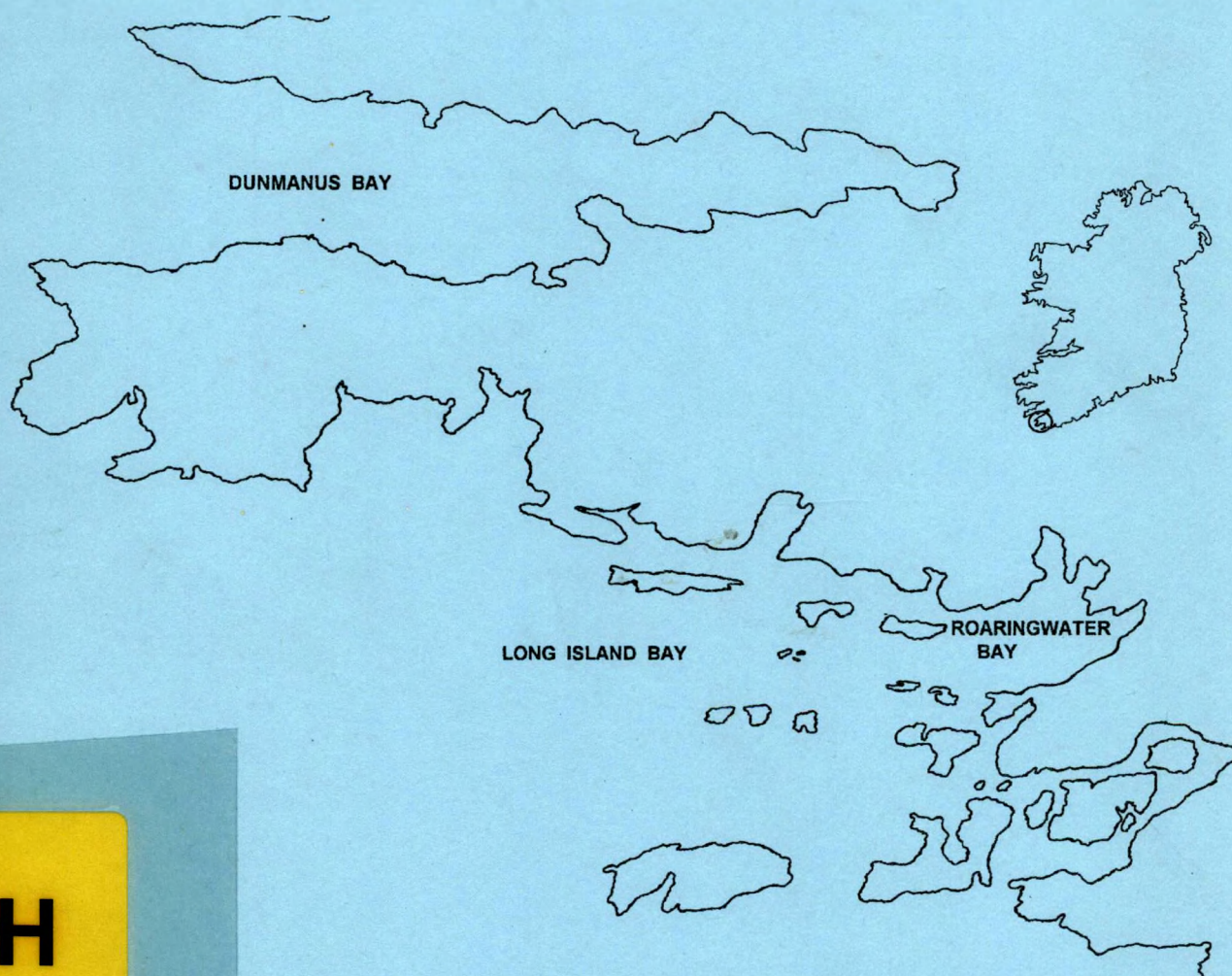


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FAUNA DISTRIBUTION MAPS

OF
SEA SHORE MONITORING SITES
IN DUNMANUS BAY,
COUNTY CORK, IRELAND,
1978-1982

COMPILED BY M.J.C. HARDING



H

Introduction

The following fauna distribution maps have been compiled from data collected by the Sherkin Island Marine Station Shore Survey Unit from 1978 to 1982. The Unit has monitored the distribution and abundance of Littoral flora and fauna at some 15 sites in Dunmanus Bay.

The majority of these sites have been visited annually, the purpose being to monitor any long term changes and have been done in conjunction with the monitoring of transect sites in Roaringwater and Long Island Bays. Certain selected sites on Sherkin Island are monitored monthly. These record seasonal alterations in the marine flora and fauna which supplements the annual monitoring of sites.

This book of maps supplements fauna distribution maps already produced of Long Island and Roaringwater Bay sites. The continued monitoring and updating of this information will lead to a more comprehensive picture of the fauna of Dunmanus Bay and hopefully provide a baseline in fluctuations of intertidal populations under natural conditions against which the effect of any man-induced changes may be assessed.

Mapping

- (i) It should be noted that a dot on a map represents one or more records of a particular species.
- (ii) Due to problems relating to the identification and taxonomy of certain species of Littorina records of Littorina rudis, Littorina saxatilis rudis, Littorina neglecta, Littorina saxatilis neglecta, Littorina saxatilis and Littorina nigrolineata have been grouped together under the Littorina saxatilis species complex.
Similarly, records for: Littorina obtusata, Littorina littoralis obtusata, Littorina mariae, and Littorina littoralis mariae have been grouped together as Littorina obtusata.
- (iii) The map for Balanus species refers to records for which no positive identification was made. Other such maps, for example Obelia species and Gammarus species confer the same idea.

Nomenclature and Listing

- (i) In general, nomenclature has been in accordance with Plymouth Marine Fauna (Third Edition, 1957). However, where this has not been the

(ii)

case the source of reference has been indicated on the relevant map.
(References are listed on page (xi)).

(ii) For the sake of simplicity, apart from ordering the maps under
Phylum and Sub-Phylum an alphabetical system of listing has been used.

(iii) The species list shows the years in which they were found in
Dunmanus Bay. This indicates the majority of species likely to be
found when Dunmanus Bay is surveyed in the following years and can
be used as a check-list. In 1978 there was a red tide in Dunmanus
Bay which prompted the initiation of surveying this area. However
only major, fairly obvious species were recorded because actual numbers
of individuals and their state such as alive, moribund or dead were
recorded. This was also repeated later in the summer. There was
a smaller red tide recorded in 1980 which may have affected species
numbers but due to a change in workers this may not be obvious.

Transect sites

<u>Number</u>	<u>Site name</u>
1	Lord Brandons Tower
2	Reen Point
3	North Shore
4	North Shore Old Site
5	New Pier
6	Muddy Shore
7	Fish Farm Site 1
8	Fish Farm Site 2
9	Drishane Point
10	West of Drishane Point
11	Dunmanus Point
12	West of Dunmanus Point
13	Coosnabrand
14	Dooneen Coos
15	Tor Point

Species List

	1982	1981	1980	1979	1978
<u>Phylum Porifera</u>					
Halichondria panicea	P	P	P		
Halichondria species		P	P		P
Hymeniacidon perleve	P	P	P		P
Leucosolenia botryoides	P				
<u>Phylum Coelenterata</u>					
Actinia equina	P	P	P	P	P
Anemonia sulcata	P				
Bunodactis verrucosa	P	P			
Cereus pedunculatus	P				
Chrysaora hysoscella		P			
Corynactis viridis		P			
Dynamena pumila	P	P	P		P
Hydroid species	P	P	P		
Kirchenpaueria pinnata	P				
Obelia dichotoma		P			
Obelia geniculata	P				
Obelia species	P		P		P
Plumularia setacea	P				
Sagartia elegans	P	P			
Sagartia troglodytes	P				
Sagartia species	P	P			
Sertularella polyzonias	P				
Sertularia operculata	P				
Tealia felina	P				
<u>Phylum Annelida</u>					
Amphitrite gracilis	P				
Cirratulus species					P
Eulalia viridis	P	P	P		P
Eulalia species		P			
Hydroides norvegica	P				
Janua pagenstecheri	P				
Nereis diversicolor	P				
Platynereis dumerili	P				
Polychaete species	P				
Pomatoceros triqueter	P	P	P		P
Spirorbis corallinae		P			

	1982	1981	1980	1979	1978
<i>Spirorbis inornatus</i>	P	P			
<i>Spirorbis rupestris</i>	P	P	P		
<i>Spirorbis spirorbis</i>	P	P			
<i>Spirorbis tridentatus</i>	P				
<u>Phylum Arthropoda</u>					
<u>Sub-Phylum Crustacea</u>					
Amphipod species	P	P	P	P	
<i>Balanus balanoides</i>	P	P	P		P
<i>Balanus</i> species				P	
<i>Cancer pagurus</i>	P				
<i>Caprella linearis</i>	P				
Caprellid species		P			
<i>Carcinus maenas</i>	P	P	P	P	
<i>Chthamalus montagui</i>	P	P	P		P
<i>Chthamalus stellatus</i>	P	P	P		P
<i>Dynamene</i> species			P		
<i>Elminius modestus</i>	P	P	P		P
<i>Eupagurus bernhardus</i>	P	P	P	P	
<i>Gammarus</i> species	P				P
<i>Idotea granulosa</i>	P				
<i>Idotea</i> species	P	P	P		
Isopod species	P	P	P		
<i>Ligia oceanica</i>	P	P	P		
<i>Liocarcinus puber</i>	P				
<i>Porcellana platycheles</i>	P				
<i>Spat</i>	P				
<i>Verruca stroemia</i>	P				
<i>Xantho incisus</i>	P				
<u>Sub-Phylum Arachnida</u>					
<u>Class Pycnogonida</u>					
<i>Nymphon</i> species	P				
<u>Sub-Phylum Insecta</u>					
<i>Anurida maritima</i>	P	P	P	P	P
<u>Phylum Mollusca</u>					
<i>Aeolidia papillosa</i>	P				
<i>Anomia ephippium</i>	P				
<i>Aplysia punctata</i>	P				
<i>Bittium reticulatum</i>	P				

	1982	1981	1980	1979	1978
Chiton species	P	P	P		
Doto pinnatifida	P				
Facelina auriculata	P				
Gibbula cineraria	P	P			
Gibbula umbilicalis	P	P	P	P	P
Hydrobia ulvae	P				
Hydrobia species	P				
Littorina littorea	P	P	P	P	P
Littorina neritoides	P	P			P
Littorina obtusata	P	P	P		P
Littorina saxatilis species complex	P	P	P	P	P
Monodonta lineata	P				
Mytilus edulis	P		P		P
Mytilus species	P	P		P	P
Nassarius incrassatus	P				
Nucella lapillus	P	P	P		P
Nucella species	P	P		P	P
Nucella eggs	P	P			P
Nudibranch species		P			
Nudibranch eggs	P	P			
Ostrea edulis	P				
Patella > 1cm	P	P	P	P	P
Patella < 1cm	P	P	P		
Patella aspera	P	P			
Patella vulgata	P	P			
Patina pellucida	P	P			
Turritella communis	P				
Venerupis rhomboides	P				
<u>Phylum Polyzoa</u>					
Alcyonidium gelatinosum		P			
Alcyonidium hirsutum	P	P			
Alcyonidium polyoum	P				
Bowerbankia citrina	P				
Bryozoan species	P		P		
Cellepora pumicosa		P			
Cellepora species	P	P			
Electra pilosa	P	P		P	P
Electra species		P			
Flustrellidra hispida	P	P			

	1982	1981	1980	1979	1978
Haplopoma graniferum	P				
Membranipora membranacea	P	P			
<u>Phylum Echinodermata</u>					
Asterias rubens	P	P			
Brittle star species		P	P	P	
Ophiothrix fragilis	P				
Paracentrotus lividus	P	P		P	
Psammechinus miliaris	P	P			
<u>Phylum Chordata</u>					
<u>Sub-Phylum Tunicata</u>					
Botrylloides leachi	P				
Tunicate species	P	P			
<u>Sub-Phylum Vertebrata</u>					
Pholis gunnellus	P				

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Cellepora species	51
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Chthamalus stellatus	24
Cirratulus species	13
Corynactis viridis	5
Doto pinnatifida	34
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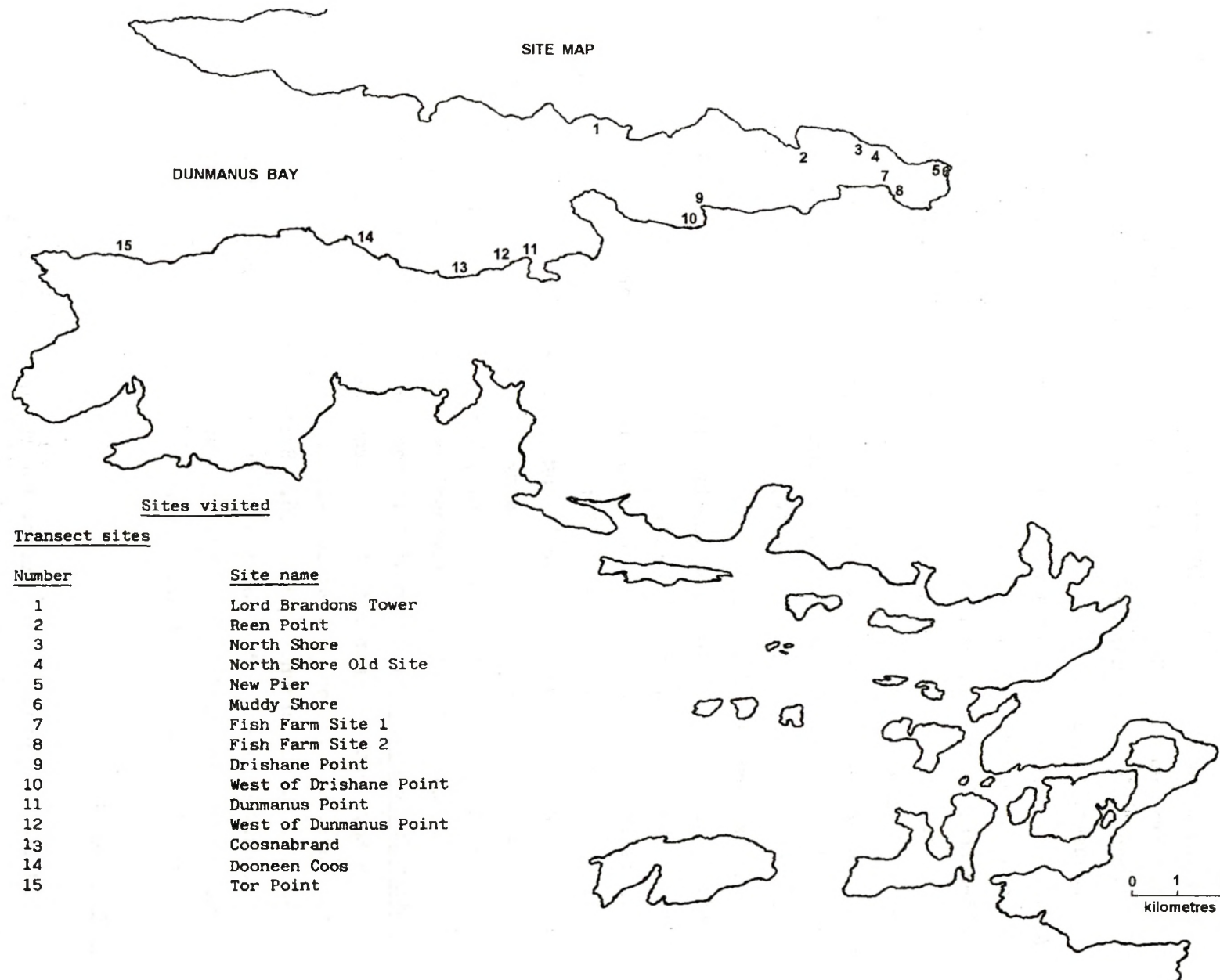
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Hydrobia ulvae	36
Hydrobia species	37
Hydroid species	6
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Nucella eggs	42
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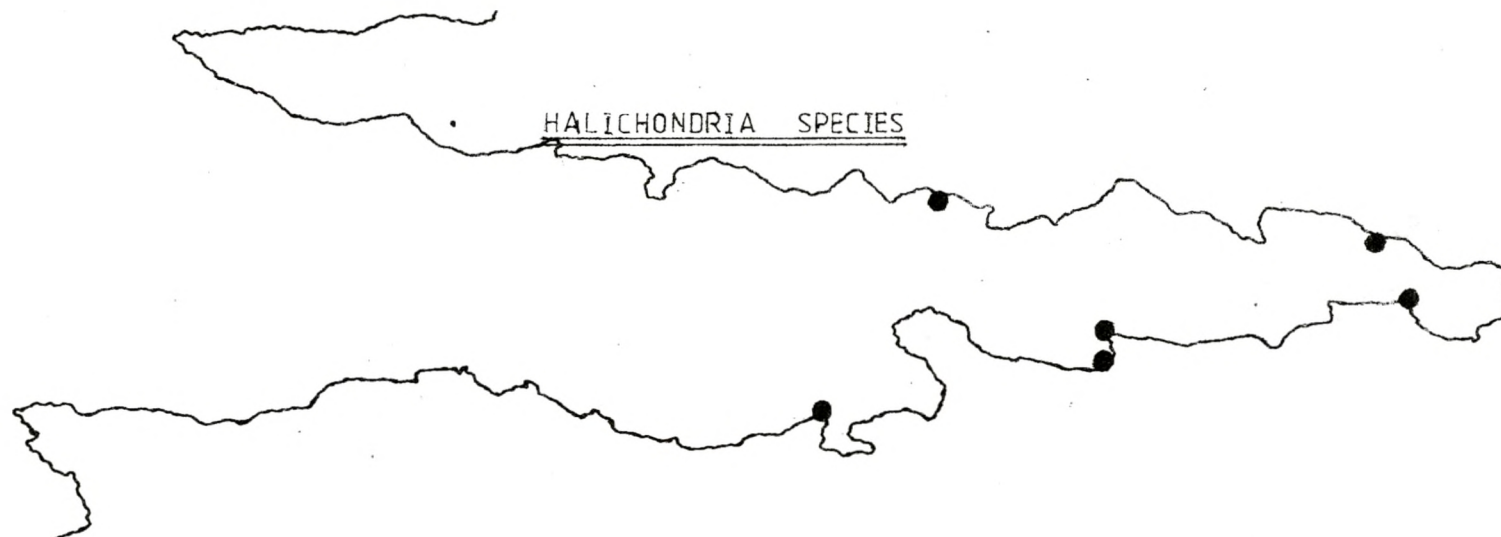
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Patella > 1cm	44
Patella < 1cm	45
Patella aspera	45
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Patina pellucida	46
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Polychaete species	16
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Venerupis rhomboides	47
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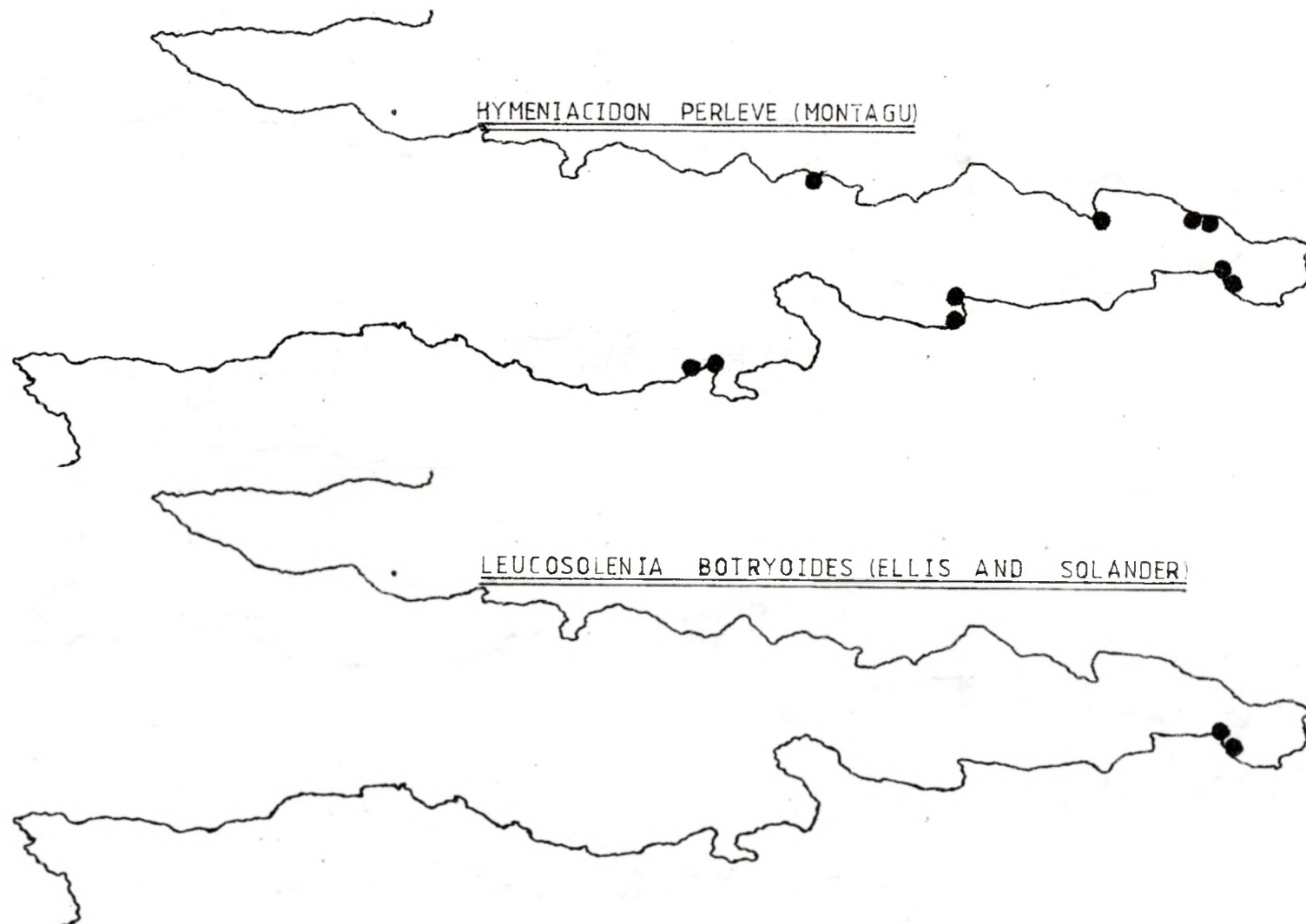
1. Hayward, P. J. and Ryland, J. S. 1978 British Ascophoran Bryozoans. Keys and Notes for the Identification of the Species. Synopses of the British Fauna No 14. Published for the Linnean Society of London and the Estuarine and Brackish - water Sciences Association by Academic Press.
2. Ingle, R. W. 1980 British Crabs. British Museum (Natural History) Oxford University Press.
3. Knight-Jones, F. and Knight-Jones, E. W. 1977. Taxonomy and Ecology of British Spionidae (Polychaeta). J. Mar. Biol. Ass. UK. Vol 57, No 2: 453-499.
4. Marine Biologica; Association of UK, 1957. Plymouth Marine Fauna Plymouth. Marine Biological Association of the United Kingdom.
5. Mc Millan, N. F. 1973. British Shells. Wayside and Woodland Series. Frederick Warne and Co. Ltd.
6. Ryland, J. S. 1962. Biology and Identification of Intertidal Polyzoa. Field Studies Vol 1, No. 4: 33-51.
7. Sherkin Island Marine Station Shore Survey Unit. Littoral transect data for the following years: 1978; 1979; 1980; 1981; 1982. The data was compiled by the following people:- Blake, P; Clements, A.; Crowe, W.; Fok-Seang, R.; Leahy, P.; Lennon, J.; Magennis, B.; Measures, P.; Norman, M.; Ryan, T.; Walker, R.; Woodham, A.
8. Southward, A. J. 1976. On the taxonomic status and distribution of Chthamalus stellatus (Cirripedia) in the North-East Atlantic region: with a key to the common intertidal barnacles of Britain. J. Mar. Biol. Ass. UK. Vol 56, No. 4: 1007-1028.
9. Thompson, T. E. and Brown, G. H. 1976. British Opisthobranch Molluscs. Keys and Notes for the Identification of the Species. Synopses of the British Fauna No. 8. Published for the Linnean Society of London by Academic Press.

Acknowledgements

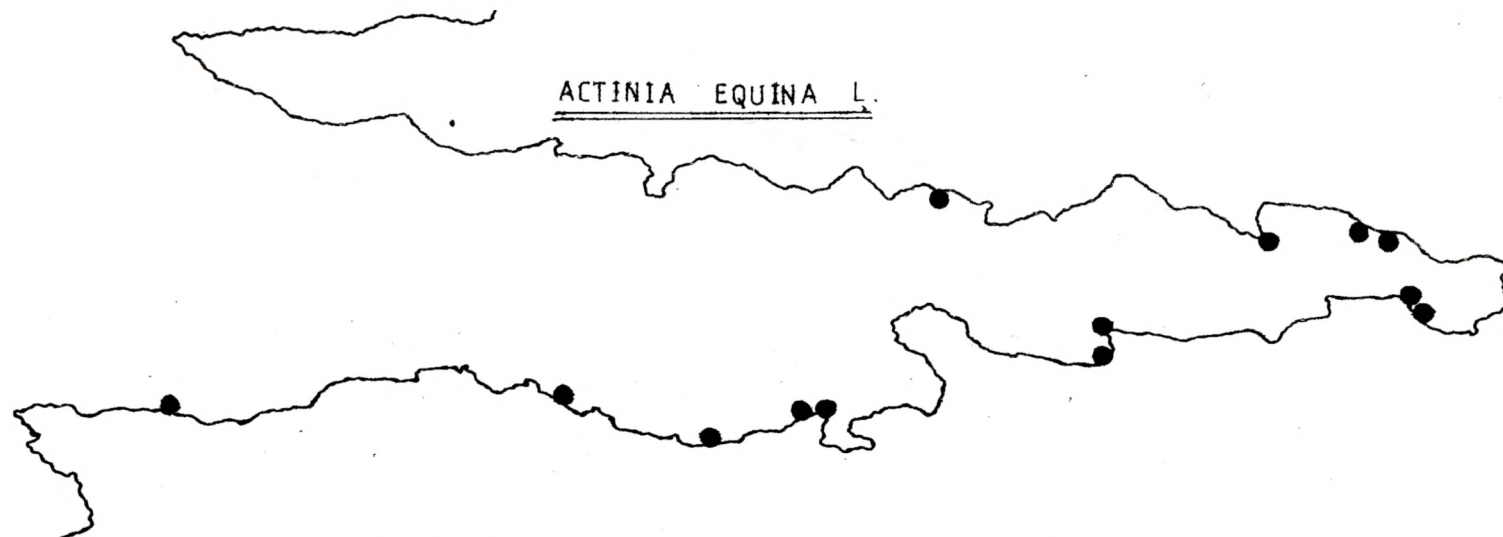
I would like to thank Mr. Matt Murphy for the use of his equipment and advice he has given during the preparation of these maps.







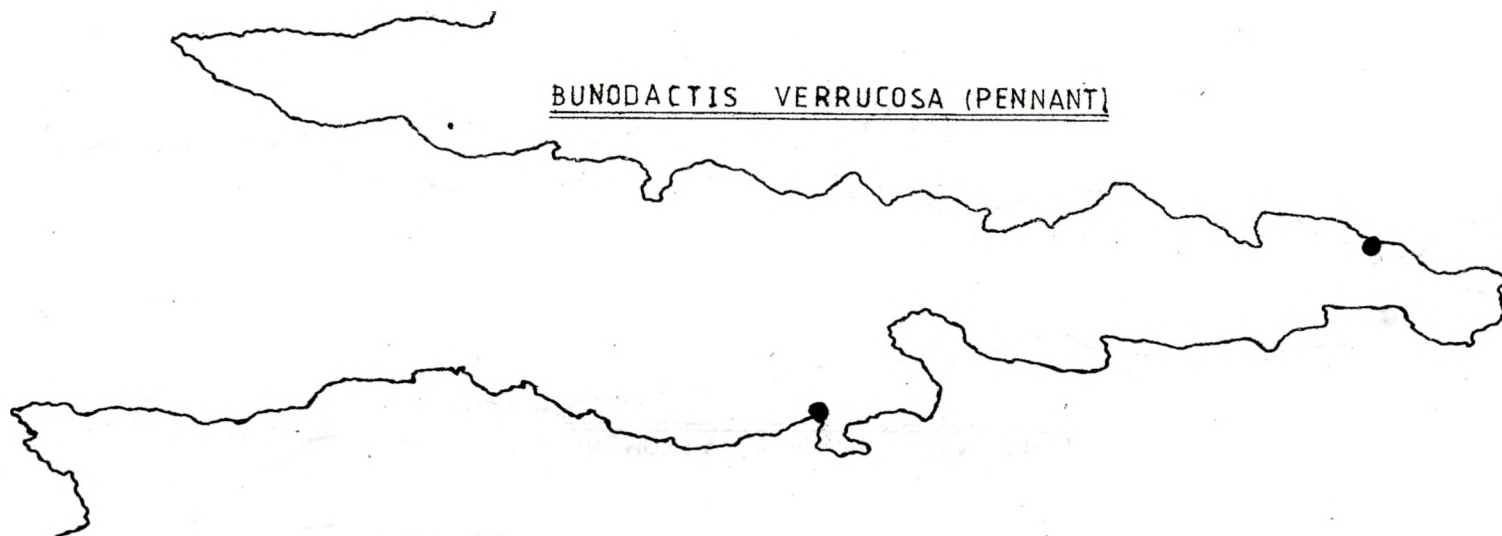
ACTINIA EQUINA L.



