

PSAMMONALIA

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International Association of Meiobenthologists



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EDITORIAL

Guest Editorial: Split at the Microscope, Lump at the Word Processor

The Editorial of #107 (February 1995) describing the quandary between splitting and lumping reminds me of the guy who goes to the psychiatrist to complain about his dreams. "One night", he says, "I dream I am a wigwam, and then the next night I dream I am a teepee. What am I?" The psychiatrist ponders it for a moment, then says: "I think I know what your problem is. You are just too tense."

Be that as it may, I don't think Paul's comfortable bias towards lumping does complete justice to this dilemma. Being in the middle of summarizing 25 years worth of collecting Gnathostomulida in the tropical West Atlantic I am still torn daily between emphasizing or ignoring the differences. I hasten to add that I fully agree one should not describe a new species every time one's specimens have a few more or fewer spines, setae or teeth than the original description. But let me also suggest that a biological species can only be cornered taxonomically by trial and error (after all, even the members of a species, those ultimate judges of the biological species concept, cannot always be trusted, as the existence of hybrids shows...). What I don't like about "premature lumping", i.e., assigning a specimen to a species while looking at it in the microscope, is that the criteria for it remain literally in the eye of the beholder, whereas splitting demands that one record the differences and justify their use. The practical concept I prefer is to be a splitter at the microscope, and a lumpier at the word processor - which can be summarized as follows:

1. Record each single specimen as a separate entity, and describe or measure it as meticulously as is practical, especially where it differs from the original description, and when specimens come from a new habitat or locality.
2. Assign the new record to an existing species whenever the differences are not significant or consistent enough, making sure, however, to summarize at least the differences one has encountered.

In this way, the literature does not get unduly burdened with new species descriptions, yet information regarding within- and between-population variability is recorded and can be used, by anyone, to either re-fine the old species, or de-fine a new one if and when this should become necessary. And, as a bonus, the practicing taxonomist avoids getting too tense. *Wolfgang E. Sterrer*

Lumpers versus Splitters

"I feel uncomfortable over your constant use of the terms splitters and lumpers. Neither one is complimentary, because both are based on a subjective type of taxonomy, and both carry the implication that all decisions are entirely arbitrary. The taxonomists of my acquaintance personally felt that the terminology is derogatory, and has no place in either polite or objective taxonomy." *Mildred Stratton Wilson, replying to Trevor Kincaid, 1956.*

Random Samples

Ah, it does feel great to get a response back from something I have written. One has to say something either absurd or controversial to provoke a colleague to write back. Thanks to Wolfgang Sterrer for his thoughtful reply. My research assistant, Robert Burgess, found the quote from Wilson, which is in a biography on Wilson written by Damkaer¹. Apparently, Wilson and Kincaid had a running battle on this issue, making for interesting reading.

Another interesting source on this debate is the recent paper by Jackson and Cheetham². Their very careful and detailed taxonomy on bryozoa, designed to avoid lumping, provides the most convincing evidence to date that speciation occurs in punctuated events.

I look forward to NIMCO in France, and also wonder about the next venue. This is the time to volunteer your services, or suggestions for a venue for the next meeting, which will be in 1998. As can be seen by the next section, a fantastic meeting is being planned.

A special invitation is extended to IAM members to come to the 13th International Estuarine Research Federation Biennial Conference, which will be held in Corpus Christi, Texas on November 12-16, 1995. I am chairman of the local organizing committee, and would like to have a special session on "meiofauna in estuaries." A description of the conferences is on page 8. Abstract and registration forms are attached. If you would like to participate, check off #38 on the form and write in Meiofauna. *-editor*

¹ D.M. Damkaer, "Mildred Stratton Wilson, Copodologist (1909-1973)," *J. Crustacean Biol.* 8, 131 (1988).

² J.B.C Jackson and A.H. Cheetham, "Phylogeny reconstruction and the tempo of speciation in Cheilostome bryozoa," *Paleobiology* 20, 407 (1994).

NIMCO '95 NEWS

Alain DINET and the NIMCO Organizing Committee³ are pleased to announce that about 150 colleagues from 33 countries have registered or declared their intention to attend the Ninth International Meiofauna Conference (NIMCO) being held at the "Palais des Congrès" of Perpignan (France) on July 3-7, 1995. Most of the "regular" participants to past IAM meetings will be present and we look forward to renewing old acquaintances. We also look forward to welcoming many new people and making new friendships. The presence of many new faces indicates that our community is regenerating and that meiobenthology is progressing well. We expect a fruitful and friendly meeting in Perpignan.

