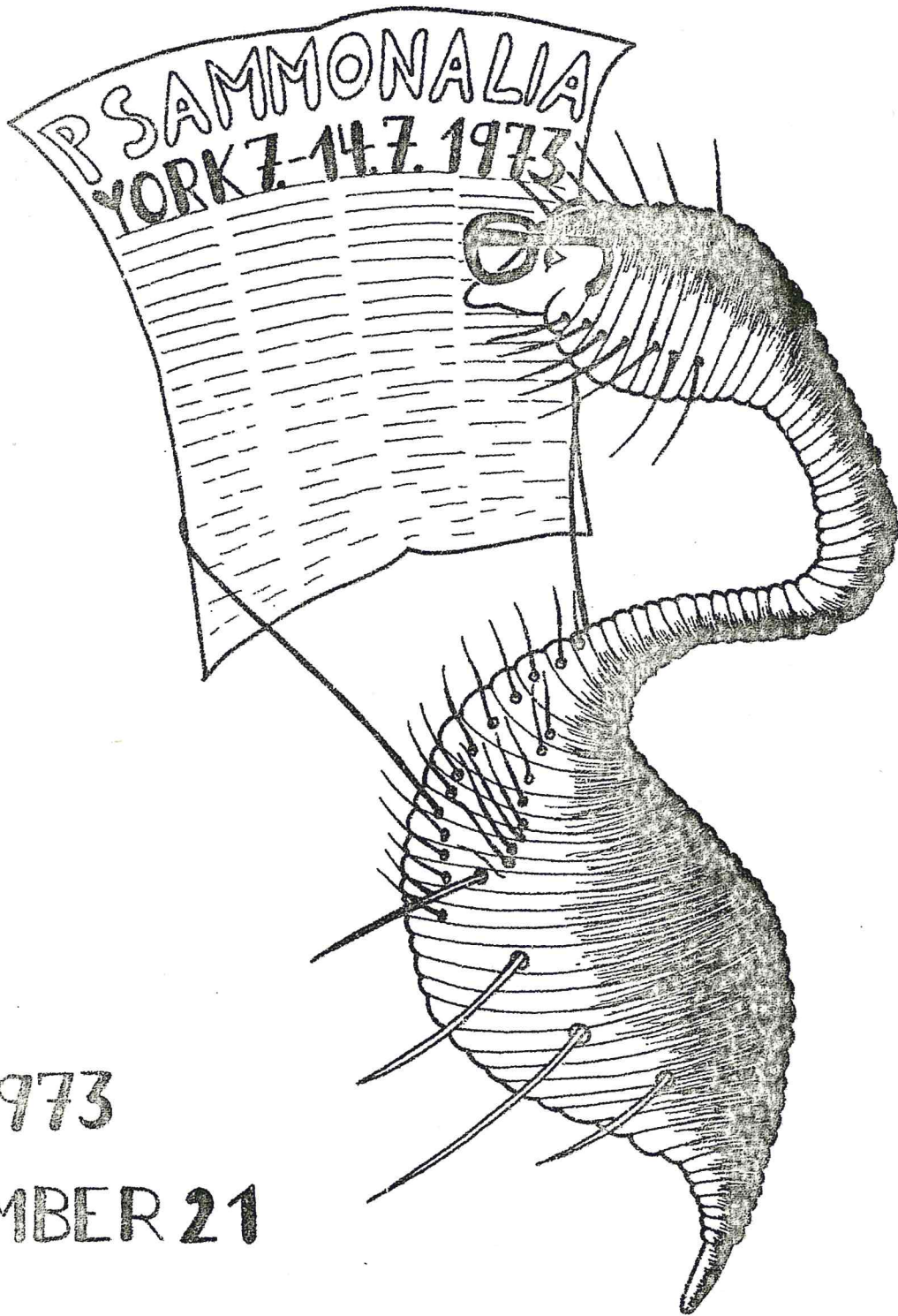


PSAMMONALIA



1973

NUMBER 21

NEWSLETTER OF THE ASSOCIATION
OF MEIOBENTHOLOGISTS

P S A M M O N A L I A

Newsletter of the Association of Meiobenthologists

Number 21

July, 1973

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E D I T O R I A L

During the Second International Meiofauna Conference in York, 7th - 14th July, there was a more or less formal session of the Association of Meiobenthologists. Of the Council's members were present W. Westheide (Chairman), A. McIntyre, J. Gray (Committee), B. Coull, W. Hummon, F. Riemann (Board of Correspondents).

