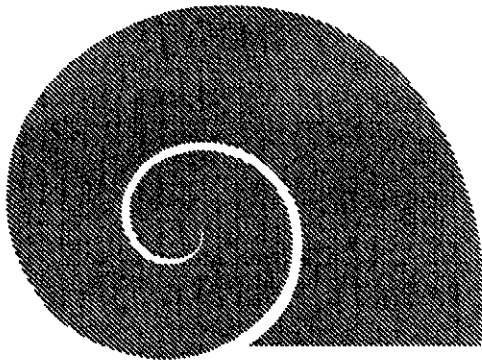


# UNITAS MALACOLOGICA



## Newsletter

Number 18 January 2002

### Affiliated Organisations

American Malacological Society  
Asociación Malacológica Argentina  
Comite para los Congresos Latinoamericanos  
de Malacología  
Friedrich Held Gesellschaft  
King Leopold III Foundation  
Malacological Society of Australasia Ltd  
Malacozoological Association of Yamaguchi  
Malakoloski Muzej  
Nederlandse Malacologische Vereniging  
Naturmuseum Senckenberg  
Sociedade Brasileira de Malacologia  
Sociedad Española de Malacología  
Sociedad Malacológica de Chile  
Sociedad Mexicana de Malacologia  
Società Italiana di Malacologia  
Société belge de Malacologie  
Société Française de Malacologie  
Society for Experimental and Descriptive  
Malacology  
The Malacological Society of Japan  
The Malacological Society of London  
The Western Society of Malacologists

Our aim is to further the study of Mollusca  
by individuals, societies  
and institutions world-wide

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keeping the world of malacology informed

### Editorial

Dear Unitas Members,

This is the first issue of the Newsletter, that I am editing. I found out, that it is much more complicated, that I expected, mostly due to the absence of knowledge, how to get material for the publication (Winston kept his small secrets). Let me thank Winston (on your behalf) for his wonderful job as an editor.

This issue is basically in the format and style of the previous ones. But I am open to any suggestions and criticism. **If you want to have an interesting and useful booklet, PLEASE, send me your notes and information, find a minute and make the editor happy. Any feedback is better than none.**

I also would like to thank all the fellows, that send me their notes, especially the authors of the Symposia summaries.

And last but not least. Because of some delay with compiling the current issue, I have the pleasure to wish all Happy New Year.

### Secretary's column

As I write, it is only a little more than three months since the Congress ended on a high note with the banquet held in the splendid neo-Gothic surroundings of the Rathaus in Vienna. The intervening period of reflection has only increased my appreciation of all the hard work that Luitfried, Gerhard and their team must have put into the event in order to have made it the tremendous success it undoubtedly was. My sincere thanks to them all.

At the General Assembly I announced that Laurence Kiss had been voted winner of the first Student Research Award, and we look forward to seeing an account of Laurence's project on 'The impact of fire on land-snail communities in Provence, Southern France' appearing in the next issue of the Newsletter. As the Award is to be given in each of the two years *between* conferences, now is the time to call again for submissions for the year 2002. Can I urge all members of Unitas or Affiliated Organisations to ask themselves whether they, or one of their students, might benefit? I note that in the last Newsletter the deadline for submissions is given as 31<sup>st</sup> January, 2002. To date I have had no applications so, as is becoming customary, I have extended the deadline to 30<sup>th</sup> April, 2002. Remember - there is a considerably greater chance of success than with most grant applications! Full details of the Award follow this column.

Last, but not least, this issue represents a milestone in the history of the Newsletter. Winston Ponder has retired as Editor after shepherding through no fewer than nine issues. This is a record, and Winston deserves enormous gratitude. Yuri Kantor, who in the past has helped out with the layout and

design of the Newsletter, is our new Editor, but his success is dependent on our contributions. Can I add my voice to others and make a plea to members to send any items they consider suitable for inclusion in the Newsletter to Yuri? We wish him well.

Peter Mordan

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## UM student research award

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An award of up to 1000 Euro is offered in each of the years between congresses to a student in the pursuit of the study of malacology. This will normally involve research projects in conjunction with higher academic degrees such as masters or doctorates. Normal budget items include supplies, expendable equipment and research travel. The award cannot be used to cover salaries, institutional overheads, permanent equipment or conferences. There is no official application form. Applications must not exceed six pages, and should include: (1) title of project, (2) summary of project, not exceeding 150 words, (3) the body of the proposal including background information necessary to understand the project and its significance, materials and methods and proposed plan of research, (4) itemised budget of estimated expenses, (5) literature cited, and (6) one-page resume including address, etc. Applications from students who are not members of UM or an Affiliated Organisation will be accepted, but must be accompanied by a letter of recommendation by a nominator who is. **The next deadline for submissions is 30<sup>th</sup> April, 2002.**

Applications should be sent, preferably as an email attachment, to the Secretary:

Dr P. B. Mordan,  
Secretary, Unitas Malacologica,  
Department of Zoology,  
The Natural History Museum,  
Cromwell Road,  
London SW7 5BD, UK  
Telephone: +44 (0)20 7942 5210  
Fax: +44 (0)20 7942 5054  
email: pbm@nhm.ac.uk

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## President's Message

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Fellow Unitas Members

It gives me great pleasure to be able to have been elected your President for the next three years. It is indeed a tremendous honour, and I am flattered that you have entrusted me and the other members of Council with maintaining the society between congresses. The new Unitas Council combines the skills of several members of the previous Council with the new blood needed to keep an organisation reinvigorated from time to time. In particular, I am very pleased to be able to draw on the experience of Luitfried Salvini-Plawen as Vice-President, Peter Mordan as Secretary and Jackie Van Goethem as Treasurer. All three of these people served on the previous Council, along with Takahiro Asami, and Pablo Penchaszadel as Councillors.

The previous Council is to be congratulated for continuing the work of Unitas behind the scenes between the congresses. In addition to the above people, the other Council members were Klaus Bandel, Yuri Kantor, and John Taylor. New members elected in Vienna were Paula Mikkelsen and Marco Oliverio. Winston Ponder is to be congratulated for the excellent job he did as editor of our newsletter. Winston has retired from this position, and has been replaced by the equally capable Yuri Kantor.

As you know, in addition to maintaining the Society, the Council also has the role of organising the next congress. This is a huge job which falls primarily on the President and the organising committee in the conference city. Those of us who were fortunate enough to be at the Vienna congress know that Luitfried Salvini Plawen and Gerhard Steiner did a tremendous amount of work in assembling the team for the congress and doing all of the organising work for the event. They set a standard that was truly exceptional. Over 400 of us were at the congress, from something like 63 countries. The sheer logistics of organising a meeting where people are coming from so many different countries, with different currencies and languages means the organisational job is complex. At the same time Luitfried and Gerhard were able to maintain a scientifically interesting meeting and an active program of congress related activities. It is a pleasure to congratulate them on a job exceptionally well done!

It is also somewhat frightening to know that you will expect the same high standards of the Perth congress in three years. I look forward to working with the new Council over the next three years to ensure that your expectations are met.

We are now in the early stages of planning the Western Australian meeting, and even at this early stage I warmly encourage you to come. Those of you who have been to Perth know that the city is a modern one on the Indian Ocean. We do not have the long and distinguished history of Vienna, but firmly believe that the vibrancy of Perth and our port city of Fremantle, where the meeting will probably be held, will attract you. The meeting will be in July 2004. While this is what passes for winter in Australia, the climate is mild and you will be thoroughly able to enjoy the attractions of our city.

As far as molluscs go, Western Australia is unexcelled. We have three major marine areas: a tropical north coast, a temperate south coast, and a west coast overlap zone where the two biotas overlap and where about 10% of the molluscs are endemic. There are thousands of shallow water species of molluscs. Just a few kilometres west of Perth, on the continental slope, the molluscs are almost totally unknown. Our land snail fauna is rich and varied. In Vienna I learned that Western Australia has more genera of land snails than there are species of the group in Europe.

Planning of symposia is clearly in the early stages and no program has been set. However, at this stage we envisage three major symposia:

- Phylogeny of Mollusca;
- Molluscan Fisheries and Aquaculture; and
- Ecology and Biogeography of Mollusca.

The congress will follow a traditional format, with a day in the middle for field excursions. Again nothing is written in concrete, but the following possible excursions will be available:

- A day trip to Rottnest Island off the coast of Fremantle;
- A diving expedition;
- A boat trip up the Swan River to one of the local vineyards; and
- A tour of Perth, including the Western Australian Museum.

We encourage you to think of the Perth meeting as the opportunity of a lifetime to come to Australia. Moving the world congresses move from continent to continent provides us with outstanding opportunities to meet new colleagues from other parts of the world. In the case of Perth, there will be many more malacologists than in the past from Australia, New Zealand and Asia. There is also the possibility of doing some collecting on your own or examining collections at any of the major State museums in Australia.