Registration of participants will begin at the Palais Des Congrès on Sunday, July 2nd from 17:00 to 20:00. Registration will continue on Monday morning, July 3rd, between 08:30 and 10:30.

The Conference fee will be 500 FF (currently, 1 FF = 0.18 \$ US) for active participants, 300 FF for students, and 250 FF for accompanying persons. Fees will be payable only in French currencies or checks drawn from a French Bank. The fee includes a program package, participation in social events and the scientific program, transportation to Banyuls-sur-Mer, and the symposium dinner (Friday 7th). Fees will be accepted at the Conference registration table.

The opening session of the NIMCO is scheduled at 11:00. The ceremony will be followed by a welcoming "apéritif" at 11:30. Concurrent topic sessions will start Monday afternoon and continue through Friday noon. Other social activities are also planned to ensure sufficient time for visiting with colleagues. There is a free visit to Banyuls' cellars on Tuesday, July 4th, immediately after scheduled sessions. We will return from Banyuls at about 20:30. There is an optional excursion to Carcassonne, the largest medieval site in Europe, on Wednesday, July 5. There will be a 50 FF per person transportation fee to Carcassonne (which is 100 km away from Perpignan). The "Perpignan Municipality" will sponsor cocktails at the Hotel PAMS on Thursday, July 6, at 18:30. Finally, there will be a conference-ending banquet for registered participants at the "Clos des Lys" on Friday evening, July 7th.

³Francis de Bovée, Jean-Yves Bodiou, Nicole Coineau, Philippe Albert, Santiago Villora MORENO (Laboratoire Arago, Banyuls-sur-Mer), Laurence Guidi-Guilvard (Observatoire Océanologique de Villefranche-sur-Mer).

Accommodations

Hotels located in the immediate vicinity of the Palais des Congrès (i.e., 50 to 100 m range) will provide convenient and comfortable housing. Booking has been done by the Organizing Committee. Those who sent in a booking form will receive an individual confirmation for their reservations by letter. The deposits (by credit cards or checks) will not be banked unless canceled after June 1st. Breakfast is included in the hotel fares. Lunches will be available at the cafeteria of the Palais des Congrès for a 50 FF fee. The program book package will suggest a number of restaurants for dinner (not organized by NIMCO).

Transportation to Perpignan

Perpignan is linked to Paris-Orly with four daily direct (1.25 hour) flights by AIR INTER. It is recommended that you fly into Paris-Orly to make these connections. Some international airlines do not have direct access to Paris-Orly and arrive at Paris-Roissy-Charles-de-Gaulle. In that case, plan a minimum of 2.5 hours delay (which includes about 1 hour of ground transportation by the AIR FRANCE shuttle service) to change to Paris-Orly Airport. Seasonal (summer) direct flights from London-Gatwick are operated on Saturday by BRITISH AIRWAYS. Perpignan airport (international code: PGF) is a 10 min. drive from downtown where the Palais des Congrès and hotels are located. We recommend you take a taxi from the Perpignan Airport to your hotel. The fare is moderate, about 80 FF. A Shuttle service (about 30 FF) is also available between the airport and the railway station where the city bus line #3 (with service between 7:00 and 19:30) can transport you downtown to the Palais des Congrès. Although the nearest airport to Perpignan with worldwide connections is Barcelona, no airline flights exist between these two cities. If you fly to Barcelona, you will need to go to Perpignan by rail with the "Intercities Talgo," a 3 hour trip. Don't try to take any other train than the direct "Talgo" unless you want to have an uncomfortable, 4 hour experience with a change at the French-Spanish border.

Contributions

Some 60 papers have been accepted for an oral presentation and 30 posters will be exhibited. Each contributor has been individually informed about the time schedule of his presentation. As previously announced, sessions will be held on the following topics.

Biodiversity

Boucher, G. - Diversity of nematode species assemblages in the SW lagoon of New Caledonia.

Clausen, C. - On some new macrodasyid Gastrotricha from the northeast Atlantic, with a view to zoogeography.

Gee, J.M., Warwick, R.M. - A study of global biodiversity patterns in the marine motile fauna of hard substrata.

Street, G.T., Montagna, P.A. - Loss of genetic variability in harpacticoids associated with offshore oil and gas platforms.

Meiofauna distribution and sediment biogeochemistry

Ferrero, T.J., Boardman, D.K., Eardley, D., Wolff, G.A., Patching, J., Lambshead, P.J.D., Debenham, N.J., Beckett, A. - Results and assessment of a sediment homogenization technique enabling direct measurement and comparison of nematode populations with sediment biogeochemistry and bacteriology at two sites in the abyssal NE Atlantic.