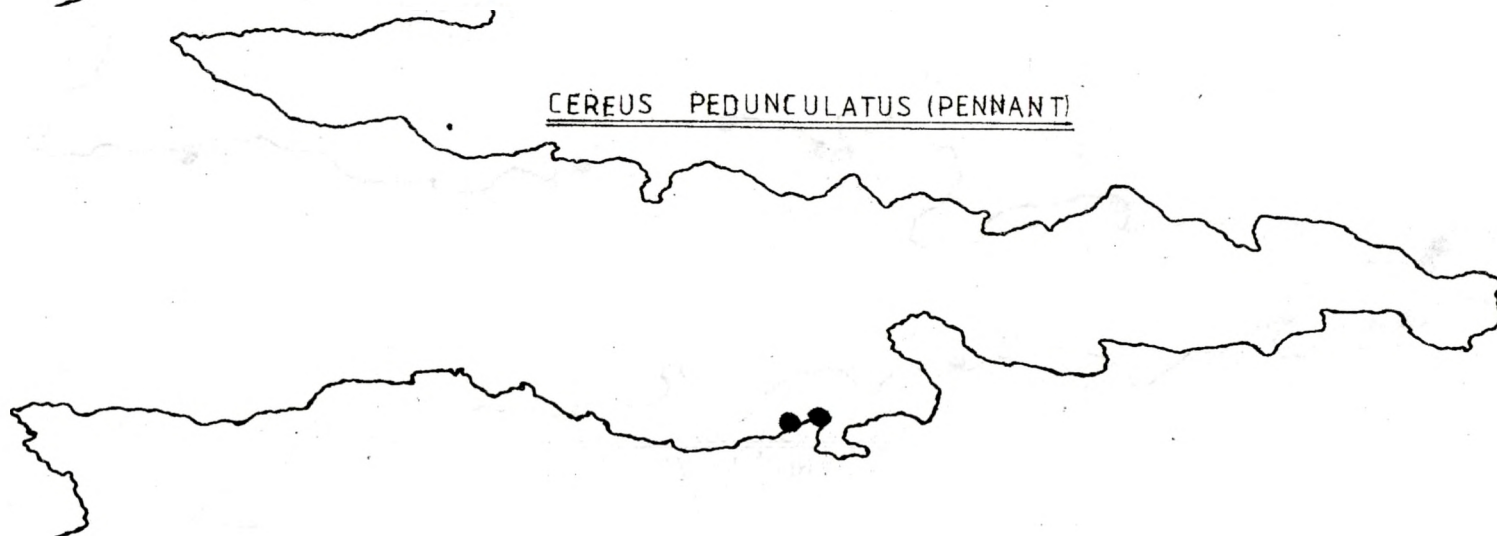
ANEMONIA SULCATA (PENNANT)



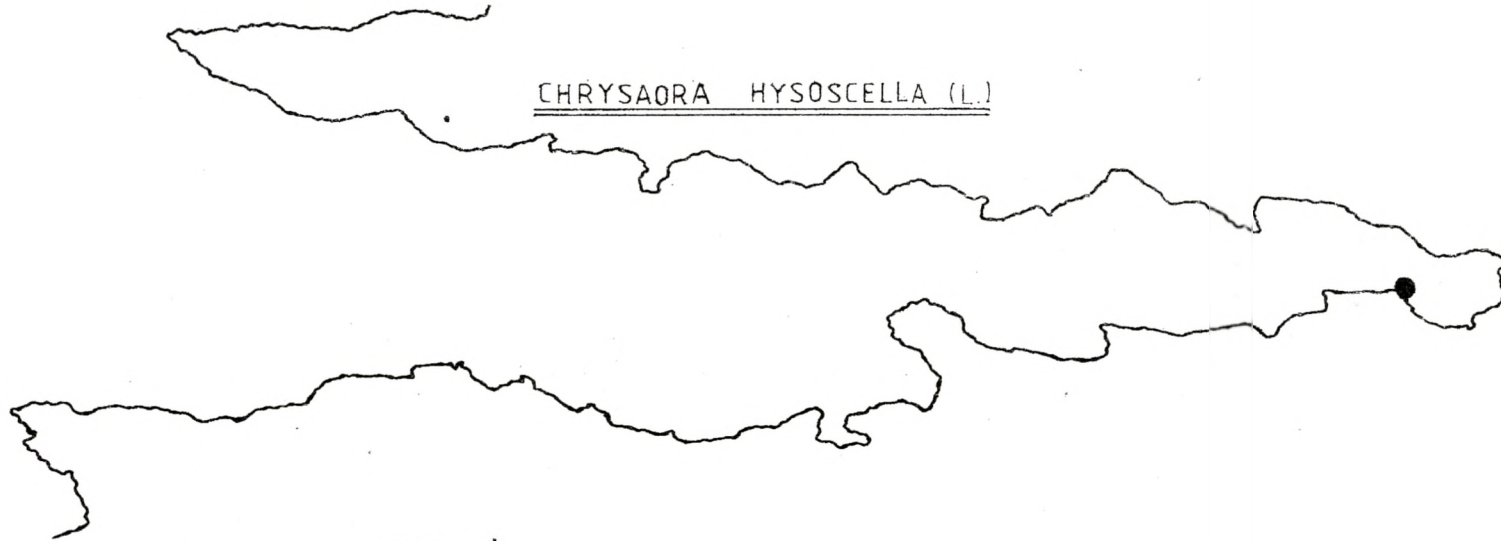
BUNODACTIS VERRUCOSA (PENNANT)



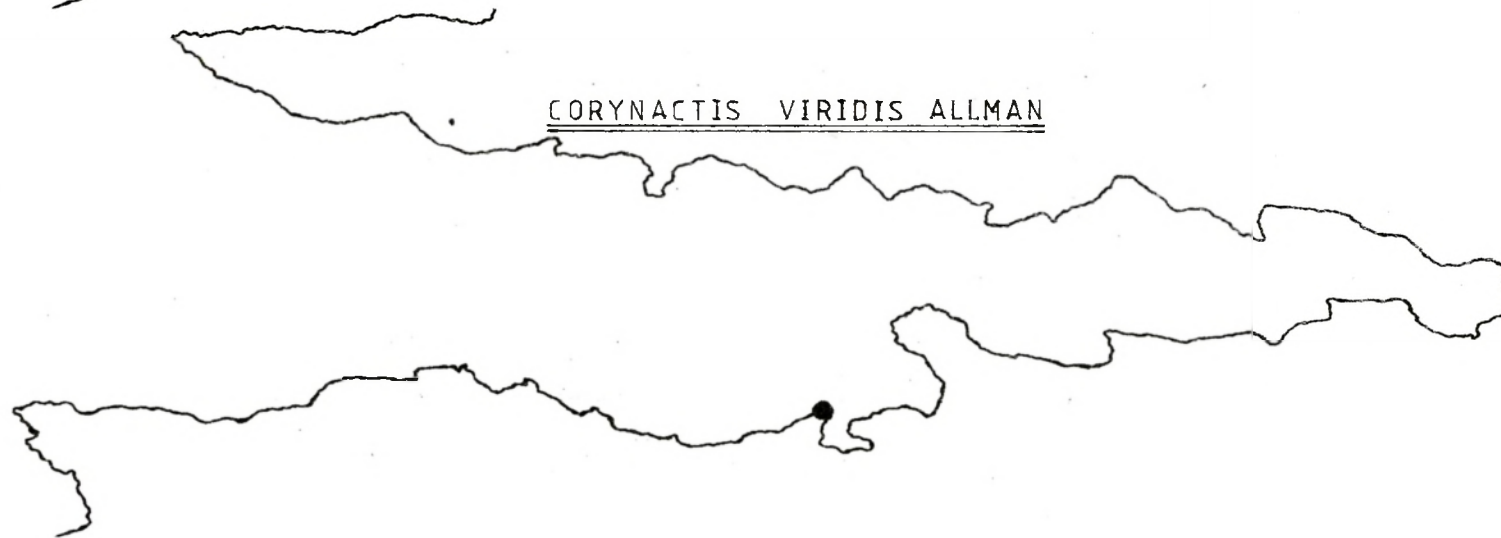
CEREUS PEDUNCULATUS (PENNANT)



CHRYSAORA HYSOSCELLA (L.)



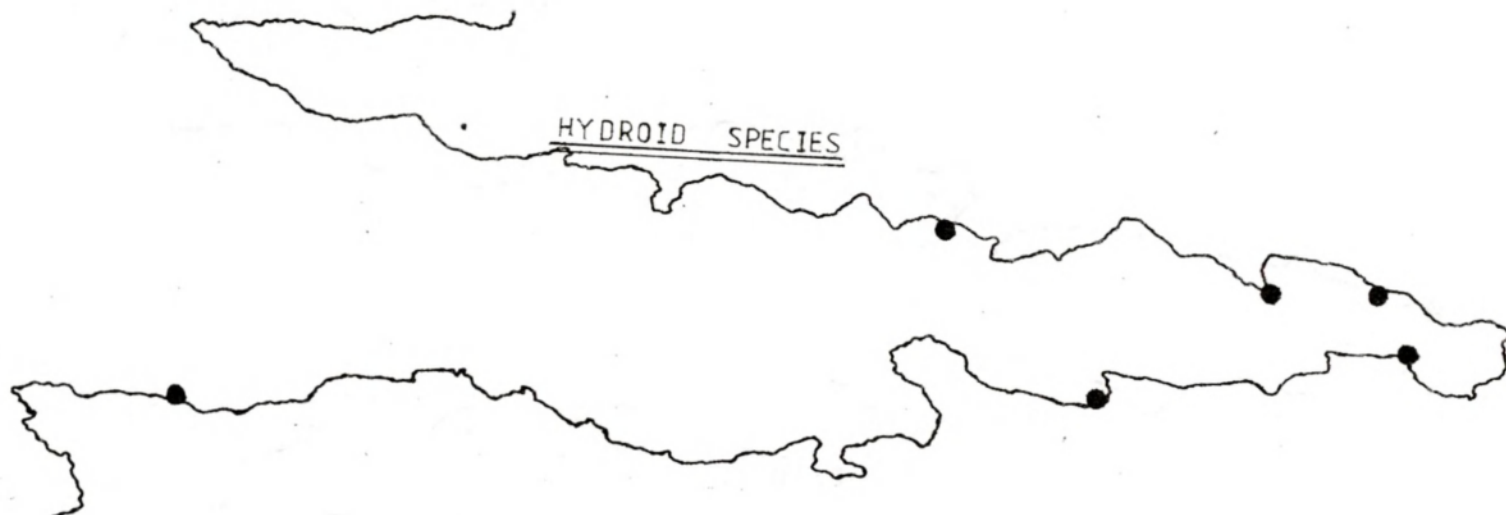
CORYNACTIS VIRIDIS ALLMAN



DYNAMENA PUMILA (L.)



HYDROID SPECIES





KIRCHENPAUERIA PINNATA (L.)

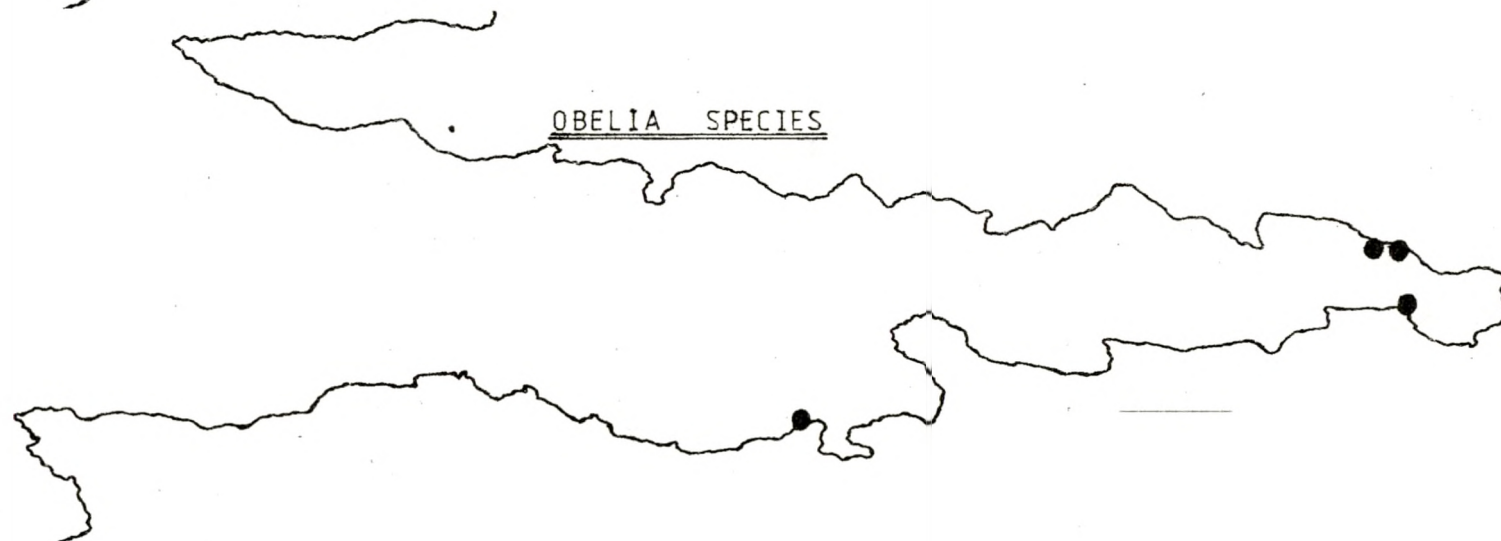


OBELIA DICHOTOMA (L.)

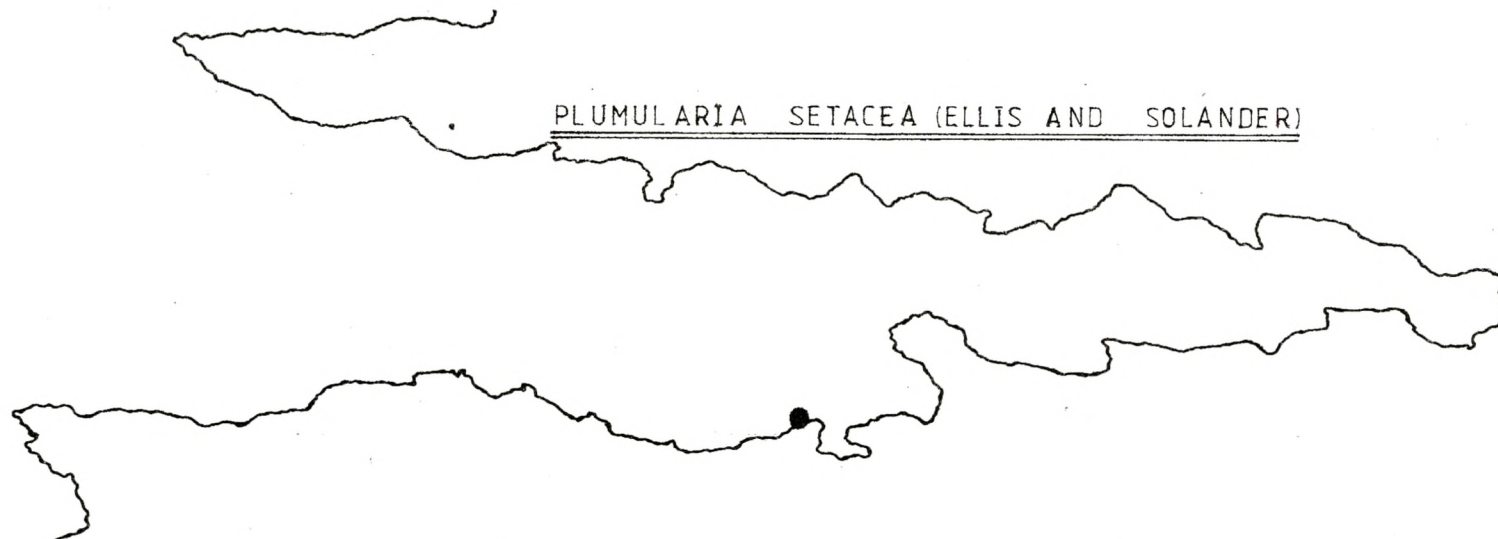
OBELIA GENICULATA (L.)



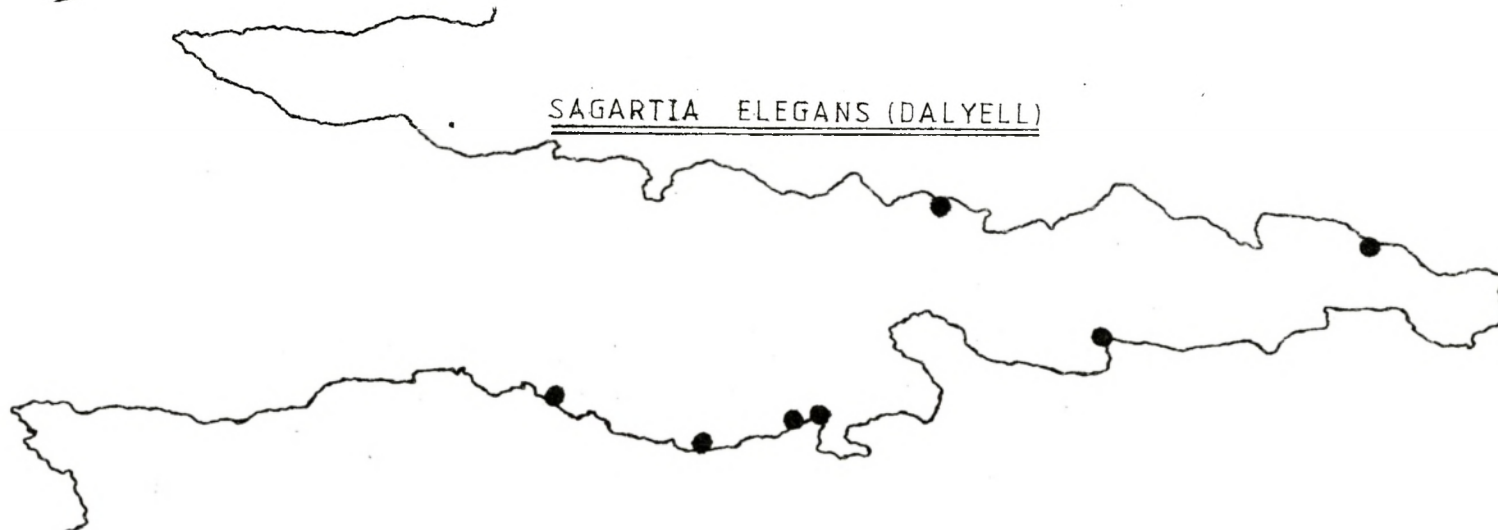
OBELIA SPECIES



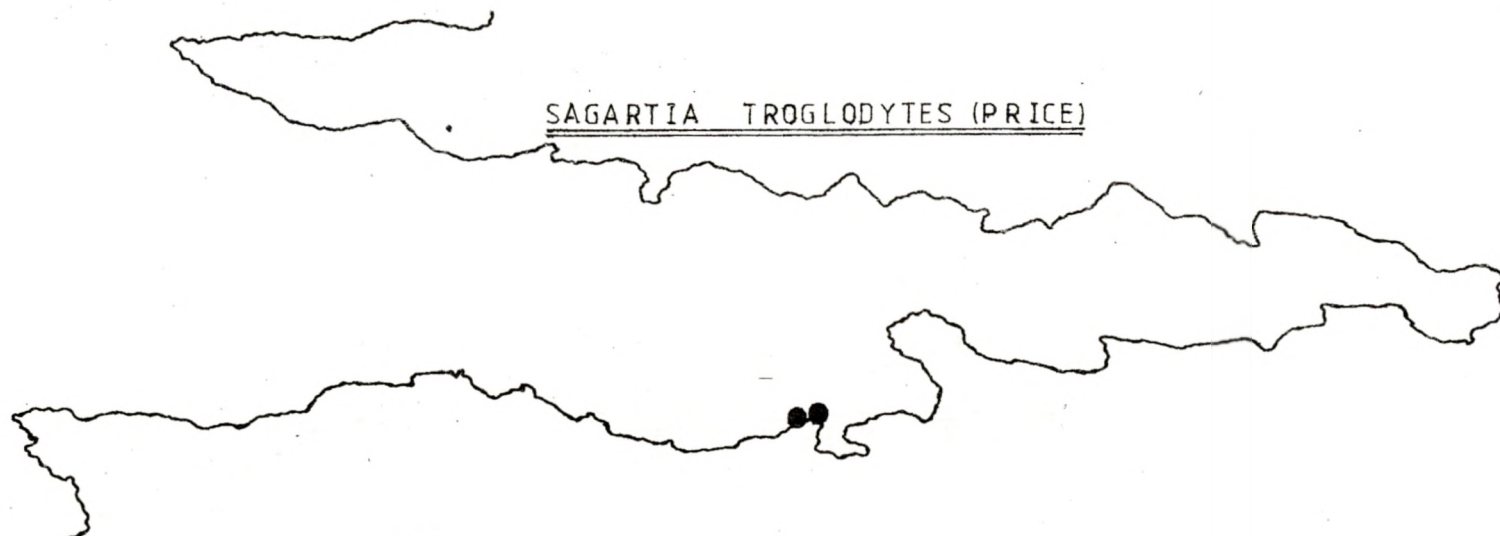
PLUMULARIA SETACEA (ELLIS AND SOLANDER)



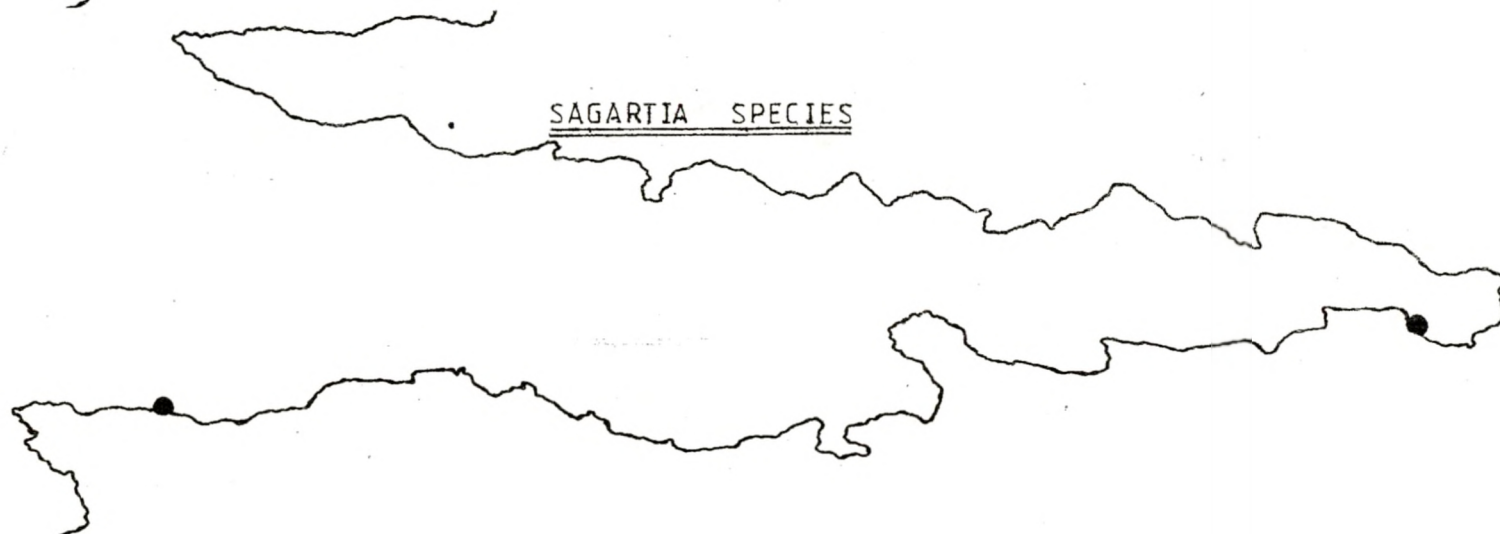
SAGARTIA ELEGANS (DALYELL)

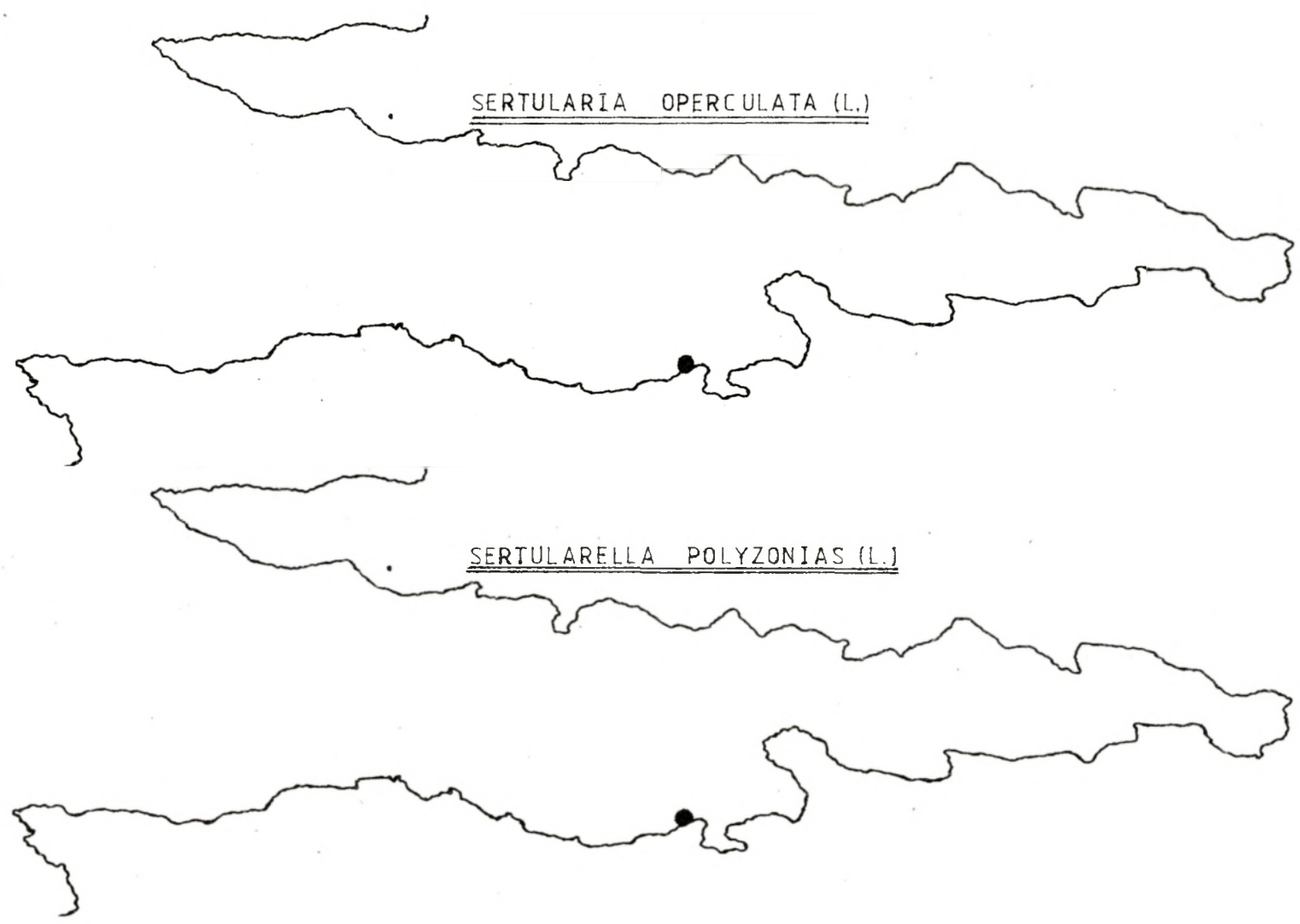


SAGARTIA TROGLODYTES (PRICE)