Plan to come to the congress and stay a while. There are many attractions in Western Australia outside of Perth. And of course there are many, many other places to go in other parts of Australia, or on your way to the congress or your flights home. Flying to Australia is expensive, we acknowledge that. However, once you get here costs are relatively low. The Australian dollar is at historic lows. Australians going overseas find that we generally pay the same number of units for things in the United States and Europe, say London for example. A \$ 10 meal in a restaurant in Perth will cost \$ 10 in the US or £ 10 in London. The difference is that \$ 1 Australian is \$ 0.50 US or £ 0.33, so things in the US are twice as expensive, and those in London are three times as much as in Perth.

As indicated, flights to Australia are expensive. However, using Advance Purchase airfares can substantially reduce them. Many fares allow stops at exotic locations along the way. Coming from Europe places like Singapore, Bangkok, Phuket, Kuala Lumpur, and Bali are all possible. From North America, Sydney, Melbourne, the Great Barrier Reef, and New Zealand are all feasible. Purchasing your tickets overseas allows travel in Australia at very cheap rates.

So we look forward to planning the World Conference of Malacology over the next three years and to seeing you in Perth in July 2004!

**Fred Wells**  
Museum of Natural Science  
Western Australian Museum  
Perth 6000 Western Australia  
email: wells@museum.wa.gov.au

## Report of the retired President

The 14<sup>th</sup> congress of *Unitas Malacologica*, held 19<sup>th</sup>-25<sup>th</sup> August 2001 in Wien/Vienna, Austria, together with the American Malacological Society (67<sup>th</sup> annual meeting) and the Friedrich Held Gesellschaft as the second World Congress of Malacology, was attended by 406 participants from 58 countries. According to registration figures, about 61 % of the participants came from Europe, 29 % from America (19 % USA), 7 % from Asia/Australasia, and 2 % from Africa. 409 contributions (230 lectures and 179 posters) were presented during the Congress offering an impressive cross section through all fields of molluscan research.

The Congress opened on Monday morning with the keynote addresses from each of the five incorporated symposia. These symposia included 1) Ancient Lakes: Laboratories and Archives of Molluscan Evolution; 2) Molluscan Chemosymbiosis; 3) Evo-Devo in Mollusca; 4) Molluscan Conservation and Biodiversity; 5) New Frontiers in Functional Morphology of Mollusca – a Tribute to Vera Fretter and Ruth Turner. The symposia featured invited lectures and free contributions. In addition, free lectures were presented in open sessions during four days. Presentations could be limited to a maximum of three parallel sessions. In addition, four workshops (Molluscan Medicines, Paratethian Mollusca, Population Genetics, Databases) and other specialist meetings were held. The high quality of the lectures and posters, both in terms of the scientific value and with respect to the presentation, was remarkable and contributed significantly to the success of the Congress.

I am most grateful for the positive feedback we received during and after the Congress, and I am personally very proud to forward these kindnesses once more to the members of the committee who handled all organizational issues before and during the Congress.

**L. Salvini-Plawen**  
(Past President)

luitfried.salvini-plawen@univie.ac.at

## New council members

New council members were elected to replace John Taylor, Claus Bandel and Yuri Kantor. Here are their short self biographies.

*Marco Oliverio*

I was born in Rome (31 Oct. 1964), and also live in the eternal town. I'm married with Cristina and we've just got (August 8th 2001) our wonderful daughter: Elena. I graduated in Biology (1990) with a thesis on the genetics and systematics of some Italian landsnails (genus *Marmorana*), and got the PhD in Evolutionary Biology (1994) with a thesis on the Evolutionary Ecology of Gastropod Larval Development.

I'm research Scientist at "La Sapienza" Rome-1 University, with a permanent position since June 1999. There, I teach Animal Diversity, Zoology,

Systematic Zoology, Animal Biology, Evolutionary Zoology (very very little time left to research). I'm preparing the projects for a course in Malacology and a course in Invertebrate Biology for the Master in Science Ecology, Evolution: thus, I'm fool!). My research interests are in Malacology (obviously!) with special concern in the evolution, systematics and ecology of gastropods. Presently I'm especially interested in the systematics, ecology and evolution of the cnidarian-eating gastropods (I love coralliophilines!). I have also co-operated (one must live!) to research programmes on the molecular systematics and evolution of several reptile groups (mainly turtles and lizards).

Extra-job interests: the sea from A to Z, at S reads SCUBA diving (particularly, cave diving). Then, I like music, tennis, sailing, football (I mean soccer, I'm Italian).

*Paula M. Mikkelsen*

Assistant Curator, Division of Invertebrate Zoology, American Museum of Natural History, studies the systematics and biodiversity of marine mollusks. She specializes in two groups: shelled opisthobranch snails (or "bubble snails") and bivalves. One of her primary interests is describing the soft anatomy of mollusks, many of which are only known, even in these days of molecular biology, from the empty shells they leave behind. Characters discovered through photography, dissection, and histology are then subjected to phylogenetic analysis to shed light on the evolutionary relationships of living mollusks. Dr. Mikkelsen has also conducted systematics-based biotic inventories in the Indian River Lagoon along eastern Florida, the Bahamas, and most extensively the Florida Keys (the last with Ruediger Bieler, of The Field Museum, Chicago), using ?fresh-dead? shells along with living mollusks to generate improved baseline data at these localities. Each project has significantly increased the number of known species, and described their specific habitats, important facts for marine conservators who seek to preserve and manage marine ecosystems under their charge. Dr. Mikkelsen has a long history of active involvement in the American Malacological Society, and is a member of several professional Editorial Boards. At AMNH, she has participated in the development of several exhibits, including display of a preserved Giant Squid, as well as a major temporary exhibition on Pearls (also with The Field Museum), open to visitors in New York through April 2002.

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## Treasurer's column

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### Report of the Treasurer to the General Assembly of Unitas Malacologica, Vienna, 25 August 2001

Period 1 January 1998 - 31 December 2000

Mr President, dear Colleagues,

It is my pleasure to give you a report on the financial situation of the UNITAS MALACOLOGICA since the

last congress in Washington in 1998. It was an exciting period with three highlights:

- a positive balance at the closing of the Washington Congress accounts (I will come back to this when commenting our Trust Fund accounts),
- the start of operations in EURO,
- the closing of our Swiss bank account in Basle where it was opened in September 1962 when Unitas was born.

The closure of this account was urgently needed since for the past few years bank charges have been increasing and new charges introduced, while the interest rate has continued to drop. Over the year 2000, for example, the interest rate at our Swiss bank varied from 1 to 1.25%. So we definitely lost money.

Now something about membership and the EURO. At the time the EURO was launched (1999), the yearly membership fee of 25 Swiss francs corresponded with 16 EURO. Although this fee has remained unchanged for 12 years I did not take the opportunity to round up slightly and silently the fee. Maybe I should have done, because we see now that the EURO value dropped with 10 to 12 % compared with non-EURO currencies such as USD, GBP, CHF,... I hope things may change again.

For those members or institutions preferring to pay by bank draft, I suggest an excellent alternative to the Swiss bank which is: payment in EURO to the Belgian Financial Post. Details are mentioned in our Newsletter 17. Also any bank draft in EURO drawn on a Belgian bank is welcome. Personal cheques however are not acceptable any more. Eurocheques are dying out.

Besides paying cash during a congress or during a visit to the Brussels Institute, payment by credit card becomes more and more popular. But, I have additional administration with that e.g. for every single credit card payment I have to make a handwritten threefold invoice. That's only one of the steps. So please pay for several years at a time. It considerably reduces the number of operations that consume so much time.

Besides, the Bank Card Company charges 3 % NOT TO YOU but to UNITAS. Therefore please consider... adding a donation to your membership fees. Many members have done this in the past (there names are regularly listed in the Newsletter's Treasurer's Column), and their number is even growing; since I make invoices now in EURO, the figures are 40 times lower than was the case with amounts in Belgian francs.

The total number of members at the beginning of the nineties was 400+, it dropped to 350 in 1995, to 300 in 1998 and has risen to 340 at present. Apart from individual membership, UNITAS counts a number of affiliated organisations. One of these the 'Friedrich Held Gesellschaft' is particularly beneficent to UNITAS. The 'Friedrich Held Gesellschaft' offered the welcome reception at the Tübingen Congress (1989) and gave support for the printing of volumes. They are running the

CLECOM Group and organised the 1997 congress in Munich. Finally during this Congress they organised the Alluvial Forest excursion and the CLECOM workshop as well. Thank you Margaret and Gerhard FALKNER, you are the driving forces behind all this.

#### Unitas Malacologica current accounts

Detailed accounts in BEF and CHF were pinned on a message board during the Congress, they will also figure in the next Newsletter. To make things easier for you I'll present here a summary account in EURO. Please consider that the conversion in EURO was done two weeks ago for all amounts regardless the real date of operation.

Income from membership dues is good (285 members have paid dues for a three years period), further income comes from interests, sale of proceedings, tax recovered, and donations for the Trust Fund.