Steyaert, M., Vincx, M. - The distribution of meiobenthos in relationship with the biogeochemistry.

Zimmerman, S., Hughes, R.G., Flügel, H.J. - Vertical and horizontal distributions of nematodes along biogeochemical gradients at active methane seep sites in the central Skagerrak.

Deep-sea meiofauna

Guidi-Guilvard, L. - Temporal survey of the sediment-water interface at 2300 m depth in the Ligurian Sea (NW Mediterranean).

Lambshead, P.J.D. - A review of current knowledge of the biodiversity of north Atlantic deep-sea nematodes.

Shirayama, Y., Fukushima, T., Sato, T. - Responses of deep-sea meiofauna against artificial rapid sedimentation.

Soetaert, K., Heip, C. - Nematode assemblages of deep-sea and shelf break sites in the North Atlantic and Mediterranean Sea.

Vanhove, S., Vincx, M. - Deep-sea meiofauna communities in Antarctica: structural analysis and relation with environment.

Vanreusel, A., De Troch, M., Vincx, M. - The structuring role of food for deep-sea meiobenthos.

Vanreusel, A., Thierman, F. - Meiobenthos of hydrothermal sediments: Preliminary observations.

Feeding behavior and structuring of biocenoses

Arlt, G., Vopel, K. - The meiofauna of floating microbial mats and some aspects of meiofauna-microbiota interactions.

Buffan-Duban, E., de Wit, R., Castel, J. - Natural feeding behavior of the harpacticoid copepod *Canuella perplexa* from fish ponds in Arcachon Bay.

Carman, K.R., Pace, M. - Use of planktonic and benthic microalgae by the meiobenthic copepod community of a Louisiana salt marsh.

Colangelo, M.A., Ceccherelli, V.U. - Recolonization of azoic sand by sublittoral meiobenthic copepods on small and large scale.

Riemann, F. - Significance of mucus secretions of aquatic nematodes: microbial garden and physical substratum.

Schrijvers, J., Schallier, R., Silence, J., Okondo, J.P., Vincx, M. - Influence of epibenthos on meiobenthos in mangrove sediments: predation or resource competition?

Souza-Santos, L.P., Castel, J., Santos, P.J.P. - Feeding biology and population dynamics of the epibenthic harpacticoid *Amonardia normani* reared on bacteria and diatom diets.

Freshwater meiofauna

Hakankamp, C.C. - The importance of meiofauna and an introduced bivalve on the interactions between hyporheic respiration and POC concentrations.

Jordan, S., Shiozawa, D.K. - Densities of the benthic meiofauna in different habitats of the Green and Colorado rivers, Canyonlands National Park, Utah, USA.

Palmer, M.A., Hakankamp, C.C., Baker, K.N. - Flow disturbance across patchy habitats: do hydrodynamic processes constrain biotic patterns?

Robertson, A.L., Lancaster, J., Hildrew, A.G., Real, M. - Flow and the between-stream distribution of benthic microcrustacea.

Rundle, S. - Meiofaunal community response across freshwater environmental gradients.

Schmid-Araya, J.M. - Short-term meiofaunal drift patterns in a gravel stream.

Traunspurger, W., Gratzner, H., Jetter, P. - Measurement of respiration rates of limnic sediments.

Heterochrony and the evolution of meiofauna

Bartolomaeus, T. - Retaining larval characters - evidence for progenesis on the ultrastructural level.

Bertonali, R., Rebecchio, L., Guidi, A. - Evolutionary trends within Tardigrades in the colonization of different habitats.

Gee, J.M., Huys, R. - A preliminary consideration of the phylogeny of *Enhydrosoma* Boeck (Copepoda, Harpacticoida) and related genera in the Cletodidae (sensu Por, 1986).

Huys, R. - Systematics and evolution of the Cylindropsyllidae: a synthesis.

Manylov, O.G. - Regeneration in Gastrotricha: mitotic activity in intact and regenerating *Turbanella* sp. as revealed by fluorescence microscopy.

Reiger, R.M., Westheide, W. - Lobatoccrebrida and Jennariida - Where do they come from?

Vershelde, D., Vincx, M. - Comments on character description and analysis in view of a phylogenetic approach on the Desmodoroidea (Nematoda).

Importance of meiofauna in aquatic ecosystems

Chandler, T.G., Green, A.S., Wilson-Finelli, A.L. - Giving meiofauna culture. Haut expectations for the little buggers in contaminated sediment risk assessment and ground-truthing of micropaleochemical assumptions.