SAGARTIA SPECIES

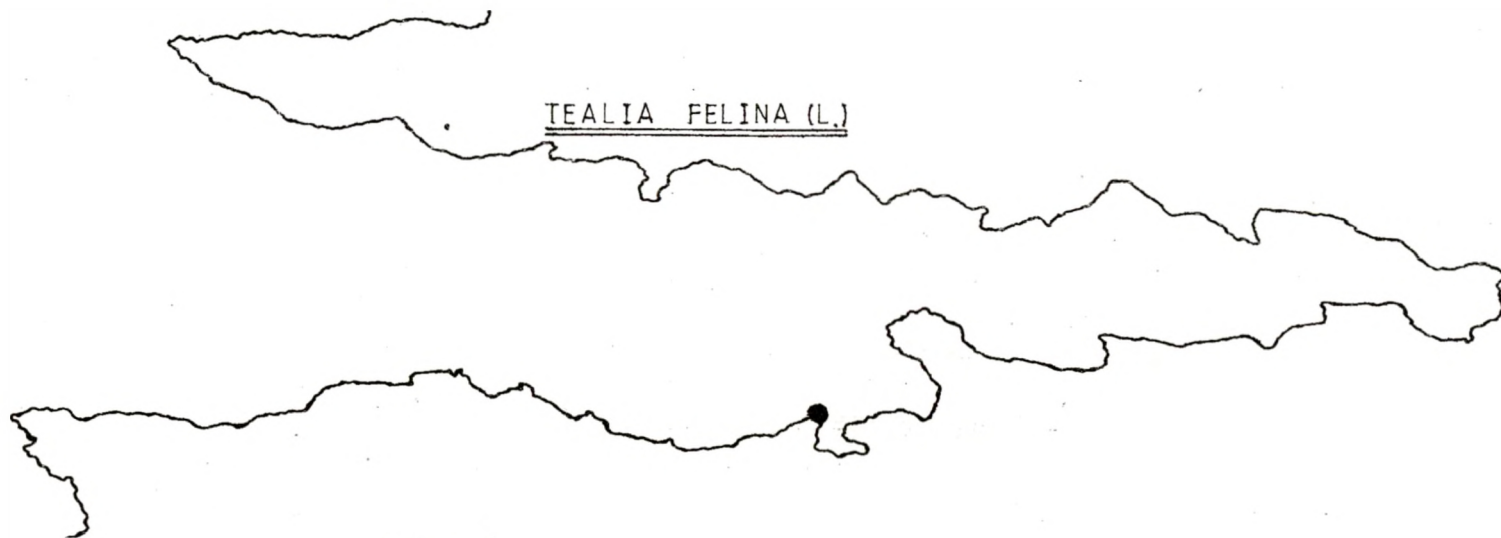




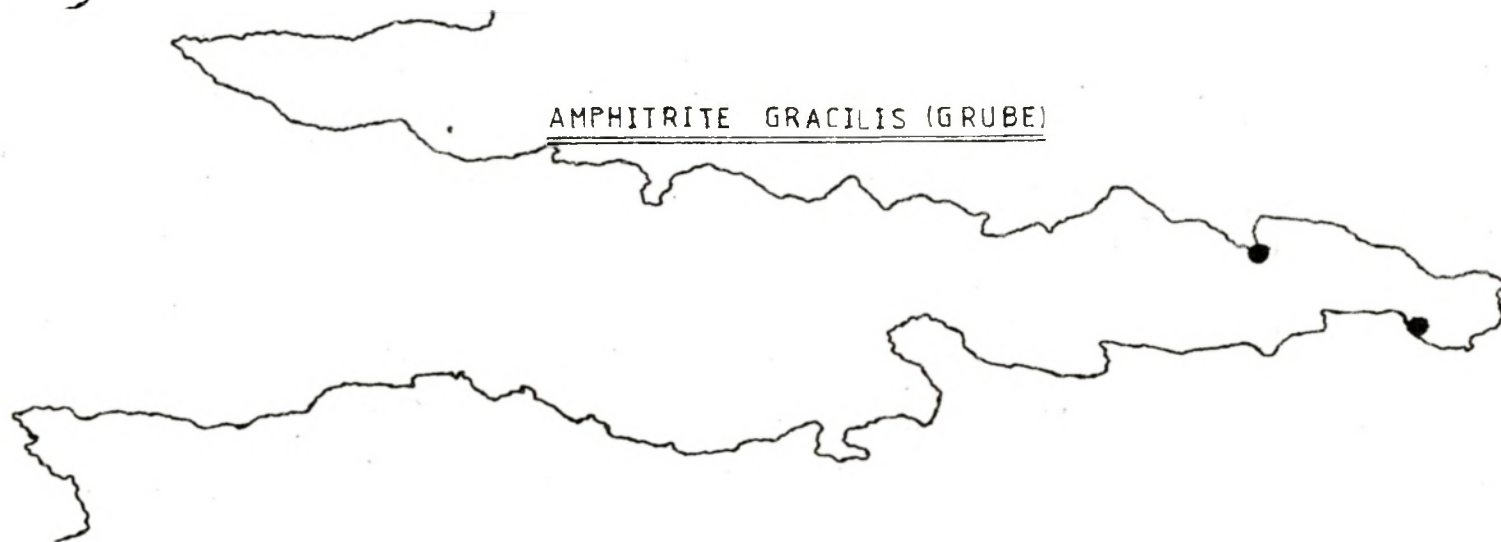
SERTULARIA OPERCULATA (L.)

SERTULARELLA POLYZONIAS (L.)

TEALIA FELINA (L.)



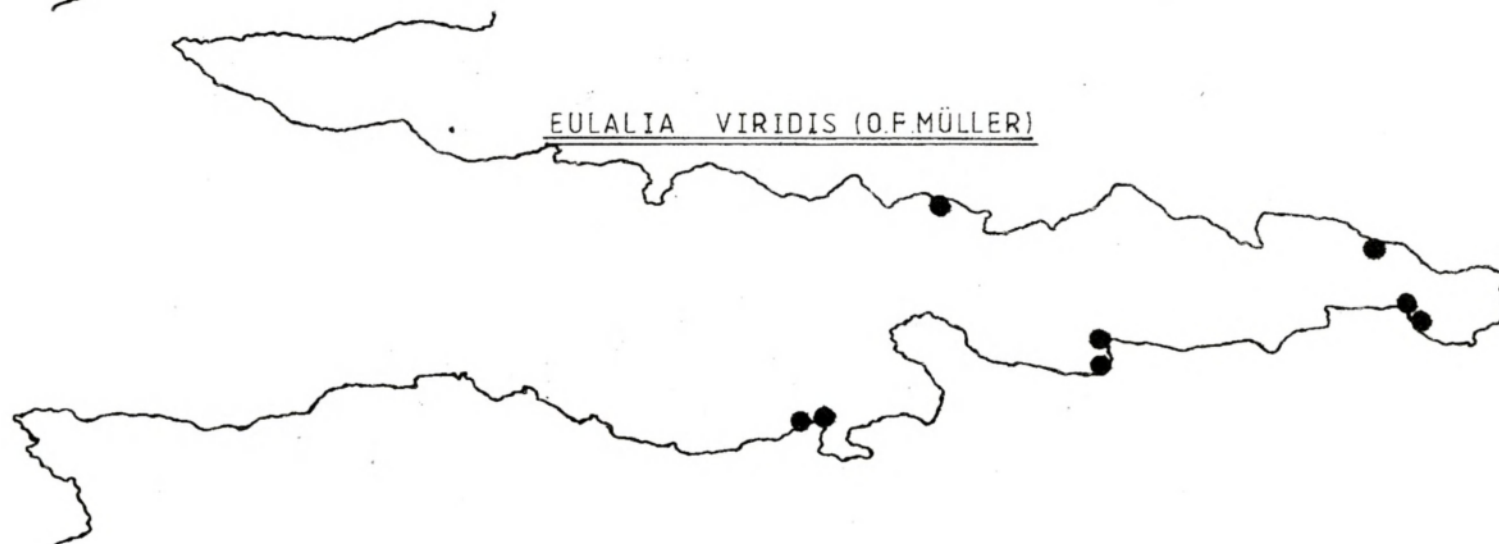
AMPHITRITE GRACILIS (GRUBE)



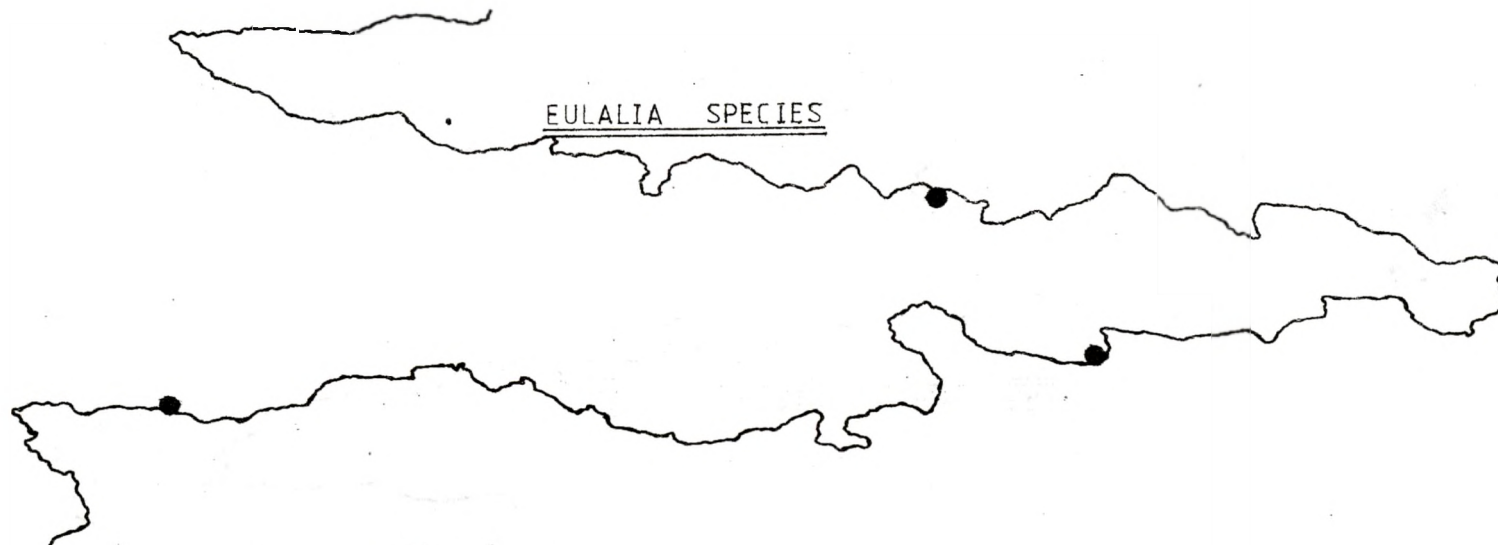
CIRRATULUS SPECIES



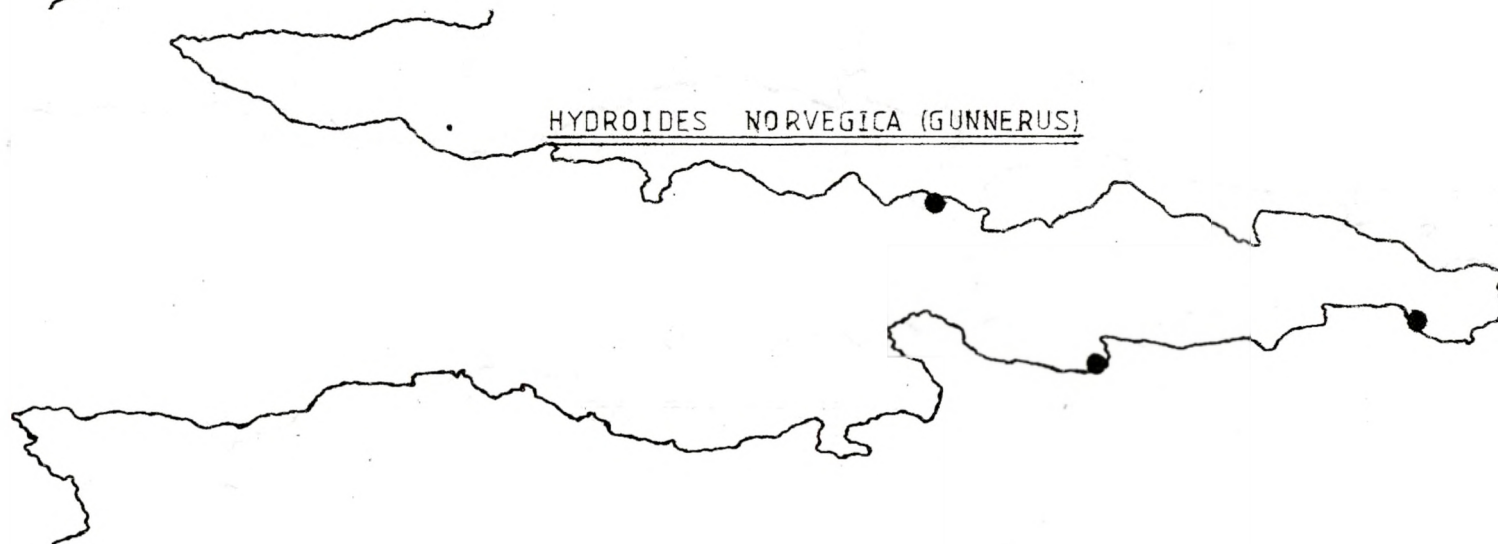
EULALIA VIRIDIS (O.F. MÜLLER)

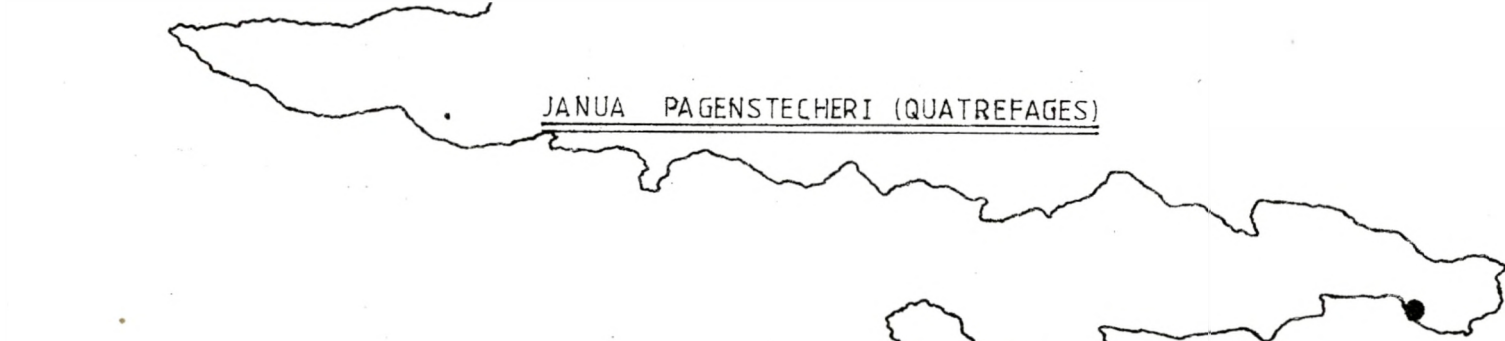


EULALIA SPECIES

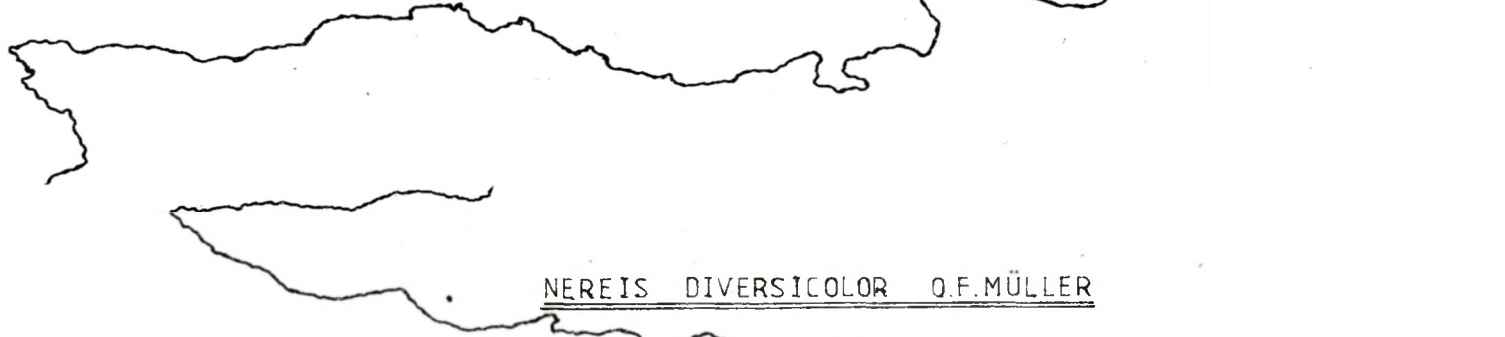


HYDROIDES NORVEGICA (GUNNERUS)



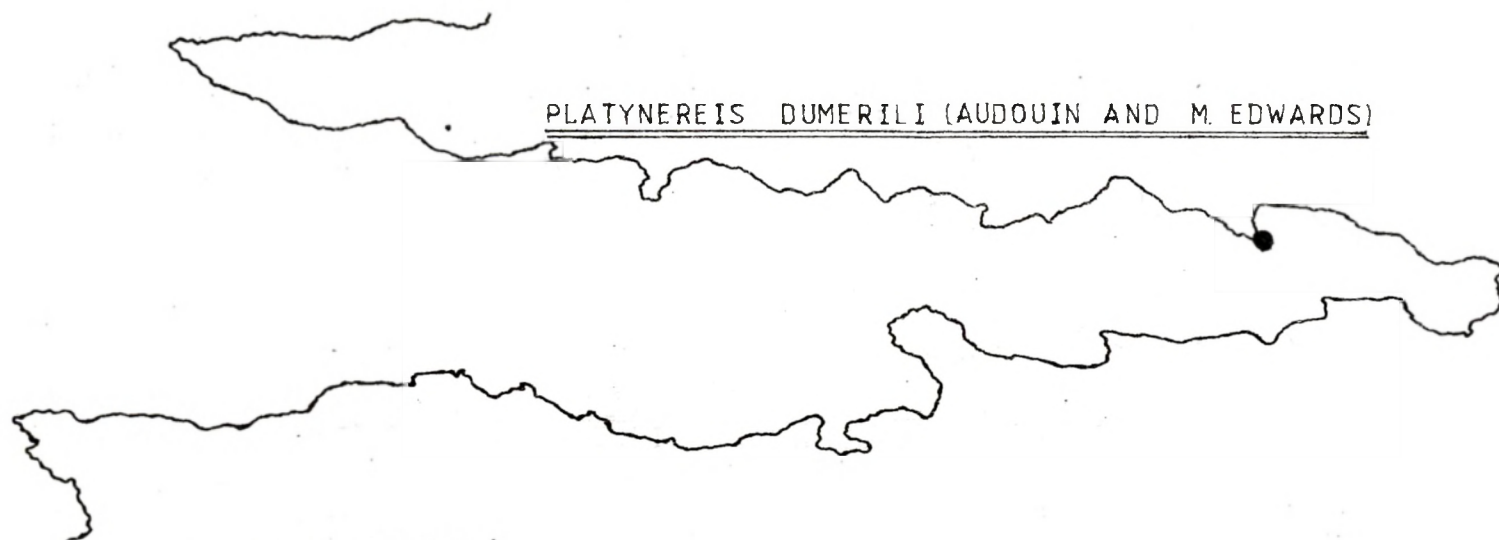


JANUA PAGENSTECHERI (QUATREFAGES)

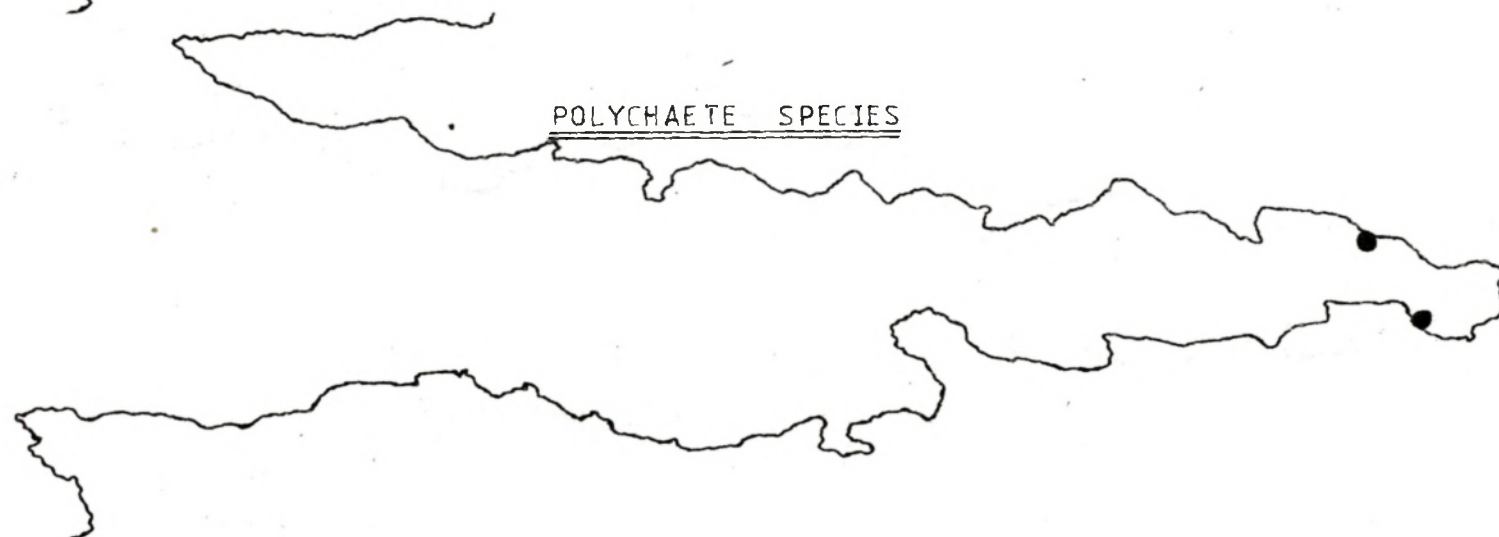


NEREIS DIVERSICOLOR O.F.MÜLLER

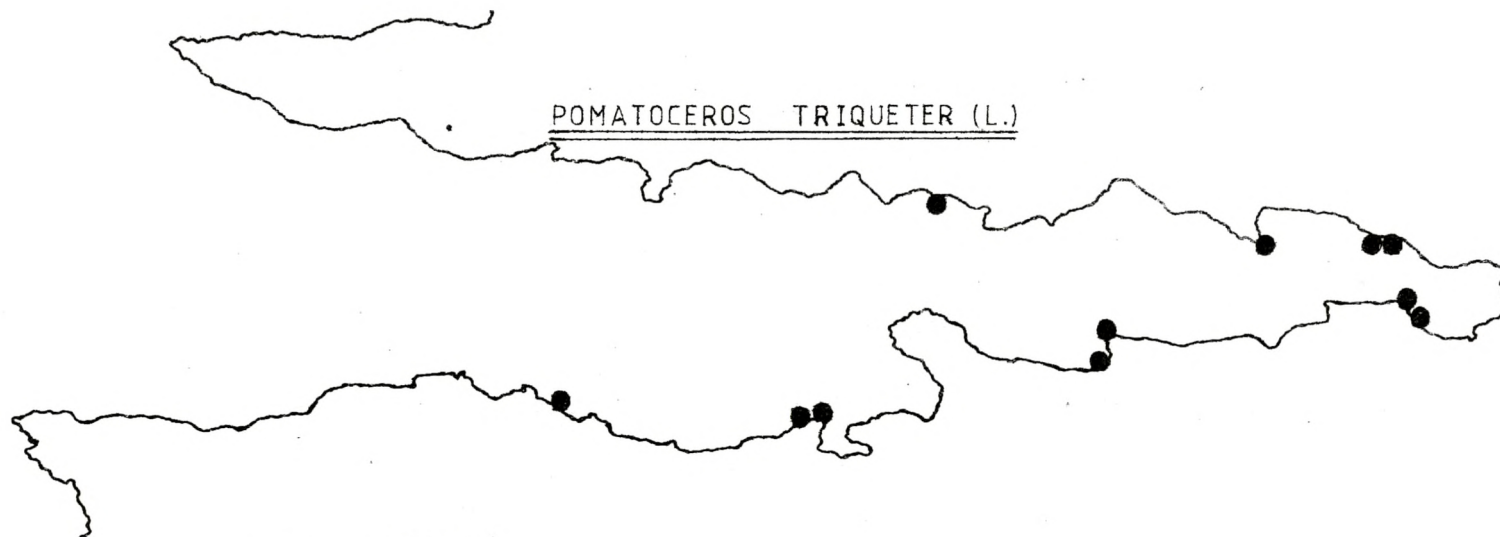
PLATYNEREIS DUMERILI (AUDOUIN AND M. EDWARDS)



POLYCHAETE SPECIES

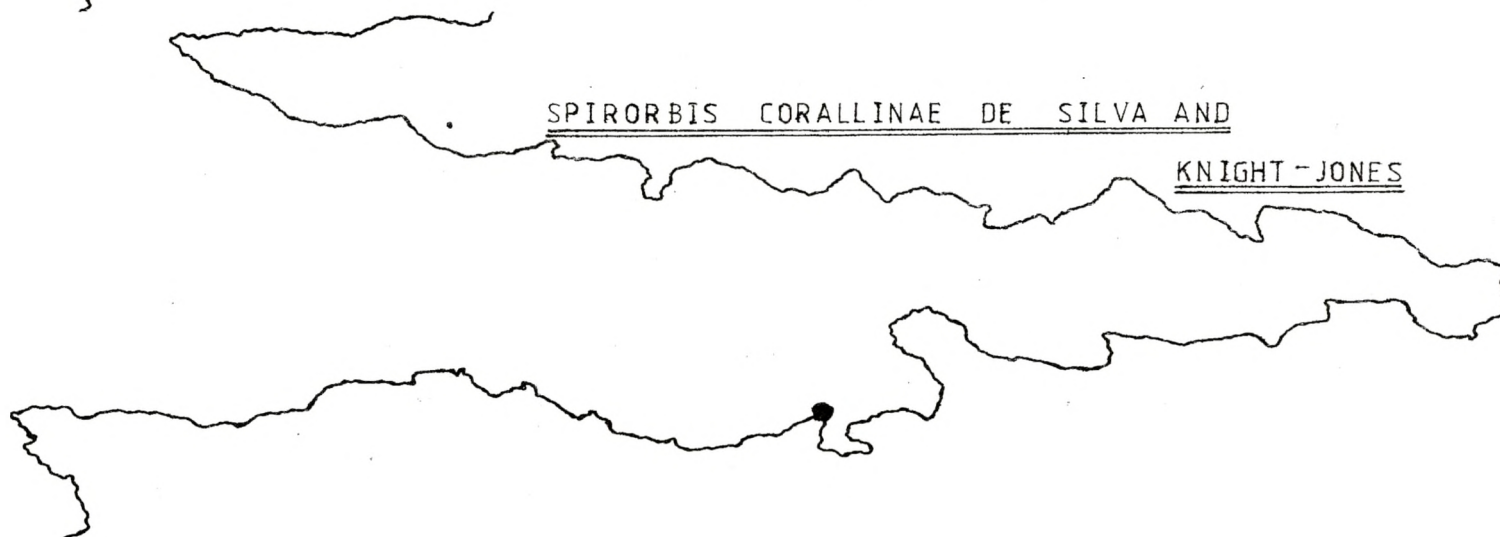


POMATOCEROS TRIQUETER (L.)

