

ROSEMEB

Role of Secondary Metabolites in Ecosystem Biodiversity

AIM: Integrate Activities on Chemical Ecology within the MarBEF NOE

Training Courses, Workshops, Sabbaticals

**Other Activities (writing of position papers, exchange of information,
data and samples)**

List of Participants

Stazione Zoologica of Naples, Italy

- **Roscoff Marine Laboratory, France**
- **Institute of Bio-Molecular Chemistry, Pozzuoli (Naples)**
- **Helgoland Marine Station (AWI), Germany**
- **Tjärnö Marine Laboratory, Sweden**
- **Centro Interdisciplinar de Investigação Marinha Ambiental(CIMAR)/
Instituto Nacional de Engenharia, Tecnologia e Inovação (INETI), Portugal**
- **Max-Planck-Institute for Marine Microbiology, Germany**
- **Villefranche Marine Station, France**

ROSEMEB Activities for 2005-2007

- Kick-off meeting in Ischia, Italy, 3- 4 November 2005
- Position paper “New Trends in Marine Chemical Ecology” by Ianora and 8 co-authors under revision for “Estuaries”
- List of relevant publications posted on MarBEF-ROSEMEB webpage
- Training course on “Bioassay Methods in Chemical Ecology”
9-14 September 2006 in Tjärnö, Sweden
- Exchange of samples
- Short sabbaticals



THE H. T. ODUM SYNTHESIS ESSAY

New Trends in Marine Chemical Ecology

A. IANORA^{1,*}, M. BOERSMA², R. CASOTTI¹, A. FONTANA³, J. HARDER⁴, F. HOFFMANN⁴, H. PAVIA⁵, P. POTIN⁶, S. A. POULET⁶, and G. TOTH⁵

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2 AWI—Biologische Anstalt Helgoland, 27498 Helgoland, Germany

