAL. = 181

	VALUE	VALUE/S.E.
SKEWNESS	1.94	17.69
KURTOSIS	4.43	20.26

Q1= 3.8000000
Q3= 15.3999996
S-= -0.6231632
S+= 22.7225685

Tab. 18

Sagitta hexaptera

LO x 100

LA

VALUE	COUNT	PERCENTS CELL	CUM
0.000	105	21.0	21.0
2.700	1	0.2	21.2
3.000	1	0.2	21.4
3.100	1	0.2	21.6
3.200	1	0.2	21.9
3.300	1	0.2	22.0
3.400	4	0.8	22.8
3.600	4	0.8	23.6
3.700	5	1.0	24.6
3.800	10	2.0	26.5
4.000	3	0.6	27.1
4.200	4	0.8	27.9
4.300	3	0.6	28.5
4.500	5	1.0	29.5
4.700	1	0.2	29.7
4.800	2	0.4	30.1
5.000	9	1.8	31.9
5.200	2	0.4	32.3
5.300	1	0.2	32.5
5.400	1	0.2	32.7
5.600	10	2.0	34.7
5.700	2	0.4	35.1
5.800	4	0.8	35.9
6.000	4	0.8	36.7
6.100	3	0.6	37.3
6.300	5	1.0	38.3
6.500	7	1.4	39.7
6.700	8	1.6	41.3
6.800	3	0.6	41.9
6.900	14	2.8	44.7
7.100	5	1.0	45.7
7.400	13	3.6	49.3
7.600	1	0.2	49.5
15.400	1	0.2	75.0
15.500	1	0.2	75.2
15.600	6	1.2	76.4
16.100	3	0.6	77.0
16.200	1	0.2	77.2
16.700	5	1.0	78.2
17.100	5	1.0	79.2
17.200	3	0.6	79.8
17.400	2	0.4	80.2
17.600	1	0.2	80.4
17.900	3	0.6	81.0
18.200	3	0.6	81.6
18.400	3	0.6	82.2
19.500	6	1.2	83.4
18.800	2	0.4	83.8
19.400	2	0.4	84.2
20.000	5	1.0	85.2
20.500	1	0.2	85.4
20.600	2	0.4	85.8
21.100	1	0.2	86.0
21.200	3	0.6	86.6
21.400	4	0.8	87.4
21.900	1	0.2	87.6
22.200	3	0.6	88.2
22.600	1	0.2	88.4
22.900	1	0.2	88.6
23.100	1	0.2	88.8
23.500	4	0.8	89.6
23.700	4	0.8	90.4
24.100	1	0.2	90.6
24.200	1	0.2	90.8
24.300	1	0.2	91.0
25.000	6	1.2	92.2
8.000	4	0.8	52.9
8.100	1	0.2	53.1
8.300	8	1.6	54.7
8.600	3	0.6	55.3
8.700	3	0.6	55.9
8.800	1	0.2	56.1
8.900	2	0.4	56.5
9.100	6	1.2	57.7
9.400	5	1.0	58.7
9.600	1	0.2	58.9
9.700	1	0.2	59.1
10.000	1	0.2	59.3
10.300	10	2.0	61.3
10.600	2	0.4	61.7
10.700	8	1.6	63.3
11.100	10	2.0	65.3
11.400	1	0.2	65.5
11.500	5	1.0	66.5
11.700	1	0.2	66.7
11.800	4	0.8	67.5
12.100	3	0.6	68.1
12.500	4	0.8	68.9
12.900	3	0.6	69.5
13.000	2	0.4	69.9
13.200	2	0.4	70.3
13.300	7	1.4	71.7
13.500	1	0.2	71.9
13.600	1	0.2	72.1
13.900	3	0.6	72.7
14.100	1	0.2	72.9
14.300	6	1.2	74.1
14.800	2	0.4	74.5
15.000	1	0.2	74.7
26.300	1	0.2	92.6
27.600	1	0.2	92.8
27.800	2	0.4	93.2
29.600	1	0.2	93.4
30.300	1	0.2	93.6
32.300	1	0.2	93.8
33.300	1	0.2	94.0
34.200	1	0.2	94.2
37.200	1	0.2	94.4
37.500	1	0.2	94.6
37.900	1	0.2	94.8
38.700	1	0.2	95.0
38.900	2	0.4	95.4
40.000	1	0.2	95.6
40.500	1	0.2	95.8
40.700	1	0.2	96.0
41.700	1	0.2	96.2
41.900	2	0.4	96.6
42.300	1	0.2	96.8
42.900	2	0.4	97.2
44.100	2	0.4	97.6
48.300	1	0.2	97.8
50.000	1	0.2	98.0
52.600	1	0.2	98.2
53.900	2	0.4	98.6
54.500	1	0.2	98.8
57.500	1	0.2	99.0
57.700	1	0.2	99.2
58.300	1	0.2	99.4
60.300	1	0.2	99.6
61.500	1	0.2	99.8
63.400	1	0.2	100.0

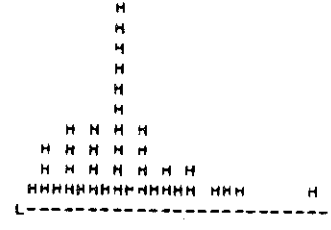
Tab. 19

Sagitta planctonis

LA

MAXIMUM	21.0000000
MINIMUM	9.0000000
RANGE	12.0000000
VARIANCE	3.2876856
ST.DEV.	1.8131976
(Q3-Q1)/2	1.2500000
MX.ST.SC.	4.59
MN.ST.SC.	-2.02

		ST.ERROR
MEAN	12.6702785	0.1008890
MEDIAN	13.0000000	0.0000000
MODE	13.0000000	



EACH "-" ABOVE = 0.5000
L= 9.0000
U= 21.5000
CASE NO. OF MIN. VAL. = 25
CASE NO. OF MAX. VAL. = 30

	VALUE	VALUE/S.E.
SKEWNESS	0.58	4.27
KURTOSIS	1.06	3.90

Q1= 11.0000000
Q3= 13.5000000
S-= 10.8570814
S+= 14.4834766

VALUE	COUNT	PERCENTS CELL	CUM
9.000	4	1.2	1.2
9.500	4	1.2	2.5
10.000	28	8.7	11.1
10.500	8	2.5	13.6
11.000	38	11.8	25.4
17.000	4	1.2	98.8
17.500	1	0.3	99.1
18.000	2	0.6	99.7
21.000	1	0.3	100.0

VALUE	COUNT	PERCENTS CELL	CUM
11.500	10	3.1	28.5
12.000	43	13.3	41.8
12.500	3	0.9	42.7
13.000	103	31.9	74.6
13.500	3	0.9	75.5

VALUE	COUNT	PERCENTS CELL	CUM
14.000	36	11.1	86.7
14.500	1	0.3	87.0
15.000	16	5.0	92.0
15.500	1	0.3	92.3
16.000	17	5.3	97.5