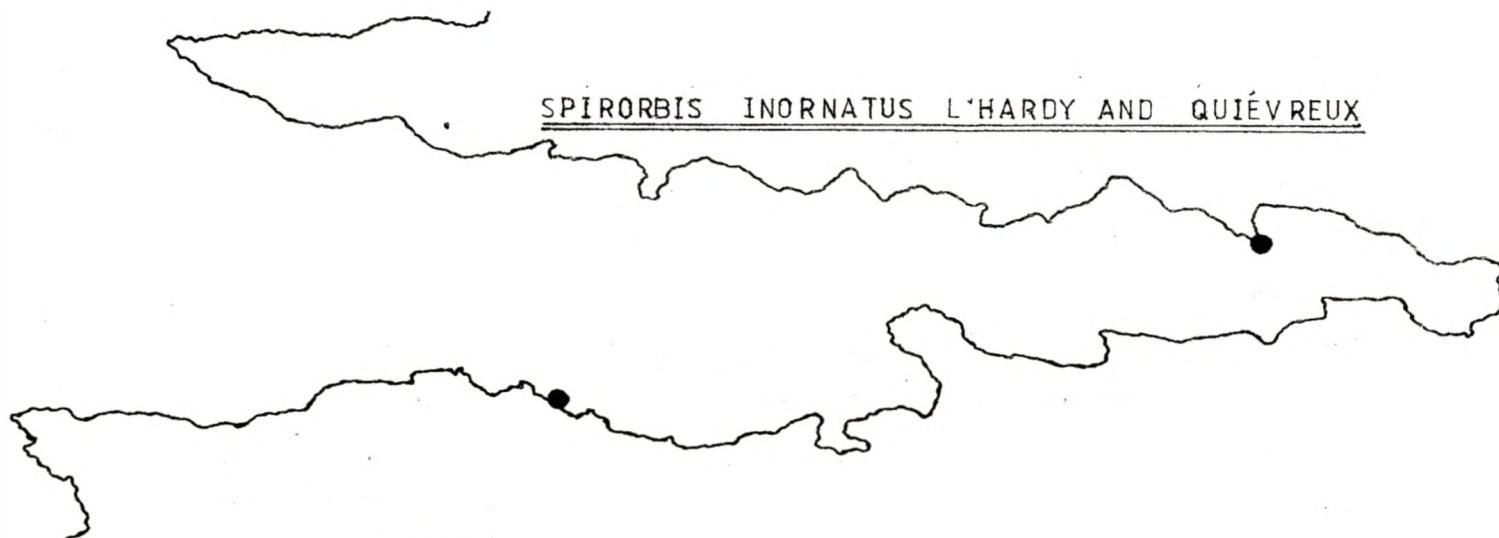


SPIRORBIS CORALLINAE DE SILVA AND

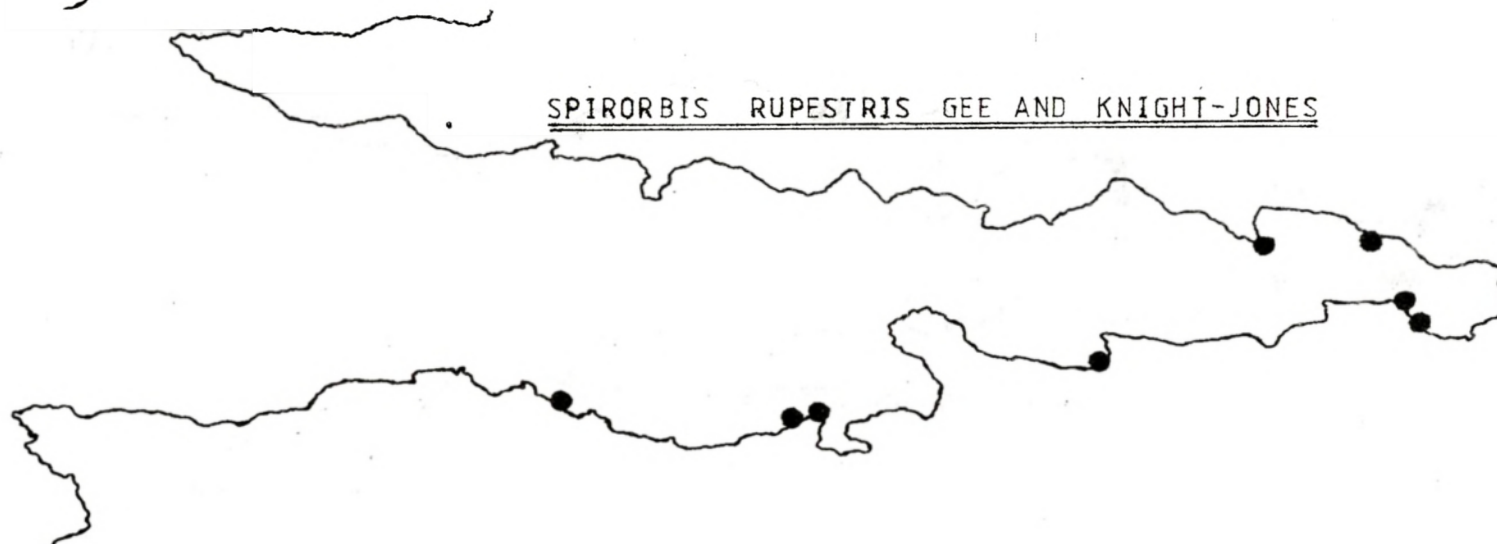
KNIGHT-JONES



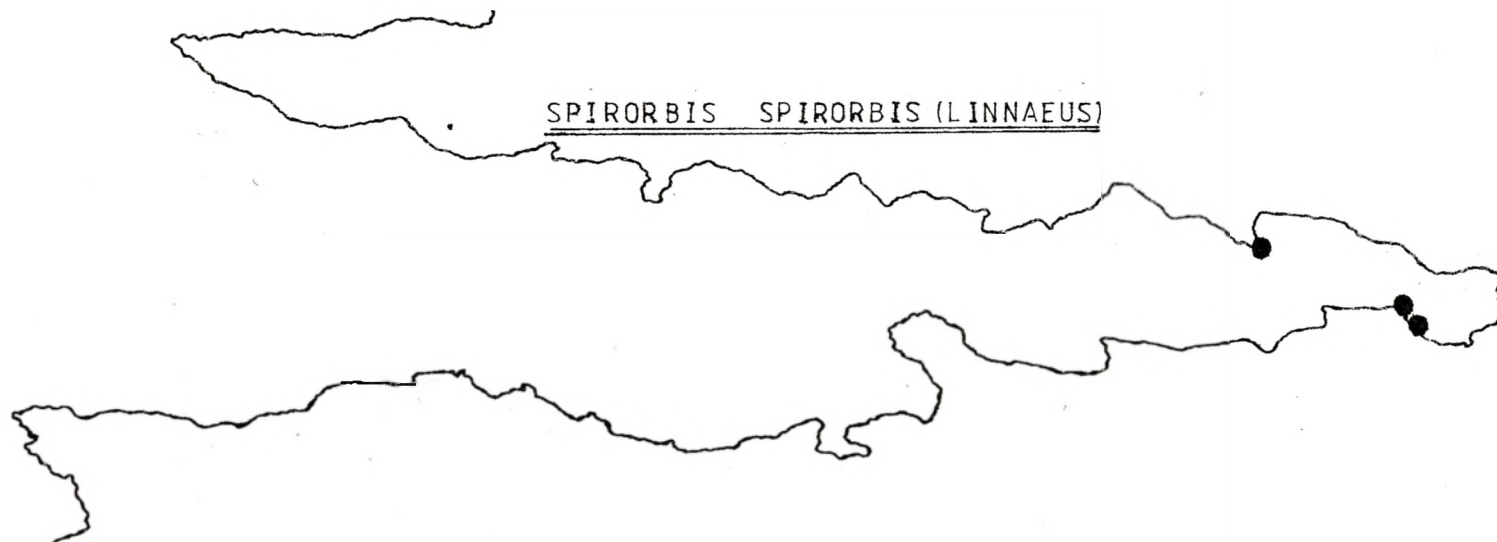
SPIROBIS INORNATUS L'HARDY AND QUIÉVREUX



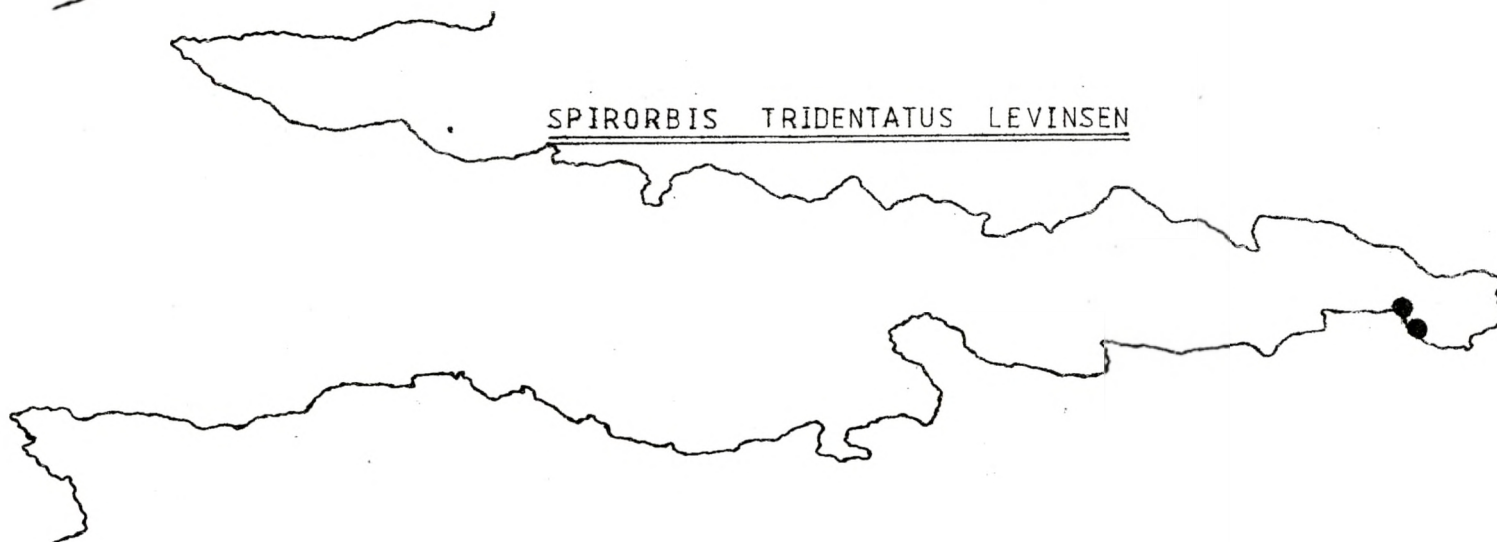
SPIROBIS RUPESTRIS GEE AND KNIGHT-JONES

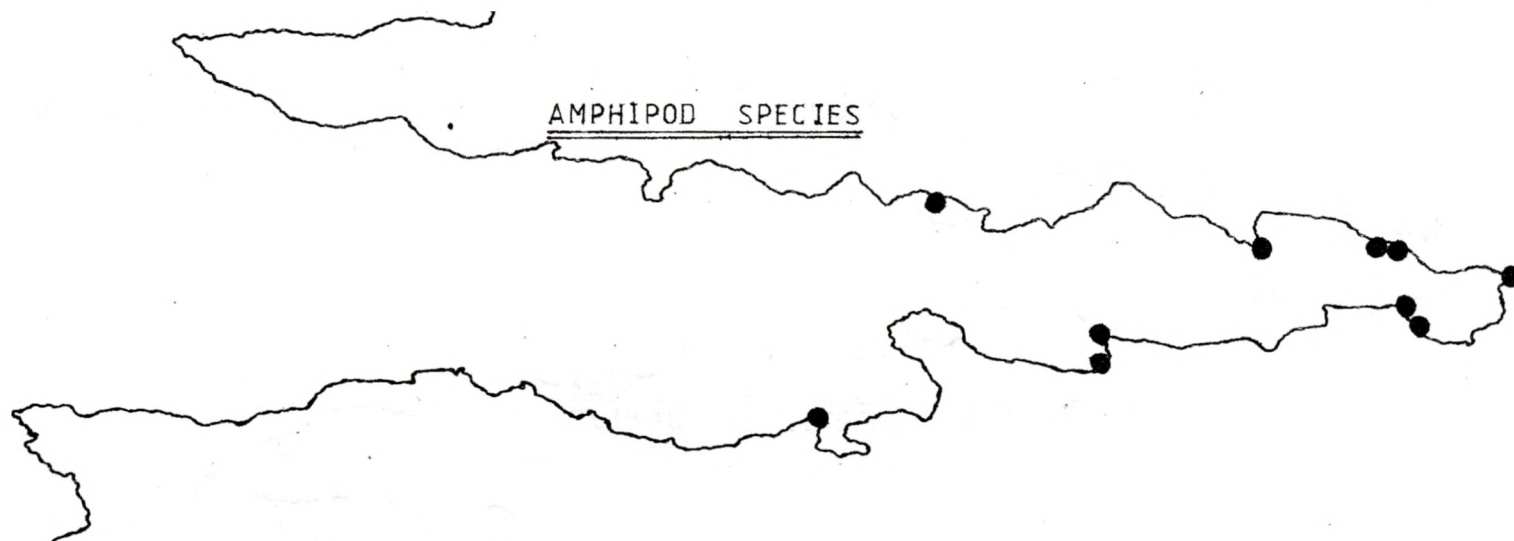
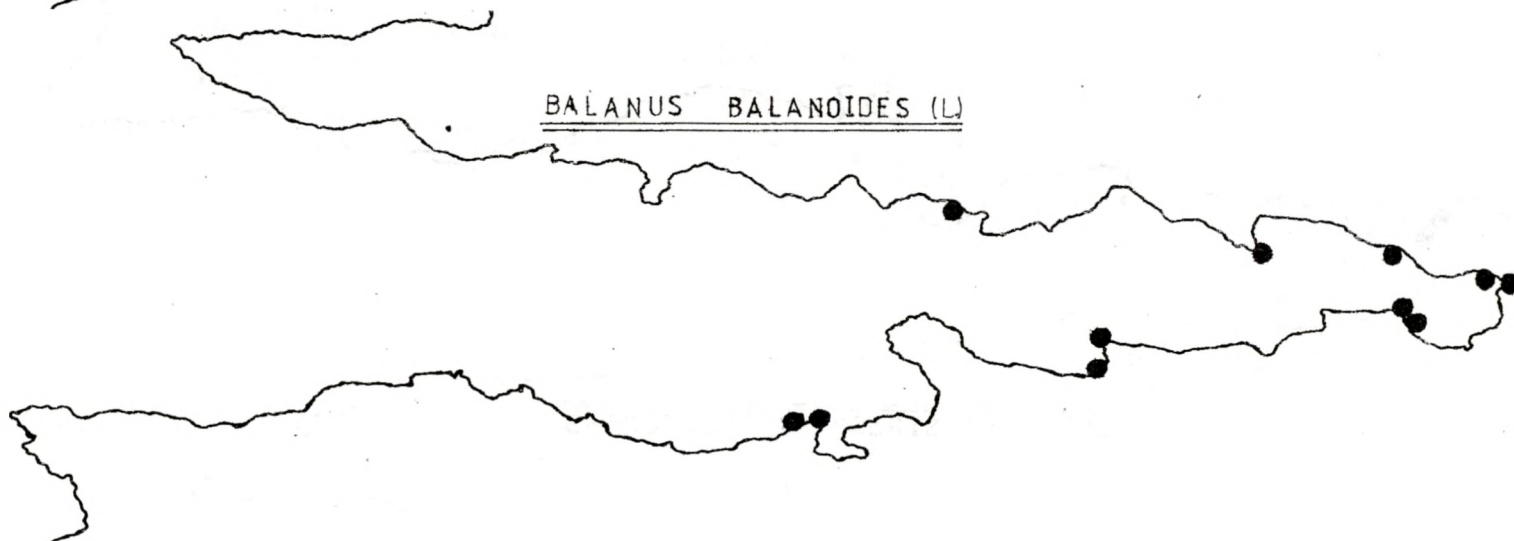


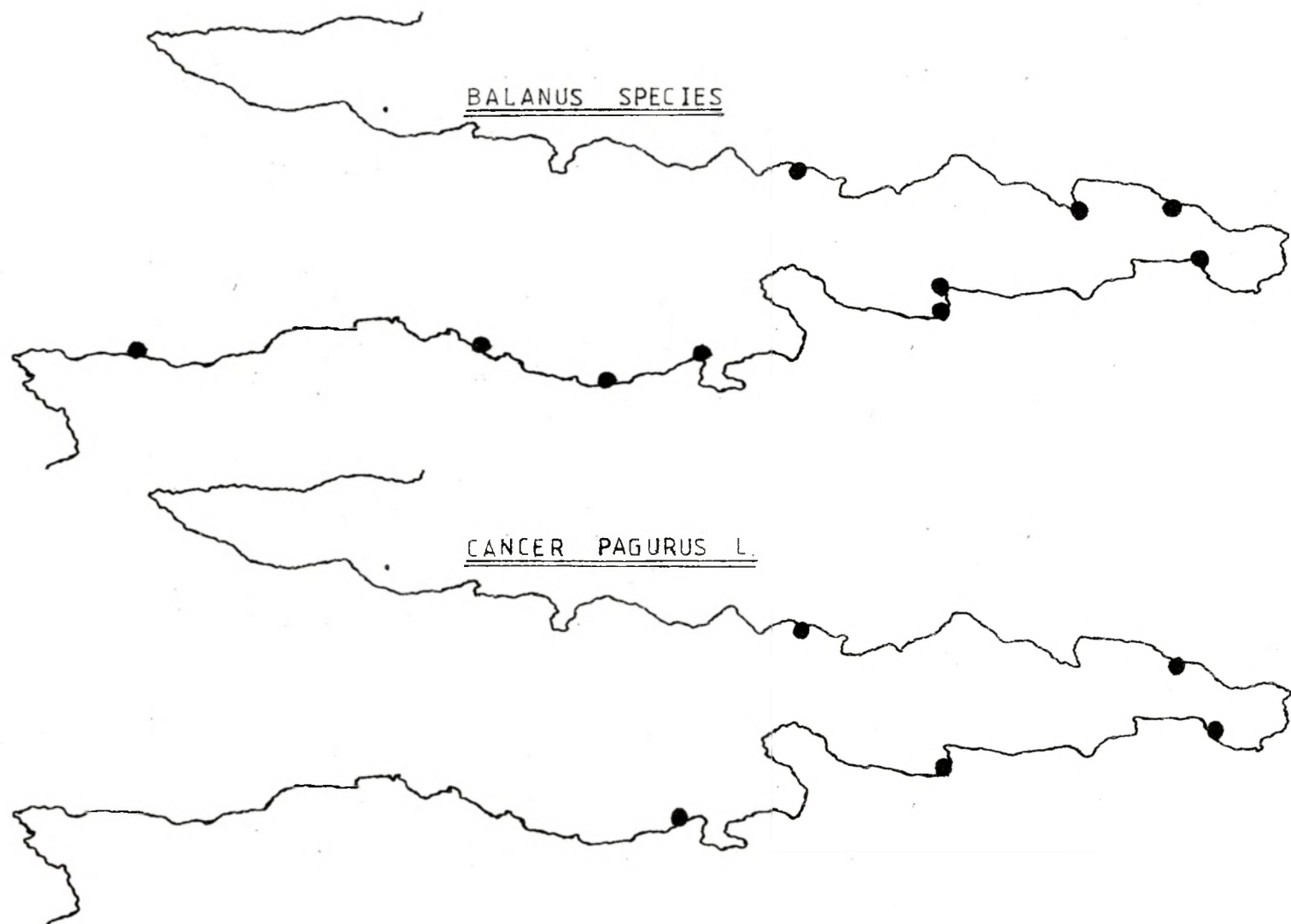
SPIRORBIS SPIRORBIS (LINNAEUS)



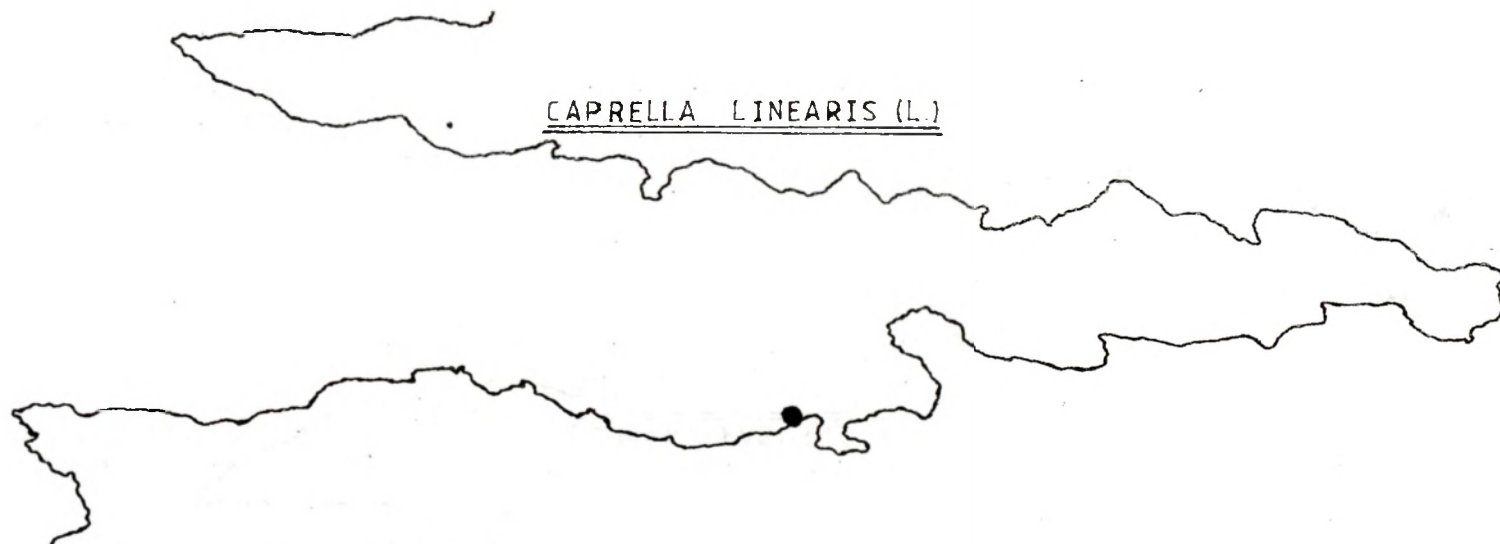
SPIRORBIS TRIDENTATUS LEVINSSEN



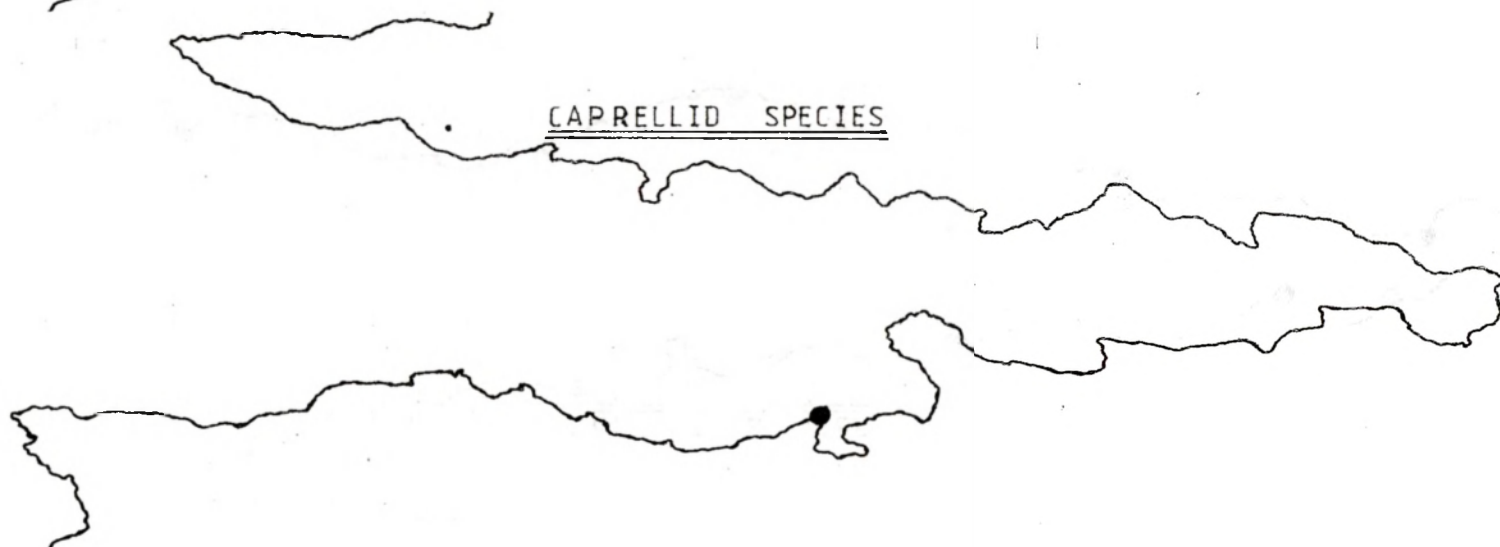
AMPHIPOD SPECIESBALANUS BALANOIDES (L)

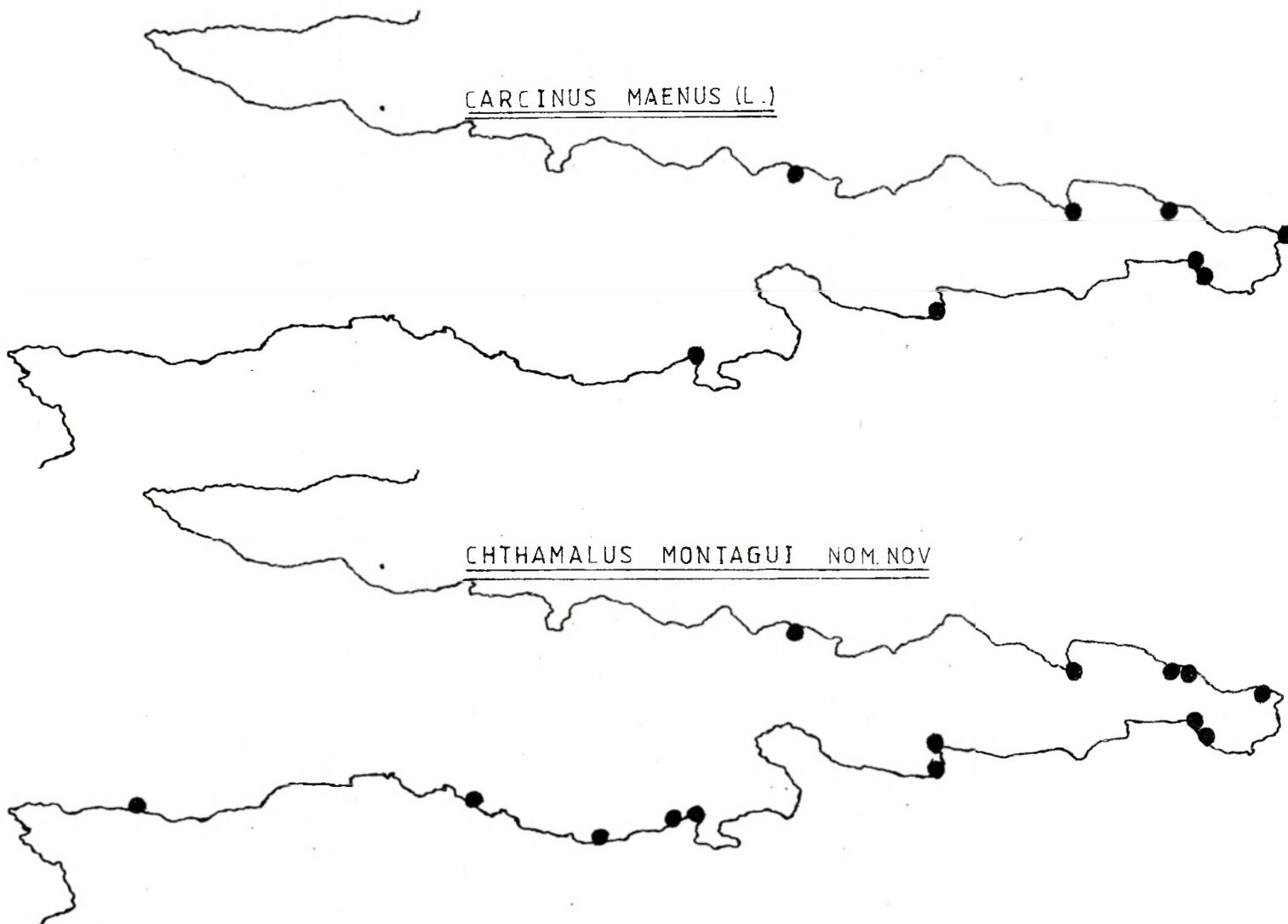


CAPRELLA LINEARIS (L.)