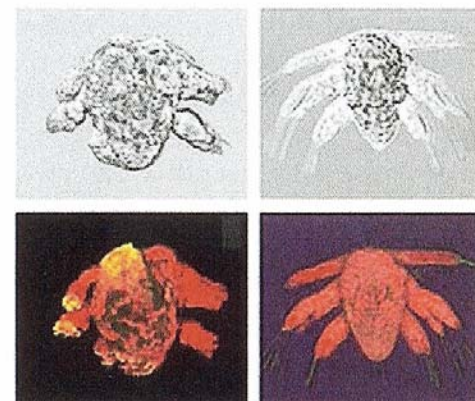
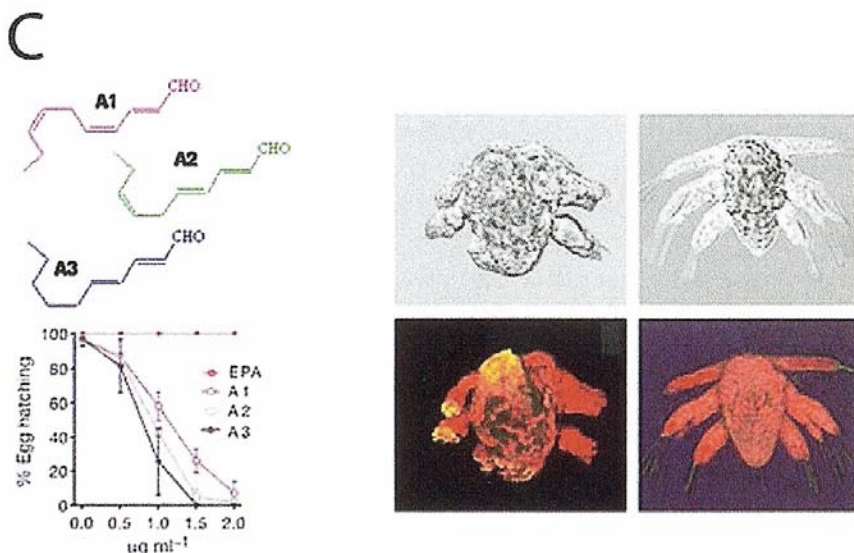
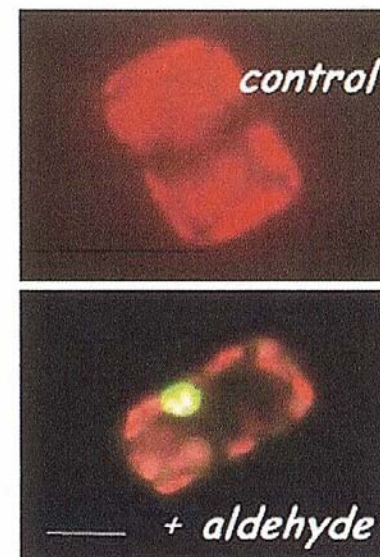
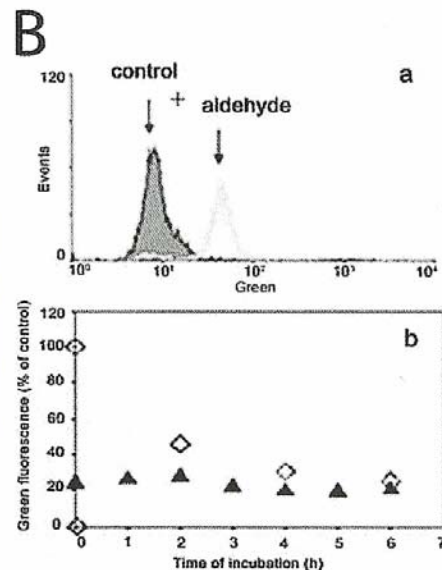
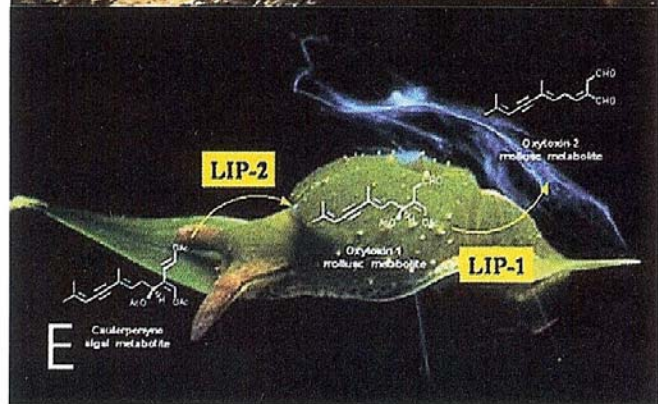
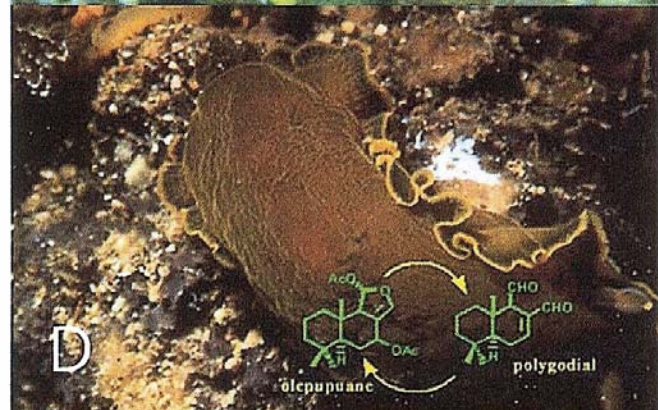
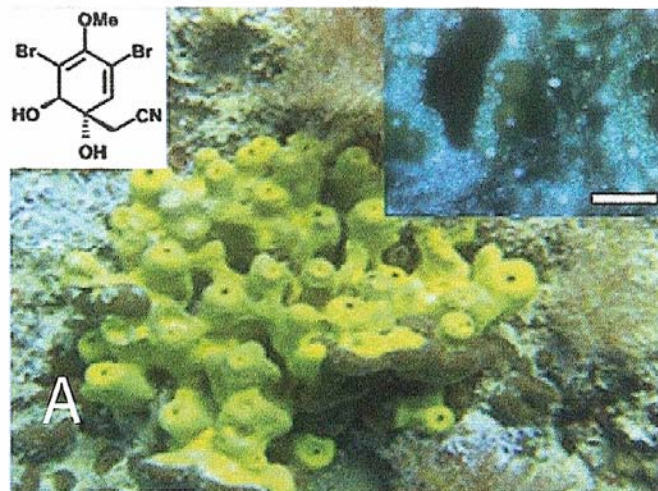
3 Istituto per la Chimica Biomolecolare del CNR, 800078 Naples, Italy