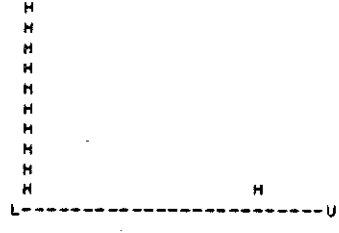
Tab. 20

Sagitta planctonis

LO

MAXIMUM	1.5000000
MINIMUM	0.0000000
RANGE	1.5000000
VARIANCE	0.0069659
ST.DEV.	0.0834622
(Q3-Q1)/2	0.0000000
MX.ST.SC.	17.92
MN.ST.SC.	-0.06

		ST.ERROR
MEAN	0.0046440	0.0046440
MEDIAN	0.0000000	0.0000000
MODE	0.0000000	



EACH "H" REPRESENTS 33 COUNT(S)

EACH "-" ABOVE =	0.0750
L=	0.0000
U=	1.8750
CASE NO. OF MIN. VAL. =	1
CASE NO. OF MAX. VAL. =	33

	VALUE	VALUE/S.E.
SKEWNESS	17.81	130.64
KURTOSIS	316.02	1159.33

Q1=	0.0000000
Q3=	0.0000000
S-=	-0.0788183
S+=	0.0881062

VALUE	COUNT	PERCENTS CELL	CUM
0.000	322	99.7	99.7
1.500	1	0.3	100.0

Tab. 21

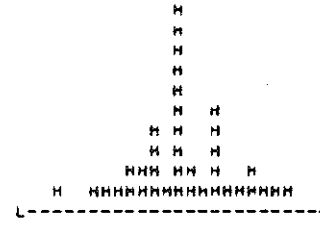
Sagitta planctonis

LC x 100

LA

MAXIMUM	30.0000000
MINIMUM	15.3999996
RANGE	14.6000004
VARIANCE	5.7620649
ST.DEV.	2.4004302
(Q3-Q1)/2	1.6499996
MX.ST.SC.	2.78
MN.ST.SC.	-3.30

		ST.ERROR
MEAN	23.3226013	0.1335635
MEDIAN	23.1000004	0.0000000
MODE	23.1000004	



EACH "-" ABOVE = 0.7500
L= 13.5000
U= 32.2500

CASE NO. OF MIN. VAL. = 297
CASE NO. OF MAX. VAL. = 101

	VALUE	VALUE/S.E.
SKEWNESS	0.38	2.31
KURTOSIS	0.66	2.43

Q1= 21.7000008
Q3= 25.0000000
S-= 20.9221706
S+= 25.7230320

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
15.40	1	0.3	0.3
17.60	1	0.3	0.6
18.20	5	1.5	2.2
18.80	4	1.2	3.4
19.20	3	0.9	4.3
20.00	16	5.0	9.3
20.60	2	0.6	9.9
20.80	13	4.0	13.9
21.10	3	0.9	14.9
26.90	1	0.3	90.1
27.30	18	5.6	95.7
27.80	3	0.9	96.6
28.60	2	0.6	97.2
29.20	2	0.6	97.8
30.00	7	2.2	100.0

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
21.40	31	9.6	24.5
21.70	6	1.9	26.3
21.90	6	1.9	28.2
22.20	6	1.9	30.0
22.60	1	0.3	30.2
22.70	14	4.3	34.7
22.90	1	0.3	35.0
23.10	98	30.3	65.3
23.30	4	1.2	66.6

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
23.50	1	0.3	66.9
23.80	8	2.5	69.3
24.00	2	0.6	70.0
24.10	1	0.3	70.3
25.00	52	16.1	86.4
25.50	1	0.3	86.7
26.10	4	1.2	87.9
26.30	1	0.3	88.2
26.70	5	1.5	89.8

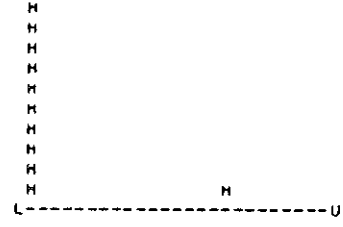
Sagitta planctonis

LO x 100

LA

MAXIMUM	8.3000002
MINIMUM	0.0000000
RANGE	8.3000002
VARIANCE	0.2132817
ST.DEV.	0.4618244
(Q3-Q1)/2	0.0000000
MX.ST.SC.	17.92
MN.ST.SC.	-0.06

		ST.ERROR
MEAN	0.0256966	0.0256966
MEDIAN	0.0000000	0.0000000
MODE	0.0000000	



EACH "-" ABOVE =	0.5000
L=	0.0000
U=	12.5000
CASE NO. OF MIN. VAL. =	1
CASE NO. OF MAX. VAL. =	33

	VALUE	VALUE/S.E.
SKEWNESS	17.61	130.64
KURTOSIS	316.02	1159.33

Q1=	0.0000000
Q3=	0.0000000
S-=	-0.4361278
S+=	0.4675210

VALUE	COUNT	PERCENTS CELL	CUM
0.000	322	59.7	99.7
8.300	1	0.3	100.0

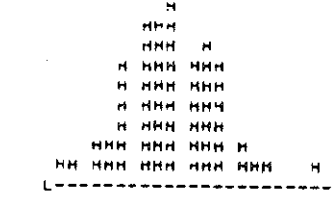
Tab. 23

Sagitta zetesios

LA

MAXIMUM	30.0000000
MINIMUM	14.0000000
RANGE	16.0000000
VARIANCE	5.6162744
ST.DEV.	2.5722120
(Q3-Q1)/2	2.0000000
MX.ST.SC.	3.60
MN.ST.SC.	-2.62

		ST.ERROR
MEAN	20.7476845	0.1750169
MEDIAN	21.0000000	0.2886753
MODE	21.0000000	



EACH "-" ABOVE = 0.7500
L= 13.5000
U= 30.7500

CASE NO. OF MIN. VAL. = 44
CASE NO. OF MAX. VAL. = 187

	VALUE	VALUE/S.E.
SKEWNESS	0.03	0.17
KURTOSIS	0.14	0.41

Q1=	19.0000000
Q3=	23.0000000
S-=	18.1754723
S+=	23.3198967

		PERCENTS				PERCENTS				PERCENTS	
VALUE	COUNT	CELL	CUM	VALUE	COUNT	CELL	CUM	VALUE	COUNT	CELL	CUM
14.00	2	0.9	0.9	18.00	22	10.2	19.5	22.00	20	9.3	72.2
15.00	3	1.4	2.3	19.00	31	14.4	32.9	22.50	1	0.5	72.7
16.00	7	3.2	5.6	20.00	29	13.4	46.3	23.00	25	11.6	84.3
17.00	6	2.8	8.3	21.00	36	16.7	63.0	24.00	23	10.6	94.9
25.00	7	3.2	98.1								
26.00	2	0.9	99.1								
27.00	1	0.5	99.5								
30.00	1	0.5	100.0								

Tab. 24

Sagitta zetesios

LO

MAXIMUM	8.0000000
MINIMUM	0.0000000
RANGE	8.0000000
VARIANCE	3.6109767
ST.DEV.	1.9002573
(Q3-Q1)/2	1.5000000
MX.ST.SC.	3.34
MN.ST.SC.	-0.87