Expenditure: four issues of our Newsletter have been printed and mailed to all members *sensu lato*. Thanks are due to Winston PONDER for editing, to Yuri KANTOR for lay-out, and finally to Edi GITTENBERGER for taking care of printing and mailing. Winston after being editor-in-chief for some 6 years, during which our Newsletter improved considerably, decided to leave this function and I am glad to inform you that Yuri will take it over. Thank you Winston for all the work done (9 issues produced)! Attendance to Council Meetings did not eat too much into the budget and I am thankful to all council members for their consideration.

Other expenditure. A considerable amount could be transferred to the Trust Fund; 2<sup>nd</sup> part of the deposit for dormitories at George Washington University; printing and mailing of 150 copies of Tentacle nr 9 (thanks are due to Robert COWIE for much concern to act with minimum costs); bank charges quite important, almost entirely due to the Swiss bank operations. But this latter came to an end as of the 1<sup>st</sup> of January 2001.

The available assets of Unitas Malacologica currently amount to 7,772 EURO which represents a decrease of 4,117 EURO, and it is largely enough to function adequately for the next three years period.

#### The Trust fund

Since there are many new members among us, maybe first a couple of words about the history. Creating a Trust Fund was a 20-year-old idea initiated by Jorgen KNUDSEN, Al MEAD and Brian MORTON. They were representing the so called 'Trust Fund Committee'. But to create a Trust Fund you need money, much money.

A happy coincidence in March 1990 was the remittance by the National Museums of Scotland of a 5,000 GBP cheque for the publication of the Edinburgh proceedings. Since this money was only needed when the proceedings came out (and that took some 20 months), the money was placed on a special GBP account in Brussels raising in that period a yearly net interest of 11-13 %. This was

announced as the start of the Trust Fund. Some members contributed to the Trust Fund in 1991-1992 with a 1,000 USD donation: Al MEAD, Brian MORTON, Jackie VAN GOETHEM, John BURCH, Jorgen KNUDSEN and Alison KAY. Further income during the following years came from excess of income from the congresses held in Tübingen, Siena and Washington, as well as the yearly transfer of part of the membership dues, and small donations by numerous members.

After the capital reached more than 25,000 EURO the Unitas Council decided to use the money in a balanced way, first in 1995 to support CLEMAM activities. Later on, every three years an amount of 8,000 EURO was set aside for travel grants to congresses (so far Vigo, Washington and Vienna), and a contribution of 6,000 EURO was made to help solve an unexpected currency fall faced by the Vigo Congress organisers.

Recently the Unitas Council decided upon new initiatives to be covered by the Trust Fund such as:

- funding of a yearly issue of Tentacle, the Bulletin of the Mollusc Specialist Group under IUCN,
- two 1,000 EURO awards every three years for best PhD project proposal,
- best student communication prizes at congresses.

Over the period 1998-2000, income came from interests (please note that placements are always with a fixed guaranteed interest rate), transfer from U.M. current accounts, donations, a fair compensation received from the AMS Treasurer Eugene KEFERL for money loss due to the dormitory deposit, and a positive balance at closure of the Washington Congress accounts that was shared equally between AMS and UNITAS. Thank you very much R̃ diger, Bob and Eugene. It was a privileged and a pleasure for me to work with you.

Expenditure over that same period was limited to 8,277 EURO giving 18 participants financial help to attend the Washington Congress, and the printing costs for 200 extra copies of the W.C. Abstract volume to be sent to Unitas members not attending the Congress. Again special thanks to R̃ diger for all his concern and efforts done to get the best possible benefit for UNITAS.

The excess of income is 11,240 EURO, added to the capital present at the start of the three-years period, gives total assets of 34,763 EURO.

#### **IN CONCLUSION:**

The creation of the TRUST FUND in March 1990 undoubtedly generates more money for UNITAS. As at 31.12.2000 the total assets of both UNITAS current activities and the U.M. TRUST FUND are 42,535 EURO which represents, in comparison with three years ago, an effective raise of 7,000 EURO, this sum being available for new initiatives, such as those mentioned above. Part of the reason for this very favorable increase is the growing number of members willing to pay in advance. This practice is even done by our oldest members present: Al MEAD

and Juan PARMIZ. Thank you dear senior members for your courtesy.

My final point is the proposed budget for the use of the Unitas money during the period 2001-2003. The expected income for the period 2001-2003 is in the order of 18,000 EURO.

Expenditure can be split up as follows:

- a) UNITAS MALACOLOGICA current activities, *inter alia* mailing, printing and mailing of U.M. Newsletter, council meetings: budget 6,000 EURO;
- b) TRUST FUND activities such as congress travel grants, U.M. awards, best student prizes at congresses, printing and mailing of Tentacle, reserve for unsolved congress problems: budget 12,000 EURO.

I most sincerely thank all those who have been so helpful in influencing our present financial situation so favorably. Many thanks also to Luitfried and Gerhard who did not need financial help from Unitas, so far. If next week or later you become overwhelmed by unusually high invoices, please remember this little phrase "reserve for unsolved congress problems", it may avoid nightmares.

**Jackie L. VAN GOETHEM,**  
Treasurer of Unitas Malacologica  
(Accounts see pp. 16-17).

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## Summary of the WCM Congress

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### Awards for Best Student Presentations presented in memory of Connie Boone

#### Prizes for Best Oral Papers:

**First prize** (\$500, a copy of Rob Dillon's *Ecology of Freshwater Molluscs*, and a 2 yr. membership to the Malacological Society of London):

**Peter B. McIntyre**

"Differences among Tanganyikan gastropods as algal consumers and prey for crabs"

**Second prize** (\$400):

**Jennifer L. Gow**

"The genetic structure of subdivided populations: A case study using microsatellites in the highly-selfing freshwater snail *Bulinus forskalii*"

**Third prize** (\$300):

**Carin Bondar**

"Development of asymmetry in two caenogastropods"

**Fourth prize** (\$150 and a six-year membership to Unitas Malacologica):

**Anthony B. Wilson**

"Reconstructing an invasion: Colonization and spread of invasive zebra and quagga mussels in the Laurentian Great Lakes as revealed by microsatellite markers"

#### Prizes for Best Posters:

**First prize** (\$500):

**Alexander Fahrner**

"Review of the Red Sea Phyllidiidae (Gastropoda: Nudibranchia)"

**Second prize** (\$300):

**Henning Scholz**

"Locomotion behaviour of unionid mussels from Lake Malawi (East Africa)"

**Third prize** (\$150 and a six-year membership to Unitas Malacologica)

**Christiane Todt**

"Histochemistry and ultrastructure of salivary, pedal and sole glands in *Wirenia argentea* (Solenogastres, Wireniidae)"

## SYMPOSIA OVERVIEW

### EVO-DEVO IN MOLLUSCS

Symposium at the World Congress of Malacology in Vienna, 20th and 22nd August 2001, sponsored by the American Malacological Society (AMS), organized by **Gerhard Haszprunar** and **Wim J. A. G. Dictus**

"Evolutionary Development" or "Evo-Devo" is the mutual relationship between three classic disciplines: ontogenesis (cleavage and organogenesis), developmental genetics and phylogenetics. Molluscs are one of the best suited phyla, because (1) the variability of developmental modes in the Mollusca (particularly Gastropoda) is extremely high and even traceable in the fossil record, (2) molluscs are representatives of the least studied major group of bilaterians (Lophotrochozoa), and (3) the phylogeny of molluscs as a whole and gastropods in particular is reasonably understood due to recent progress. The forthcoming volume with the proceedings of this symposium aims to show molluscs as extremely suitable models for future evo-devo studies.

The first three lecture were devoted to developmental genetics introducing a new dimension of the UNITAS-Congresses. Indeed, many malacologist faced the forthcoming and exiting field of developmental genetics for the first time. **Bernard M. DEGNAN** (Univ. Queensland, Brisbane, AUS) opened the symposium with his keynote-lecture on gene-regulatory systems in *Haliotis* larvae with special reference on Hox-genes. **Peter DAMEN** (Univ. Utrecht; NL) showed convincingly for *Patella* that our classical view of ecto- versus endomesodermal musculature is overcome by cases of polyclonal origin of certain muscle systems. **Alexander J. NEDERBRAGT** (Univ. Utrecht, NL) again use *Patella* to tell about the expression pattern of *twist* and *snail* homologues. All three lectures showed the power of resolution of long-lasting questions on molluscan ontogeny by means of developmental genetics.

Ontogenesis was the main topic after the morning break: **Gerhard HASZPRUNAR** (Zoological State Collection Munich, D) compared various aspects of lecithotrophic trochophore larvae in Patellogastropoda, Scaphopoda, and Polyplacophora and **Bernhard RUTHENSTEINER** (Zoological State

Collection Munich, D) showed variability of the apical complex throughout the main molluscan taxa. Both concluded that a trochophore-like larva is part of the molluscan groundplan. **Louise R. PAGE** (Univ. Victoria, C) presented a very interesting case of evolutionary novelty based on developmental shifts, the formation of the foregut in predatory higher caenogastropods including the breakthrough of a new mouth opening in cases of proboscis-bearing species. **David R. LINDBERG** (Univ. California, Berkeley, USA) referred to the phylogeny of cleavage patterns in Gastropoda using a highly innovative method (Cartesian transformation) to compare original data on the relative timing.