Coull, B.C. - Meiofauna as food for juvenile fish: an update with new data from Australia.

Fleeger, J.W., Sun, B. - Sustained mass culture of a marine harpacticoid copepod in a recirculating system.

Galtsova, V.V. - Meiobenthos in marine ecosystems.

Montagna, P.A. - Detecting chronic effects of offshore oil and gas production on meiofauna.

Zhang, Z. - The role of the meiofauna in the shrimp mariculture ecosystem.

Warwick, R. - The use of meiofauna in field studies of environmental impact.

Marine meiofauna

Buat, P., Boucher, G., Hily, C. - Meiofauna oxygen consumption in a tropical lagoon (Tikehau, French Polynesia).

Carman, K.R., Fleeger, J.W., Pomarico, S.M. - Influence of diesel-contaminated sediment on the meiofaunal-microbial food web of a Louisiana salt marsh.

de Zio Grimaldi, S., D'Addabbo Gallo, M., Morone de Lucia, R.M. - Marine Tardigrada (Heterotardigrada) from the Orosei Gulf in Sardinia (Tyrrhenian Sea).

Kolesnikova, E. - Composition of phytal meiofauna on different algae species from the Black Sea.

Litvaitis, M.K., Curini-Galletti, M., Martens, P. - A reappraisal of the systematics of the Monocelididae (Platyhelminthes, Proseriata) using rDNA sequences.

Lotufo, G.R. - Lethal and sublethal effects of sediment-associated PAHs to estuarine harpacticoid copepods.

Okondo, J.P., Schrijvers, J., Silence, J., Vinex, M. - Community structure and seasonal fluctuation of meiobenthos in the Avieenna marine mangrove sediment at Gazi Bay, Kenya.

Santosa, P.J.P., Castal, J., Souza-Santos, L.P. - Seasonal variability and relationships among microphytobenthos chlorophyll a standing crop, meiofauna abundance and physico-chemical factors in the oligo-mesohaline area of the Gironde estuary, France.

Sergeeva, N.G., Shalovenkov, N.N., Kopytov, Yu. - Meiobenthos as a component of benthic communities of Donuzlav Bay, the Black Sea.

Shirley, T.C., Shizas, N.V. - Is meiofauna succession following deglaciation predictable?

Thiermann, F., Giere, O. - Meiofauna at gaseohydrothermal vents with abundant oncholaimid nematodes (Aegean Sea, Greece).

Thistle, D., Weatherly, G.L., Ertman, S.C., Wonnacott, A. - Do winter storms affect shelf harpacticoid copepod populations?

Vermeulen, Y.M., Vincx, M. - Seasonality in a tropical intertidal meiofauna community?

Vorobyova, L. - Structure and quantitative indices of

meiobenthos in the north-western part of the Black Sea.

Nematoda

Galtsova, V.V., Kulangieva, L.V. - Expert system for identification of free-living nematodes.

Gourbault, N., Warwick, R. - Biodiversity and community structure of tropical psammolittoral meiofauna (mostly nematodes) from West Pacific and Caribbean Islands.

Jensen, P. - Burrowing nematodes.

Moens, T., Vincx, M. - Feeding type classifications for estuarine and marine nematodes: the past, the present and the future.

Smol, N. - Teaching nematology: the international nematology course in Gent, Belgium.

Verschelde, D., Vincx, M. - Comments on character description and analysis in view of a phylogenetic approach on the Desmodoroidea (Nematoda).

For any additional information, do not hesitate to contact Alain Dinet at the Laboratoire Arago: Phone (+33) 68 88 73 44 and (+33) 68 88 73 73. Fax (+33) 58 88 73 95 and (+33) 68 88 16 99. Looking forward to seeing you in Roussillon (the country of Perpignan). -*Alain Dinet*

ANNOUNCEMENTS

Swedmark Travel Fund

As you know, the Swedmark Travel Fund has been set up to help support colleagues who are in financial need to attend the triennial conference. The fund is set up so that only the interest or income can be used as a disbursement. Unfortunately, the corpus of the fund is small and interest rates are low. We have made only about \$US 100 during the last three years. This is not enough money to support anyone's travel. So we will not be making this money available for travel to the 1995 meeting. I encourage those in a position to do so, to make a contribution to the fund, so that it can achieve its stated purpose.