		ST.ERROR
MEAN	1.6504630	0.1292961
MEDIAN	1.0000000	0.5772506
MODE	0.0000000	

```
H
H
H
H                                   EACH "H"
H                                   REPRESENTS
H                                      11
H                                   COUNT(S)
H  H H
H  H H H H H
HH HHH H H H H H
L------------------------U
```

EACH "-" ABOVE = 0.5000
L= 0.0000
U= 11.5000
CASE NO. OF MIN. VAL. = 1
CASE NO. OF MAX. VAL. = 188

	VALUE	VALUE/S.E.
SKEWNESS	0.82	4.91
KURTOSIS	-0.31	-0.92

Q1= 0.0000000
Q3= 3.0000000
S-= -0.2497940
S+= 3.5507200

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
0.000	105	48.6	48.6
1.000	8	3.7	52.3
2.000	28	13.0	65.3
8.000	1	0.5	100.0
2.500	7	3.2	68.5
3.000	28	13.0	81.5
4.000	20	9.3	90.7
5.000	12	5.6	96.3
6.000	6	2.8	99.1
7.000	1	0.5	99.5

Tab. 25

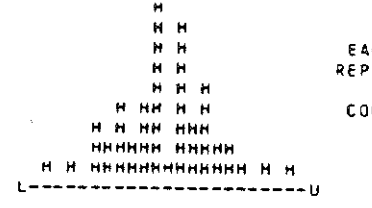
Sagitta zetesios

LC x 100

LA

MAXIMUM	32.0999985
MINIMUM	16.7000008
RANGE	15.3999977
VARIANCE	6.3829980
ST.DEV.	2.5264575
(Q3-Q1)/2	1.7500000
MX.ST.SC.	3.15
MN.ST.SC.	-2.94

		ST.ERROR
MEAN	24.1310215	0.1719037
MEDIAN	23.8999996	0.3464105
MODE	25.0000000	



EACH "-" ABOVE = 0.7500

L= 15.7500

U= 33.0000

CASE NO. OF MIN. VAL. = 67

CASE NO. OF MAX. VAL. = 44

	VALUE	VALUE/S.E.
SKEWNESS	-0.15	-0.90
KURTOSIS	0.43	1.30

Q1= 22.7000008

Q3= 26.2000008

S-= 21.6045647

S+= 26.6574783

VALUE	COUNT	PERCENTS CELL	CUM
16.70	3	1.4	1.4
18.40	1	0.5	1.9
20.00	15	6.9	8.8
20.80	6	2.8	11.6
21.10	7	3.2	14.8
21.40	1	0.5	15.3
21.70	10	4.6	19.9
22.00	1	0.5	20.4
27.10	1	0.5	89.4
27.30	7	3.2	92.6
27.80	10	4.6	97.2
28.60	2	0.9	98.1
28.90	1	0.5	98.6
30.60	1	0.5	99.1
31.60	1	0.5	99.5
32.10	1	0.5	100.0

VALUE	COUNT	PERCENTS CELL	CUM
22.20	8	3.7	24.1
22.70	12	5.6	29.6
22.90	4	1.9	31.5
23.10	2	0.9	32.4
23.50	3	1.4	33.8
23.70	2	0.9	34.7
23.80	27	12.5	47.2
23.90	7	3.2	50.5

VALUE	COUNT	PERCENTS CELL	CUM
24.00	6	2.8	53.2
24.40	1	0.5	53.7
25.00	37	17.1	70.8
26.10	8	3.7	74.5
26.20	6	2.8	77.3
26.30	19	8.8	86.1
26.50	3	1.4	87.5
26.70	3	1.4	88.9

Tab. 26

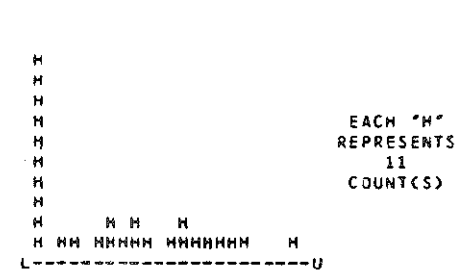
Sagitta zetesios

L0 x 100

LA

MAXIMUM	32.0000000
MINIMUM	0.0000000
RANGE	32.0000000
VARIANCE	67.1945877
ST.DEV.	8.1972303
(Q3-Q1)/2	6.5000000
MX.ST.SC.	3.02
MN.ST.SC.	-0.88

		ST.ERROR
MEAN	7.2467594	0.5577509
MEDIAN	4.1993998	2.6269453
MODE	0.0000000	



EACH "-" ABOVE = 1.5000
L= 0.0000
U= 34.5000

CASE NO. OF MIN. VAL. = 1
CASE NO. OF MAX. VAL. = 188

	VALUE	VALUE/S.E.
SKEWNESS	0.71	4.25
KURTOSIS	-0.66	-1.95

Q1=	0.0000000
Q3=	13.0000000
S-=	-0.9504709
S+=	15.4439898

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
0.000	105	48.6	48.6
4.000	1	0.5	49.1
4.200	4	1.9	50.9
4.300	1	0.5	51.4
4.800	2	0.9	52.3
8.300	3	1.4	53.7
8.700	3	1.4	55.1
9.100	5	2.3	57.4
9.500	11	5.1	62.5
23.800	1	0.5	95.8
24.000	2	0.9	96.8
25.000	3	1.4	98.1
26.100	1	0.5	98.6
26.700	1	0.5	99.1
26.900	1	0.5	99.5
32.000	1	0.5	100.0

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
10.000	6	2.8	65.3
10.900	4	1.9	67.1
11.400	3	1.4	68.5
12.000	2	0.9	69.4
12.500	5	2.3	71.8
13.000	12	5.6	77.3
13.600	5	2.3	79.6
14.300	4	1.9	81.5
16.700	7	3.2	84.7

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
17.400	2	0.9	85.6
19.200	4	1.9	87.5
19.500	1	0.5	88.0
19.800	7	3.2	91.2
19.200	1	0.5	91.7
20.000	2	0.9	92.6
20.800	2	0.9	93.5
21.700	2	0.9	94.4
22.700	2	0.9	95.4

Sagitta bipunctata
LA

MAXIMUM	19.0000000
MINIMUM	10.0000000
RANGE	9.0000000
VARIANCE	1.8357255
ST.DEV.	1.3548895
(Q3-Q1)/2	1.0000000
MX.ST.SC.	4.27
MN.ST.SC.	-2.38

		ST.ERROR
MEAN	13.2203785	0.0932744
MEDIAN	13.0000000	0.0000000
MODE	13.0000000	

```
      H H
      H H
      H H H
      H H H                          EACH "H"
      H H H                         REPRESENTS
      H H H                              5
      HHH H                          COUNT(S)
      HHHHH H
    H HHHHH HHH
  H HHHHHHHHHHH H    H
L----------------------U

EACH "-" ABOVE =        0.5000
             L=         9.0000
             U=        20.5000
CASE NO. OF MIN. VAL. =   11
CASE NO. OF MAX. VAL. =  196
```

	VALUE	VALUE/S.E.		
			Q1=	12.0000000
			Q3=	14.0000000
SKEWNESS	0.75	4.47	S-=	11.8654890
KURTOSIS	1.22	3.61	S+=	14.5752687