Situation and difficulties of the Association were discussed briefly. Besides, the vacant positions (January 1st, 1974) of the Chairman and two Committee members were up for discussion. This was necessary because only 1-2% of the members voted of the whole membership:

- 1) Chairman and Committee recommended Dr. Bruce C. Coull (Baruch Coastal Research Institute, University of South Carolina, Columbia, S.C. 29208, USA) for the Chairmanship of 1974-75 and Editor of PSAMMONALIA.

Following a short biographical sketch of Dr. Coull:

Born 16 September 1942, New York, N.Y.. B.S. degree in Biology, 1964 Moravian College, Bethlehem, Pennsylvania; M.S. (1966), Ph.D. (1968) Lehigh University, Bethlehem, Pennsylvania. Postdoctoral work, Duke University Marine Laboratory, Beaufort, North Carolina (1968-70). Assist. Prof. of Zoology, Clark University, Worcester, Mass. (1970-1973). Research on marine meiofauna entailing systematics, ecology and physiology in Bermuda, Yugoslavia, Tunisia, Western North Atlantic shelf, slope and deep sea, Jamaica, Barbados, Virgin Islands and U.S. east coast salt marshes. Convenor of special interest group on Meiofauna, 1st International Congress of Systematic and Evolutionary Biology, Boulder, Colorado, August, 1973. More than 25 publications, mostly dealing with systematics and ecology of harpacticoid copepods.

- 2) At January 1st 1974 Duane W. Hope and John S. Gray leave the Committee. It was decided that the vacant positions should be filled again with one member from the United States and one from Europe; out of the proposed candidates Dr. William D. Hummon, Department of Zoology, Ohio University, Athens, Ohio 45701, USA, and Dr. Günter Arlt, Sektion Biologie Universität Rostock, 25 Rostock, Freiligrathstr.7-8, GDR, were accepted by the assembly.
- 3) The assembled members were in favour of a separation of the function of Editor and Treasurer. Thus, the Council proposes the following amendments to the Constitution:

Article 6: The elective officers shall be a Chairman, a Treasurer and up to four additional members. (Insertion of "a Treasurer")

Article 8: The Chairman shall, in his capacity as Editor, be responsible for the publication of the newsletter of the Association.
(Terminate Article 8 here)

New Article 8b: Treasurer. The Treasurer shall keep the financial records of the Association...of the succeeding year.

Members wishing to vote against the above amendments should write to the Chairman before October 1st 1973. Should a two-thirds majority of the Members be in favour of the amendments then the Constitution shall be deemed amended.

As Treasurer for the period of 1974-75 Dr. John H. Tietjen, Dept. of Biology, City College of New York, 138th Street at Convent Avenue, New York 10031, USA, was proposed and accepted.

4) At least since 1970 there is the intention to publish keys on various taxa of meiofauna. According to difficulties of a combined publication, it was suggested to distribute the keys successively together with Psammonalia. All members who have prepared keys are asked for sending them to the editor. In the same context, it was pointed to increasing difficulties for publishing systematical papers.

5) For advices and suggestions to the editor it was suggested to have a special page in PSAMMONALIA. This page will be in the next issue for the first time.

Enclosed you find a questionnaire on Deep Water Meiofauna of H. Thiel. We ask you to answer this to gather full information on this type of work. In addition we hope that this idea of information circulation will be taken up by other meiobenthologists to compile similar circulars under other aspects.

We suggest: Quantitative studies on shallow water meiofauna

- Life cycle investigations in meiofauna
- Ecophysiological studies on meiofauna
- Pollution studies on meiofauna
- Fresh water meiofauna

6) There will be a special bill too in the next issue, showing each member if and how much he has to pay up for the Association.

A financial report is exceptionally omitted in this number of PSAMMONALIA.

Wilfried Westheide
Editor

NEW MEMBERS

Robert James Bleakley
Department of Marine Biology
David Keir Building
Queen's University
Belfast, N.Ireland

("Field of Interest: Ecology of Meiofauna. I am currently sampling about 10 sandy beaches on a monthly basis. I am recording numbers of all taxa of meiofauna classified to various levels from 5 x 25 cm cores per beach and hope to correlate these data with measurements of oxygen availability, depth, temperature, granulometry, salinity, pH, nitrate, nitrite, ammonia and aminoacids, phosphate, Zn, Cd, Pb, Fe, Cu, %moisture, %organic matter.")