The final talk of the morning was focused on molecular phylogeny: **André ADOUTTE** (CNRS Gif/Yvette, F) reviewed the current state of the art of phylum-level phylogeny of the bilaterians with particular reference to the primary division into Deuterostomia and Protostomia and into Ecdysozoa (Nemathelminthes & Arthropoda) and Lophotrochozoa (Spiralia & Lophophorata) of the latter. He also referred to the implications of this proposed phylogeny for developmental data and so controversial topics like "metamerism" or "coelom".

The satellite session of the afternoon faced the first new data on the development of solenogastres by **Akiko OKUSU** (Harvard Univ., Cambridge, USA), somewhat accompanied by a poster by **Claus NIELSEN** (Copenhagen, DK). **Ole ISRAELSON** (Univ. California, Berkeley, USA) continued his lecture of Washington three years ago and again based exiting speculations on the enigmatic *Xenoturbella* on non-existent data. **S. Laura ADAMKEWICZ** (Univ. George Mason Univ., Fairfax, USA) referred to Hox-genes in heterodont bivalves, whereas **Nikolaus MALCHUS** (Univ. Kiel, D) concentrated on the ontogeny of the shell of pteriomorphians. **Carin BONDAR** (Univ. Victoria, C) presented interesting ideas on the formation of the mantle cavity in caenogastropods in the light of (already mostly overcome) classic torsion theory. Finally **Helena FORTUNATO** (Smithsonian Inst. Balboa, Panama) compared developmental modes of gastropods between the Caribbean and the East Pacific.

Many of us agreed that this symposium very well presented the various aspects of the "evo-devo" approach for the malacological world. The organizers still hope that the symposium will become the beginning of a long series of outstanding contributions on the subject at future Congresses. We thank all the speakers for the engagement, the AMS for sponsoring and the organizers of the Congress, **Luitfried SALVINI-PLAWEN** and **Gerhard STEINER** for their help during preparation. We hope to present the proceedings volume (Amer. Malac. Bull.) until the end of the next year.

**Gerhard Haszprunar**  
haszi@zi.biologie.uni-muenchen.de

#### MOLLUSCAN CHEMOSYMBIOSIS

Organized by **Penny Barnes**, **Carole Hickman**, and **Martin Zuschin** and sponsored by UNITAS Malacologica

The molluscan chemosymbiosis symposium offered a broad overview of progress in understanding the complex cooperative alliances between physiologically diverse bacterial symbionts and their morphologically diverse molluscan hosts, which must negotiate life in steep oxygen and sulfide gradients. The presentations provided perspectives from geology, paleontology, systematics, evolution, physiology, ecology, biogeography, anatomy, cytology, and biochemistry, illustrating a steep ascending trajectory of discoveries and new opportunities for ground-breaking research and collaboration.

**Dan DISTEL** set the tone for the symposium in a challenging keynote overview of the entire spectrum of bacterial endosymbioses in mollusks, the range of challenging questions that remain to be answered, and the results of a molecular phylogeny that set the evolutionary stage for symposium. **Crispin LITTLE** and **Kathleen CAMPBELL** established the deep-time dimension and ancient origins of mollusc-prokaryote associations in the fossil record of chemosymbiotic communities at hydrothermal vents and cold seeps. **Penny BARNES** and **Carole HICKMAN** added an historical biogeographic dimension in their analysis of contrasting patterns of origin and latitudinal distribution of two chemosymbiotic bivalve families in the Eastern Pacific and origins and evolutionary history of the ecological association of shallow-water lucinids and seagrasses in the Caribbean. Lucinids have provided the primary model system for the study of chemosymbiosis, and a number of presentations reported new research progress in this system. **John TAYLOR** and **Emily GLOVER** called attention to the morphological disparity and diversity of lucinidae, as a family with severely underestimated diversity in the tropics, and presented a preliminary molecular phylogeny that promises to grow into an important phylogenetic framework for future studies. Comparative cytological analyses of the lucinid gill by **Liliane FRENKIEL** and **Olivier GROS** added an exciting new cyto-enzymological dimension to evolutionary understanding at the level of cellular and molecular functional diversity. **Suzanne DUFOUR** presented a particularly welcome analysis of the range of host-symbiont interactions in the bivalve family Thyasiridae, and the promise that she will develop this as a new model system for exploring molluscan chemosymbioses. Using a PCR approach to investigate mode of transmission of symbionts, **Olivier GROS** confirmed an environmental mode for two lucinid species and provided new data on host-symbiont specificity. **Ray LEE** provided a particularly exciting experimental dimension to the symposium with his ecophysiological investigations of alternative enzymatic pathways involved in nitrogen assimilation into amino acids, involving both bivalve host and bacterial symbiont. He showed intriguing evidence that, beyond a nutritional role, some of these amino acids may be in-

involved in sulfide detoxification. **Marcel Le PENNEC** and colleagues highlighted the range of nutritional strategies in bivalves in deep-sea reducing ecosystems relative to anatomy and cytology of the digestive tract.

The lively discussion that followed the formal presentations was notable in the number of exchanges involving suggested collaborations and alternative approaches to the questions raised by speakers throughout the symposium.

Chemosymbiotic associations between mollusks and bacteria have been known for only 30 years. Although the majority of the research has been by microbial biologists working on the bacteria, this symposium clearly demonstrated that malacologists are closing the gap in understanding when, where and how alliances between bacteria and mollusks have evolved, how many times they have evolved, how specific and how stable they are, to what extent they are co-evolved, how symbionts are transmitted, to what extent there is hidden biodiversity and structural diversity in the bivalve component, and the nature of the physiology of the host-symbiont relationship. Excellent use of the comparative method was in evidence through all of the presentations, and the research is becoming increasingly experimental and hypothesis-driven, increasingly sensitive to the need for robust phylogenetic hypotheses, increasingly well-grounded in the fossil record, and moving forward rapidly in the incorporation of molecular approaches.

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### LONG-LIVED LAKES AS LABORATORIES AND ARCHIVES FOR MOLLUSCAN EVOLUTION

Organized by **Ellinor Michel** and **Frank Wesselingh**.

In convening a special symposium on molluscs of ancient lakes, we had one simple aim: to demonstrate virtually unsurpassed potential for our favorite phylum to contribute to more global understanding of evolution and ecology. While this might not seem the most modest of goals, we felt that several features of ancient lakes and their endemic faunas warrant such perspectives. Ancient, or geologically long-lived ( $10^5$ - $10^7$  years) lakes are well known for containing clades of endemic molluscs that have evolved *in situ* and often have remarkably elevated taxonomic and morphological diversity. However it is the replicated nature of lakes as isolated experiments in evolution that merits their special status in biological systems. Lakes located in a variety of geological and climatic settings have harbored mollusc radiations involving a surprisingly limited selection of families.

The comparative power of ancient lake molluscan studies was previously largely overlooked, but we felt that this symposium may have changed that. Many of us met colleagues who have been working, sometimes in relative isolation, on parallel problems. Not unlike the lacustrine radiations

themselves, there are points of striking convergence and occasional sharp contrast in our results.

We had an overwhelming response to our call for submissions. While we hosted 24 talks and 7 posters, we also had a natural exchange and overflow to the related workshop on the Pannonian Paratethyan basin, and had to omit contributions from 6 people unable to travel to the meeting. Research was presented on most of the recent and many fossil ancient lakes. There was coverage of Lakes Tanganyika (7 talks), Malawi (4), other African rift lakes (2), Baikal (2), Poso and other lakes of Sulawesi (2), Paleolakes Pannon (1), Pebas (1) and overviews (4). Methodological diversity was also high, but taxonomically the bulk of the presentations addressed gastropods.

**SITNIKOVA** and **ROEPSTORF** presented data and image-rich talks about Baikal in which they infused their phylogenetic perspectives with new ecological information on several gastropod species flocks in the oldest and deepest lake in the world. With their contributions, they demonstrated the preeminence of Baikal among ancient lakes.

**MAGYAR** et al. addressed the evolution of specialization and diversification in relation to ecological changes the Miocene Lake Pannon of Central Europe. The use of a varied source of geological and (paleo)ecological data by these authors, including deep-seismics, was particularly illuminating. **POPOV** showed extensive molluscan correlation schemes of Oligocene-Neogene deposits of Central-Eastern Europe. Interesting debates about the direction of faunal exchange within the Paratethys rose further during the Paratethys workshop.

**Van DAMME** et al. and **MORRIS** both suggested that co-evolution with durophagous predators is over-rated as an explanation of extreme morphologies of ancient lake molluscs, as some gastropods of the fossil African rift lakes lack significant scarring. However, both contributions showed that in the fossil record of the African Lakes morphological stasis is the norm, and radiation bursts are short, indicating that evolutionary rates in these systems are not at all constant. **HINKLEY** and **PHIFER** adhered to the co-evolutionary perspective, examining phenotypic changes after attack both in shell microstructure and sculpture in living Tanganyikan gastropods. **McINTYRE** provided data to perhaps reconcile these opinions (for which he won the WCM best student paper prize) – snail-eating crabs in Tanganyika have stable isotope signatures indicating consumption of more poorly armored gastropods. This was framed in the context of gastropod herbivore trophic divergence, as demonstrated by new stable isotope data.