Research Assistantship

Research Assistantship Marine Ecology. A research assistantship is available for a Ph.D. student interested in the benthic food webs of coastal salt marshes. In particular, funds are available to support research concerning the impact of petroleum hydrocarbons on

trophic relationships between benthic invertebrates and their microbial food resources. Funding is from the Office of Naval Research and includes a stipend (\$12,000/year) and generous allowances for supplies and travel to professional meetings. The position is available as early as 1 June, 1995, but must be filled no later than the beginning of the 1995 fall semester. Interested students should contact: Dr. Kevin R. Carman, Dept. Of Zoology, Louisiana State University, Baton Rouge, LA 70803 USA. Ph: 504-388-1761; Fax 504-388-1763.

Louisiana Universities Marine Consortium (LUMCON) Foundation, Inc. Announces the availability of three graduate student research grants. Each award consists of up to \$2,000 to defray expenses of a research program as part of an M.S. or Ph.D. program. The award is to be used for research in the marine sciences which should be interactive with a LUMCON program or in some way make significant use of the LUMCON facilities. Application is open to outstanding graduate students enrolled in any university. Due date is April 1 for start of funding in June or September for a one-year period. For additional details and application forms, contact Dr. Nancy N. Rabalais, Louisiana Universities Marine Consortium, 8124 Hwy. 56, Chauvin, LA 70344; Receptionist: 504-851-2800; fax: 851-2874; E-mail: nrabalais@smtpgw.lumcon.edu

Summer field courses

Louisiana Universities Marine Consortium (LUMCON) offers summer field courses and directed research projects for undergraduate and graduate credit during its 1995 Summer Program in Marine Science. Courses include: *Introduction to Marine Zoology* (4 weeks); *Mariculture* (4 weeks); *Marine Ecology* (4 weeks); *Marine Science for Teachers* (3 weeks); *Marine Vertebrate Zoology* (4 weeks); *Wetland Vegetation* (2 weeks); and *Wetland Wildlife Management* (1 week). Room and board fees are \$125/week, and limited scholarships are available to qualified applicants to help defray these costs. Inquiries and requests for applications for admission and scholarships should be directed to Dr. John H. Caruso, LUMCON Marine Center, 8124 Highway 56, Chauvin, LA 70344-2124; 504-851-2800; fax: 851-2874; E-mail: jcaruso@smtpgw.lumcon.edu

Louisiana Universities Marine Consortium (LUMCON) offers an internship program in marine science, education, and technology. This program will afford students the opportunity to gain experience for university credit in a discipline of their choice by working closely with research faculty, senior academic staff, or other appropriate staff

members at the Marine Center for Research and Education in Cocodrie, Louisiana. Projects are arranged by consultation between the student, the University Education Coordinator, and the supervising faculty or staff member. They will be designed to afford maximum flexibility in order to fit the needs and schedules of students and advisors. Room and board fees are \$125/week, and limited scholarships are available to qualified applicants to help defray these costs. Inquiries and requests for applications for admission and scholarships should be directed to Dr. John H. Caruso, LUMCON Marine Center, 8124 Highway 56, Chauvin, LA 70344-2124; 504-851-2800; fax: 851-2874; E-mail: jcaruso@smtpgw.lumcon.edu

University of South Carolina offers field courses at the Belle W. Baruch Marine Field Laboratory, Georgetown, South Carolina. Two courses are offered: *Introduction to Meiofauna* (3 credit hours), May 29 - June 23, 1995, Bruce Coull and Robert Higgins. Comprehensive overview of meiofauna biology and ecology. Lectures cover collection, processing and identification, role of meiofauna in ecosystem dynamics, their value as food for higher trophic levels and use in pollution assessment. Observe all meiofauna taxa and experiment with the local meiofauna in an ecological setting. Each student will conduct a research project on a topic of their choosing and present results in a concluding seminar. *Estuarine Fish Ecology* (3 credit hours), July 10 - August 4, 1995, John Mark Dean and Marcel Reichert. Contact Kitty Harper, Marine Science Program, University of South Carolina, Columbia SC 29208, USA.

University of Texas Marine Science Institute, Port Aransas, Texas is offering five courses. *Marine Botany* (3 undergraduate credit hours), June 7 - July 14, 1995, Ken Dunton. *Aquatic Microbiology* (3 undergraduate credit hours), June 7 - July 14, 1995, Ron Benner. *Marine Invertebrates* (3 undergraduate credit hours), July 17 - August 21, 1995, Paul Montagna. *Biology of Fishes* (3 undergraduate credit hours), July 17 - August 21, 1995, Lee Fuiman. *Biological Oceanography* (3 graduate credit hours), June 7 - August 3, 1995, Ed Buskey and Curtis Suttle. Contact the Summer Coordinator via email : paul@utmsi.zo.utexas.edu or fax +512-749-6779.