Francis de Boveé
Laboratoire Arago
66650 Banyuls-sur-Mer, France

(" Systematics and population dynamics of Nematoda")

Rose Catherine Cefalu
Senior Research Assistant
Department of Functional Biology
U. of Miami School of Marine & Atm. Science
10 Rickenbacker Causeway
Miami, Florida 33149 USA

(" I am working with estuarine meiofauna in mangrove habitats.")

Dr. Robert Ellison
Department of Environmental Sciences
University of Virginia
Charlottesville, Virginia 22903, USA

("Energy flow in estuarine systems - including salt marsh and inter-tidal mudflats- sediment respiration and relationships with meiofaunal communities; foraminiferal distributions, respirometry, and calorimetry.")

Fil kand Sverker Evans
Zoologiska Institutionen
Box 256
751 05 Uppsala, Sweden

Dr. Edmonde Jaspers

1.) Instituut voor Zeewetenschappelijk Onderzoek

73 Koninklijke Baan

8420 Klemskerke - De Haan, Belgium

2.) Rijksuniversiteit Gent

Interfacultair Centrum voor de Studie Lucht-Bodem en Waterverontrei-

niging (Interfaculty Center for Study of Air-Soil- and Water Pollution)

(" Meiofauna ecology of brackish and marine environments, culturing of meiofauna organisms.")

Colin Moore

Marine Biological Station

(Liverpool University)

Port Erin, Isle of Man

(" A study of distribution of meiofauna in Port Erin Bay and seasonal cycles of abundance littorally, sublittorally and on Fucus serratus, with particular reference to the harpacticoid copepods. I also hope to compare the harpacticoid faunas of the various types of bottom deposit around the South of the Isle of Man.")

CHANGES OF ADDRESS

James Baker

Southwest Research Institute

3600 Yoakum

Houston, Texas 77006, USA

Roger P. Harris

University of Maryland

Natural Resources Institute

Chesapeake Biological Laboratory

Box 38, Solomons, Maryl. 20688 USA

Bruce C. Coull, Ph.D.

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Columbia, South Carolina 29208, USA