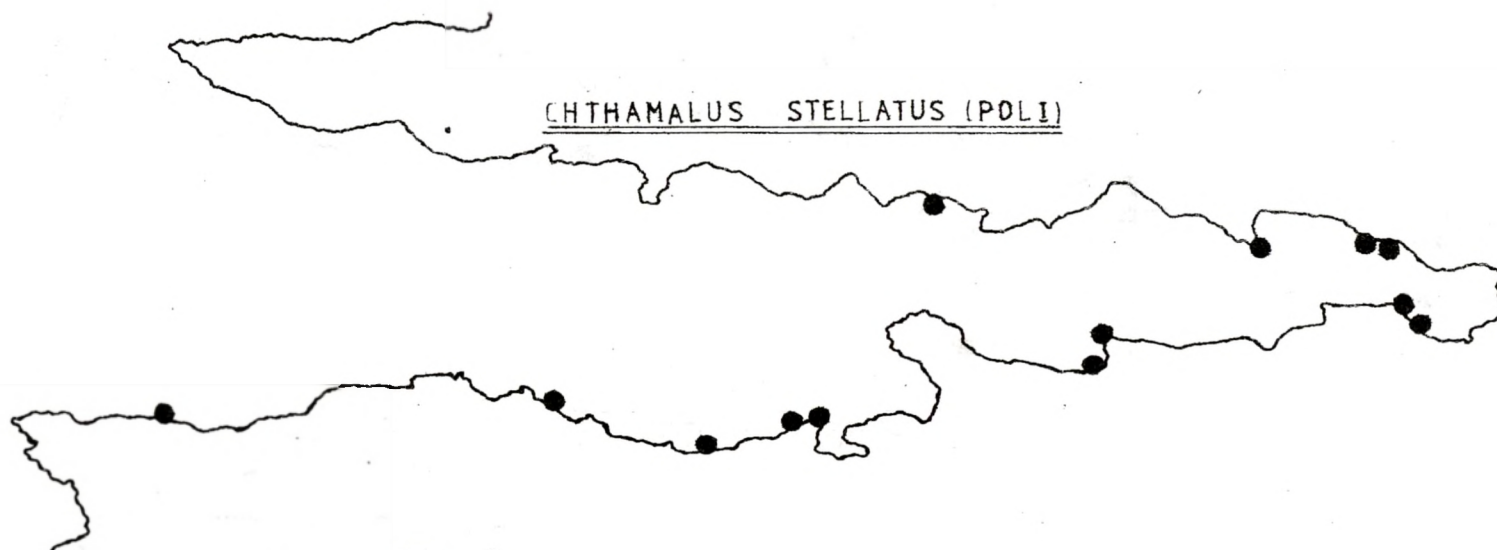


CAPRELLID SPECIES

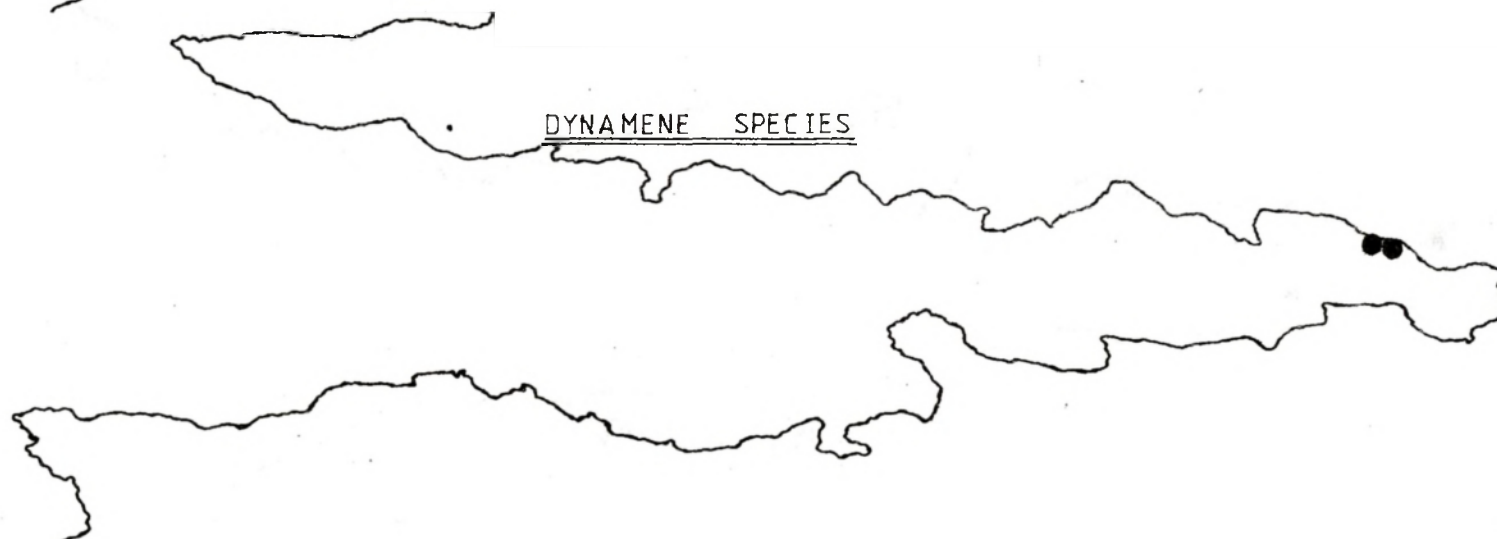


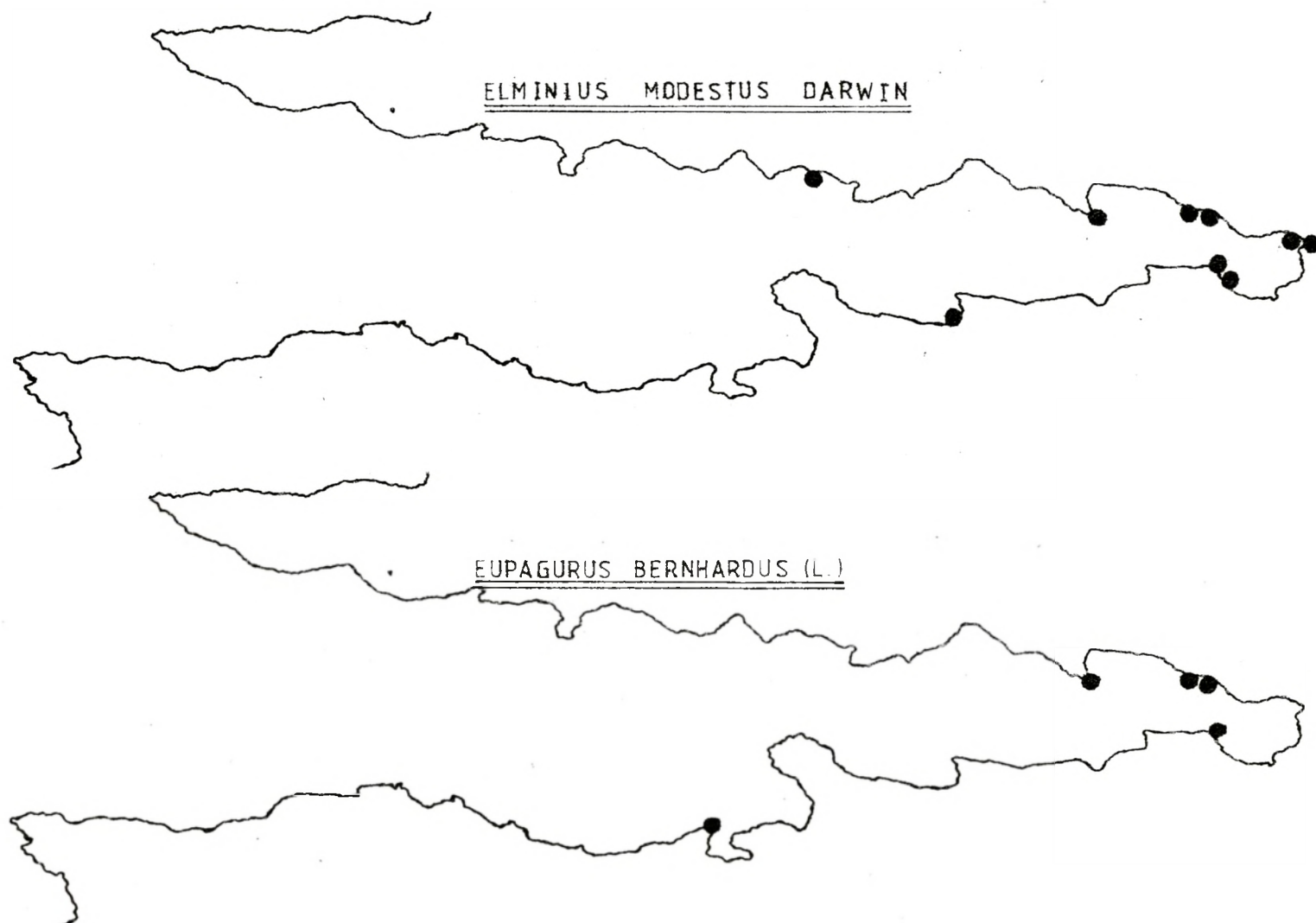


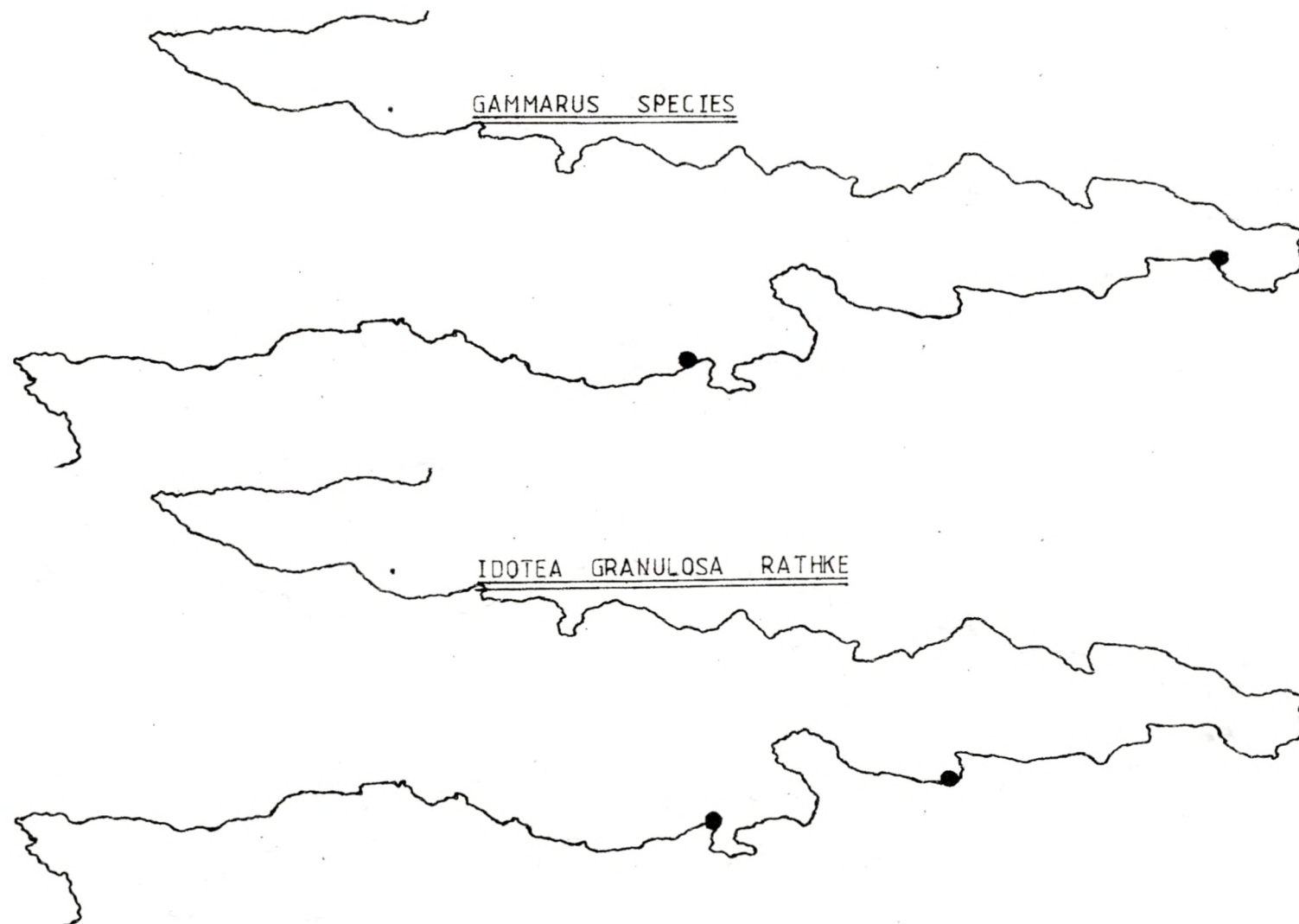
CHTHAMALUS STELLATUS (POLI)

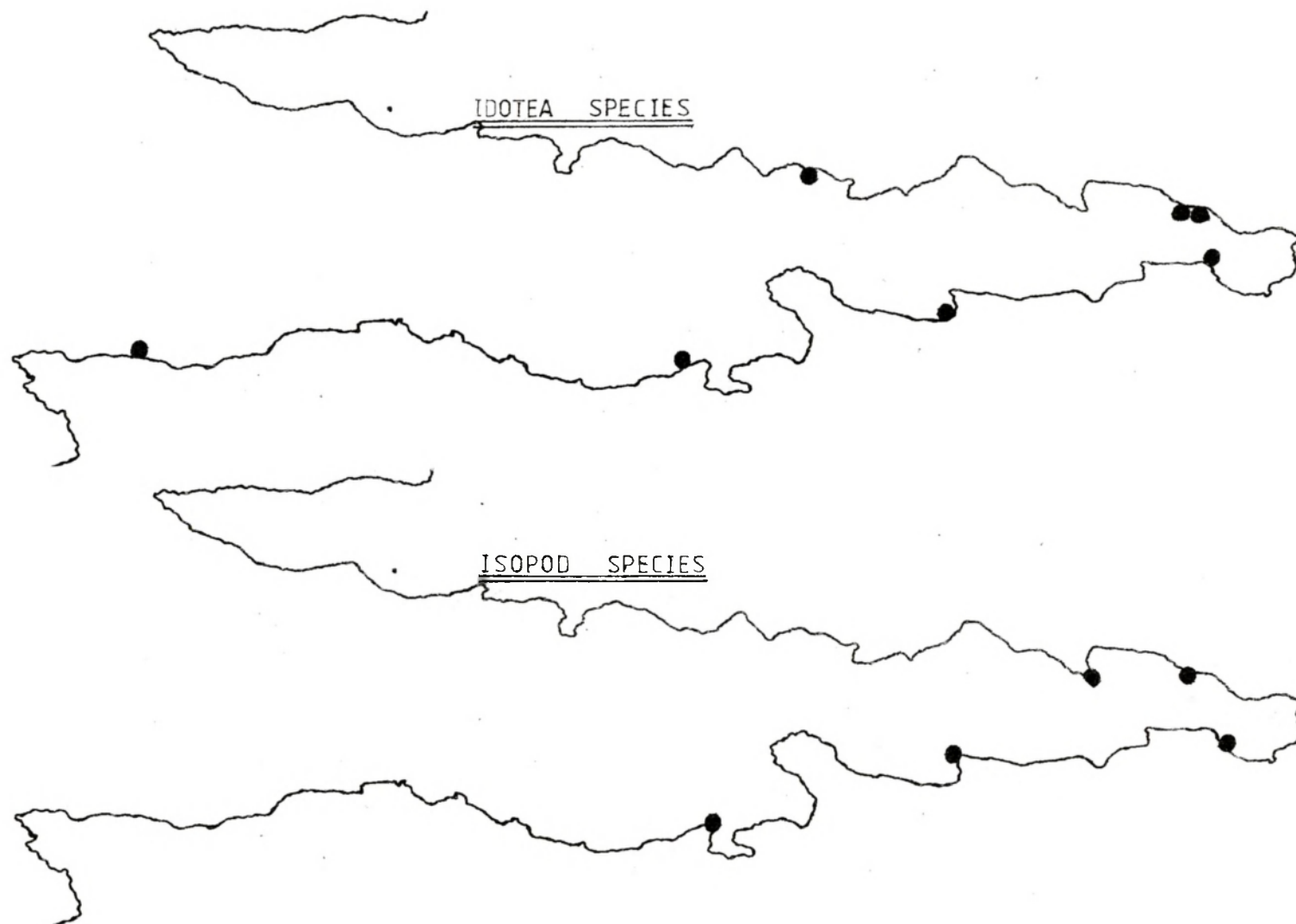


DYNAMENE SPECIES

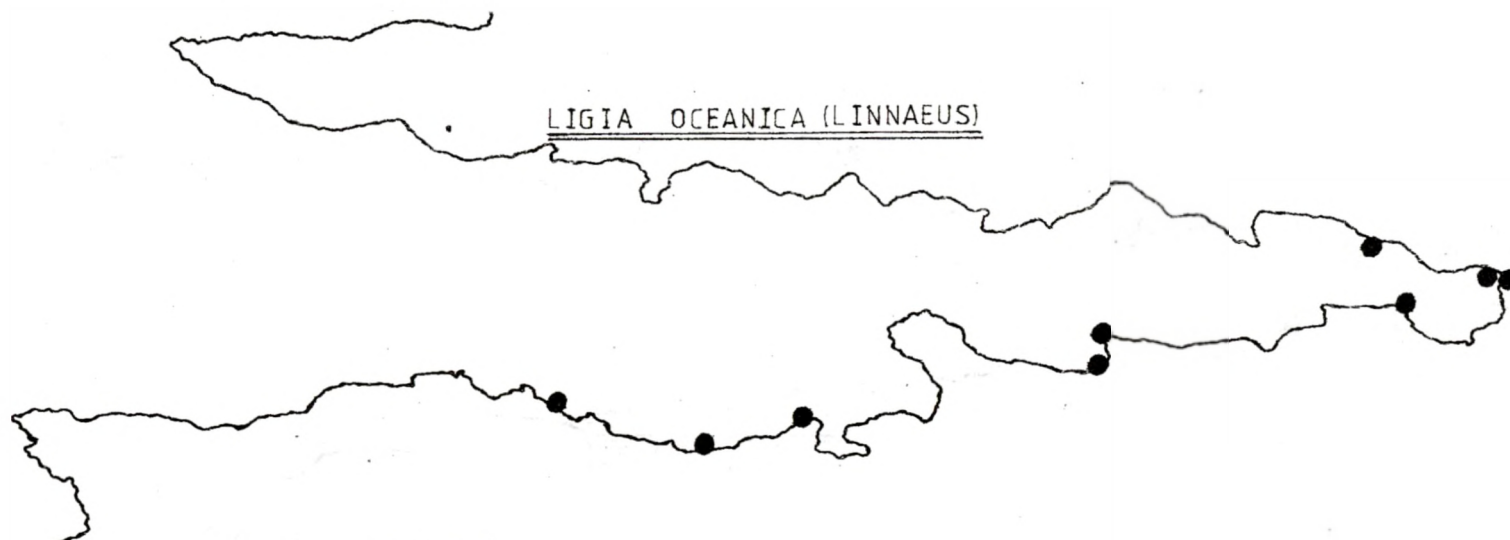




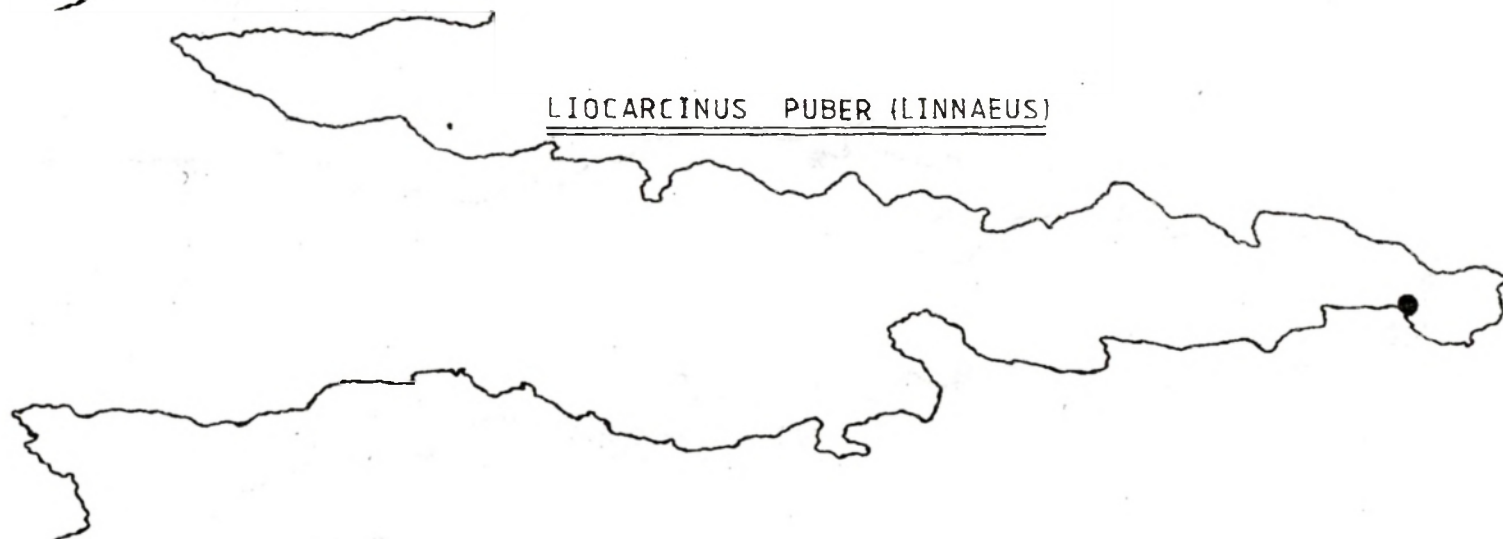


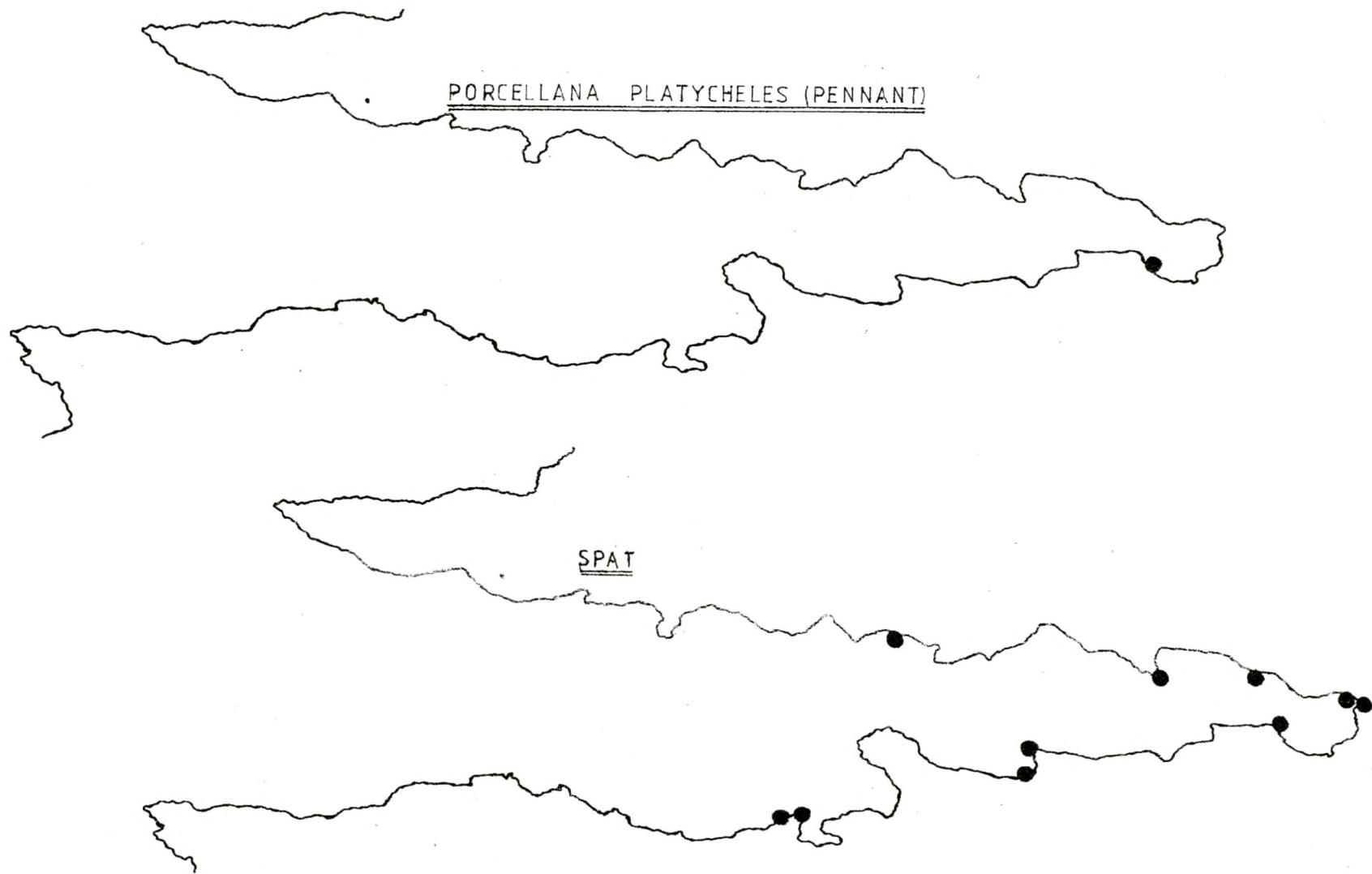


LIGIA OCEANICA (LINNAEUS)



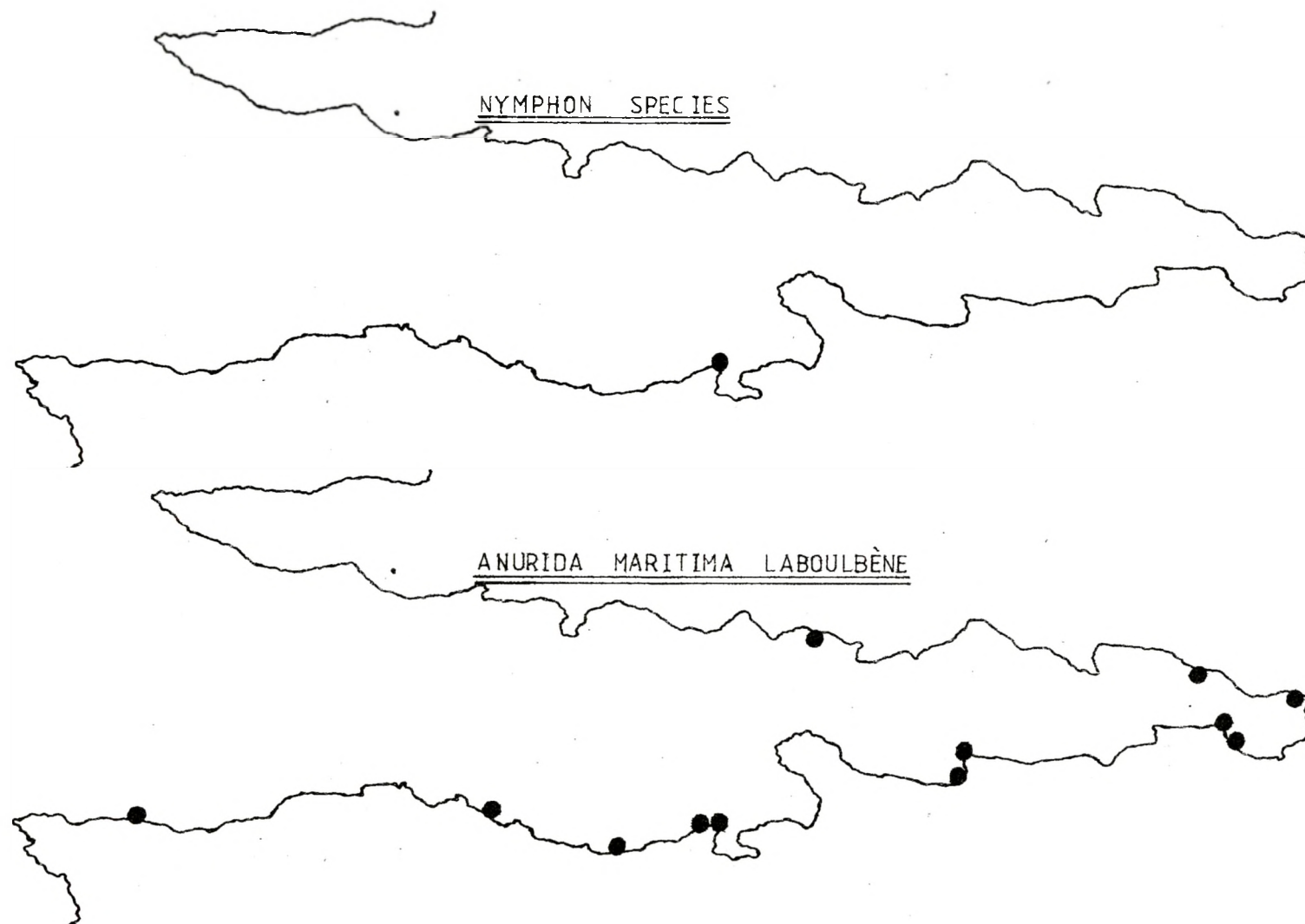
LIOCARCINUS PUBER (LINNAEUS)