Sixth International Conference on Copepoda

The Sixth International Conference on Copepoda will be held in Oldenburg (Germany) in the week from 29th July to 2nd August 1996. It will be organized by Arbeitsgruppe Zoomorphologie, Universität Oldenburg, and Alfred-Wegener-Institut für Polar- und Meeresforschung, Bremerhaven under the auspices of the

World Association of Copepodologists (WAC). The following special symposia are being considered for special sessions:

1. Copepods as parasites of fishes. (convener: J.-s. Ho)
2. Role of copepods in freshwater ecosystems. (convener: G. Fryer)
3. Reproductive biology of copepods. (convener: F. Ferrari)
4. Life cycles of copepods. (convener: S.-I. Uye)

If you are interested in attending and wish to receive the second circular, please write to:

Sixth International Conference on Copepoda
Dr. Horst Kurt Schminke
Universität Oldenburg
D-26111 Oldenburg, GERMANY
Fax: +49-441-798-3374
Telephone: +49-441-798-3374
e-mail: schminke@hrz1.pcnet.uni-oldenburg.de

13th International Estuarine Research Federation Conference

The 1995 conference will be held November 12-16, 1995 in at the Marriott Bayfront Hotel (900 North Shoreline Boulevard, (800) 874-4585) in Corpus Christi, Texas (78401 USA) where every room has a breathtaking view of Corpus Christi Bay. The purpose of the conference is to exchange information on all aspects of research, management and public policy regarding estuaries. The theme, "Estuaries: bridges from watersheds to coastal seas," reflects recent emphasis on the central role that estuaries have in coupling the movement of materials between the land and the coastal zone. Because of this role, basic research into estuarine ecosystem processes is a priority with local, state, and the federal governments as they grapple with declining and degrading natural resources. This conference will provide an opportunity for researchers, managers, policy makers and educators to come together to exchange information on these important issues. The ERF biennial conference usually attracts about 700 people. The program will include plenary speakers, and a series of integrated symposia organized to compare research and management in estuaries, coastal oceans and Great Lakes ecosystems.

Social events with South Texas themes are planned. The conference will begin Sunday with the President's Welcome Reception, featuring Mexican appetizers and a Mariachi Band to put us in a festive southwestern mood. The Affiliates Reception will be held on Tuesday night at

the Texas State Aquarium, featuring local seafood appetizers. On Wednesday night, there will be a dinner/dance at the Bar B Q Man, a local restaurant with an outdoor stage, volley ball court, and horseshoe pit.

Register now to avoid late charges that increase costs after 1 October 1995. Non-member fees are higher, so join ERF for discounts. Social registration for attendee's guests is available. Please reserve rooms directly with the hotel before 20 October 1995: Corpus Christi Marriott Bayfront, 900 North Shoreline Boulevard, Corpus Christi, Texas 78401, (800) 874-4585. Ask for ERF'95 rates: \$89 per night (+ 13% tax) for up to four people.

Abstracts are due June 30, 1995. You can obtain announcements, and abstract and registration forms by anonymous internet FTP services. Use the following commands: `ftp 192.138.168.29, utmsi, anonymous, get readme.txt, cd erf95, dir, get filename, bye`. Or request forms: by mail, ERF'95, University of Texas Marine Science Institute, P.O. Box 1267, Port Aransas, Texas 78373; e-mail, `erf95@utmsi.zo.utexas.edu`; or fax, (512)749-6777.

New Journal

Invertebrate Biology is a new title, just appearing in March, for a quarterly journal on all aspects of the biology of invertebrates. As a special introductory offer, personal subscription is available for US\$24 the first year (US\$12 students, requires endorsement by Department Chairperson), or special memberships: US\$100 sustaining; US\$1000 life. The cost of membership in the American Microscopical Society, which publishes the journal. Library subscription for the first year is US\$50 in North America, and US\$75 elsewhere. *IB* is a continuation of *Transactions of the American Microscopical Society*, and so the first issue appears as Vol 114, no. 1; if your library subscribes to *TAMS*, *IB* should be on its shelves. IAM member, Seth Tyler encourages you to join AMS (address below), to submit your manuscripts to *IB* (no page charges for first 10 pp by AMS members), and to make sure your library carries a subscription to *IB*.

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NEWS FROM MEMBERS

Tom Moens is currently conducting laboratory experiments on the influence of bacterial density on grazing by marine nematodes. He is studying the effect of age and species on the assimilation of bacterial carbon by the nematodes. He will also try to compare the efficacy of radiolabel and fluorescent tracer techniques for field experiments into meiofaunal grazing on bacteria.