Lake Tanganyika was the focus of many talks. Wilson's molecular clock, applied to generic level molecular relationships suggested polyphyly of the genera of Lake Tanganyika gastropods, in contrast to West's interpretation of similar data. Strong presented the first detailed comparisons of internal anatomy of these genera, emphasizing the high degree of divergence between lineages in digestive



and reproductive characters. **TODD** presented evidence that the species-richness of the Tanganyikan lineage *Lavigeria* has been severely underestimated in the past, with ramifications for conservation. **KINGMA** explored their life-history trade-offs in various brooding strategies, while **PAPADOPOULOS** used this group to test homology hypotheses in sculptured shells. The use of shell morphological characteristics in evolutionary studies was also discussed by **SAMADI**, using *Melanoides tuberculata*.

**GENNER** and **KRISTENSEN** (**ELDBLUM** et al.) presented contrasting perspectives on the endemic *Melanoides* of Lake Malawi, while **MADSEN** (**PHIRI** et al.) presented work on *Bulinus*. Research on the Malawi molluscs is clearly emerging.

**Von RINTELEN**'s phylogeny of the Sulawesi melanids was a tightly integrated study of molecular phylogenetics, radulae, embryonic and adult morphology. His results emphasized the different evolutionary modes that seem common to ancient lake radiations in comparison with their fluvial relatives. **GLAUBRECHT**'s contributions on melanopsid evolution, and cerithiid evolution in Ancient Lakes in general also emphasized the historical context of evolution, and proved a good illustration of the potential to use both the fossil record and extant taxa in ancient lake mollusc studies.

We were very happy to have had contributions on the usually neglected ancient lake bivalves. **KORNUISHIN** took the widest comparative stance, presenting an overview of sphaeriid and corbiculid bivalve evolution across most of the ancient lakes, underscoring that while they form endemic species with characteristic, probably convergent, morphologies, they lack the tendency to diversify. Endemic bivalve behaviour is nonetheless worthy of attention – **SCHOLZ** won a WCM 2<sup>nd</sup> place poster prize for his work showing that burrowing behaviour and ecology of Malawian mutelids was reflected in shell morphology. **WESSELINGH** explained the huge success of pachydontine corbulids in Miocene Lake Pebas (South America) as a result of adaptations to high predation pressure and oxygen stress.

Apart from these great lectures and posters, many of us had the opportunity to visit Miocene fossiliferous localities of Palaeolake Pannon in Hungary (a fieldtrip organised by Imre Magyar and Pal Muller) and Austria (on the official Paratethys fieldtrip). Great weather, great fossils, great discussions!

We are planning to keep up the momentum of this symposium through our research collaborations and a webpage on molluscan research in ancient lakes (under construction, contact [michel@science.uva.nl](mailto:michel@science.uva.nl)). A meeting on biodiversity in Ancient Lakes next September on the shores of Lake Baikal will also feature a molluscan component (contact [paleobio@zedat.fu-berlin.de](mailto:paleobio@zedat.fu-berlin.de)). For an independent review of our symposium, see Schilthuizen in TREE, Jan. 2001.

The Unitas Malacologica provided generous support which allowed us to invited a number of mala-

cologists for whom this was the first World Congress of Malacology. We extend special thanks to Gerhard Steiner who graciously fielded our frequent questions throughout the planning stages. Oleg Mandic was of great help for coordination between the Ancient Lake symposium and the Paratethys workshop. Pal Muller and Imre Magyar provided us the great opportunity to visit Pannonian localities in Hungary. Finally, the people who made this a symposium to remember are all the participants, each of whom presented outstanding contributions.

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## NEWS FROM THE MUSEUMS

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**Editorial:** We are generally well aware on the situation in large European and North American museums. But there are numerous important museums in other parts of the world. I ask curators and scientific staff of these less famous museums to contribute to our knowledge on the collections, status and any general information, which may be interesting for our readers. We start with the news from Russia, Argentina, and France.

### Important finding

Part of the collection of shells of Johann Hieronimus Chemnitz has been found in the Zoological Institute, Russian Academy of Sciences, St. Petersburg. The collection was bought for the Russian Imperial Academy of Sciences at a public auction held on December 7, 1802, in Copenhagen. At the present time we have located about 97 specimens of approximately 72 nominal species of which most are bivalves. Among them, are possible syntypes of 25 nominal species described mainly by Johann Friedrich Gmelin in 1791. Preliminary information and the detailed list of this material will be published in the next issues of Ruthenica, the Russian Malacological Journal.

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### On the history of malacology at the Museo Argentino de Ciencias Naturales "Bernardino Rivadavia"

#### Early times

The earliest main nucleus of the collection of the Museo Argentino de Ciencias Naturales "Bernardino Rivadavia" [[www.macn.secyt.gov.ar](http://www.macn.secyt.gov.ar)] date back to 1812. Since then, the museum has been one of the foremost institutions of research in the Natural Sciences in Argentina. Independence of Argentina from Spain began with the Revolution of 1810 and was formally declared in 1816. There-

fore, it is easy to see that the beginning of the Museum as an institution (or at least its collections) is coetaneous with the development of the country itself. In 1828 the Museum received the visit of Alcide d'Orbigny, one of the first illustrious and world renowned researchers who traveled around southernmost South America. D'Orbigny worked with Carlos Ferraris, the first director of the Museo Público de Buenos Aires (i.e. Public Museum of Buenos Aires, as the Museum was known in those early days). The French naturalist worked in the identification of shells and other animals from the collection. *Ostrea ferrarisii* was dedicated by d'Orbigny to Ferraris in honor to the help provided during his work at the museum. Besides his strictly academic activities, d'Orbigny also commented interestingly on the political situation during these first steps of Argentina as an independent nation.

The paleontological collection of mollusks at the Museum also has a rich history. The earliest collections of fossil mollusks to be housed in the Museum were those collected by Bravard in Entre Ríos, along the eastern bank of the Paraná river. This collection was sent to Germany and studied by A. Borchert, a student of Gustav Steinmann, in Freiburg, from where it returned during the early years of the twentieth century.

In 1919 the collection of Herman von Ihering (then in the Museu Paulista, São Paulo, Brazil) was purchased by the Museum. Von Ihering had assembled this collection based on the initial materials that he received from the eminent Argentine paleontologist Florentino Ameghino. That material was actually collected by his brother Carlos over more than 18 years of collecting in Patagonia. This collection includes about 900 lots of Tertiary Gastropods, Bivalves, Scaphopods and Cephalopods, and was the basis for the stratigraphical subdivision of the Tertiary marine rocks of Patagonia.

In 1923, one hundred years after its foundation, the Museum received its present name: **Museo Argentino de Ciencias Naturales "Bernardino Rivadavia"** in honor to the first President of Argentina, who instrumented its creation. Six years later the Museum was moved to the premises it occupies now, near the geographic center of the city of Buenos Aires. The **Instituto Nacional de Investigación de las Ciencias Naturales** (National Natural Sciences Research Institute) was to be built in 1948 nearby the museum. However, this never happened and since then the Museum and the Instituto share the buildings. In 1927 Martin Doello Jurado set up the first marine station in Latin America located at Puerto Quequén, 500 km south of Buenos Aires. The Station (presently the **Estación Hidrobiológica de Puerto Quequén**), owned and managed by the Museum, is still running. When Doello Jurado was chairman of the Invertebrates Section of the Museum he laid out the guidelines for the organization of the collection of invertebrates, including mollusks, and these are still followed nowadays, although the scope and volume of the collection have increased over the years.

## Modern times

When Doello Jurado was appointed director of the Museum, Alberto Carcelles became chairman of the Invertebrates Section. He joined several oceanographic expeditions to the southern parts of the country, including the South Atlantic Islands (South Georgia, S. Orkney, etc.), collecting vast numbers of invertebrates, including mollusks. Carcelles published several papers on the marine fauna and in 1944-1953 four catalogues of the malacofauna from South America and Antarctica. These are still the starting point for any researcher who decides to study any group of mollusks from this region. Juan José Parodiz (presently at the Carnegie Institution, PA, USA) initiated his malacological studies at the MACN. He produced the first modern revisions of the malacofauna of South America. Parodiz is one of the most renowned malacologists specialized in fossil and living freshwater mollusks from the southern part of the continent. He published more than a hundred articles on all fields of malacology. He is one of the authors of the Treatise on Invertebrates Paleontology (Part N, Mollusca, Bivalvia). After several years working in the Museum he moved to Pittsburgh where he retired as Curator Emeritus of the Carnegie Institution. Together with A. Carcelles they can be considered as the pioneers of modern Argentine marine malacology.