VALUE	COUNT	PERCENTS CELL	CUM
10.00	2	0.9	0.9
11.00	9	4.3	5.2
11.50	3	1.4	6.6
12.00	46	21.8	28.4
17.00	3	1.4	99.5
19.00	1	0.5	100.0

VALUE	COUNT	PERCENTS CELL	CUM
12.50	18	8.5	37.0
13.00	49	23.2	60.2
13.50	11	5.2	65.4
14.00	39	18.5	83.9

VALUE	COUNT	PERCENTS CELL	CUM
14.50	4	1.9	85.8
15.00	13	6.2	91.9
15.50	7	3.3	95.3
16.00	6	2.8	98.1

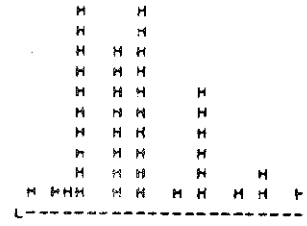
Tab. 28

Sagitta bipunctata

LO

MAXIMUM	4.5000000
MINIMUM	0.0000000
RANGE	4.5000000
VARIANCE	0.8054751
ST.DEV.	0.8974826
(Q3-Q1)/2	0.5000000
%x.ST.SC.	2.97
%N.ST.SC.	-2.04

		ST.ERROR
MEAN	1.8308058	0.0617853
MEDIAN	1.5000000	0.1443376
MODE	1.0000000	



EACH "-" ABOVE = 0.2000
L= 0.0000
U= 4.6000

CASE NO. OF MIN. VAL. = 160
CASE NO. OF MAX. VAL. = 190

	VALUE	VALUE/S.E.
SKEWNESS	0.64	3.32
KURTOSIS	0.11	0.32

Q1=	1.0000000
Q3=	2.0000000
S-=	0.9333231
S+=	2.7282884

VALUE	COUNT	PERCENTS CELL	CUM
0.0000	6	2.8	2.8
0.5000	1	0.5	3.3
0.8000	1	0.5	3.8
4.0000	9	4.3	99.5
4.5000	1	0.5	100.0

VALUE	COUNT	PERCENTS CELL	CUM
1.0000	57	27.0	30.8
1.5000	43	20.4	51.2
2.0000	55	26.1	77.3

VALUE	COUNT	PERCENTS CELL	CUM
2.5000	4	1.9	79.1
3.0000	32	15.2	94.3
3.5000	2	0.9	95.3

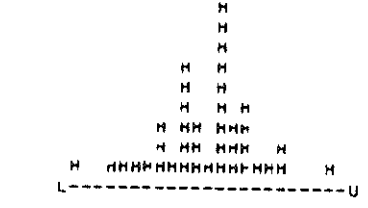
Sagitta bipunctata

LC x 100

LA

MAXIMUM	32.0000000
MINIMUM	15.8000002
RANGE	16.2000008
VARIANCE	4.9176245
ST.DEV.	2.2175717
(Q3-Q1)/2	1.3999996
MX.ST.SC.	3.30
MN.ST.SC.	-4.01

		ST.ERROR
MEAN	24.6905231	0.1526639
MEDIAN	25.0000000	0.0000000
MODE	25.0000000	



EACH "-" ABOVE = 0.7500
L= 15.7500
U= 32.0000
CASE NO. OF MIN. VAL. = 196
CASE NO. OF MAX. VAL. = 95

	VALUE	VALUE/S.E.
SKEWNESS	-0.16	-0.95
KURTOSIS	1.10	3.27

Q1= 23.1000004
Q3= 25.8999996
S-= 22.4729519
S+= 26.9080944

VALUE	COUNT	PERCENTS CELL	CUM
15.80	1	0.5	0.5
18.20	1	0.5	0.9
19.20	1	0.5	1.4
20.00	1	0.5	1.9
20.60	1	0.5	2.4
20.70	1	0.5	2.8
20.80	2	0.9	3.8
21.40	14	6.6	10.4
27.30	4	1.9	91.9
28.00	2	0.9	92.9
28.60	7	3.3	96.2
29.20	7	3.3	99.5
32.00	1	0.5	100.0

VALUE	COUNT	PERCENTS CELL	CUM
21.70	1	0.5	10.9
22.20	2	0.9	11.8
22.60	2	0.9	12.8
22.70	4	1.9	14.7
22.90	1	0.5	15.2
23.10	31	14.7	29.9
23.30	3	1.4	31.3
23.50	2	0.9	32.2

VALUE	COUNT	PERCENTS CELL	CUM
24.00	15	7.1	39.3
24.10	3	1.4	40.8
25.00	62	29.4	70.1
25.80	5	2.4	72.5
25.90	9	4.3	76.8
26.10	2	0.9	77.7
26.70	9	4.3	82.0
26.90	17	8.1	90.0

Tab. 30

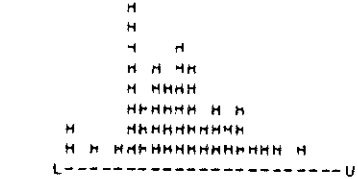
Sagitta bipunctata

LO x 100

LA

MAXIMUM	30.0000000
MINIMUM	0.0000000
RANGE	30.0000000
VARIANCE	33.3547554
ST.DEV.	5.7753577
(Q3-Q1)/2	4.2000003
MX.ST.SC.	2.85
MN.ST.SC.	-2.34

		ST.ERROR
MEAN	13.5156403	0.3975920
MEDIAN	12.5900000	0.6639532
MODE	8.3000002	



EACH '-' ABOVE = 1.5000
L= 0.0000
U= 34.5000

CASE NO. OF MIN. VAL. = 160
CASE NO. OF MAX. VAL. = 190

	VALUE	VALUE/S.E.
SKEWNESS	0.40	2.39
KURTOSIS	0.19	0.58

Q1= 8.3000002
Q3= 16.7000008
S-= 7.7402825
S+= 19.2909985

VALUE	COUNT	PERCENTS CELL	CUM
0.000	6	2.8	2.8
4.500	1	0.5	3.3
7.100	1	0.5	3.8
7.700	18	8.5	12.3
8.000	7	3.3	15.6
8.300	23	10.9	26.5
8.700	2	0.9	27.5
9.100	6	2.8	30.3
9.400	1	0.5	30.8
10.000	4	1.9	32.7
10.700	6	2.8	35.5
23.500	1	0.5	94.3
24.000	2	0.9	95.3
25.000	2	0.9	96.2
25.800	2	0.9	97.2
26.700	1	0.5	97.6
26.900	1	0.5	98.1
28.600	3	1.4	99.5
30.000	1	0.5	100.0

VALUE	COUNT	PERCENTS CELL	CUM
11.100	2	0.9	36.5
11.500	14	6.6	43.1
12.000	3	1.4	44.5
12.500	14	6.6	51.2
13.300	2	0.9	52.1
13.800	1	0.5	52.6
14.300	22	10.4	63.0
14.800	3	1.4	64.5
15.400	15	7.1	71.6
16.000	6	2.8	74.4
16.700	5	2.4	76.8