Teresa Radziejewska has made a major change in her professional life. She is making a transition from working in relatively shallow Baltic and estuarine/lagoon waters to (literally) deep sea. Three weeks ago she changed jobs, having accepted a position of biologist at Interoceanmetal Joint Organization, a company involved in exploration for manganese nodules in the Pacific. Her job will involve participation in the Benthic Impact Experiment (BIE), a program focussed on assessing possible ecological effects of future nodule mining operations. Meiofauna not only matters, but is a key variable there! However, due to the ocean-going cruise she is scheduled to take part in between early June - past mid-July, she will have to miss everyone and the NIMCO in Perpignan! She hopes all of you have a fine time.

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13th International Estuarine Research Federation - November 12-16, 1995

CONFERENCE ABSTRACT SUBMISSION INSTRUCTIONS

MARRIOTT BAYFRONT, CORPUS CHRISTI, TEXAS

ABSTRACT DEADLINE: JUNE 30, 1995

A. ABSTRACT SUBMISSION INSTRUCTIONS:

1. **Call for Abstracts:** Abstracts are now being accepted from members of the Estuarine Research Federation (ERF), and constituent societies (AERS, GEERS, PERS, NEERS, and SEERS) as well as individuals with an interest in estuarine research and management. Multiple oral presentations by the same person are strongly discouraged. Poster presentations are encouraged.
2. **Abstract Submission Form:** Each Abstract must be accompanied by a Submission Form located on the reverse side of this page. Please give the full title and all author names, since this form will be used to prepare the program. A hard copy of the abstract must be attached to the form.
3. **Abstract Submission Fee:** A fee of \$20 to cover reproduction and publication costs is assessed for each abstract. Please fill in the correct amount on the Registration Form. Abstracts will not be accepted without registration fees.
4. **Author Notification:** Abstract and registration fee receipts will be included in the registration packet at the conference. E-mail submissions will be acknowledged by E-mail. Optionally, you may include a stamped, self-addressed postcard or envelope to be notified of abstract receipt.
5. **Abstract Destination and Checklist:** Send all materials to: ERF'95, Mary Garrett & Assoc. 400 Mann St., Suite 909, Corpus Christi, TX 78401 Tel (512)-888-5400, Fax 512-888-7401. Include:
 - Your abstract transmittal form.
 - The original hard copy of the abstract.
 - An electronic copy on PC disk as described below, or E-mail the abstract.
 - Conference registration form.
 - All Conference fees.
 - Abstracts must be received by June 30, 1995. No exceptions!

B. ABSTRACT PREPARATION INSTRUCTIONS:

1. Type your abstract in the following order: author(s), institution(s), city and state, title (all capitals), and text (one paragraph limited to 200 words). Underline the presenting author's name.
2. Transmit a hard copy with your Abstract Submission form.
3. Transmit an ASCII copy electronically via E-mail to erf95@utmsi.zo.utexas.edu, or via PC-compatible disk in any version of **WordPerfect (preferred)**, AmiPro 1.2-3.0, ASCII, Display Write 4.0-5.0, IBM DCA, MS Word 4.0-5.5, MS Word for Windows 1.0-2.0c, Multimate 3.3-4.0, Office Writer 6.x, Professional Writer 1.0, 2.2, Windows Write, Wordstar 2000 1.0-7.0, XYWrite III Plus 3.55-4.0. If you use E-mail or ASCII precede and end each underlined or italic word with the underline symbol, .

C. EXAMPLE ABSTRACT TO SHOW STYLE:

Montagna, P., Dunton, K., University of Texas, Marine Science Institute, Port Aransas, TX and Onuf, C., National Biological Service, Corpus Christi, TX. INSTRUCTIONS FOR PREPARING AN ABSTRACT.

All abstracts submitted to ERF'95 must be typed like this example. An abstract should be informative, and not contain phrases like: "will be discussed." Summarize concisely the main sections of the presentation. State the purpose for the research, study design, experimental methods, main findings, conclusions, and if possible, the significance of the work. Notice that Dunton is the presenting author. If this were transmitted via ASCII text he would be listed as: Dunton, using the underline sign to indicate the beginning and ending of italics.

13th International Estuarine Research Federation - November 12-16, 1995
CONFERENCE ABSTRACT SUBMISSION FORM - PLEASE PRINT
MARRIOTT BAYFRONT, CORPUS CHRISTI, TEXAS

Title of Paper: _____

Authors: _____

Full Address of Corresponding Author: _____

Please select the most appropriate session from the following for your presentation. Identify as I (invited), 1st (first choice), 2nd (second choice), or 3rd (third choice).