Dr. Isabel Hylton Scott worked in the museum during the time when her husband, Dr. Max Biraben, was director. Most of her contribution was on the taxonomy of pulmonate gastropods. Part of her collection is housed at the MACN.

Several researchers are working nowadays in malacology at the MACN maintaining the initial impulse given by the aforementioned pioneers.

The malacological collection of the Museo Argentino de Ciencias Naturales consists of 34.000 lots with several specimens each. It is the largest collection of Argentine mollusks in the world. There are types of species described, among others, by Carcelles, Parodiz, Doello Jurado and Hylton Scott. The Curator of the collection is Lic. Alejandro Tablado [tablado@mail.retina.ar]. On the other hand, the fossil malacological collection (as stated above) includes the early collections, but recently has been enriched by the addition of material, mainly from Patagonia, studied by Dr. Horacio Camacho and Dr. Claudia del Rio who have joined the Museum staff upon the reorganization of CIRGEO (Centro de Investigaciones en Recursos Geológicos).

Lic. Manuel Quintana [mquint@muanbe.gov.ar], after initial years of studies on terrestrial malacology, is gearing his research towards the biology and taxonomy of the last representatives of the Thiarid genus *Aylacostoma*, a group left virtually homeless upon the damming of the Paraná river at Yacyretá.

Dr. Sergio Miquel began his work at the Museo de La Plata and continues here his studies on Stylomatophora.

Dr. Pablo Penchaszadeh [penchas@mail.retina.ar], after several years of working in Caracas (Venezuela), returned to the MACN to continue with his work on the reproductive biology of Gastropods.

Dr. Claudia Muniain [cmuniain@hotmail.com] began developing a new line of research on Nudibranchs, which were so far the most poorly known group of mollusks in the country.

Several students including Lic. Diego Luzzatto [luzzatto@bg.fcen.uba.ar], began exploring new topics of the biochemistry of proteins of egg-capsules in several species of Volutid gastropods.

Finally, I myself am working in different aspects of the taxonomy of Gastropods of the southern hemisphere.

During its 190 years of existence, the Museum has always been closely linked to the political vicissitudes of the country, a fact producing sometimes uneven performances in the research personnel that unfortunately affected the overall academic results of the Institution itself. After years of neglect, whether intentional or not, we are now set on a path that, we hope, will lead us to the preeminent position in malacological studies in South America that the Museum should never have forsaken.

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#### Letter from Muséum national d'histoire Naturelle, Paris

Dear all,

I have just returned from the 2001 edition of our tropical deep-sea expeditions, this time to the Solomon Islands, and I would like to briefly share with you some of my impressions before I get engulfed again by routine and duties.

We all know of the Solomon Islands from the battle of Guadalcanal during WWII, and our expedition focussed on the region comprised between the four large islands in the center of the archipelago (Guadalcanal, Malaita, Santa Isabel and San Cristobal). This includes "Iron Bottom Sound", so called because of the numerous ship and airplane wrecks that litter the sea floor. I had seen maps with the location of the larger ship wrecks, and feared that we might have to slalom our trawl to sample the fauna. This was clearly an erroneous perception: Iron Bottom Sound is vast and we trawled for several days without a single wreck encounter (we did trawl a bomb shell, however!). All in all, we did 120 hauls at depths between 100 and 1300 meters, a great step forward for zoological knowledge, but a rather insignificant achievement in view of the topographical diversity of the archipelago. By New Caledonia standards, we did not hit any outstanding hard bottoms and, although we occasionally got pleurotomariids and a suite of *Liotia* species in the dredge, we found remarkably few muricids, coralliophilids, calliostomatids, cowries, or other typical hard bottom families. However, we had expected that the highlight of an expedition to the Solomon Islands would be soft bottoms, and soft bottoms indeed met our expecta-

tions: we found plenty of gently sloping muddy bottoms littered with plant debris, coconuts and wood. In fact, wood in almost every trawl haul, even a full coconut tree on one occasion, with lots of associated molluscs: not only the usual caudoconuliniforms (but a pink species certainly did not rank as "usual") and *Leptochiton*, but a bewildering array of other gastropod families as well, from fissurellid to buccinids, numerous turbinids, various skeneiforms, *Xylodiscula*, and even *Provanna*. The "missing link" with hydrothermal vents and cold seeps communities is obvious. Other spectacular soft-bottoms molluscs included *Abyssochrysos*, zillions of turrids (a.o. *Thatcheria*), and a suite of ringiculids; a slew of scaphopod species, from cigarette holder sized *Fissidentalium* to minuscule barrel shaped *Cadulus*; *Acesta* and *Halicardia*, but the large lucinids, so characteristic of deep soft bottoms in SE Asia, were conspicuously rare. As you know, I tend to have a special attraction for associations and the expedition also provided a good harvest of them: laubierinid attached to its pentacrine host, solenogaster wrapped round gorgonian, montacutid on holothurians, eulimid under a psolid holothurian, *Choristella* in elasmobranch egg cases, etc. In other words, this was the diversity and bizarre of the tropics at their best, and a good time was had by all.

Sailing on a research vessel, even a small one, is not the best way to grasp village life and the flavour of a country. But I loved what I saw of the Solomons. While much of the developed world was hectic in the aftermath of Sept. 11, I enjoyed the sluggishness of this backwater archipelago (despite its own ethnic tension between the peoples of Guadalcanal and Malaita). I enjoyed the tropical heat, so hot that it made the air-conditioned (at 22-24°C) dining room of the ship appear like the interior of a fridge. And I enjoyed the peaceful evenings when we moored in superb bays at the end of the day, and were visited by villagers paddling in their canoes. Before sailing back to New Caledonia, our ship touched Honiara Oct. 9, exactly 50 years after the Danish "Galathea" had also touched Honiara on her way to Australia. Essentially nothing has happened in the Solomons during those 50 years in terms of deep-water zoology. Yet, on the way back to Europe, during the 10 hours flight from Primorye to the Baltic, Anders Warén and I were pondering over the fact that each one of the 3-5,000 sq. Km island in the Solomons has more species than 17,000,000 sq. km Russia. Obviously, much exploration remains to be done in the Solomons, and we intend to have a second cruise in 2002, an idea that has been favourably received by the Solomon Ministry of Fisheries.

As we were at sea, the French Ministry of Education announced a new, long-awaited, constitution for our Museum. So, I am now preparing to sail for another type of cruise, it's called "Restructuration", and feeds on memos, meetings, clashes, alliances and petty combinations. I mention this just in case my little Solomon report had you envy me!

**Philippe Bouchet**

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## NEW DISSERTATIONS

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### S. I. Moiseev. Bathymetric distribution and behaviour of nectonic squids *Ommastrephidae* and some other groups of *Cephalopoda*.

Dissertation prepared in the Russian Institute of Fisheries and Oceanography (Moscow, Russia) and defended in Institute of Oceanology of Russian Ac. Sci., November 2001.

The diurnal vertical migrations and behaviour of abundant nectonic squids were studied with the use of manned submersibles in different areas of the World Ocean.

A classification of the types of locomotion and behavioural reactions on the submersibles has been proposed. In some cases the new observations corrected the existing data on the distribution and range of vertical migrations of squids, e.g. it was found that *Ommastrephes bartramii* live down to 1250 m, while *Todarodes sagittatus* to 2000 m. Some new recommendations on the squid trawling were proposed.

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## Malacological projects

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### Zoological catalogues of molluscs of Australia

The second catalogue in the series of Zoological Catalogues of Australia Vol. 17 Mollusca has just been published. The first volume published was Brian Smith's "Non-Marine Mollusca" published in January 1992 (as Vol. 8).

The present volume includes complete treatments of the all taxa of the Classes Aplacophora (11 species), Polyplacophora (171 species), Scaphopoda (108 species), and Cephalopoda (192 species). The volume is edited by A. Wells and Dr. W.W.K. Houston from the Australian Biological Resources Study in Canberra. The individual classes are authored by specialists and hence, A.M. Scheltema has compiled the Aplacophora, K. Gowlett-Holmes the Polyplacophora, K. L. Lamprell and J. M. Healy the Scaphopoda and C.C. Lu the Cephalopoda.

The Volume is the result of a very large effort by the authors, incorporating their ample personal experience in the various fields and extensive literature research. However, this volume is probably the last catalogue of Molluscs being produced as a herd print. As a result of the ever changing taxonomy of any animal and the Internet being a more and more viable media for publication of Catalogues, ABRS has changed its focus to producing on-line Zoological Catalogues.

If you are not familiar with the lay-out of Zoological Catalogues, it can be hard to completely understand the purpose, as they do not contain illustrations of individual species nor do they have keys (yet!). The Catalogues are to be used as a form of

directory to see the current status of a name, its current placement in genus and family, common name, distribution, keywords, references, as well as information on the type of the name (museum, number, type locality etc.) and the synonyms.

Because these Catalogues contain such a large amount of data, they are very slow to compile and extensive literature searches have to be done. The hardest part of the compilation is getting information about the species types. Much of this information is still in various museums around the world and a visit to the museums may be needed to obtain the appropriate information. Needless to say that compiling every bit of taxonomic information on all Australian species of Molluscs is not achievable in our lifetime.