VALUE	COUNT	PERCENTS CELL	CUM
17.600	2	0.9	77.7
17.900	2	0.9	78.7
18.200	1	0.5	79.1
18.400	1	0.5	79.6
18.800	3	1.4	81.0
19.200	1	0.5	81.5
19.400	5	2.4	83.9
20.000	7	3.3	87.2
20.700	3	1.4	88.6
21.400	5	2.4	91.0
22.200	6	2.8	93.8

Sagitta macrocephala

LA

MAXIMUM	20.0000000
MINIMUM	11.0000000
RANGE	9.0000000
VARIANCE	2.6208439
ST.DEV.	1.6189021
(Q3-Q1)/2	1.0000000
MX.ST.SC.	4.03
MN.ST.SC.	-1.53

		ST.ERROR
MEAN	13.4782610	0.1948929
MEDIAN	13.5000000	0.2856753
MODE	14.0000000	

```
       H
       H                EACH "H"
       H               REPRESENTS
    H HH                    3
    H HH                COUNT(S)
    H HH
   HH HHH
   HHHHHH HHH  H
 L-----------------U
```

EACH "-" ABOVE =	0.7500
L=	9.0000
U=	22.5000
CASE NO. OF MIN. VAL. =	3
CASE NO. OF MAX. VAL. =	57

	VALUE	VALUE/S.E.		
			Q1=	12.0000000
			Q3=	14.0000000
SKEWNESS	1.21	4.11	S-=	11.8593588
KURTOSIS	2.91	4.93	S+=	15.0971632

VALUE	COUNT	PERCENTS CELL	CUM
11.00	5	7.2	7.2
12.00	15	21.7	29.0
12.50	1	1.4	30.4
17.00	1	1.4	97.1
18.00	1	1.4	98.6
20.00	1	1.4	100.0

VALUE	COUNT	PERCENTS CELL	CUM
13.00	12	17.4	47.8
13.50	2	2.9	50.7
14.00	23	33.3	84.1

VALUE	COUNT	PERCENTS CELL	CUM
15.00	6	8.7	92.8
16.00	1	1.4	94.2
16.50	1	1.4	95.7

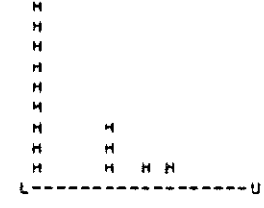
Tab. 32

Sagitta macrocephala

LO

MAXIMUM	1.8000000
MINIMUM	0.0000000
RANGE	1.8000000
VARIANCE	0.2374723
ST.DEV.	0.4873113
(Q3-Q1)/2	0.0000000
MX.ST.SC.	3.16
MN.ST.SC.	-0.52

		ST.ERROR
MEAN	0.2579710	0.0586654
MEDIAN	0.0000000	0.0000000
MODE	0.0000000	



EACH "-" ABOVE =	0.1500
L=	0.0000
U=	2.7000
CASE NO. OF MIN. VAL. =	1
CASE NO. OF MAX. VAL. =	66

	VALUE	VALUE/S.E.
SKEWNESS	1.49	5.05
KURTOSIS	0.75	1.27

Q1=	0.0000000
Q3=	0.0000000
S-=	-0.2293403
S+=	0.7452823

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
0.000	53	76.8	76.8
1.800	1	1.4	100.0

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
1.000	13	18.8	95.7

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
1.500	2	2.9	98.6

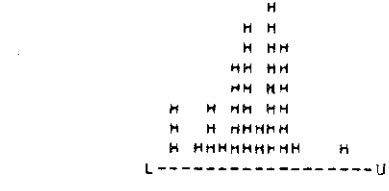
Sagitta macrocephala

LC x 100

LA

MAXIMUM	42.9000015
MINIMUM	21.3999996
RANGE	21.5000019
VARIANCE	17.6019840
ST.DEV.	4.1954718
(Q3-Q1)/2	2.3499994
MX.ST.SC.	2.81
MN.ST.SC.	-2.31

		ST.ERROR
MEAN	31.1066960	0.5050755
MEDIAN	30.7999992	0.7216882
MODE	33.2999992	



EACH "-" ABOVE =	1.5000
L=	19.5000
J=	46.5000
CASE NO. OF MIN. VAL. =	49
CASE NO. OF MAX. VAL. =	62

	VALUE	VALUE/S.E.
SKEWNESS	-0.49	-1.65
KURTOSIS	0.52	0.88

Q1=	28.6000004
Q3=	33.2999992
S-=	26.9132252
S+=	35.3041687

VALUE	COUNT	PERCENTS CELL	CUM
21.40	5	7.2	7.2
25.00	2	2.9	10.1
26.70	5	7.2	17.4
28.10	1	1.4	18.8
28.60	6	8.7	27.5
36.40	1	1.4	98.6
42.90	1	1.4	100.0

VALUE	COUNT	PERCENTS CELL	CUM
29.20	1	1.4	29.0
29.60	1	1.4	30.4
30.00	1	1.4	31.9
30.30	1	1.4	33.3
30.80	12	17.4	50.7

VALUE	COUNT	PERCENTS CELL	CUM
31.80	4	5.8	56.5
33.30	16	23.2	79.7
35.30	1	1.4	81.2
35.70	10	14.5	95.7
36.00	1	1.4	97.1

Sagitta macrocephala

LO x 100

LA

MAXIMUM	10.6000004
MINIMUM	0.0000000
RANGE	10.6000004
VARIANCE	11.4949875
ST.DEV.	3.3904259
(Q3-Q1)/2	0.0000000
MX.ST.SC.	2.59
MN.ST.SC.	-0.54

		ST.ERROR
MEAN	1.8173914	0.4681593
MEDIAN	0.0000000	0.0000000
MODE	0.0000000	

```
H
H
H                                  EACH "H"
H                                  REPRESENTS
H                                      6
H                                  COUNT(S)
H
H
H          H
H     H H HH HH
L------------------U
```

EACH "-" ABOVE = 0.7500
L= 0.0000
U= 13.5000

CASE NO. OF MIN. VAL. = 1
CASE NO. OF MAX. VAL. = 66

	VALUE	VALUE/S.E.
SKEWNESS	1.36	4.61
KURTOSIS	0.02	0.04

Q1= 0.0000000
Q3= 0.0000000
S-= -1.5730345
S+= 5.2078176

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
0.000	53	76.8	76.8
5.000	1	1.4	78.3
6.100	1	1.4	79.7
6.300	1	1.4	81.2
7.700	6	8.7	89.9
8.000	1	1.4	91.3
8.300	4	5.8	97.1
10.000	1	1.4	98.6
10.600	1	1.4	100.0

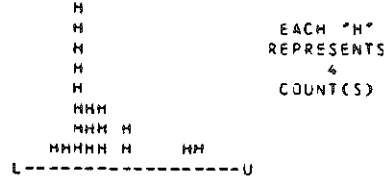
Tab. 35

Eukrohnia hamata

LA

MAXIMUM	21.0000000
MINIMUM	12.0000000
RANGE	9.0000000
VARIANCE	2.5175259
ST.DEV.	1.5866714
(Q3-Q1)/2	1.0000000
MX.ST.SC.	4.44
MN.ST.SC.	-1.24