- (1) Biogeochemistry: Temperate-subtropical comparisons
- (2) Dissolved organic C, N, and P in estuaries
- (3) Sediment contaminant processes
- (4) Historical contamination of sediments
- (5) Ecological risk assessment
- (6) Aquaculture: Impacts on estuaries
- (7) Wetlands as wastelands: Were our forefathers correct?
- (8) Shellfish: Importance for water quality
- (9) Nuisance blooms
- (10) Reversing the impacts of eutrophication
- (11) Restoration: Science and management
- (12) Seagrasses: Habitat and ecology
- (13) Seagrasses: Water quality requirements
- (14) Penaeid shrimp ecology and management
- (15) Transport processes and recruitment
- (16) Management issues and living resources
- (17) Freshwater inflow
- (18) Estuarine-coastal coupling
- (19) Biological effects of climate change
- (20) Sea level rise and wetland systems
- (21) Remote sensing and GIS
- (22) Physical processes
- (23) Sedimentation and geomorphology
- (24) Coastal lagoons
- (25) Pan-American estuarine studies and issues
- (26) Land Margin Ecosystem Research Programs
- (27) Environmental Monitoring and Analysis Programs
- (28) National Estuary Programs
- (29) National Estuarine Research Reserves
- (30) Research and management
- (31) Parochialism and coastal marine research: Can we get our act together?
- (32) Science and politics
- (33) Science education
- (34) Communication with the public
- (35) Social and cultural influences on the coastal environment
- (36) Opening the multicultural pipeline in estuarine science
- (37) Regional studies _____
- (38) Other: _____

Type of presentation: Oral Poster Either

Eligible for Best Student Paper Award: Yes

If invited, by whom? _____

Special AV equipment needed: _____

13th International Estuarine Research Federation - November 12-16, 1995

CONFERENCE HOTEL REGISTRATION FORM - PLEASE PRINT

CORPUS CHRISTI MARRIOTT BAYFRONT

900 North Shoreline Boulevard
CORPUS CHRISTI, TEXAS 78401
(800) 874-4585

DEADLINE: October 20, 1995

Individuals make reservations directly with the Corpus Christi Marriott Bayfront. Ask for ERF'95 rates. Rate is \$89 per night plus 13% tax for single, double, triple or quadruple occupancy. Tax exempt organizations must present a tax exemption certificate. The reservation must be guaranteed by a check payable to the Corpus Christi Marriott Bayfront or credit card by October 20, 1995. Late reservations subject to availability. Cancellations and early departures require 10 days advance notice.

Group Name Estuarine Research Federation

Major Arrival Date: Sat., Nov. 11, 1995 Major Departure Date: Fri., Nov. 17, 1995

Last Name _____ First Name _____

Institution _____

Mailing Address _____

City _____ State _____ Zip _____ Country _____

Phone _____ Fax _____

Arrival Date: _____ Departure Date: _____

Adults in Party (over 18 years old) _____ # Children _____ # Rooms Required _____

Name of Credit Card _____ Card # _____ Exp. Date _____

Name as on Card _____ Signature _____

Please enclose credit card number or deposit check. Reservations guaranteed by a credit card will be accepted by fax (512)883-8084.

HOTEL INFORMATION

Check in time is 3:00 PM, check out time is 12:00 PM. Guests arriving before 3:00 PM will be accommodated as rooms become available. The Bell Captain can check baggage for early arriving or late departing guests. Convenient hourly shuttle service to and from the Corpus Christi International Airport, free of charge, is available by calling the bell staff from the airport upon arrival, and sign up at the hotel prior to departure. The hotel has an indoor/outdoor pool, fully equipped health club, whirlpool, saunas, racquetball courts, and children's pool. Dining and entertainment facilities include the *Republic of Texas* for dinner, the *Glass Pavilion* for breakfast, lunch and dinner, and the *High Tide Comedy Club*. In room amenities include individual climate control, alarm clock/radios, and color TV with cable channels. All rooms offer a view of the bay.

SEND THIS FORM WITH CHECK OR CARD AUTHORIZATION TO:

Corpus Christi Marriott Bayfront
900 North Shoreline Boulevard
Corpus Christi, Texas 78401

Handwritten notes at the top of the page, possibly including a title or introductory text.

Handwritten notes in the middle section of the page.

Handwritten notes in the lower middle section of the page.

Handwritten notes in the lower section of the page.

Handwritten notes at the bottom of the page.