So, looking at the latest Volume of Zoological Catalogues of Australia Vol. 17.2 I cannot avoid being impressed. There is no doubt that Australia is heading in the right direction when it comes to cataloging the flora and fauna, and making various syntheses. It all fits into a perfect laid out plan that I will briefly let you in on here.

When the recent two volumes of Fauna of Australia "Mollusca – the Southern Synthesis" I think most mollusc workers were astonished. This work covered the families of molluscs living in Australia with extensive biological, morphological and anatomical information on the groups. This work in itself was a historic achievement outdoing any previous mollusc overview anywhere in the world! All arranged, all edited, occasionally overseas contracted, but none the less a full-blooded Australian product.

Closely linked with the two volumes are the Zoological Catalogues. The Non-Marine Mollusca Catalogue has been out for years and now we have Vol. 17.2. Together they represent about 1500 species of the probably 11-12000 species of molluscs we have in Australia. All the marine molluscs are still in the process of being compiled at The Australian Museum with Dr. Winston Ponder and myself as project "investigators". This project is closely inter linked with another partnership program – the Oceanographic Biological Information System (OBIS) with the project "A Biotic Database of Indo-Pacific Marine Molluscs" (see <http://erato.acnatsci.org:80/obis/>). The Australian Museum is a partner in this project supplying data of especially the Australian and Indo-Malaysia marine mollusc fauna. Funding was granted in 2000 and a preliminary checklist should be available in 2002. This whole project is only the backbone of a major marine mollusc catalogue covering the whole world, linking existing databases from the eastern and western Atlantic and Mediterranean to the OBIS database. The Indo-Pacific project alone aims to cover the estimated 35,000 named species!

So where do we go from here? Well, ABRS and other granting bodies nationally and overseas are supporting big visions when it comes to documenting our fauna and flora. Integration and part-

nership is the key. Programs that can generate the Zoological catalogues using a reporting facility in the program is already available (Platypus see <http://environment.gov.au/abrs/platypus.html>), and on-line Zoological Catalogues are a fact (see <http://www.environment.gov.au/abrs/work/zoocat/>). New programs have been developed that integrate a Zoological Catalogue stile taxon management and management databases with point data (Bio-Link <http://www.biolink.csiro.au/>). Proposals that visualised interactive keys merged with these programs are currently being shaped.

One of the very beneficial outcomes of a multi governmental database structure like this is that all people in the world with Internet access will have the possibility to access and hopefully identify the fauna in their local environment. With the costs of managing libraries sky rocketing and the human pressure on biological resources not ebbing, environmental managers in countries affected by these issue may have a chance of creating faunistic inventories without massive investments.

The task ahead is massive, but the interest is there from various government sectors to get this done so management and dissipation of knowledge becomes facilitated.

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## New books

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From *Conchbooks*:

### "A CONCHOLOGICAL ICONOGRAPHY"

We just want to inform you on the release of three futher part of this great series, which you perhaps overlooked in our catalogues 32 or 33:

Already published in October 2000:

#### "The Family Haliotidae"

by Daniel Geiger & Guido T. Poppe

135 pp. of text with 89 text-figs, 61 maps and 83 colour plates. That part shows 65 living species and subspecies of the genus *Haliotis* actually known to live worldwide and gives excessive information on biology, distribution, anatomy, taxonomy and systematics of that colourful family. The cited literature needs 22 pages alone - a bible for researchers, abalone-farmers and conchologists. This delivery is available under order-no. W09625 at 84,50 Euro.

Two new deliveries in September 2001:

With a little delay due to unexpected complications, but nevertheless worth to wait for, we are proud to present the next two deliveries of "A Conchological Iconography", directed by Guido T. Poppe & Klaus Groh, edited and published by ConchBooks.

The world's best known amateur-researchers on the family Volutidae, Patrice Bail, Allan Limpus and Guido T. Poppe (just in alphabethical order) present the start of the family-monographs on volutes with

#### "A taxonomic Introduction to the Recent Volutidae"

by P. Bail and G. T. Poppe.

That part gives on 30 pages of text a most actual overview on the systematic and taxonomy of the representatives of the family Volutidae in the opinion of the both authors, including all Recent species, subspecies, forms and variations known. There are descriptions and definitions of several new subgenera and tribes. So it is an indispensable check-list for each collector of the family, as well as for curators of museums collections and marine malacologists, amateurs or professionals. Five colour-plates, exhibiting, except one genus, the type-species of every described genus, or if the type is a fossil of the most resembling Recent species, allow to get an impression of the peculiarities of each genus. This delivery is available under order-no. W10070 at 15,00 Euro, independently from the next.

#### "The Genus Amoria"

with text by P. Bail and A. Limpus and plates by these both and G. T. Poppe.

This monographic treating of one of the most colourful and variable genus of endemic Australian volutes deals with all 29 species and subspecies as well as many named forms. Several taxa are first times described and new to science. The text gives an introduction to the genus and after that every species, subspecies and form is described in details. Synonymy, information on types and type localities, information on distribution, biology, habitat, size-range and variation are added, as well as a diagnosis. The main part are 93 colour-plates that figure every variation and form of all species, illustrate distinguishing characters and living animals and their natural habitats. This delivery is available under order-no. W10069 at 69,00 Euro.

Order now and sign to subscribe the series to miss not a single delivery for your library. Subscribers get the second and all further special binders free of charge, as well as the separators now in preparation.

### Archives of the Zoological museum of Moscow state university, vol. XL

**Ivanov D.L., Sysoev A.V. Types of Mollusca in the Zoological Museum of Moscow University. Moscow: Moscow University Publishing, 2000, 187 p.**

The publication is a complete catalogue of type specimens of molluscs described in 1807-2000 and stored in the Zoological Museum of Moscow University. The type collection is represented by specimens of 539 species-level taxa belonging to six classes of the phylum Mollusca. Nomenclatural types (holotypes, lectotypes, and syntypes) are present for 258 taxa. Gastropods are especially well represented (423 species). All specimens are provided with locality data. Most nomenclatural types are illustrated by line drawings and photographs of shells.

59 plates. 353 references.

For ordering and further information contact  
D.L.Ivanov, [ivanovdl@zmmu.msu.ru](mailto:ivanovdl@zmmu.msu.ru).

**Tropical Deep-Sea Benthos**, vol. 22 (Ph. Bouchet, B. Marshall, eds). *Memoires du Muséum national d'Histoire naturelle*, 185, 2001, 406 p.

*Tropical Deep-Sea Benthos* is a continuation of the of a well-known series *Résultats des campagnes MUSORSTOM* and the current volume is the 4th "all-molluscs" volumes, published in this series. The volume rests on the material collected by a series of dredgings and trawlings, conducted since 1985, in the south Pacific, using the Nouméa-based Research vessel *Alis*. It contains 12 papers, prepared by malacologists and amateurs of 8 countries:

D. L. Ivanov & A. H. Scheltema. Prochaetodermatidae of the Western Indian Ocean and Arabian Sea (Mollusca: Aplacophora): 9-38.

B. Sirenko. Deep-water chitons (Mollusca, Polyplacophora) from sunken wood off New Caledonia and Vanuatu: 39-71.

H.H. Dijkstra. Bathyal Pectinoidea (Bivalvia: Propeamussiidae, Entoliidae and Pectinidae) from Wallis and Futuna Islands, Vanuatu and New Caledonia: 73-95.

B. A. Marshall. The genus *Acesta* H. & A. Adams, 1858 in the south-west Pacific (Bivalvia: Limidae): 97-109.

K. L. Lamprell & J. M. Healey. Spondylidae (Bivalvia) from New Caledonian and adjacent waters: 111-163.

E.M. Krylova. Septibranchiate molluscs of the family Poromyidae (Bivalvia: Poromyoidea) from the tropical western Pacific Ocean: 165-200.

L. Dolin. Les Triviidae (Mollusca: Caenogastropoda) de l'Indo-Pacifique: Révision des genres *Trivia*, *Dolichupis* et *Trivellona*: 201-241.

R. Houart. *Ingesia* gen. nov. and eleven new species of Muricidae (Gastropoda) from New Caledonia, Vanuatu, and Wallis and Futuna Islands: 243-269.

A. Sysoev, Ph. Bouchet. New and uncommon turritiform gastropods (Gastropoda: Conoidea) from the South-West Pacific: 271-320.

B. Dayrat. Indo-Pacific deep-water Pleurobrachaeidae (Gastropoda, Opisthobranchia: Notaspidea): new records and new species: 321-330.

Á. Valdés. Deep-water Phyllidiid nudibranchs (Gastropoda: Phyllidiidae) from the tropical south-west Pacific Ocean: 331-368.

C.-C. Lu, R. Boucher-Rodoni. Cephalopods from the waters around Wallis and Futuna Islands in the central South Pacific: 369-399.

The book costs 67,08 Euro, which is modest for the volume of this size. It can be ordered either

from *Service des Publications Scientifiques* of *Muséum national d'Histoire naturelle* or from *Backhuys publishers*.