		ST.ERROR
MEAN	13.9526865	0.1938428
MEDIAN	13.5000000	0.2886753
MODE	13.0000000	



EACH "-" ABOVE = 0.7500
L= 9.7500
U= 23.2500
CASE NO. OF MIN. VAL. = 4
CASE NO. OF MAX. VAL. = 54

	VALUE	VALUE/S.E.
SKEWNESS	2.14	7.15
KURTOSIS	6.39	10.67

Q1= 13.0000000
Q3= 15.0000000
S-= 12.3760157
S+= 15.5493584

VALUE	COUNT	PERCENTS CELL	CUM
12.00	4	6.0	6.0
12.50	2	3.0	9.0
13.00	24	35.8	44.8
13.50	7	10.4	55.2
14.00	11	16.4	71.6
15.00	11	16.4	88.1
16.00	6	9.0	97.0
20.00	1	1.5	98.5
21.00	1	1.5	100.0

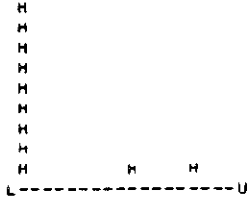
Tab. 36

Eukrohnia hamata

LO

MAXIMUM	1.5000000
MINIMUM	0.0000000
RANGE	1.5000000
VARIANCE	0.0878562
ST.DEV.	0.2964054
(Q3-Q1)/2	0.0000000
MX.ST.SC.	4.78
MN.ST.SC.	-0.28

		ST.ERROR
MEAN	0.0920896	0.0362117
MEDIAN	0.0000000	0.0000000
MODE	0.0000000	



EACH "-" ABOVE = 0.1000
L= 0.0000
U= 1.8000

CASE NO. OF MIN. VAL. = 1
CASE NO. OF MAX. VAL. = 54

	VALUE	VALUE/S.E.
SKEWNESS	3.39	11.32
KURTOSIS	10.31	17.23

Q1= 0.0000000
Q3= 0.0000000
S-= -0.2143159
S+= 0.3784950

VALUE	COUNT	PERCENTS CELL	CUM
0.000	62	92.5	92.5
1.000	4	6.0	98.5
1.500	1	1.5	100.0

Tab. 37

Eukrohnia hamata

LC x 100 / LA

MAXIMUM	28.6000004
MINIMUM	15.3999996
RANGE	13.2000008
VARIANCE	5.8838143
ST.DEV.	2.4256575
(Q3-Q1)/2	0.9499998
MX.ST.SC.	2.50
MN.ST.SC.	-2.94

		ST.ERROR
MEAN	22.5268669	0.2963412
MEDIAN	23.1000004	0.2598076
MODE	23.1000004	

```
          H
          H
          H
          H
        H H
        HHH  H
      H HHHH H
 HH  HHHHHHH HHH  H
L------------------U
```

EACH "H" REPRESENTS 3 COUNT(S)

EACH '-' ABOVE =	0.7500
L=	15.7500
U=	29.2500
CASE NO. OF MIN. VAL. =	47
CASE NO. OF MAX. VAL. =	39

Q1=	21.3999996
Q3=	23.2999992
S-=	20.1012096
S+=	24.9525242

	VALUE	VALUE/S.E.
SKEWNESS	-0.77	-2.56
KURTOSIS	1.80	3.01

VALUE	COUNT	PERCENTS CELL	CUM
15.40	2	3.0	3.0
16.00	1	1.5	4.5
16.70	1	1.5	6.0
19.00	1	1.5	7.5
20.00	4	6.0	13.4
20.80	1	1.5	14.9
21.40	10	14.9	29.9
21.90	2	3.0	32.8
22.20	6	9.0	41.8
23.10	22	32.8	74.6
23.30	4	6.0	80.6
24.00	1	1.5	82.1
25.00	7	10.4	92.5
25.90	1	1.5	94.0
26.70	3	4.5	98.5
28.60	1	1.5	100.0

Tab. 38

Eukrohnia hamata

LO x 100

LA

MAXIMUM	7.4000001
MINIMUM	0.0000000
RANGE	7.4000001
VARIANCE	3.3680594
ST.DEV.	1.8352274
(Q3-Q1)/2	0.0000000
MX.ST.SC.	3.75
MN.ST.SC.	-0.28

		ST.ERROR
MEAN	0.5164179	0.2242087
MEDIAN	0.0000000	0.0000000
MODE	0.0000000	

EACH "-" ABOVE =	0.5000
L=	0.0000
U=	9.0000
CASE NO. OF MIN. VAL. =	1
CASE NO. OF MAX. VAL. =	30

	VALUE	VALUE/S.E.
SKEWNESS	3.18	10.64
KURTOSIS	8.30	13.87

Q1=	0.0000000
Q3=	0.0000000
S-=	-1.3188095
S+=	2.3516452

VALUE	COUNT	PERCENTS CELL	CUM
0.000	62	92.5	92.5
6.300	1	1.5	94.0
6.700	1	1.5	95.5
7.100	2	3.0	98.5
7.400	1	1.5	100.0

Pterosagitta draco

LA

MAXIMUM	9.5000000
MINIMUM	6.5000000
RANGE	3.0000000
VARIANCE	0.2843916
ST.DEV.	0.5332838
(Q3-Q1)/2	0.1250000
MX.ST.SC.	2.61
MN.ST.SC.	-3.01

		ST.ERROR
MEAN	8.1071424	0.1007812
MEDIAN	8.0000000	0.0000000
MODE	8.0000000	

```
       H
       H
       H              EACH "H"
       H             REPRESENTS
       H                 2
       H              COUNT(S)
       H
       H H
 H   H H H H H
L-------------U
```

EACH "-" ABOVE =	0.2500
L=	6.2500
U=	9.7500
CASE NO. OF MIN. VAL. =	20
CASE NO. OF MAX. VAL. =	12

	VALUE	VALUE/S.E.		
			Q1=	8.0000000
			Q3=	8.2500000
SKEWNESS	-0.06	-0.13	S-=	7.5738587
KURTOSIS	2.33	2.52	S+=	8.6404265

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM	VALUE	COUNT	PERCENTS CELL	PERCENTS CUM	VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
6.500	1	3.6	3.6	8.000	18	64.3	75.0	9.000	2	7.1	96.4
7.500	2	7.1	10.7	8.500	4	14.3	89.3	9.500	1	3.6	100.0

Tab. 40

Pterosagitta draco

LO

MAXIMUM	4.0000000
MINIMUM	0.0000000
RANGE	4.0000000
VARIANCE	1.1226852
ST.DEV.	1.0595684
(Q3-Q1)/2	0.6250000
MX.ST.SC.	2.01
MN.ST.SC.	-1.77

		ST.ERROR
MEAN	1.8750000	0.2002396
MEDIAN	1.7500000	0.1442376
MODE	2.0000000	

```
       H              EACH "H"
    HH H              REPRESENTS
    HH H                 1
    HH H              COUNT(S)
    HH H  H   H
 H  HH H  H   H
 H  HH H HH   H
L--------------U
```