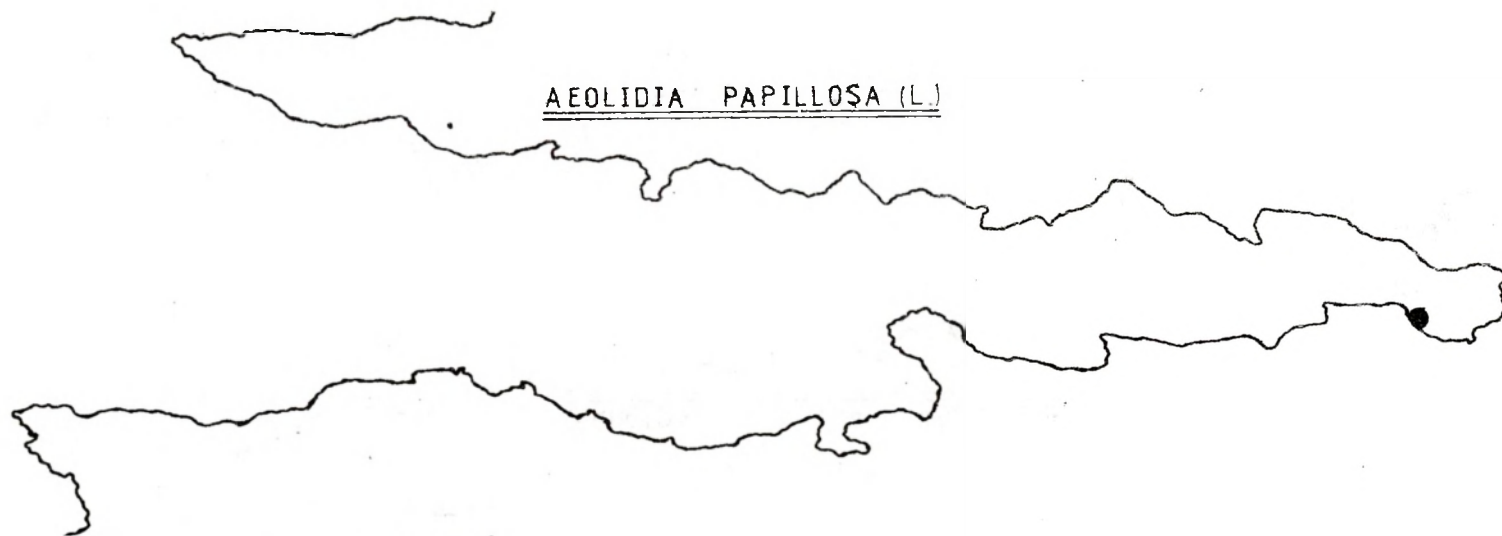


VERRUCA STROEMIA (O.F. MÜLLER)

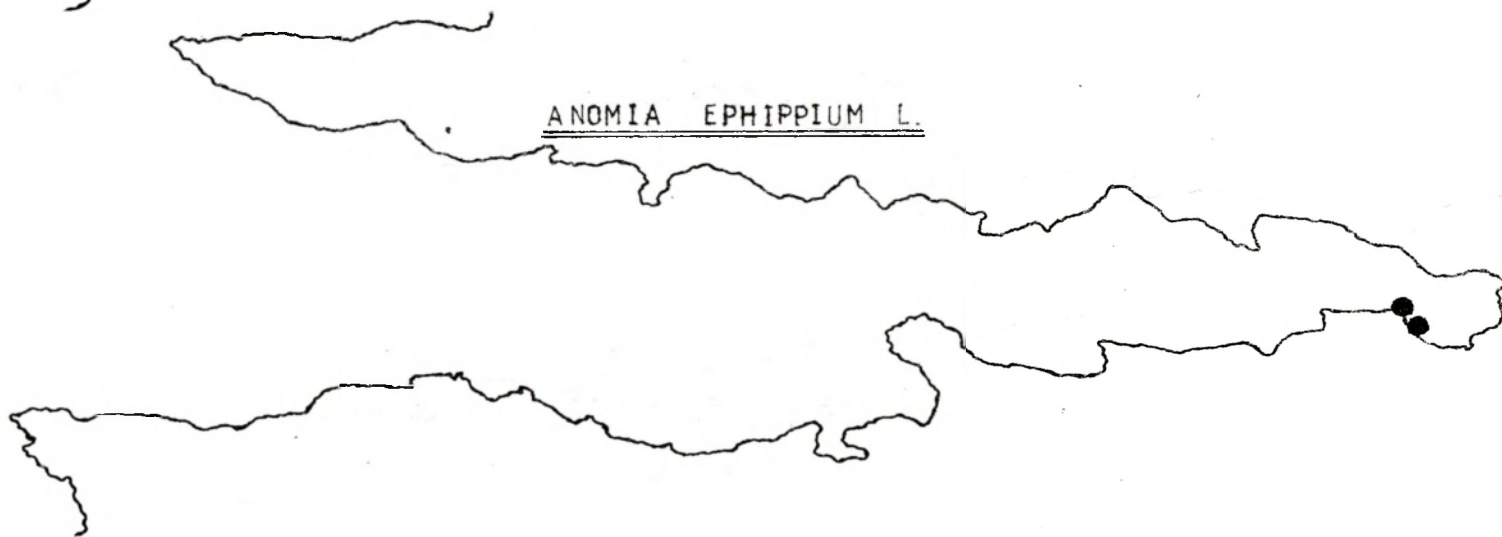
XANTHO INCISUS LEACH



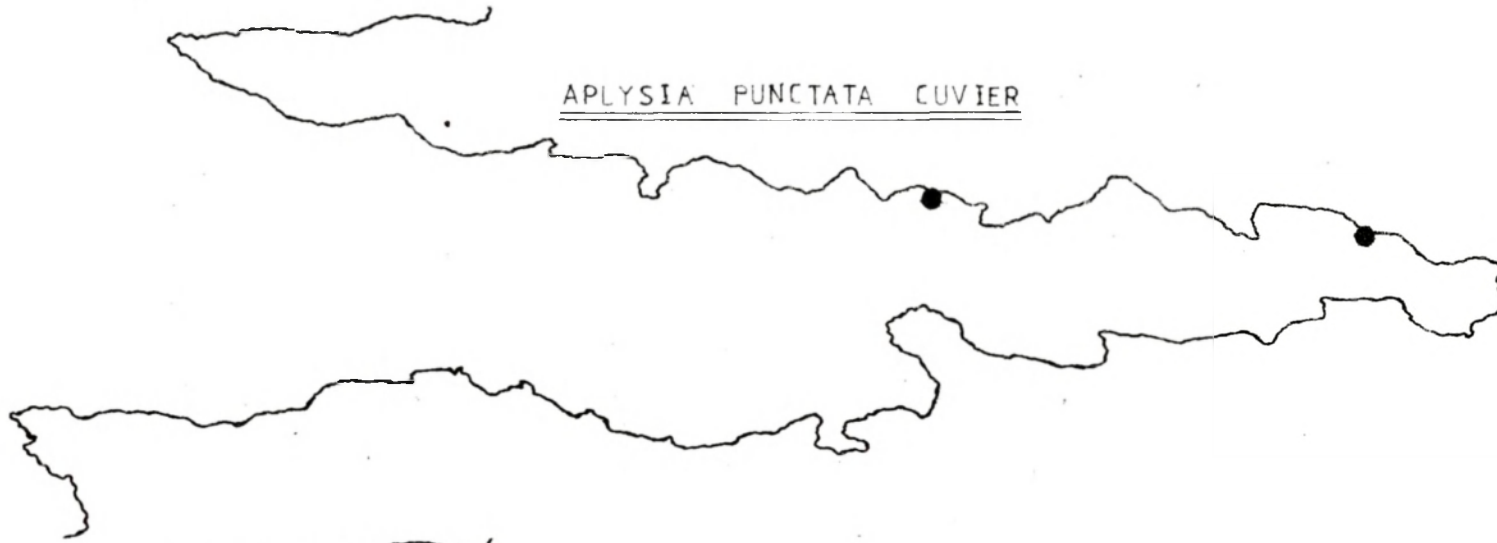
AEOLIDIA PAPILLOSA (L.)



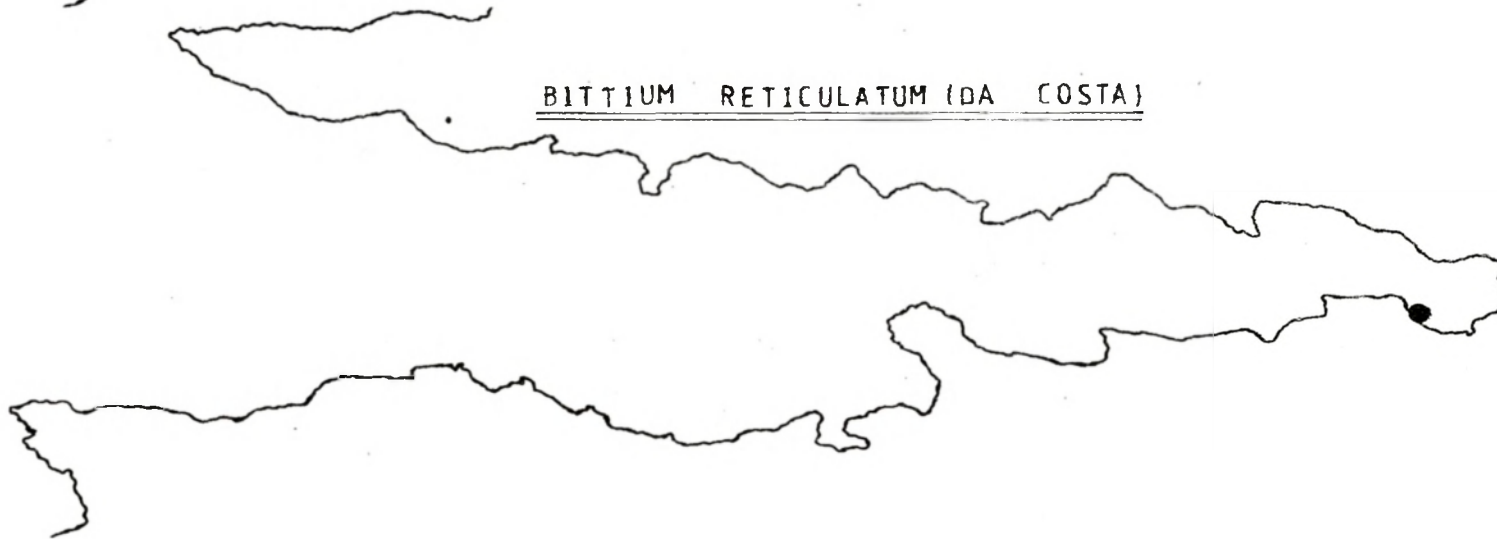
ANOMIA EPHIPIUM L.



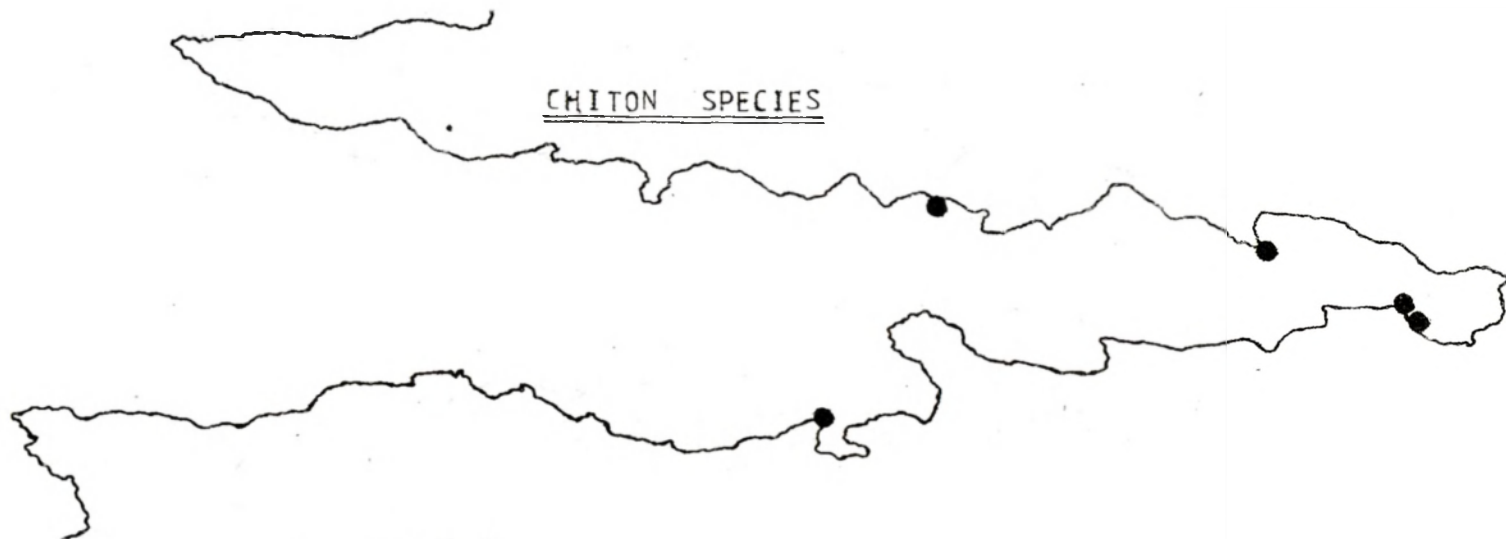
APLYSIA PUNCTATA CUVIER



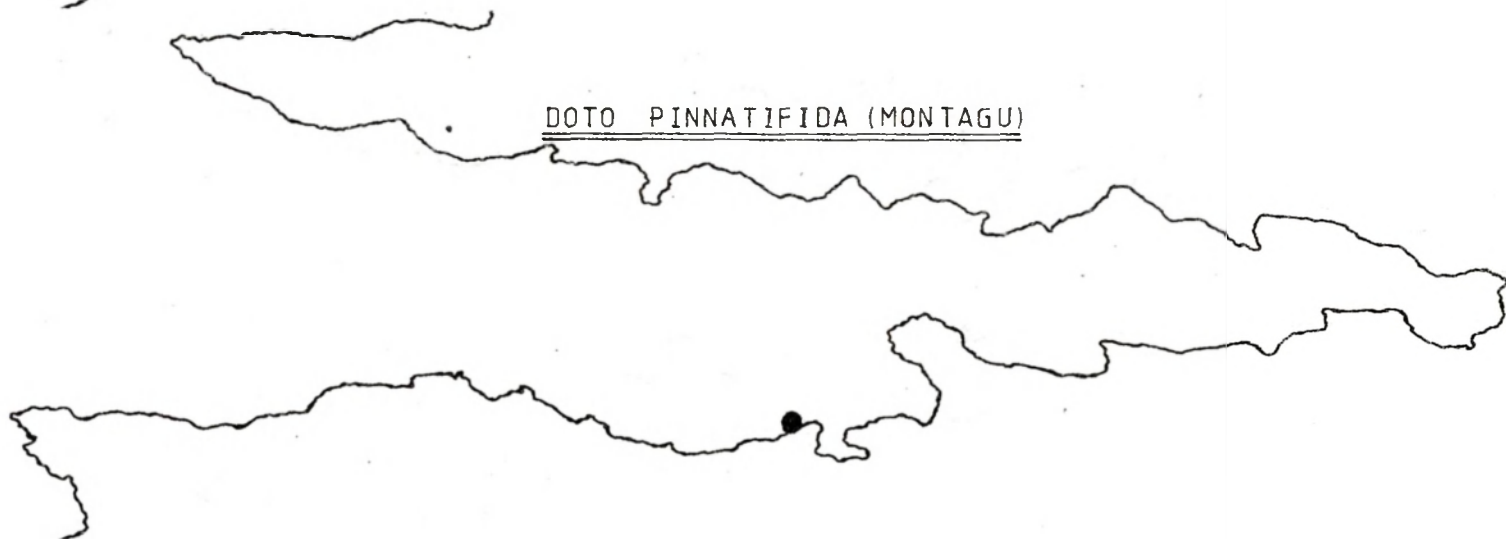
BITTIIUM RETICULATUM (DA COSTA)

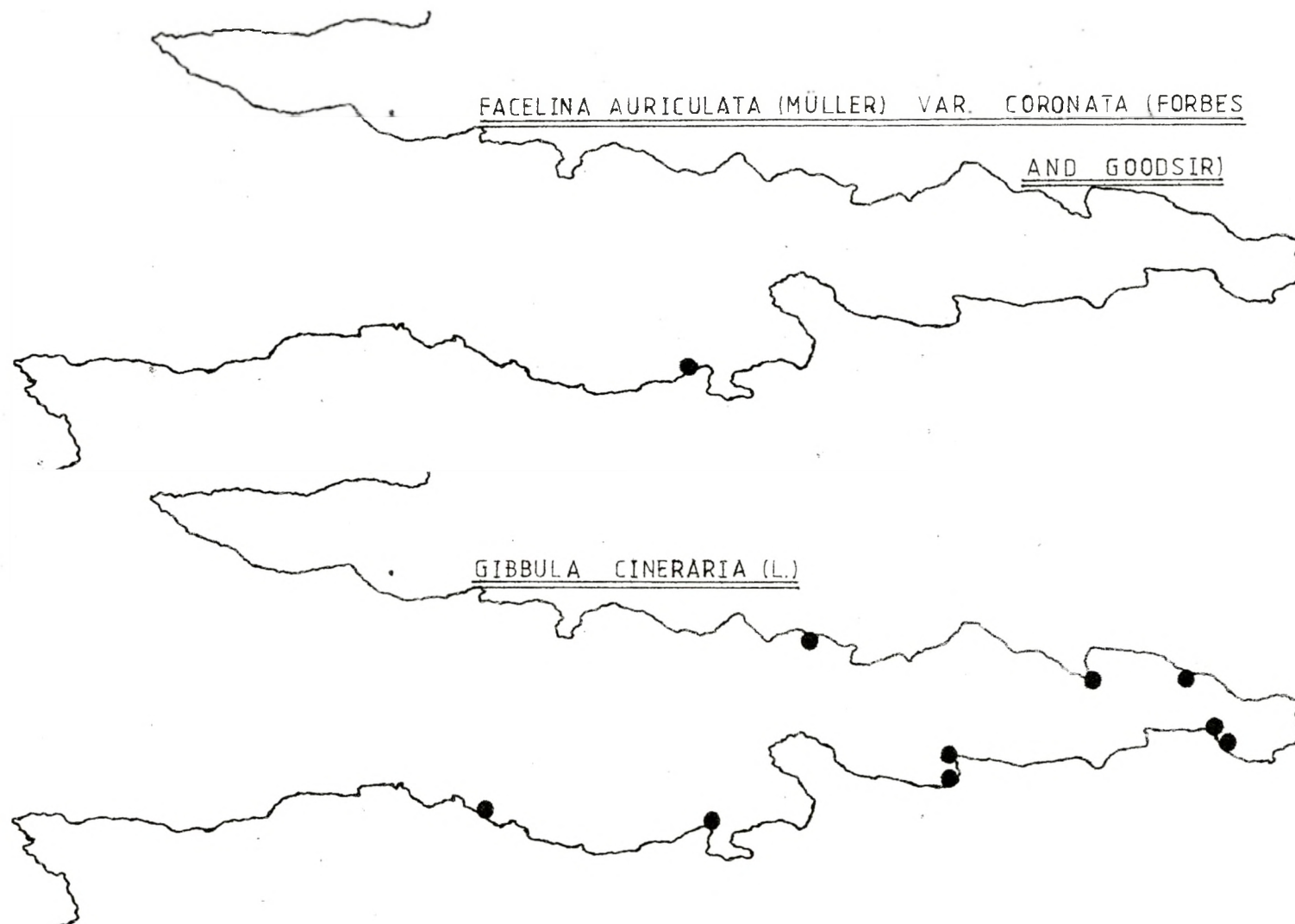


CHITON SPECIES

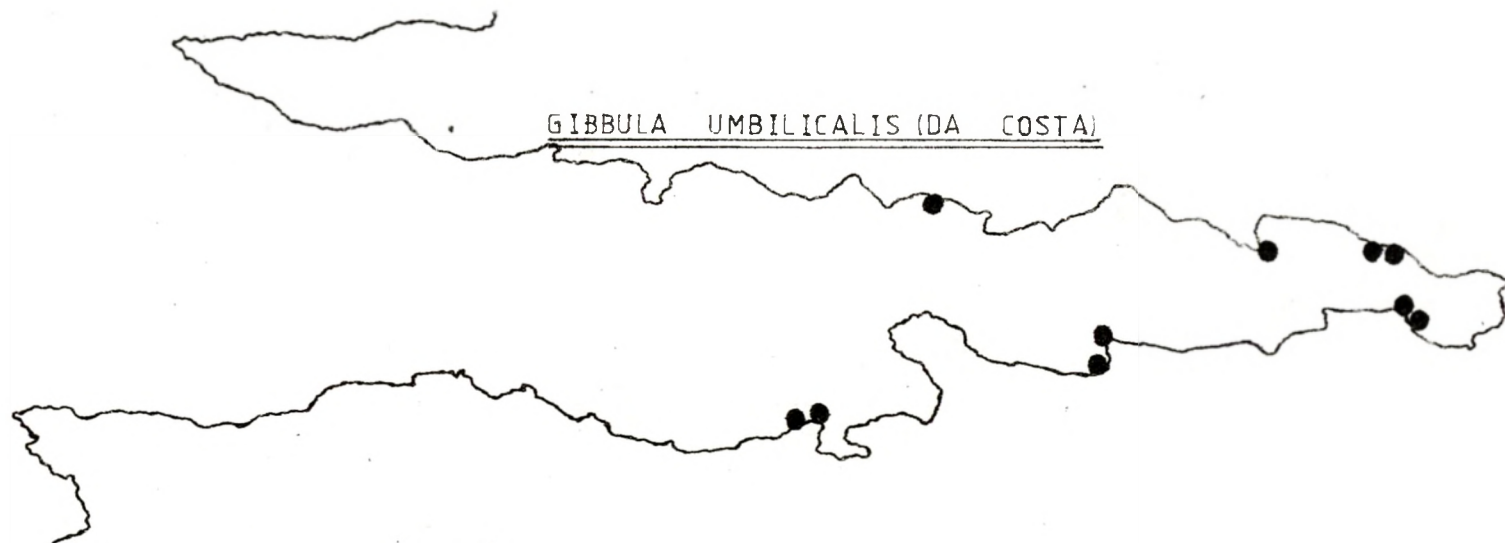


DOTO PINNATIFIDA (MONTAGU)

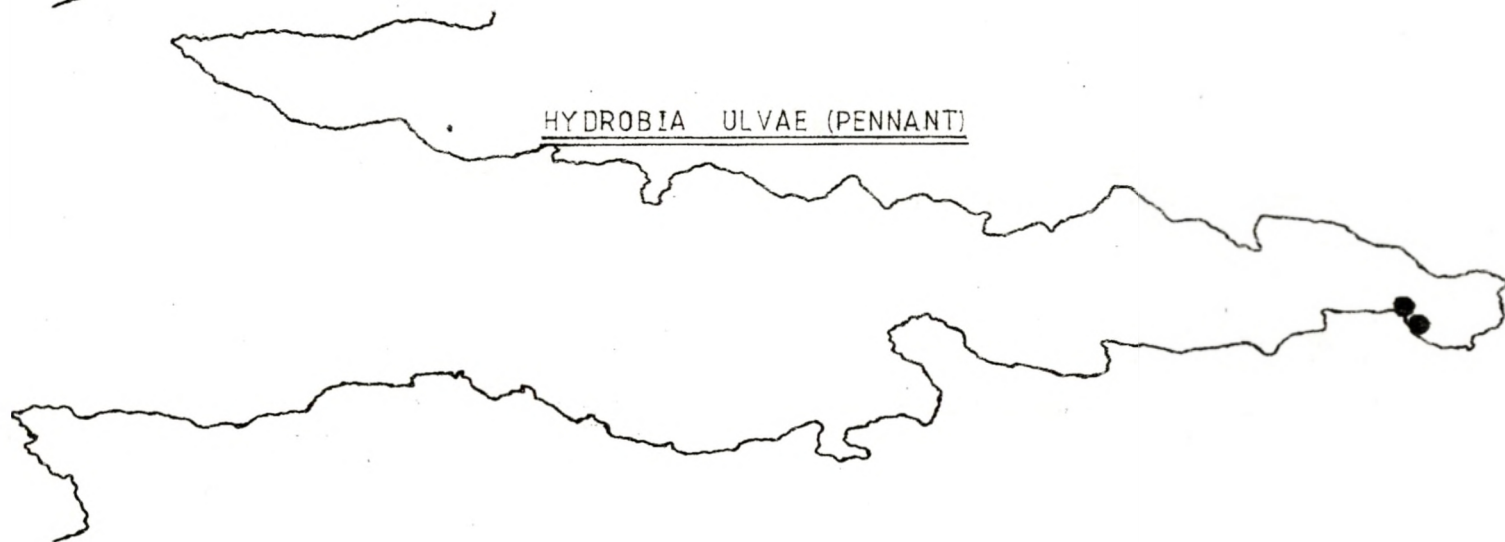


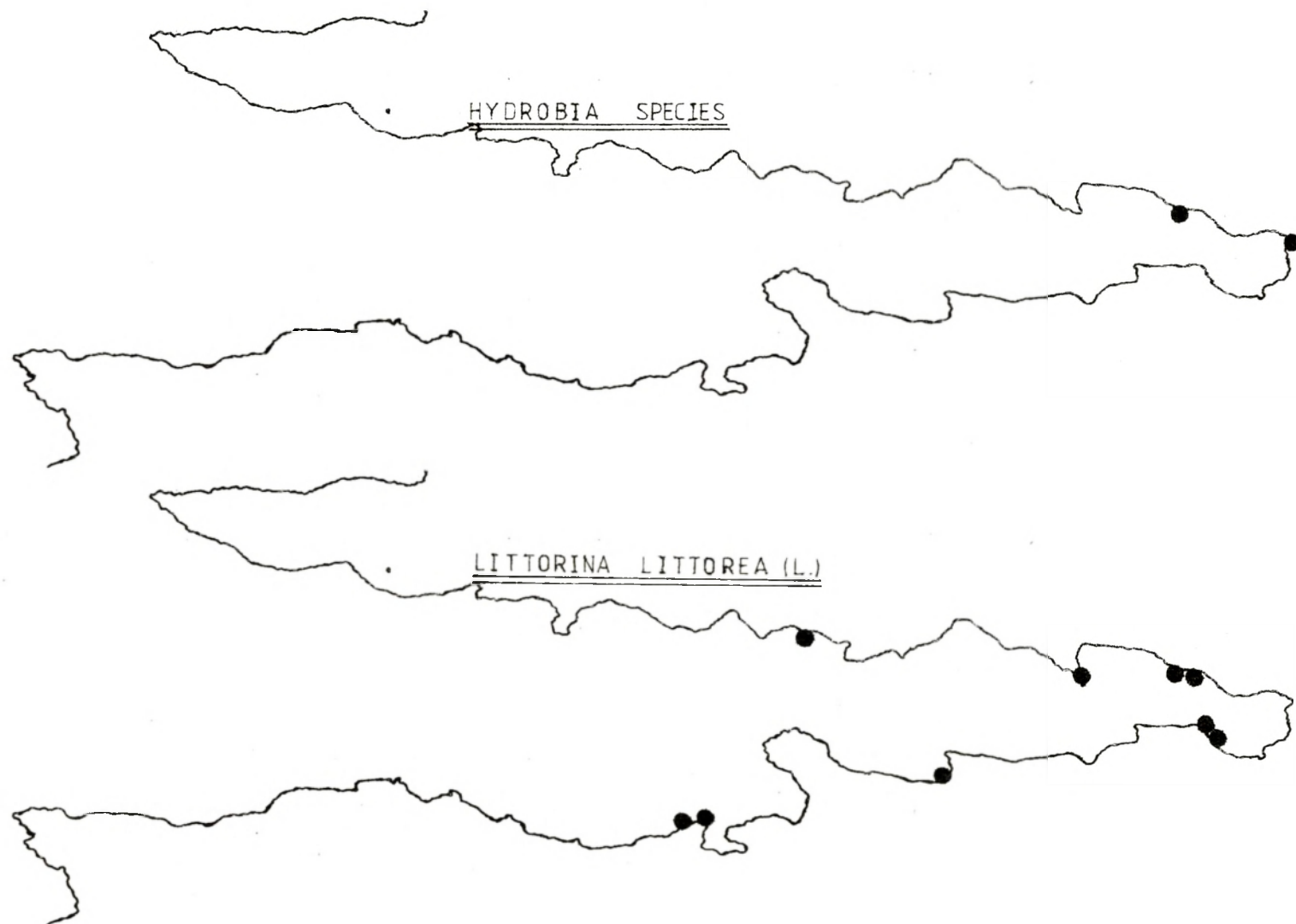


GIBBULA UMBILICALIS (DA COSTA)



HYDROBIA ULVAE (PENNANT)





LITTORINA NERITOIDES (L.)