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## Bits and pieces

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Dear colleagues,

I try to compile a Complete molluscan cook-book and data-base of molluscan cuisine. In last five years I collected about 1.300 recipes but most of them came from European countries and the USA. I will be exceedingly thankful to all of you who can help me with your own recipes, recipes from South America, Caribbean, Hawaii, Africa, Australia, Indo-West-Pacific region, Japan, China, Vietnam, Thailand and Cambodia. Also I have very few recipes for chitons, slugs and fresh-water molluscs

You can send me recipies by e-mail  
[ivanovdl@zmmu.msu.ru](mailto:ivanovdl@zmmu.msu.ru)

Thank you in advance for cooperation.

Dmitry L. Ivanov

Zoological Museum of Moscow State University

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## Membership

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Current annual subscription to *Unitas Malacologica* is 16 EURO. However, members are encouraged to subscribe for three years (48 EURO).

A payment form is enclosed with this newsletter for your convenience.

Please pay your membership dues in EURO at:  
**Belgian Postcheque**, B - 1100 Brussels, on the account number 000-1539068-66 of *Unitas Malacologica*, c/o RBINS, Vautier Street 29, B-1000 BRUSSELS.

Visa, Eurocard and Mastercard are accepted as are international postal money order, payment by eurocheque or by bank draft. Receipts are not sent unless requested.

A membership application form can be obtained from the treasurer.

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**UNITAS MALACOLOGICA**  
**Accounts for the period 01.01.1998 - 31.12.2000**

**Income 1998-2000**

Subscriptions:

1998	161,848 BEF	3,484.50 CHF
1999	78,597 BEF	1,035.05 CHF
2000	<u>138,364 BEF</u>	<u>1,522.70 CHF</u>
	378,809 BEF	6,042.25 CHF

Interest:

1998	3,459 BEF	57.75 CHF
1999	4,150 BEF	1.75 CHF
2000	<u>6,587 BEF</u>	<u>20.70 CHF</u>
	14,196 BEF	80.20 CHF

Sales proceedings

1998		<u>171.90 CHF</u>
		171.90 CHF

Income tax (Switzerland) recovered for 1995, 1996, 1997

<u>72.80 CHF</u>
72.80 CHF

Donations to Trust Fund

1998	6,654 BEF	90.00 CHF
1999	1,485 BEF	5.00 CHF
2000	<u>4,207 BEF</u>	<u>116.60 CHF</u>
	12,346 BEF	211.60 CHF

Transfer from Swiss account 1998 (6,000.00 CHF)  
149,546 BEF

Temporary entry from the Trust Fund account  
232,317 BEF

**TOTAL INCOME:** 787,214 BEF 6,578.75 CHF

**Expenditure 1998-2000**

Newsletter nr 13 (1998)		
printing & mailing	6,280 BEF	516.10 CHF
Newsletter nr 14 (1998)		
printing & mailing	10,666 BEF	558.35 CHF
Newsletter nr 15 (1996)		
printing & mailing	9,348 BEF	418.70 CHF
Newsletter nr 16 (2000)		
printing & mailing	<u>11,444 BEF</u>	<u>778.10 CHF</u>
	37,738 BEF	2,271.25 CHF

Council Meeting Washington, 1998

Y. KANTOR	25,970 BEF
B. POKRYSZKO	<u>25,970 BEF</u>
	51,940 BEF

Council Meeting London, September 1999

T. ASAMI	9,000 BEF
Incidental expenses	<u>9,738 BEF</u>
	28,738 BEF

Council Meeting Vienna, 2000

Incidental expenses	<u>6,051 BEF</u>
	6,051 BEF

Transfer to TRUST FUND

- membership dues (1998)	155,000 BEF
- excess (1998)	145,000 BEF
- membership dues (1999-2000)	245,000 BEF
- money not needed for Council	22,650 BEF
- small donations members (1997)	2,500 BEF

- small donations members (1998)	<u>8,904 BEF</u>
	579,054 BEF

Deposit at GWU for dormitory accommodation AMU/UM Congress July 1998 (2 <sup>nd</sup> part)	
	166,811 BEF

Income tax (Switzerland)

1998	20.20 CHF
1999	0,- CHF
2000	<u>0,- CHF</u>
	20.20 CHF

Tentacle nr 9, printing & mailing of 150 copies

<u>14,795 BEF</u>
14,795 BEF

Transfer to Belgian account

1998	<u>6,000.00 CHF</u>
	6,000.00 CHF

Mailing costs Treasurer, new register, etc.

10,895 BEF

Secretary General 5,500 BEF

Bank charges

1998	42 BEF	140.50 CHF
1999		38.50 CHF
2000		<u>96.00 CHF</u>

42 BEF 275.00 CHF

**TOTAL EXPENDITURE:**

901,564 BEF 8,566.45 CHF

**TOTAL INCOME:**

787,214 BEF 6,578.75 CHF

**EXCESS OF (OR NEGATIVE) INCOME:**

**(- 114,350 BEF) (-1,987.70 CHF)**

**Balance as at 31.12.2000**

- Balance as at 31.12.1997		
-	+ 370,796 BEF	+4,180.62 CHF
- Excess of income 31.12.2000		
-	<u>(- 114,350 BEF)</u>	<u>(-1,987.70 CHF)</u>
-		
- Balance as at 31.12.2000		
-	<u>+256,446 BEF</u>	<u>+2,192.92 CHF</u>

**Assets**

- UBS, Basle, Switzerland (10-941,085.0)		+2,192.92 CHF
- Financial Post Belgium (000-1539068-66) + 1,206 BEF		
- Argenta Spaarbank Belgium (979-3778126-78) + 8,145 BEF		
- Argenta Spaarbank Belgium (979-0131138-96) + 247,095 BEF		

+ 256,446 BEF +2,192.92 CHF

Respectfully submitted,

**Jackie L. VAN GOETHEM,**  
**Vienna, 25 August 2001.**  
**Treasurer of Unitas Malacologica**

**UNITAS MALACOLOGICA TRUST FUND**  
**Accounts for the period 01.01.1998 - 31.12.2000**



<b>Income 1998</b>		
- Interests	689.31 GBP	6,025 BEF
- Transfer from U.M. (a.o. refund GWU deposit, minus 200 copies Abstracts W.C. for UM members not att., 64,536 BEF) *)497,572 BEF		
- Donations from various members during 1997		2,500 BEF
<b>Income 1999</b>		
- Interests	488.91 GBP	15,288 BEF
- Transfer from U.M.		2,480 BEF
- Donations from various members during 1998		8,904 BEF
- Compensation by AMS for bankcharges and loss regarding GWU dormitory deposit		25,310 BEF
- Bonus balance Washington Congress (50/50 with AMS)		84,696 BEF
<b>Income 2000</b>		
- Interests	279.39 GBP	19,071 BEF
- Transfer from U.M.		35,433 BEF
- Change of GBP to BEF		615,598 BEF
- Donations from various members during 1999	p.m.	p.m.
<b>TOTAL INCOME:</b>	<b>1,457.61 GBP</b>	<b>1,312,877 BEF</b>

Respectfully submitted,

Jackie L. VAN GOETHEM,  
Vienna, 25 August 2001.  
Treasurer of Unitas Malacologica.

\*) see Expenditure 1998.

**UNITAS MALACOLOGICA TRUST FUND**  
**Accounts for the period 01.01.1998 - 31.12.2000**

<b>Expenditure 1998</b>		
- Travel grants for joining the Washington Congress 1998 (18 x 500 USD)		333,900 BEF
- 200 extra copies W.C. Abstracts (64,536 BEF)		p.m. *)
<b>Expenditure 1999</b>		
- Nihil		
<b>Expenditure 2000</b>		
- Change of GBP to BEF	9,500.00 GBP	
- Bank changes	35.27 GBP	
<b>TOTAL EXPENDITURE:</b>	<b>9,535.27 GBP</b>	<b>333,900 BEF</b>
<b>TOTAL INCOME:</b>	<b>1,457.61 GBP</b>	<b>1,312,877 BEF</b>
<b>EXCESS OF INCOME:</b>	<b>- 8,077.66 GBP</b>	<b>+ 978,977 BEF</b>
<b>Balance as at 31.12.2000</b>		
- Balance as at 31.12.1997	+ 11,096.11 GBP	+ 226,987 BEF
- Excess of income 31.12.2000	- 8,077.66 GBP	+ 978,977 BEF
- Balance as at 31.12.2000	+ 3,018.45 GBP	+ 1,205,964 BEF
<b>Assets</b>		
- ASLK-CGER BANK BRUSSELS (005-4389992-55)	+ 3,018.45 GBP	
- ARGENTA SPAARBANK BELGIUM (979-1302046-20 giro acc.)		+ 2,534 BEF
(979-0296699-78 special acc.)		+ 600,000 BEF
(979-9359408-77 maxi acc.)		+ 603,430 BEF
	+ 3,018.45 GBP	+ 1,205,964 BEF

\*) see Income 1998.