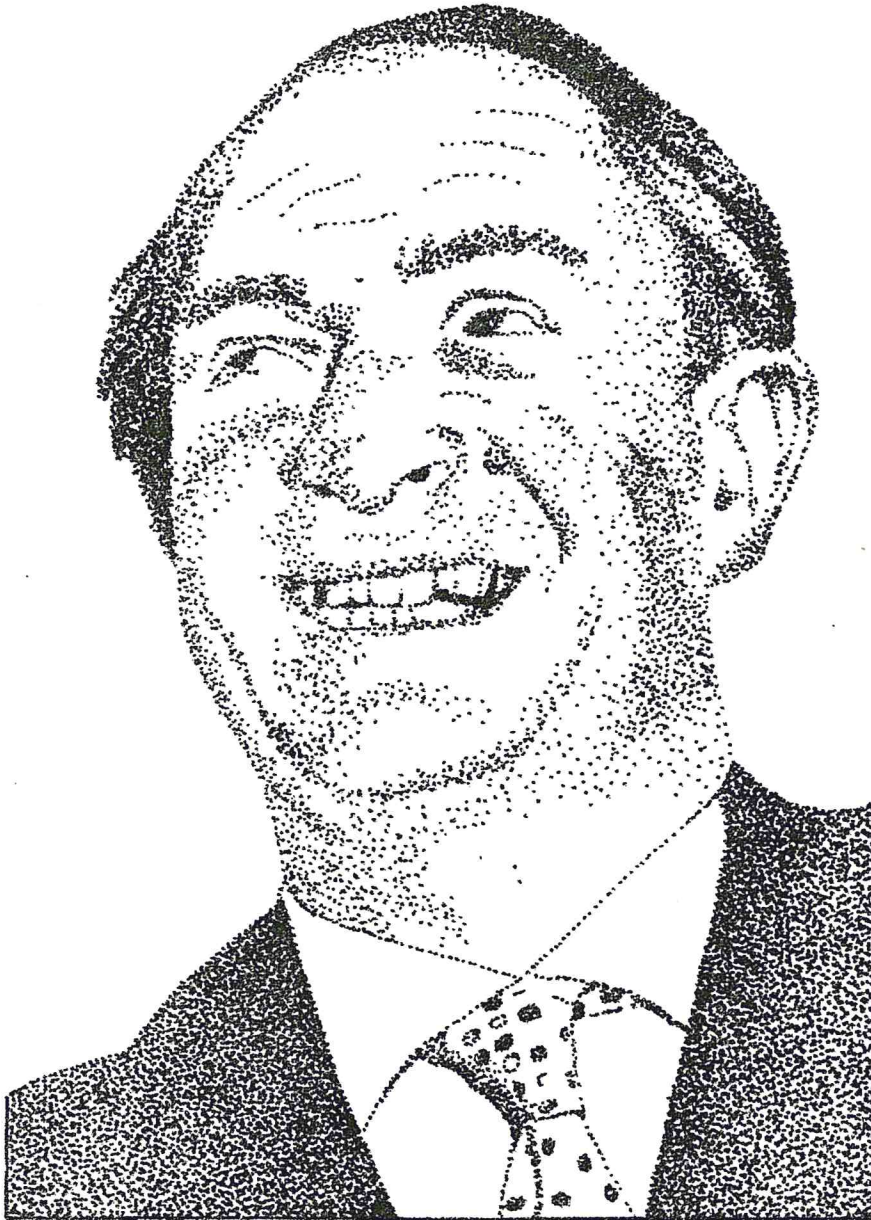
Hjalmar Thiel

Scripps Institution of Oceanography

P.O.Box 109

La Jolla, California 92037, USA

(for Aug.1, 1973 - June 30, 1974)



The Second International Meiofauna Conference in York, 7th-14th July, was dedicated to the 75th birthday (10.8.1973) of

Prof. Dr. Dr.h.c. ADOLF REMANE

who discovered the biotope "mesopsammal" and many of its specific organisms.

In contrast to the First International Meiofauna Conference in Tunis, 1969, this one was an open meeting for all interested people. There were approximately 70 participants of 16 countries; there was a total of 35 papers, covering a wide range of current research topics. Many papers were concerned with research actually in progress, stimulating much discussion, valuable to both speakers and audience alike.

It is evident that the scope of meiofauna research has increased widely since the pioneer studies of Prof. Remane, which, however, will always be regarded as the most important stimulus to most of the later investigations.

The conference was voted an enormous success by all participants. Much of the success was due to the excellent organization of John Gray.

Following papers were given:

P.R.O. Barnett: "Efficiency of corers for meiobenthic sampling".

P.J.S. Boaden: "Thiobios - from pyruvate to pollution, an integrated approach to anaerobic meiofauna from community to cellular chemistry."

F. de Bovée & J. Soyer: "Annual densities and vertical distribution of meiobenthos from coastal terrigenous muds".

L. de Coninck: "Some general remarks on the nematode fauna of the Southern Bight, North Sea".

B.C. Coull: "The role of copepods in the marine meiobenthos."

R.L. Ellison: "Respiration of intertidal muds and its relationship with the meiofauna".

R. Elmgren: "Benthic meiofauna as indicator of oxygen conditions in the northern Baltic proper".

H.M. Feder: "The meiofauna of two beaches in Prince William Sound, Alaska".

S.A. Gerlach: "On Nematoda".

O. Giere: "Ecosystem, food relations and productive role of some marine interstitial enchytraeids".

J.S. Gray and N.C. Hulings: "The importance of sediment characteristics in the control of numbers of meiofauna".

J.S. Gray: "Predicting and monitoring effects of pollution on meiofauna".

B.L.S. Hardy: "The effects of temperature on two populations of the harpacticoid *Asellopsis intermedia* T.A. Scott".

C. Heip: "The life-cycle of *Cyprideis torosa* (Crustacea Ostracoda)".

C. Heip: "Spatial patterns of meiobenthic populations".

N. Hickman: "Metabolic studies on marine meiofauna".

N.C. Hulings: "A comparative study of the meiofauna of polluted and unpolluted beaches in Lebanon".

W.D. Hummon: "Spatial and temporal similarity within an intertidal meiofauna subcommunity of Gastrotricha".

S. Husmann: "The ecological equilibrium in subterranean waters and its disturbance by vertical infiltrations into layers of sand gravel."