4 Max Planck Institute for Marine Microbiology, Celsiusstr. 1, D28359 Bremen, Germany

5 Tjarno Marine Biological Laboratory, SE-452 96 Stromstad, Sweden

6 Station Biologique CNRS, 29680 Roscoff, France

Estuaries and Coasts Vol. 29, No. 4, p. 531–551 August 2006



MARBef Advanced Course on
Chemical ecology and
bioassay methods

Marine Biological Laboratory
Tjärnö, Sweden, 9-14 September 2006

Course Coordinators

Adrianna Ianora
Henrik Pavia

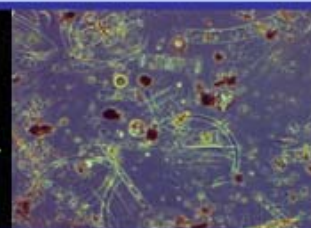
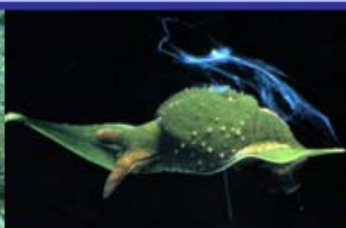
Scientific Board

Jens Harder
Raffaella Casotti
Adrianna Ianora
Gunilla Toth
Angelo Fontana

Faculty

Maarten Boersma (D)	Henrik Pavia (SE)
Raffaella Casotti (I)	Joe R. Pawlik (USA)
Angelo Fontana (I)	Philippe Potin (F)
Jens Harder (D)	Serge Poulet (F)
Mark E. Hay (USA)	Giovanna Romano (I)
Friederike Hoffmann (D)	Michael Steinke (UK)
Adrianna Ianora (I)	Gunilla Toth (SE)
Catherine Legrand (SE)	

TOPICS: Chemical Ecology, Marine Natural Products, Ecotoxicology,
Allelochemicals, Bioassays of natural compounds, Chemical defense, Deterrence,
Trophic Interactions, Methods