EACH "-" ABOVE =	0.3000
L=	0.0000
U=	4.2000
CASE NO. OF MIN. VAL. =	20
CASE NO. OF MAX. VAL. =	1

	VALUE	VALUE/S.E.		
			Q1=	1.0000000
			Q3=	2.2500000
SKEWNESS	0.47	1.02	S-=	0.8154316
KURTOSIS	-0.32	-0.35	S+=	2.9345684

		PERCENTS	
VALUE	COUNT	CELL	CUM
0.000	2	7.1	7.1
1.000	6	21.4	28.6
4.000	3	10.7	100.0
1.500	6	21.4	50.0
2.000	7	25.0	75.0
2.500	1	3.6	78.6
3.000	3	10.7	89.3

Tab. 41

Pterosagitta draco

LC x 100

LA

MAXIMUM	50.0000000
MINIMUM	37.5000000
RANGE	12.5000000
VARIANCE	13.1350670
ST.DEV.	3.6242332
(Q3-Q1)/2	2.8999996
MX.ST.SC.	2.25
MN.ST.SC.	-1.20

		ST.ERROR
MEAN	41.8607140	0.6849157
MEDIAN	41.6500015	1.0969658
MODE	43.7999992	

```
       H
       H
 H     H              EACH "H"
 H     H             REPRESENTS
 H     H                 1
 H   H H              COUNT(S)
 H   H H
 HH  H H     H
 HHH HHHH H  H
L-------------U
```

EACH "-" ABOVE = 1.0000
L= 37.0000
U= 51.0000

CASE NO. OF MIN. VAL. = 11
CASE NO. OF MAX. VAL. = 13

	VALUE	VALUE/S.E.		
			Q1=	38.0000000
			Q3=	43.7999992
SKEWNESS	0.47	1.01	S-=	38.2364807
KURTOSIS	-0.47	-0.50	S+=	45.4849472

		PERCENTS	
VALUE	COUNT	CELL	CUM
37.50	7	25.0	25.0
38.50	1	3.6	28.6
38.90	1	3.6	32.1
40.00	1	3.6	35.7
41.20	4	14.3	50.0
42.10	1	3.6	53.6
43.80	9	32.1	85.7
44.40	1	3.6	89.3
46.70	1	3.6	92.9
50.00	2	7.1	100.0

Tab. 42

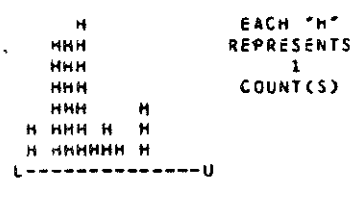
Pterosagitta draco

L0 x 100

LA

MAXIMUM	50.0000000
MINIMUM	0.0000000
RANGE	50.0000000
VARIANCE	163.3529358
ST.DEV.	12.7809601
(Q3-Q1)/2	7.1500001
MX.ST.SC.	2.12
MN.ST.SC.	-1.79

		ST.ERROR
MEAN	22.8464298	2.4153745
MEDIAN	21.1000004	1.7897869
MODE	25.0000000	



EACH "-" ABOVE = 5.0000
L= 0.0000
U= 70.0000
CASE NO. OF MIN. VAL. = 20
CASE NO. OF MAX. VAL. = 1

	VALUE	VALUE/S.E.
SKEWNESS	0.57	1.23
KURTOSIS	0.07	0.07

Q1= 12.9000006
Q3= 27.2000008
S-= 10.0654697
S+= 35.6273918

VALUE	COUNT	PERCENTS CELL	CUM
0.00	2	7.1	7.1
11.80	1	3.6	10.7
12.50	4	14.3	25.0
13.30	1	3.6	28.6
35.30	1	3.6	89.3
50.00	3	10.7	100.0

VALUE	COUNT	PERCENTS CELL	CUM
17.60	1	3.6	32.1
18.80	4	14.3	46.4
20.00	1	3.6	50.0
22.20	1	3.6	53.6

VALUE	COUNT	PERCENTS CELL	CUM
25.00	6	21.4	75.0
29.40	1	3.6	78.6
31.60	1	3.6	82.1
33.30	1	3.6	85.7

Tab. 43

Eukrohnia fowleri Ritter-Zahony, 1909.
Sagitta lyra Krohn, 1853.
Sagitta hexaptera d'Orbigny, 1834.
Sagitta planctonis Steinhaus, 1896.
Sagitta zetesios Fowler, 1905.
Sagitta bipunctata Quoy y Gaimard, 1827.
Sagitta macrocephala Fowler, 1905.
Eukrohnia hamata (Möbius), 1875.
Pterosagitta draco (Krohn), 1853.
Sagitta sibogae Fowler, 1906.
Sagitta inflata Grassi, 1881.
Sagitta serratodentata Krohn, 1853.
Sagitta tasmanica Thomson, 1947.

Tab. 44. — List of Madeiran species of the present study.

Tabs. 45A-G. — Overall results of the samplings carried out in Madeiran waters in February 1979. The abundance coefficient $\frac{(n \times 100)}{N}$ of each species and sexual stages in parentheses.

	STATE			
SPECIES	I	II	III	TOTAL
Eukrohnia fowleri	12(2,3%)	489(97,4%)	1(0,1%)	502(77,1%)
Sagitta lyra	27(57,4%)	20(42,5%)	-	47(7,2%)
Sagitta zetesios	20(71,4%)	8(28,5%)	-	28(4,3%)
Sagitta bipunctata	6(23,0%)	13(50,0%)	7(26,9%)	26(3,9%)
Sagitta planctonis	17(100%)	-	-	17(2,6%)
Sagitta hexaptera	7(58,3%)	4(33,3%)	1(8,3%)	12(1,8%)
Sagitta macrocephala	10(100%)	-	-	10(1,5%)
Eukrohnia hamata	6(75%)	2(25%)	-	8(1,2%)
Sagitta inflata	-	1(100%)	-	1(0,1%)
				651(100%)

Tab. 45A. — Station 30, sample 1.

SPECIES	I	II	III	TOTAL
Eukrohnia fowleri	20(5,2%)	323(84,3%)	40(10,4%)	383(65,4%)
Sagitta lyra	17(34,0%)	31(62,0%)	2(4,0%)	50(8,5%)
Sagitta hexaptera	16(41,0%)	21(53,8%)	2(5,1%)	39(6,6%)
Sagitta zetesios	21(70,0%)	9(30,0%)	-	30(5,1%)
Sagitta macrocephala	24(85,7%)	4(14,2%)	-	28(4,7%)
Sagitta bipunctata	-	17(60,7%)	11(39,2%)	28(4,7%)
Sagitta planctonis	17(100%)	-	-	17(2,9%)
Eukrohnia hamata	9(100%)	-	-	9(1,5%)
Sagitta sibogae	-	1(100%)	-	1(0,1%)
				585(100%)

Tab. 45B. — Station 31, sample 2.