M. Lacassagne: "Biologie des Hydrozoaires mésopsammiques: cycle d'*Armohydra janowiczii* (Limnomedusae); les Othoïdrides (Actinulides)".

P. Laserre: "Ecophysiological studies on meiofauna".

A.D. McIntyre, D.J. Munro & D.S. Geddes: "Studies on sand meiofauna."

P.G. Moore: "Algal meiofauna and the community associated with *Laminaria holdfasts*".

A.L. Munro: "Bacterial activities in a littoral sandy beach".

R. Rieger & W. Sterrer: "New spicular skeletons in Turbellaria and the occurrence of spicules in marine meiofauna".

F. Riemann: "On nematodes with flagelliform tails from marine soft bottoms."

J. Soyer & J.Y. Bodiou: "Inter- and intra-community variations of the specific diversity in the assemblages of harpacticoid copepods from muddy bottoms".

B. Swedmark: "Tribute to Professor Remane".

H. Thiel: "Deep-sea meiofauna".

J.H. Tietjen & J.J. Lee: "Laboratory culture of marine meiofauna: Techniques and applications".

G. Uhlig: "A combined method for the quantitative extraction of living meiofauna."

J. Van der Land: "Meiobenthos Priapulida".

R. Warwick: "Investigations of marine nematode Life-cycles by repeated field samples".

W. Westheide & P. Schmidt: "Biology of the Dinophilidae (Polychaeta, Archiannelida): Two films on *Dinophilus curvicaudatus* and *Trilobedrilus* sp."

NEWS FROM THE MEMBERS

Peter Schmidt, Göttingen: " I came back from Galapagos in the beginning of April. My colleagues and I have been able to carry out our project, there, as we had planned before. Of course it will take a considerable time to come to an end with the study of material but it seems possible, already to give a general picture.

The interstitial fauna of Galapagos proved to be very rich. With the exception of Dalyellioida, Bryozoa and Mystacocarida, all groups are there and we managed to study all of them, except Rotatoria and most of the Oligochaeta. Protozoa were not studied, either. Altogether we may have a total of some 400 to 500 species, most of them new to science (at least as far as the "soft" fauna is concerned); on the other hand, some of the species found are identical with or closely related to species known previously from other parts of the world. Probably, we will have to establish remarkably few new genera, only, and possibly no higher systematic categories at all. This means that the interstitial fauna of Galapagos has not had much of an evolution of its own.

Numbers varied greatly from beach to beach. The highest densities observed are similar to those known from the most densely populated beaches on our European shores. The zonation patterns are very clear. The general distribution within the beach is the same as elsewhere: high numbers in the damp layer and very low numbers in the subsoil water. In the course of the year we observed considerable fluctuations in numbers. It seems difficult to explain them satisfactorily.

All results will be published in the series "Mikrofauna des Meeresbodens". The first three papers, a general introduction and two studies on the Gnathostomulida and the Turbellaria Mesostominae, are in print.

Meiofauna research in Vienna, Austria (Werner Katzmann, Reinhard Rieger):

I. 1. Zoologisches Institut der Universität Wien, A-1010 Wien, Dr. Karl-Lueger-Ring 1: Adriatic-Mediterranean-Softbottom-Project, under the direction of Doz. Dr. Luitfried von Salvini-Plawen.

- 1) Zoogeography, taxonomy morphology and phylogeny of Actinia, Mollusca, Priapulida, Holothuria (Luitfried von Salvini-Plawen).
- 2) Zoogeography, taxonomy and morphology of Polychaeta (Werner Katzmann).
- 3) Zoogeography, taxonomy, morphology and life history of Sipunculida (Davor Cukrov).
- 4) Taxonomy and morphology of Ostracoda and Isopoda (Walter Schirl).
- 5) Taxonomy, morphology and life history of Acochlidiacea (Opisthobranchia) (Eberhard Wawra).

II. Lehrkanzel für Meeresbiologie under the direction of Prof. Dr. Rupert Riedl:

1. Morphological and systematical studies:

- a) Ultrastructure of the bursa in Gnathostomulida (Marlene Mainitz).
- b) Scanning Electron Microscopy of the mouth cavity in marine Nematoda (H. Eder).
- c) Symbiosis of microorganisms and marine Nematoda (Stilbonematidae), Ultrastructure (Jörg Ott).
- d) Systematical studies on new forms of marine Nematoda (Jörg Ott).
- e) Comparative ultrastructure studies of the body wall of interstitial Scolecida with special emphasis on the evolution of cuticularized epithelia (Gunde Rieger and Reinhard Rieger - in collaboration with the Dept. of Zoology, University of North Carolina, Chapel Hill, USA).