More info and application forms: www.marbef.org

Contact person: gunilla.toth@imbl.gu.se

Deadline for application: June 30th, 2006

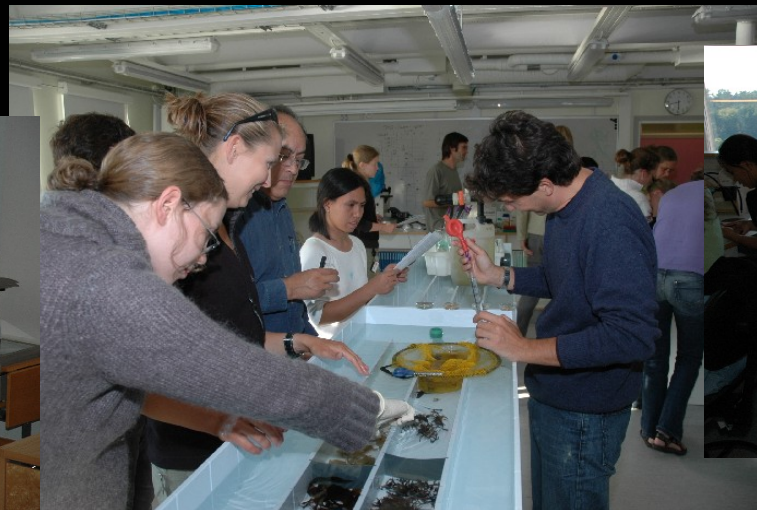


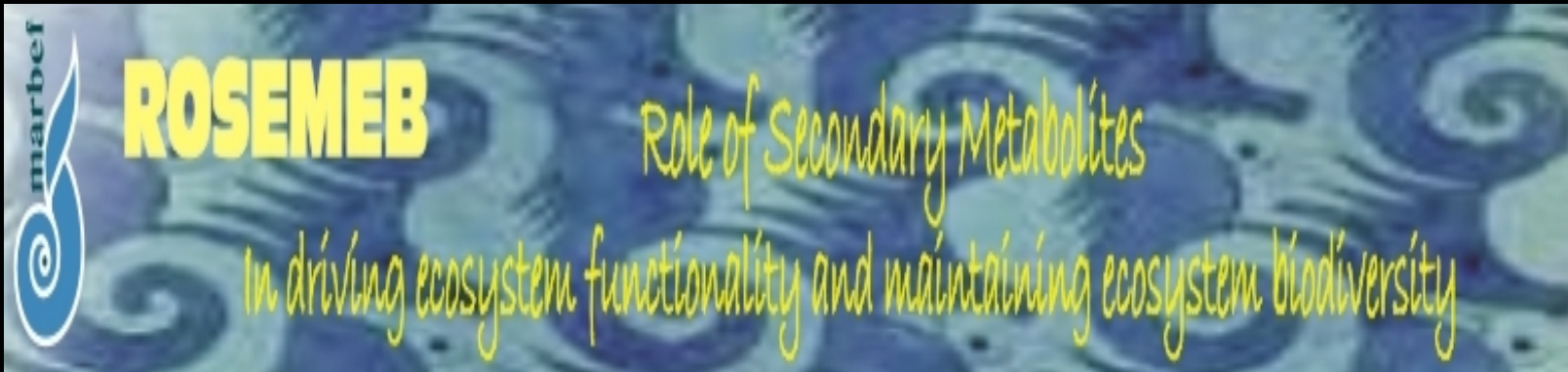
Training Course at the Marine Biological Laboratory in Tjärnö





The overall aim of the course was to teach some of the basic principles and protocols to monitor the responses of marine organisms to secondary metabolites. A total of 18 students (12 women and 6 men) from Sweden, Italy, Germany, UK, Spain, Ireland, Philippines and Mexico attended the course, most of which were PhD or post-doc students from MarBEF institutions. The teaching staff consisted of 15 researchers from MarBEF and 4 invited lecturers from the UK, Sweden and the USA.





New reference list of relevant publications in chemical ecology

This is a list of published scientific papers, relevant to the general field of marine chemical ecology, meaning by this all fields of research dealing with secondary metabolites of marine organisms and their effects at the molecular, cellular, population, community, and ecosystem level. This list has several aims, from providing general reading to interested scientists, to offering a starting point for potential researchers in chemical ecology, to presenting supporting evidences from different models on the role of secondary metabolites in marine systems. It reflects the expertise of the participants in the MarBEF-ROSEMEB subproject, and is not intended to be exhaustive or final and will be updated as necessary.