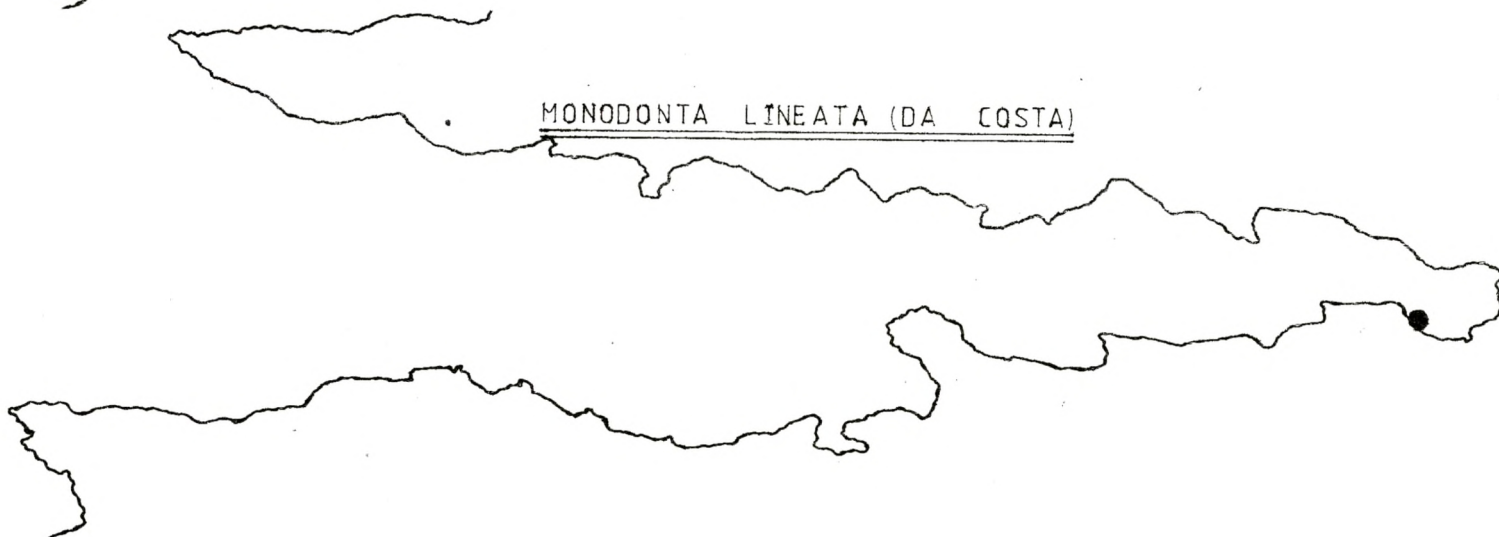
LITTORINA OBTUSATA (L.)



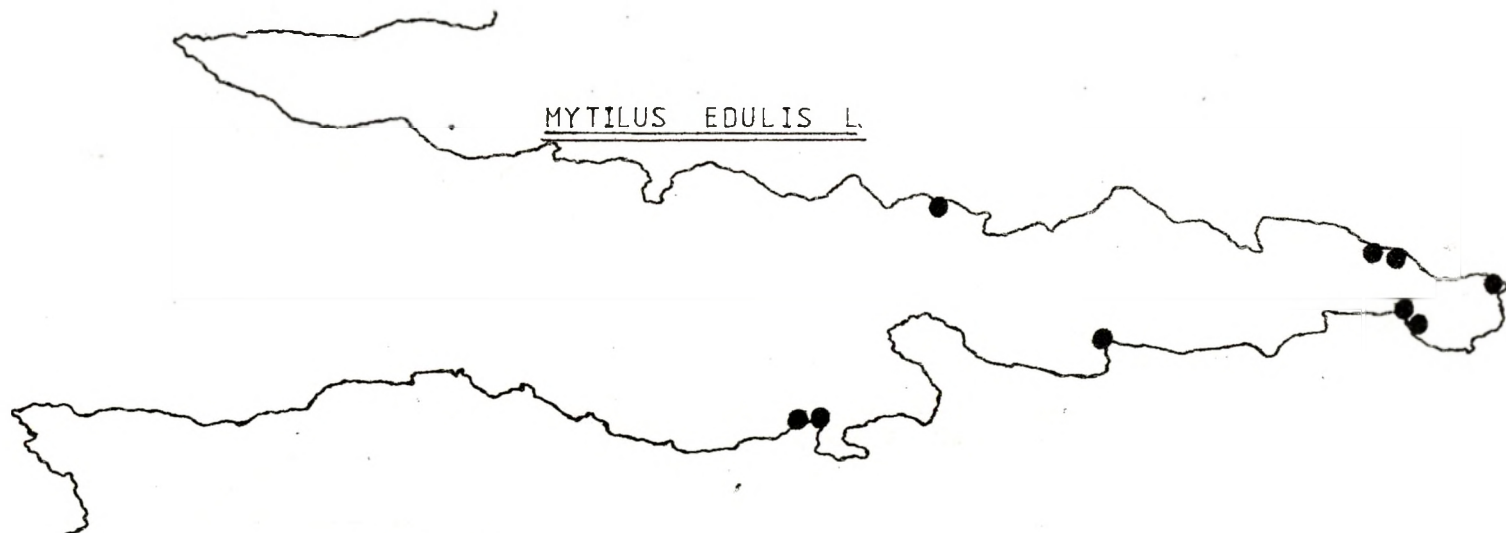
LITTORINA SAXATILIS SPECIES COMPLEX



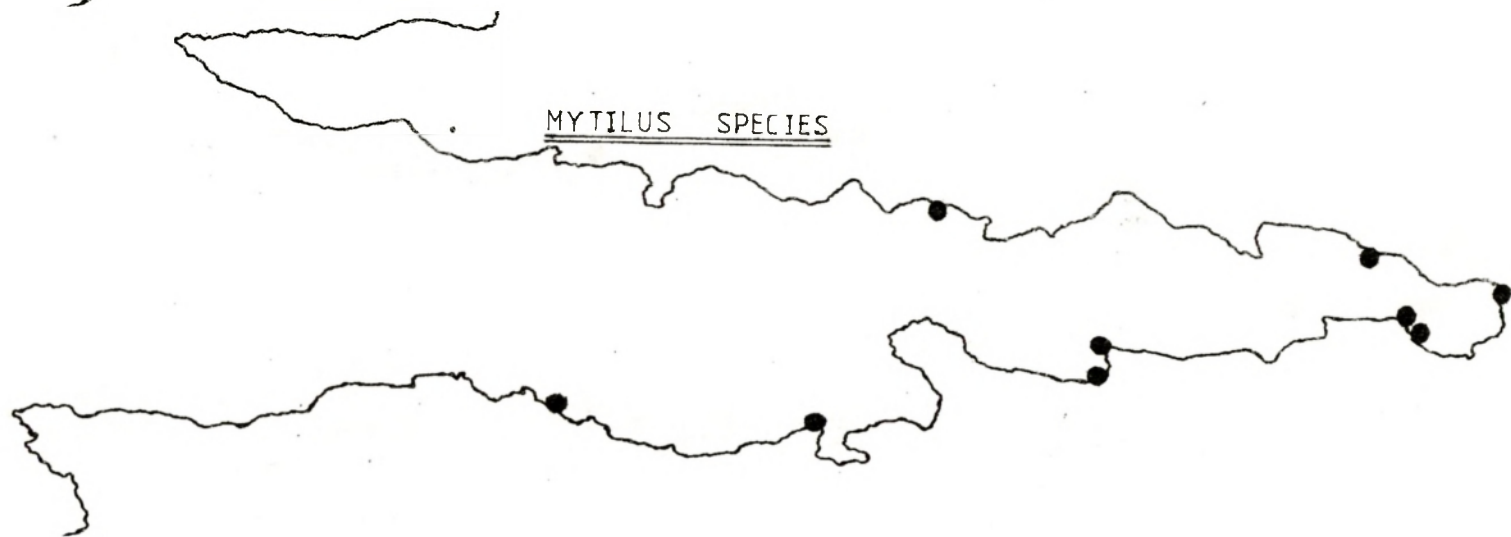
MONODONTA LINEATA (DA COSTA)



MYTILUS EDULIS L.



MYTILUS SPECIES

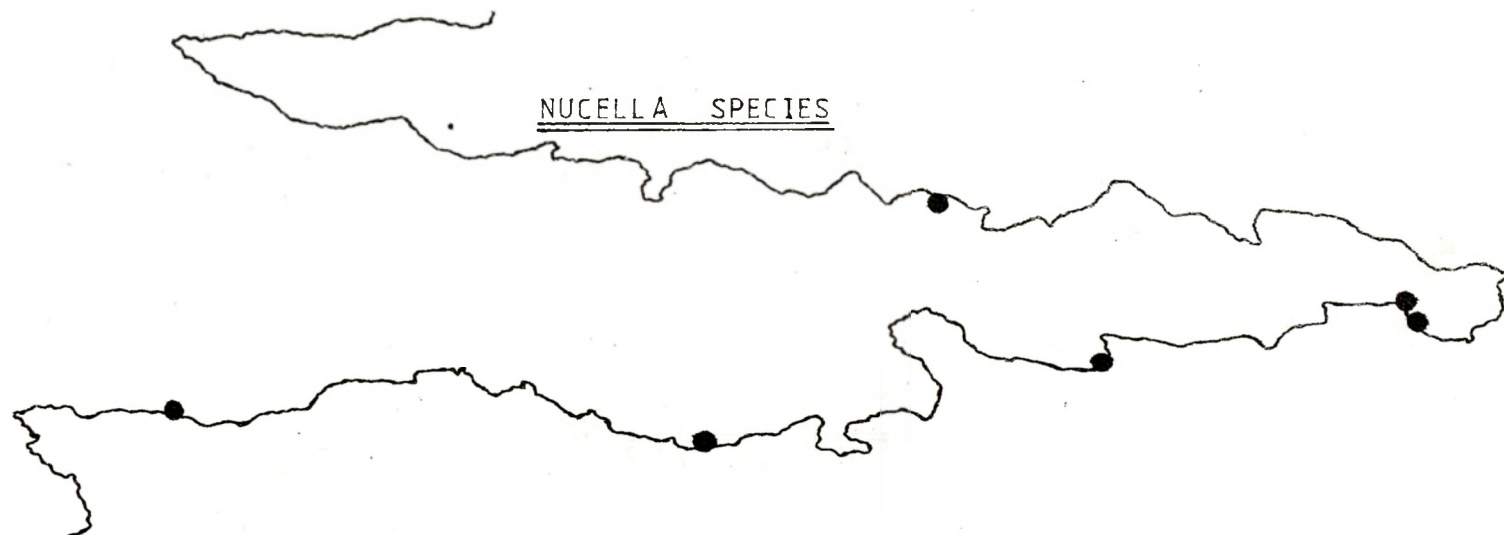
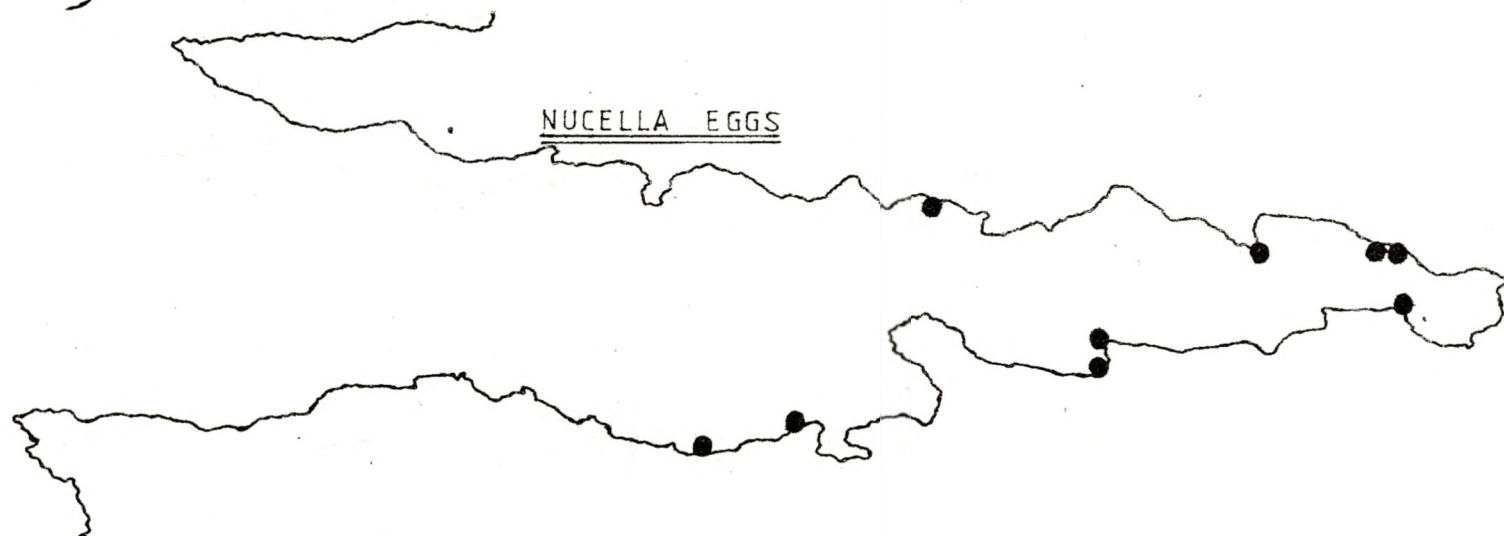


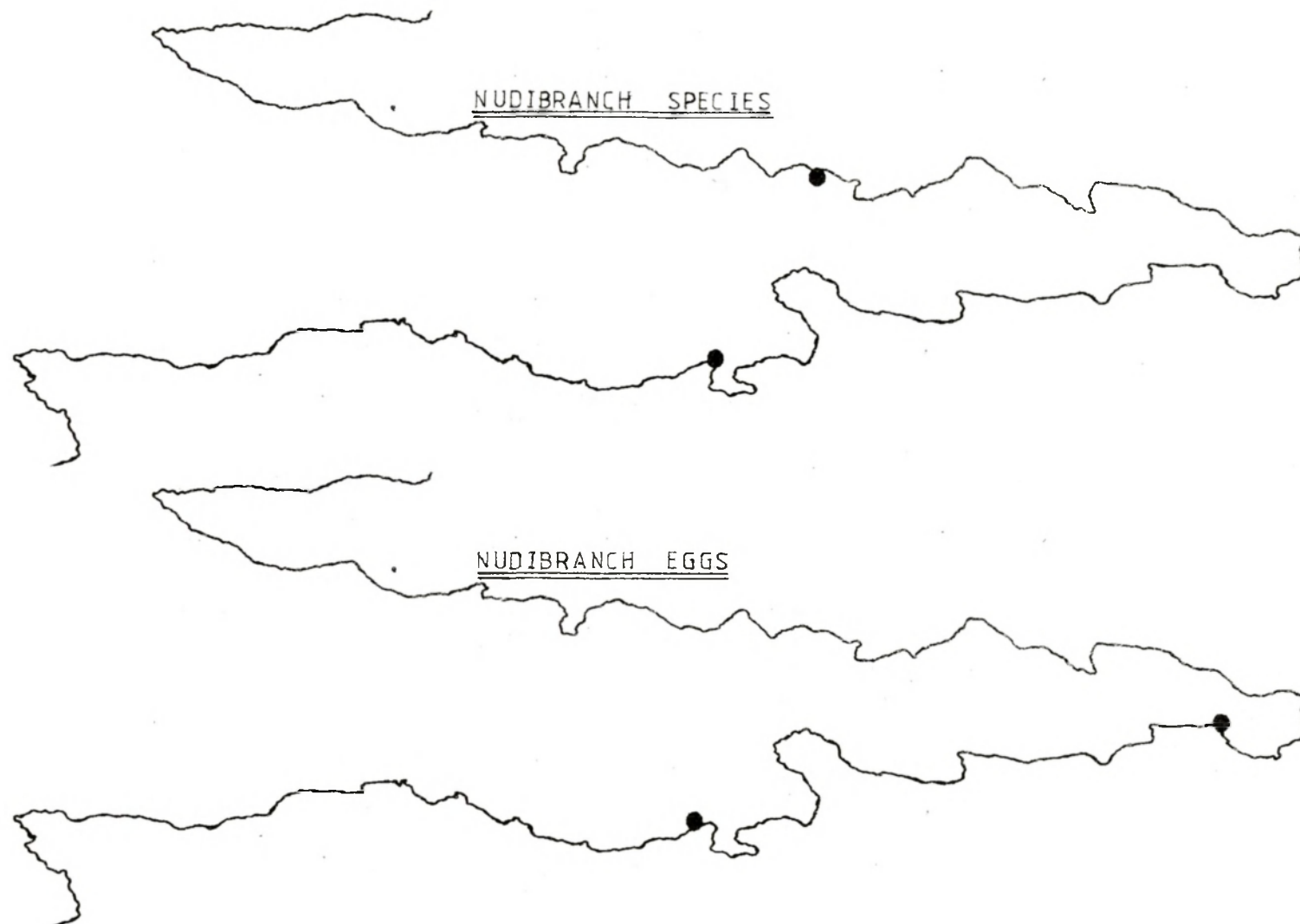
NASSARIUS INCRASSATUS (STRÖM)



NUCELLA LAPILLUS (L.)



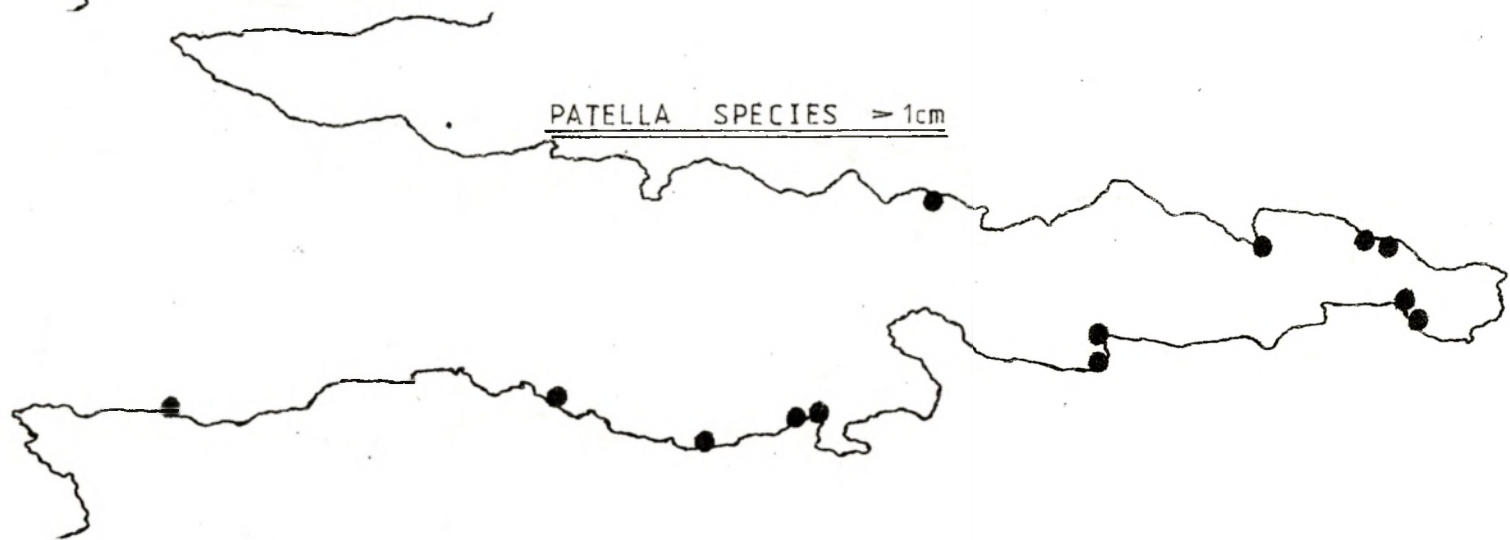
NUCELLA SPECIESNUCELLA EGGS

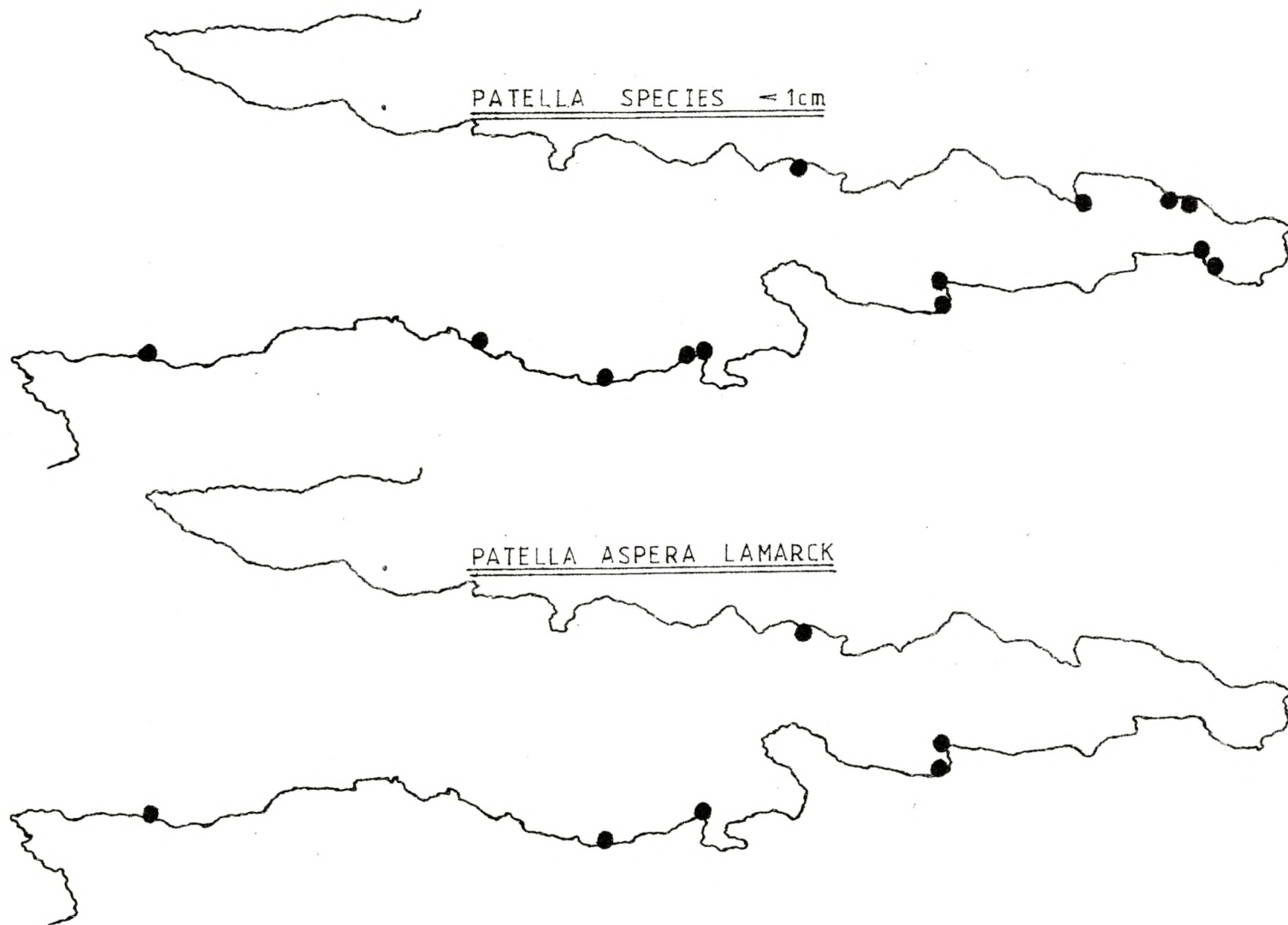


OSTREA EDULIS L.

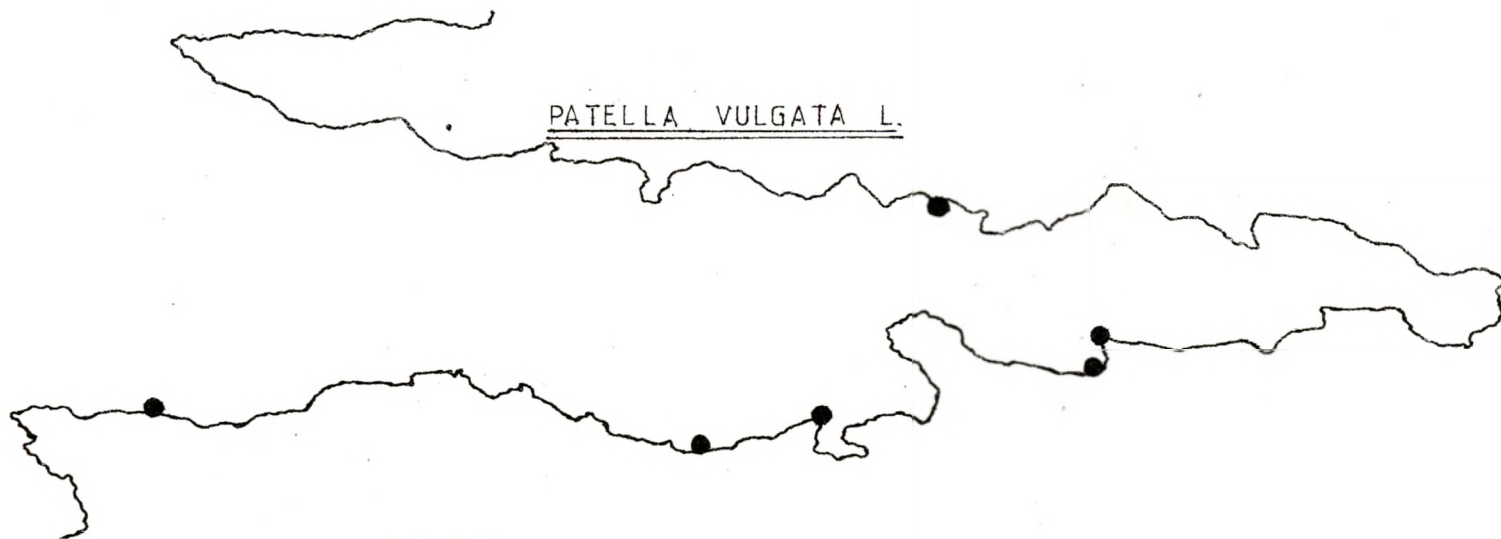


PATELLA SPECIES > 1cm



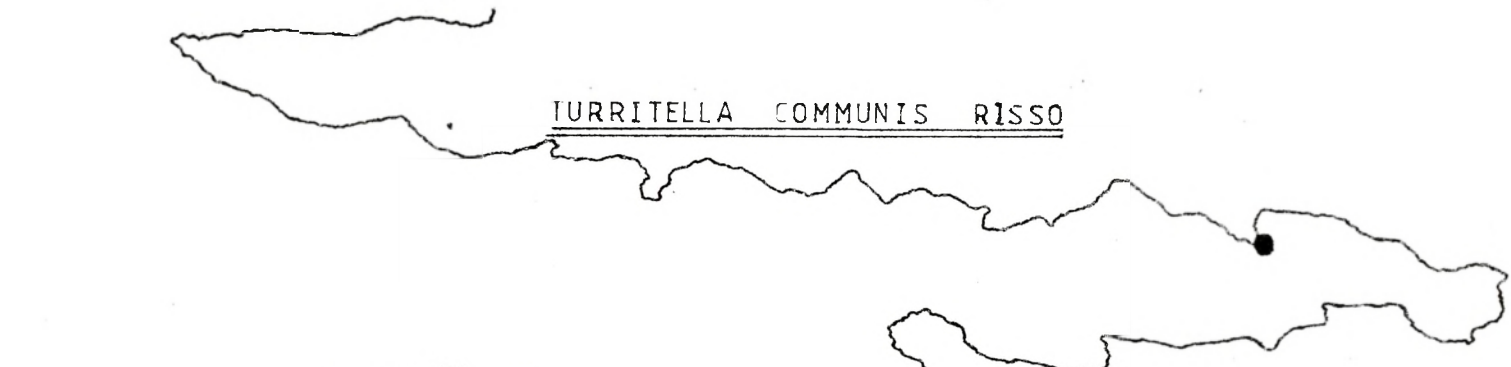


PATELLA VULGATA L.