2. Ecology:

Experimental laboratory studies on the manipulation of the physical and chemical parameters of the sulfid-system (H.E. Schmidt).

Hjalmar Thiel, Hamburg: " During the Second International Conference on Meiofauna in York, it was suggested that steps should be taken to encourage closer cooperation between meiobenthologists interested in special topics. A first questionnaire will be the basis for a compilation on the investigations on DEEP-WATER MEIOFAUNA. "Deep Water" in this respect may be defined as all sea bottoms between the outer continental shelf and maximum depths of the oceans.

I ask you to send the included questionnaire before November 1st 1973 to my new address: Scripps Institution of Oceanography

P.O.Box 109, La Jolla, California 92037, USA

Please send a copy of this letter and of the questionnaire to any other persons you think may not have received it through PSAMMONALIA or notify me of the name and address so that I can arrange contact. I feel that we should include the work of geologists occupied with live foraminifera and ostracods. With many thanks for your cooperation."

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B R A Z I L I A N M E I O F A U N A

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Notes on the Brazilian Coast.

The coast of Brazil averages 8,000 km of perimetrical extent. The northern coast consists of flats and mangrove swamps. There are also some coastal lagoons. In the estuary of the Amazon river there are islands of different sizes. Thereafter, the coast rises forming - sandstone banks. Coastal dunes, some 30 - 40 m high are present for a long extent on the littoral. These dunes can modify the courses of the rivers. In the East the mainland coast consists of sandstone bars and lagoons. Farther outside there are numerous sandy and coralline reefs. Southward there are sand flats and lagoons. In the southern littoral there are coastal lagoons, steep cliffs, coarse and fine sandy beaches, mangrove swamps, and some stretches with many dunes and lagoons. Volcanic islands are to be found off the coast, e.g. Fernando de Noronha, Trinidad, and Martin Vaz, S. Pedro and S. Paulo rocks.

On the coast of Brazil there are several Marine Stations, some of which, from north to south (see map) are listed as follows:

1. Estacao de Ciências do Mar

Universidade Federal do Ceará

Av. da Abolicao 3207

FORTALEZA - CEARÁ

(Director: Dr. Melchiades Pinto Paiva)

2. Laboratório de Ciências do Mar

Universidade Federal de Pernambuco

Av. Bernardo Vieira de Melo s/n

Piedade, Jaboatao - 54000 PERNAMBUCO

(Director: Dr. Paulo Nobrega)

3. Estacao de Biologia Marinha

Universidade Federal da Bahia

Rua Barao de Jeremoabo s/n

Ondina - SALVADOR - BAHIA

(Director: Dr. Antonio Brito)

4. Instituto de Pesquisas da Marinha

Rua Ipiru s/n

Ilha do Governador, RIO DE JANEIRO

20.000 GUANABARA

(Director: Com. Paulo de C. Moreira da Silva)

Coastal Laboratory situated at Cabo Frio offers some research facilities.



5. Instituto Oceanográfico
Universidade de Sao Paulo
Caixa Postal 9075
Sao Paulo - BRAZIL
(Director: Alm. Alberto Franco)

Northern Marine Station at the Bay of Flamengo - Ubatuba
Southern Marine Station in the mangrove region of Cananeaia
(Both stations provide research facilities)

6. Instituto de Biologia Marinha
Caixa Postal 11.230
01.000 Sao Paulo - BRAZIL
(Director: Prof. Dr. P. Sawaya)

Station situated on the beach of Segredo - Sao Sebastiao
offers all facilities

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Togarma evelinae n.g., n.sp., Mesoda
gabriellae n.g., n.sp., Kata evelinae
n.g., n.sp., Parotoplana moya n.sp.,
Nematoplana naia n.sp., Thematidae
n.fam., Theama evelinae n.g., n.sp.,
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Proschizorhynchus atopus n.sp.,
Schizorhynchoides martae n.sp.,
Promonotus erinaceus n.sp., Mono-
celis tabira n.sp., Philosyrtris
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