SPECIES	I	II	III	TOTAL
Sagitta hexaptera	37(28,9%)	84(65,6%)	7(5,4%)	128(41,1%)
Sagitta planctonis	116(100%)	-	-	116(37,2%)
Sagitta lyra	43(87,7%)	6(12,2%)	-	49(15,7%)
Sagitta bipunctata	-	7(70,0%)	3(30,0%)	10(3,2%)
Eukrohnia fowleri	2(50,0%)	2(50,0%)	-	4(1,2%)
Pterosagitta draco	1(100%)	-	-	1(0,3%)
Sagitta serratodentata	-	1(100%)	-	1(0,3%)
Sagitta inflata	-	1(100%)	-	1(0,3%)
Sagitta macrocephala	-	1(100%)	-	1(0,3%)
				311(100%)

Tab. 45C. — Station 39, sample 3.

SPECIES	I	II	III	TOTAL
Sagitta lyra	67(51,5%)	53(40,7%)	10(7,6%)	130(30,8%)
Sagitta hexaptera	35(30,1%)	77(66,3%)	4(3,4%)	116(27,5%)
Sagitta zetesios	42(41,1%)	60(58,8%)	-	102(24,2%)
Sagitta planctonis	45(100%)	-	-	45(10,6%)
Eukrohnia hamata	16(88,8%)	2(11,1%)	-	18(4,2%)
Sagitta bipunctata	-	2(50,0%)	2(50,0%)	4(0,9%)
Pterosagitta draco	-	2(66,6%)	1(33,3%)	3(0,7%)
Eukrohnia fowleri	1(100%)	-	-	1(0,2%)
Sagitta sibogae	-	1(100%)	-	1(0,2%)
Sagitta inflata	-	-	1(100%)	1(0,2%)
				421(100%)

Tab. 45D. — Station 40, sample 4.

SPECIES	I	II	III	TOTAL
Eukrohnia fowleri	21(4,3%)	464(95,4%)	1(0,2%)	486(61,7%)
Sagitta lyra	18(26,8%)	43(64,1%)	6(8,9%)	67(8,5%)
Sagitta bipunctata	-	48(76,1%)	15(23,8%)	63(8,0%)
Sagitta hexaptera	-	52(94,5%)	3(5,5%)	55(6,9%)
Sagitta zetesios	17(42,5%)	23(57,5%)	-	40(5,0%)
Sagitta planctonis	36(97,2%)	1(2,7%)	-	37(4,7%)
Eukrohnia hamata	17(94,4%)	1(5,5%)	-	18(2,2%)
Sagitta macrocephala	6(37,5%)	10(62,5%)		16(2,0%)
Pterosagitta draco	-	4(100%)	-	4(0,5%)
Sagitta tasmanica	-	1(100%)	-	1(0,1%)
				787(100%)

Tab. 45E. — Station 46, sample 5.

SPECIES	I	II	III	TOTAL
Sagitta lyra	23(13,6%)	145(86,3%)	-	168(40,8%)
Sagitta hexaptera	6(8,0%)	64(85,3%)	5(6,6%)	75(18,2%)
Sagitta bipunctata	-	67(90,5%7	7(9,4%)	74(18,0%)
Sagitta planctonis	62(100%)	-	-	62(15,0%)
Pterosagitta draco	1(5,8%)	14(82,3%)	2(11,7%)	17(4,1%)
Eukrohnia fowleri	-	5(100%)	-	5(1,2%)
Eukrohnia hamata	4(100%)	-	-	4(0,9%)
Sagitta sibogae	-	3(100%)	-	3(0,7%)
Sagitta zetesios	1(50,0%)	1(50,0%)	-	2(0,4%)
Sagitta serratodentata	-	1(100%)	-	1(0,2%)
				411(100%)

Tab. 45F. — Station 48, sample 6.

SPECIES	I	II	III	TOTAL
Eukrohnia fowleri	19(6,6%)	265(92,9%)	1(0,3%)	285(61,0%)
Sagitta hexaptera	4(5,2%)	68(89,4%)	4(5,2%)	76(16,2%)
Sagitta lyra	10(33,3%)	16(53,3%)	4(13,3%)	30(6,4%)
Sagitta planctonis	29(100%)	-	-	29(6,2%)
Sagitta zetesios	4(28,5%)	10(71,4%)	-	14(2,9%)
Sagitta macrocephala	13(92,8%)	1(7,1%)	-	14(2,9%)
Eukrohnia hamata	10(100%)	-	-	10(2,1%)
Sagitta bipunctata	-	3(50,0%)	3(50,0%)	6(1,2%)
Pterosagitta draco	-	2(66,6%)	1(33,3%)	3(0,6%)
				467(100%)

Tab. 45G. — Station 51, sample 7.

SPECIES	N	LA(x)-LC(y)	LA(x)-LO(y)	LC(x)-LO(y)
7	501	Cor= 0,7442	Cor= 0,6978	Cor= 0,5467
		x=4,1616y+ 4,5588	x=0,8315y+ 25,715	x=0,1165y+ 5,3799
		y=0,1331x+ 1,9781	y=0,5854x- 13,231	y=2,5652x-11,307
8	541	Cor= 0,6832	Cor= 0,5441	Cor= 0,4931
		x=3,0562y+10,648	x=0,5228y+ 20,342	x=0,1059y+ 3,290
		y=0,1527x+ 0,2302	y=0,5661x- 10,237	y=2,2953x- 6,177
10	323	Cor= 0,7617	Cor= 0,1641	Cor= 0,1394
		x=3,2569y+ 3,0932	x=3,5642y+ 12,654	x=0,7084y+ 2,937
		y=0,1781x+ 0,6836	y=0,0075x- 0,0910	y=0,0274x- 0,076
11	216	Cor= 0,6780	Cor= 0,7293	Cor= 0,5769
		x=2,6104y+ 7,7318	x=0,9872y+ 19,118	x=0,2028y+ 4,651
		y=0,1760x+ 1,3326	y=0,5388x- 9,5285	y=1,6408x- 6,530
12	211	Cor= 0,6787	Cor= 0,7048	Cor= 0,6699
		x=2,2651y+ 5,8377	x=1,0640y+ 11,272	x=0,3030y+ 2,704
		y=0,2033x+ 0,5707	y=0,4668x- 4,3410	y=1,4810x- 2,996
14	69	Cor= 0,5008	Cor= 0,3577	Cor= 0,3329
		x=1,2328y+ 8,3326	x=1,1882y+ 13,17	x=0,4492y+ 4,058
		y=0,2034x+ 1,4316	y=0,1076x- 1,1931	y=0,2466x- 0,771
15	1666	Cor= 0,6936	Cor= 0,4620	Cor= 0,4556
		x= 2,1079y+ 14,118	x=1,5870y+ 25,467	x=0,5150y+ 5,6787
		y= 0,2282x+ 0,0556	y=0,1344x- 2,4507	y=0,4030x- 1,3075
16	67	Cor= 0,7532	Cor= 0,4254	Cor= 0,1667
		x=2,3203y+ 6,6554	x=2,2773y+ 13,776	x=0,2895y+ 3,1255
		y=0,2444x- 0,2644	y=0,0794x- 1,0276	y=0,0959x- 0,2199

Tab. 46. — Correlations between the parameters LA (total length) and LO (ovarian length) observed in the species of Chaetognata of the present study. Only species with N (specimens) $>$ 50 are considered.

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Correction

Page 171, line 13 from top: Instead of "tables 3, 4 & 5" read "tables 44, 45A-G & 46".