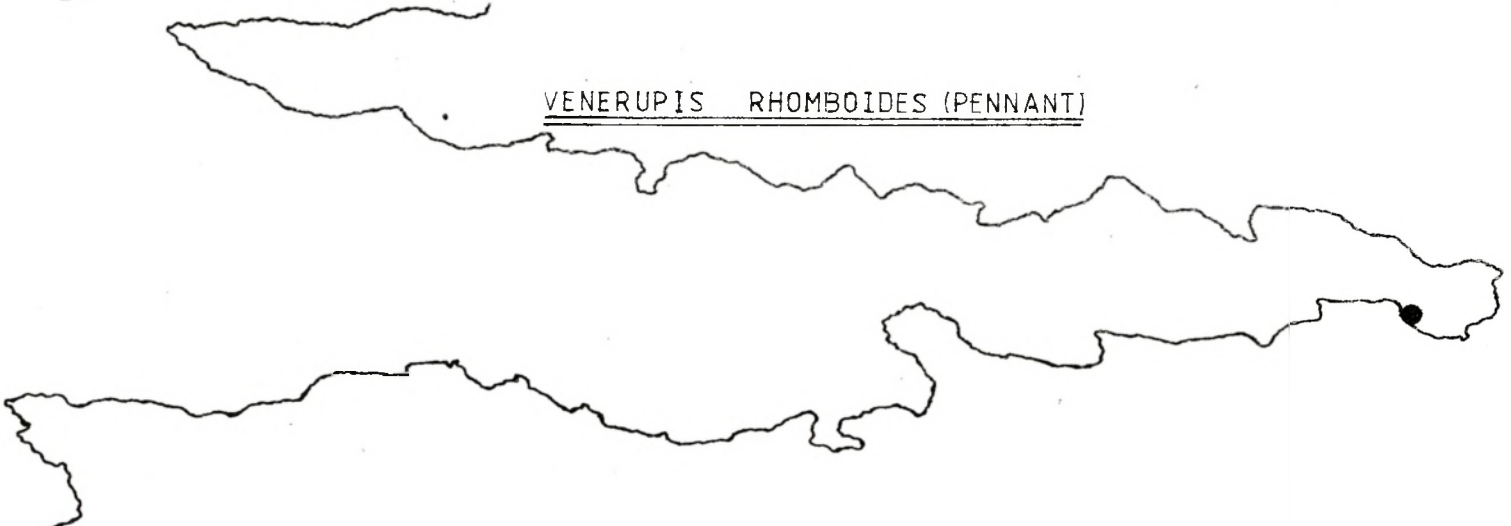


PATINA PELLUCIDA (L.)



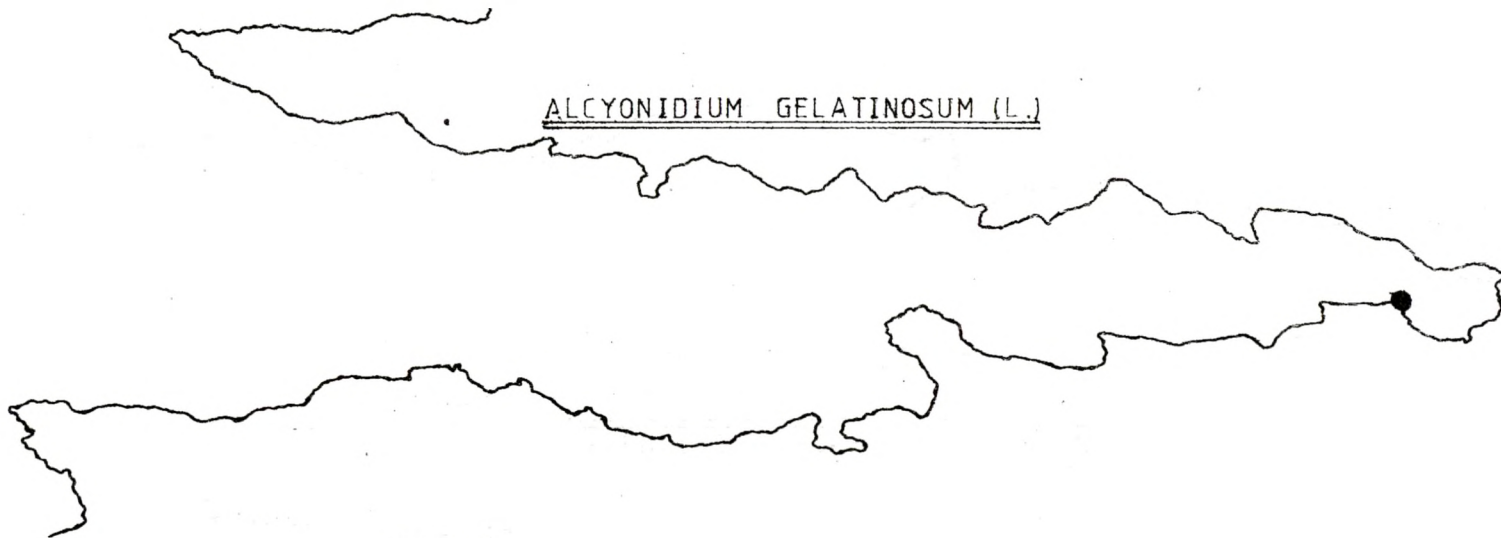


TURRITELLA COMMUNIS RISSO

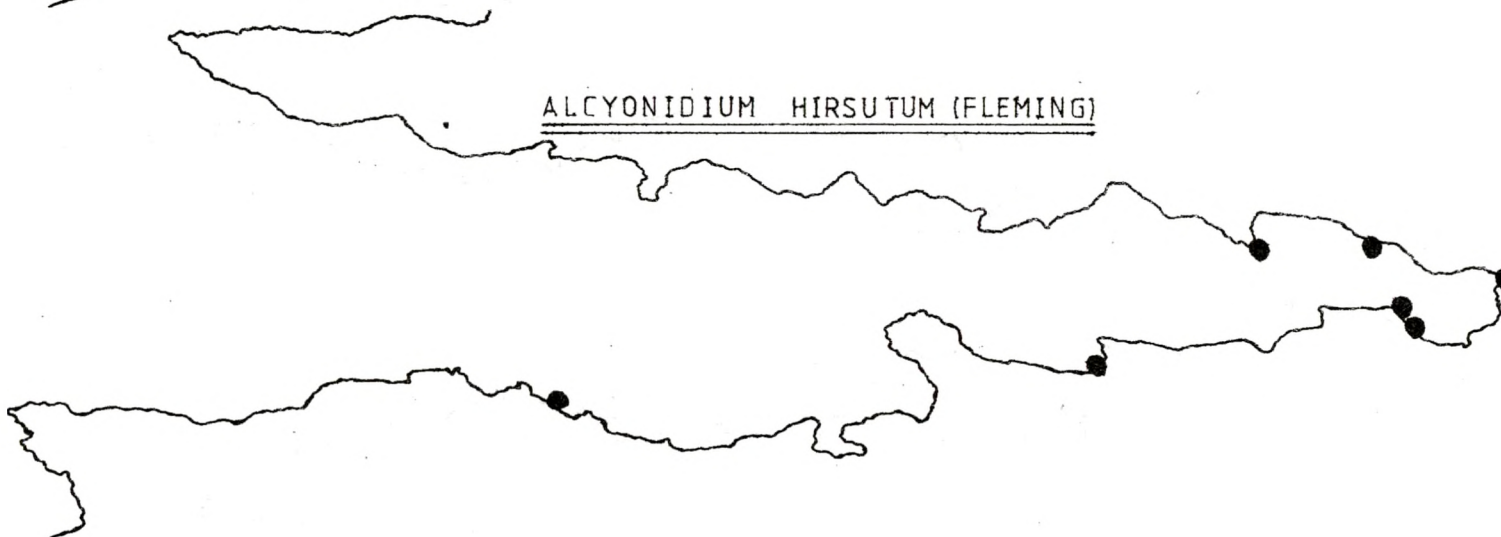


VENERUPIS RHOMBOIDES (PENNANT)

ALCYONIDIUM GELATINOSUM (L.)



ALCYONIDIUM HIRSUTUM (FLEMING)

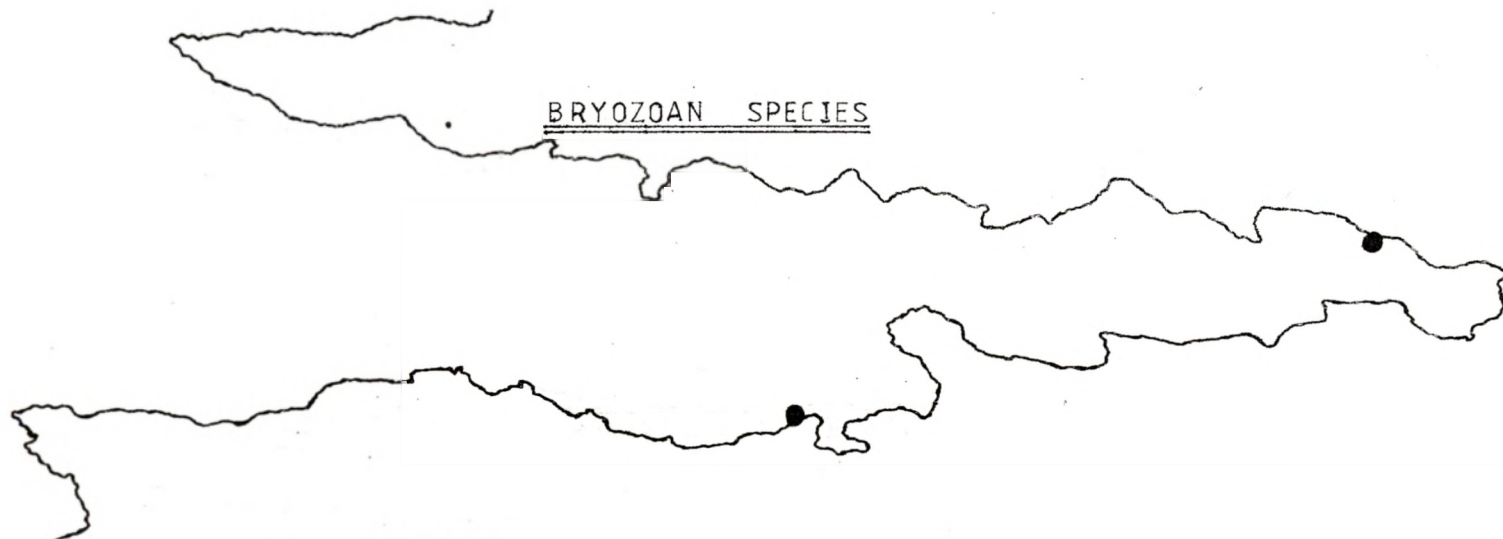




ALCYONIDIUM POLYOUM (HASSALL)

BOWERBANKIA CITRINA (HINCKS)

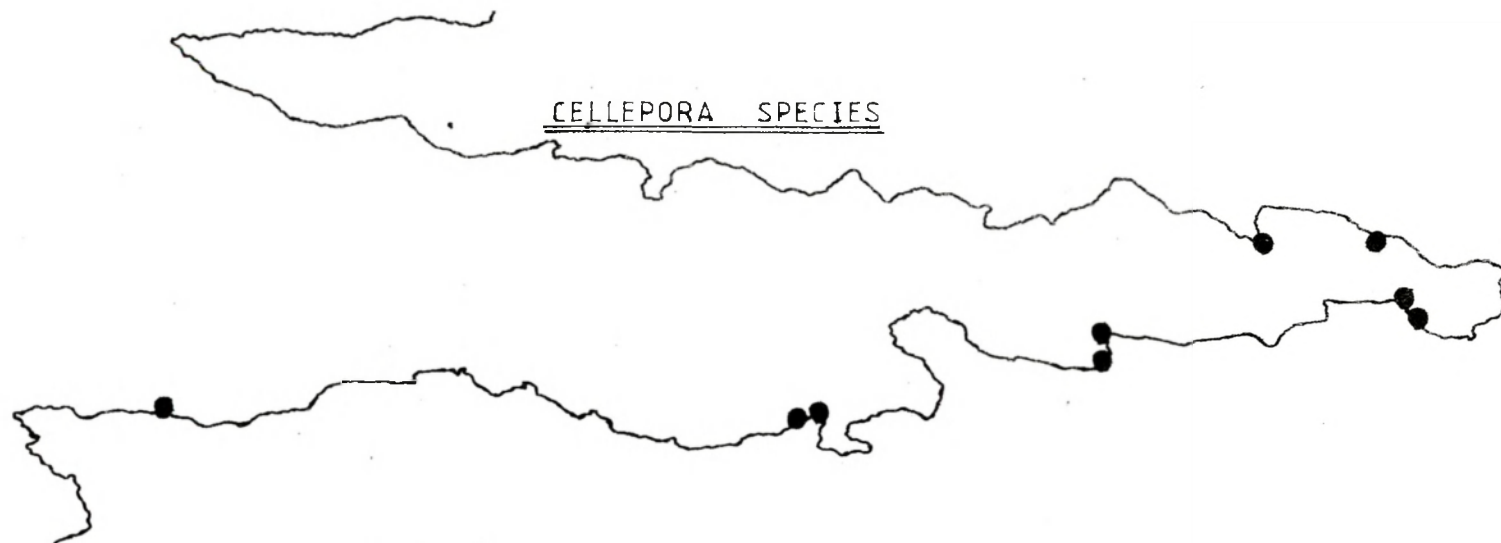
BRYOZOAN SPECIES



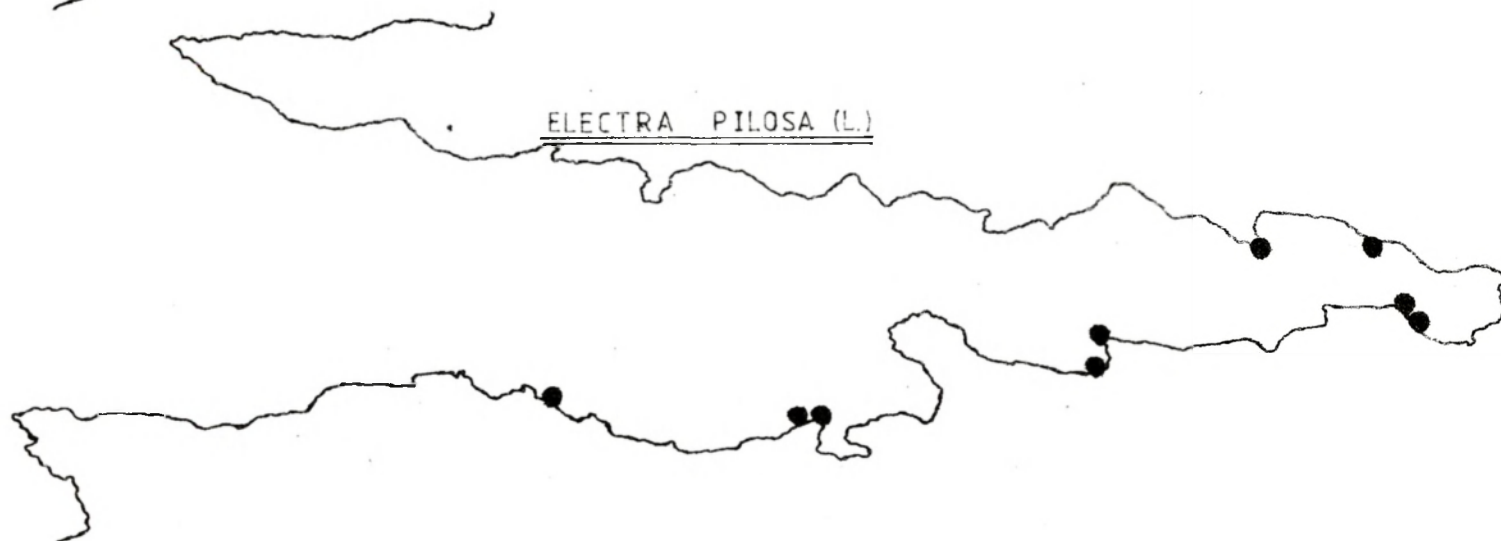
CELLEPORA PUMICOSA L.



CELLEPORA SPECIES



ELECTRA PILOSA (L.)

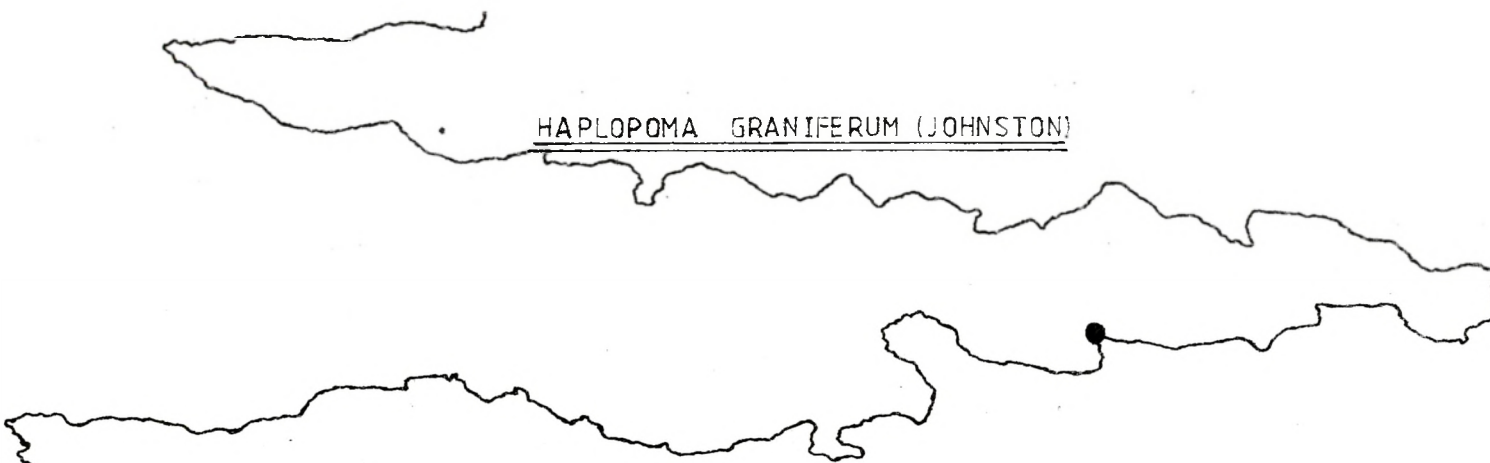


ELECTRA SPECIES

This map shows the distribution of *Electra* species in the Iberian Peninsula. A single black dot is located in the northern part of the peninsula, specifically in the region of Cantabria or northern Castile.

FLUSTRELLIDRA HISPIDA (FABRICIUS)

This map shows the distribution of *Flustrellidra hispida* in the Iberian Peninsula. There are six black dots indicating collection sites: two in the northern part (Cantabria and northern Castile) and four in the southern part (Andalusia and Murcia).



A map showing the distribution of *Haplopoma graniferum*. It features a coastline with a single black dot indicating a collection site on the eastern shore.

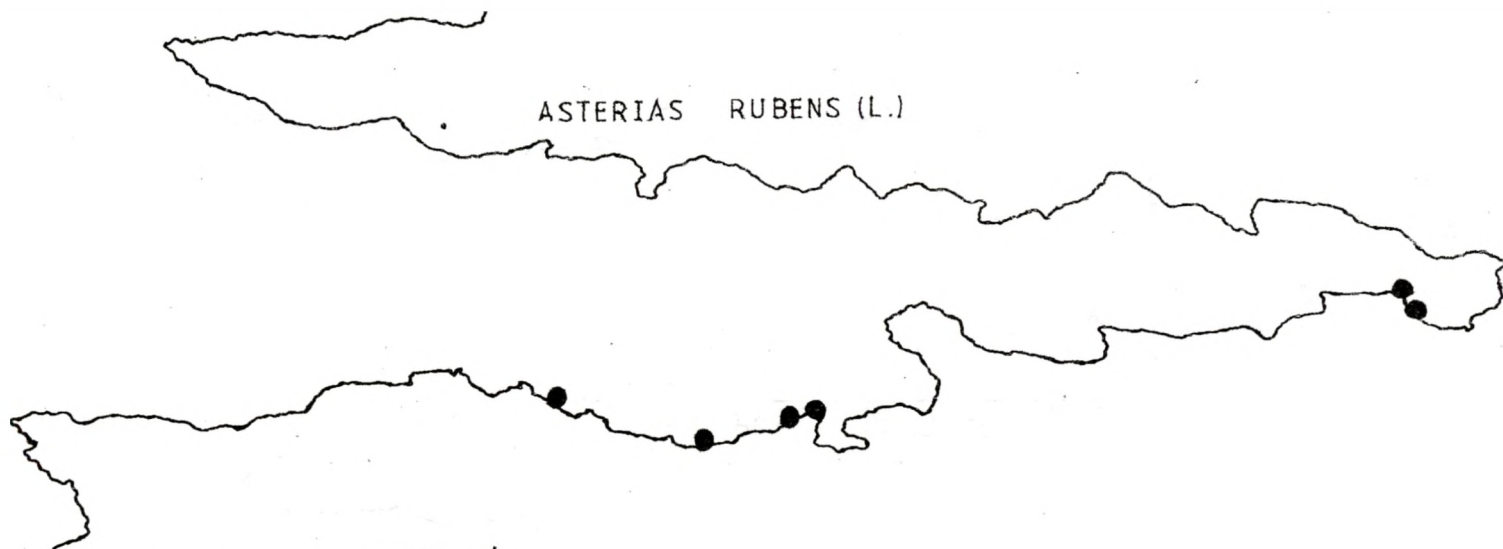
HAPLOPOMA GRANIFERUM (JOHNSTON)



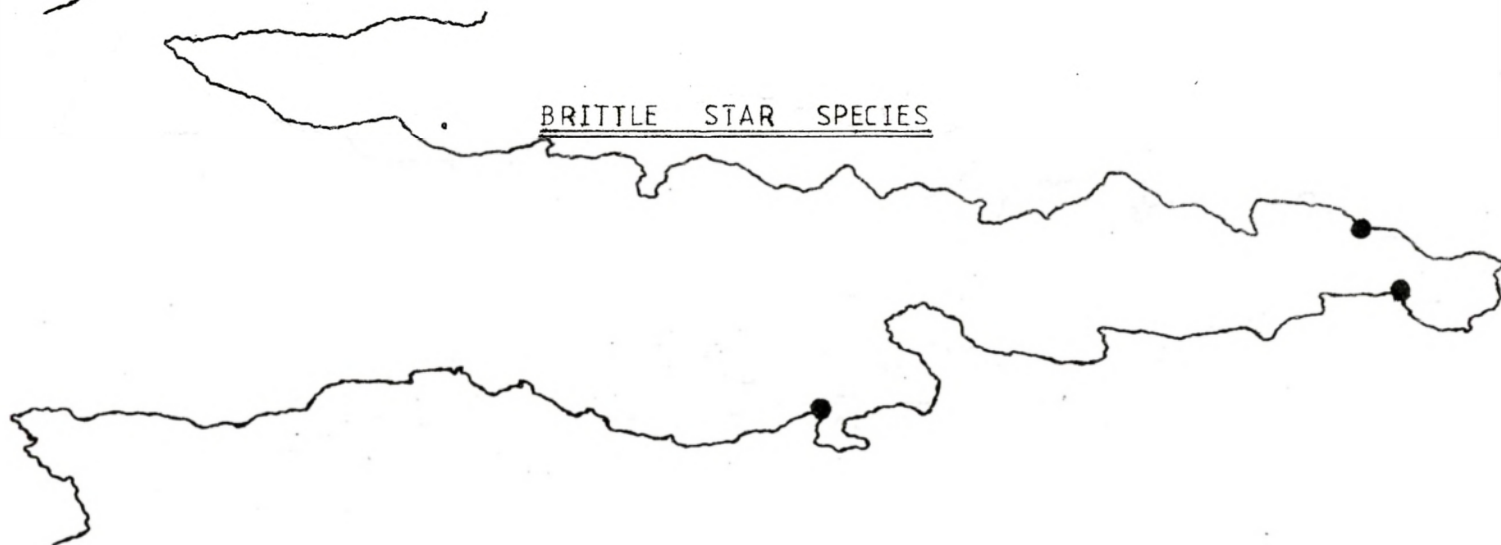
A map showing the distribution of *Membranipora membranacea*. It features a coastline with five black dots indicating collection sites: one on the western shore, one on the eastern shore, and three clustered in the southern region.

MEMBRANIPORA MEMBRANACEA (L.)

ASTERIAS RUBENS (L.)



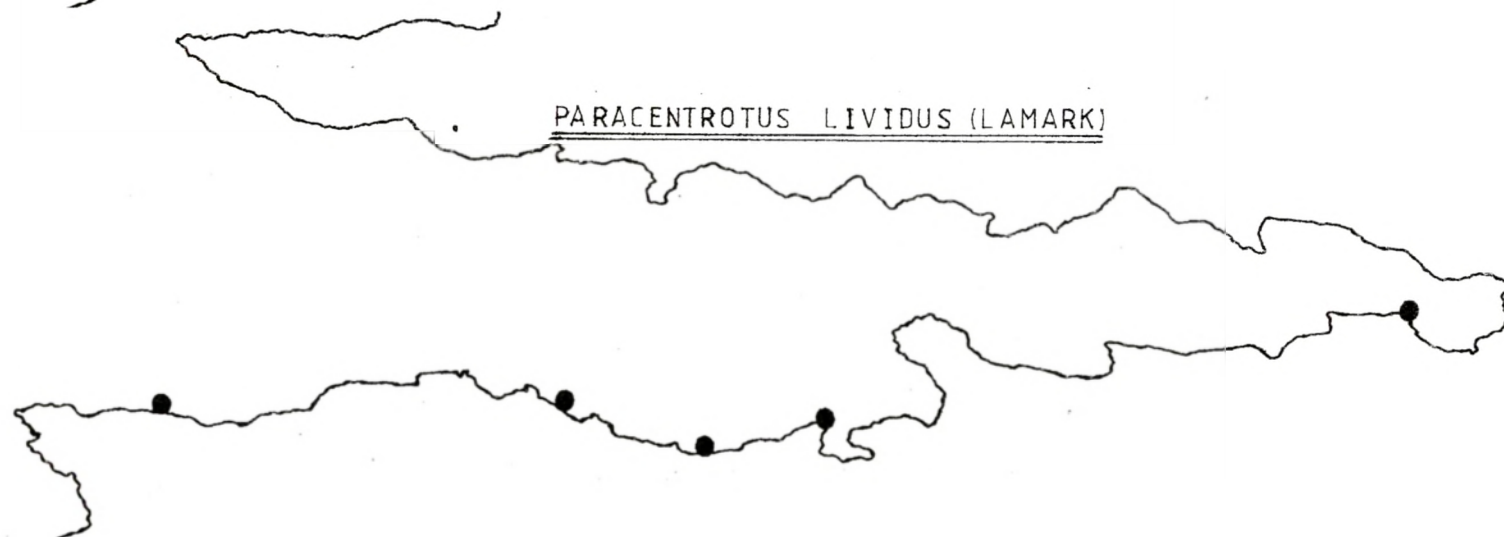
BRITTLE STAR SPECIES



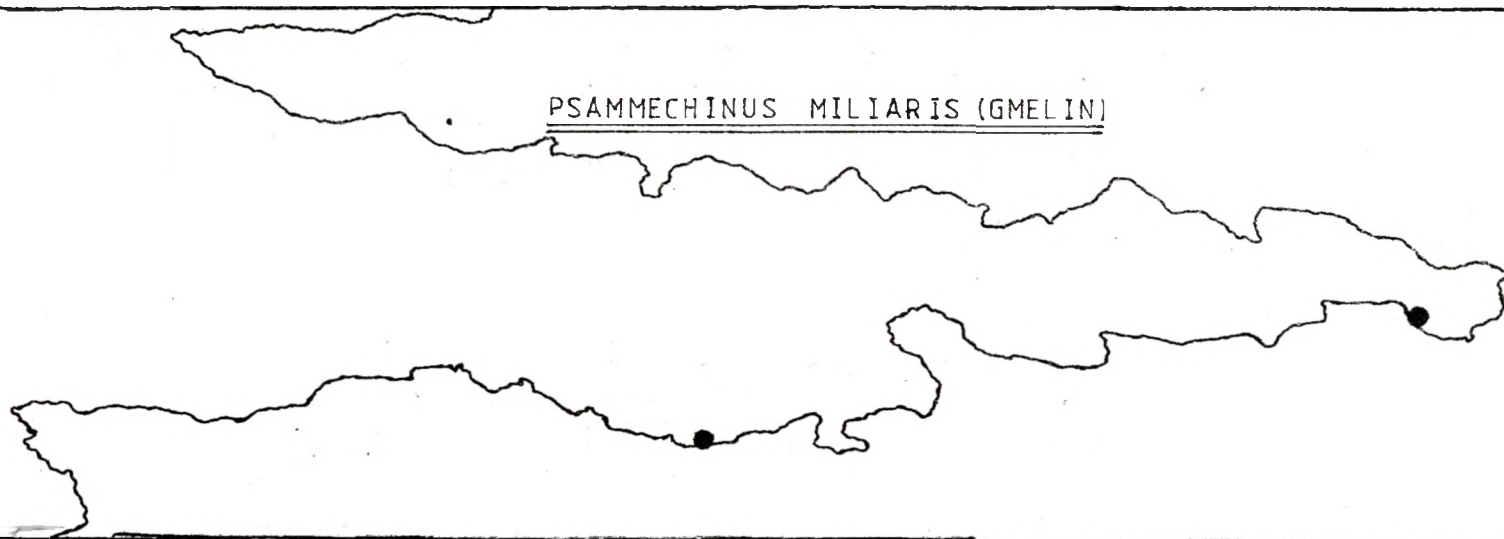
OPHIOTHRIX FRAGILIS (ABILDGAARD)



PARACENTROTUS LIVIDUS (LAMARK)



PSAMMECHINUS MILIARIS (GMELIN)



BOTRYLLOIDES LEACHI (SAVIGNY)