Helena Gaspar INETI-CIMAR Portugal Sabbatical Activity at ICB Italy

- Use ICB facilities for ecological studies of nudibranchs from Portugal that included:
 - NMR Characterization of new compounds
 - NMR analyses of biosynthetic studies



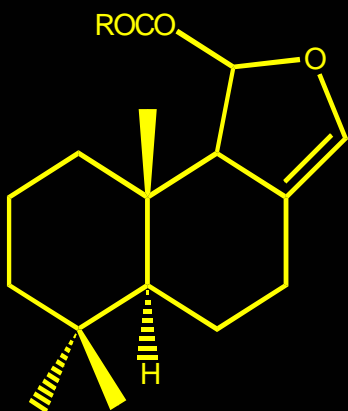
Biosynthetic Study in vivo of *Doriopsilla pelseneeri* (d' Oliveira, 1895)

Order Nudibranchia

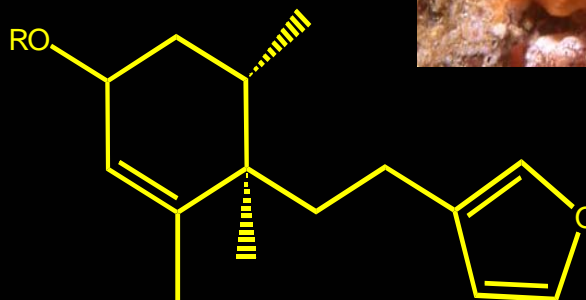
Family Dendrodorididae



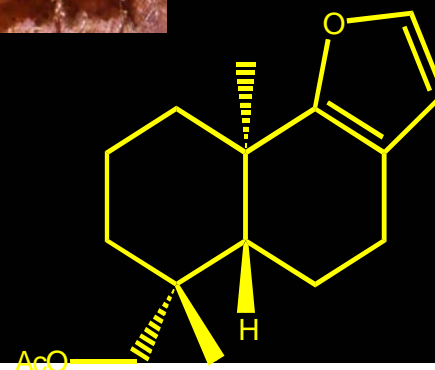
Experiments with [1-¹³C]-glucose proved that *D. pelseneeri* is able to produce *de novo* by a mevalonate pathway 3 type of sesquiterpene skeletons



drimane skeleton

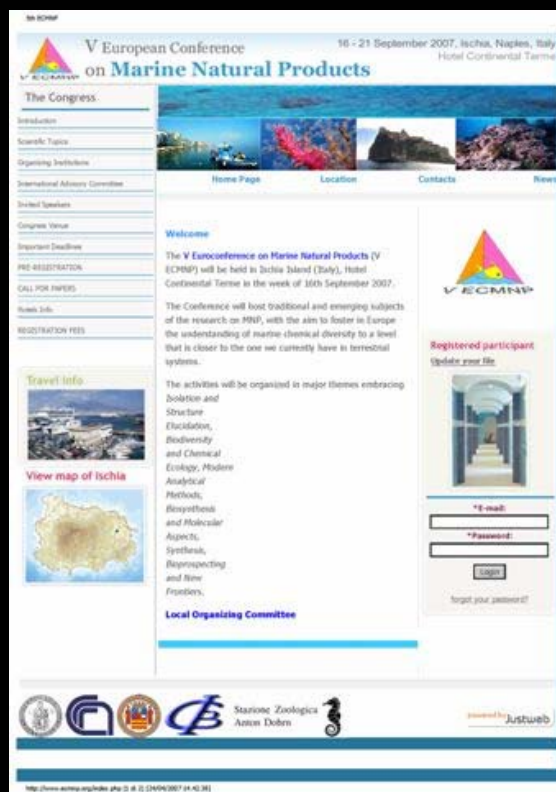


pelseneerin skeleton



ent-pallesensin skeleton

Forthcoming activities



- Training course on chemical isolation methods in Pozzuoli (Naples, Italy) at the Institute for Biomolecular Chemistry organised by Angelo Fontana and co-workers from 13-16 September 2007
- Workshop on the Chemical Ecology of Plankton in August 2008 at Klaipėda University (Lithuania) organised by Artūras Razinkovas and Adrianna Janora
- Workshop on the Chemical Ecology of the Benthos in Fall 2008