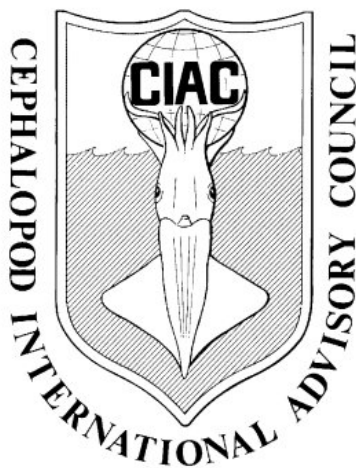


CIAC Newsletter

Issue 2, September 2010

Editorial

Louise Allcock



I would like to thank everyone for their contributions to this newsletter. To those who responded rapidly back in June to my request for copy I must apologise. A few articles didn't make the deadline of 'before my summer holiday'... Other deadlines then had to take precedence.

Thanks to Clyde Roper for suggesting a new section on 'Old Faces' to complement the 'New Faces' section and to Sigurd von Boletzky for writing the first 'Old Faces' piece on Pio Fioroni. You don't have to be dead to appear in 'Old Faces': in fact you don't actually have to be old - but you do have to have contributed years of service to

the cephalopod community. So if you find yourself appearing there, don't take it as a slur on your age - but as a compliment to your contribution!!

One idea that I haven't had a chance to action is a suggestion from Eric Hochberg that we compile a list of cephalopod PhD and Masters theses. I'll attempt to start this from next year. If you have further suggestions, please let me have them and I'll do my best to incorporate them.

And finally, the change in colour scheme was prompted by the death of my laptop and all the Newsletter templates that I had so lovingly created. Back up? What back up...

What's on?

9th - 15th October 2010

5th International Symposium on Pacific Squid
La Paz, BCS, Mexico.

12th - 17th June 2011

8th CLAMA (Latin American Congress of Malacology)
Puerto Madryn, Argentina
See Page 13 for more details

18th - 22nd June 2011

6th European Malacology Congress
Vitoria, Spain

2012

CIAC 2012
Brazil

What's out?

Two special volumes of cephalopod papers are in production following the CIAC 2009 Symposium in Vigo. The special volume of *ICES Journal of Marine Science* is now available online at:

icesjms.oxfordjournals.org/content/67.7.toc

The print version will be released in October. The special volume of *Fisheries Research* is also

nearing completion. All the articles are now in press and available through:

www.sciencedirect.com/science/journal/01657836

A couple of articles which did not fit the scope of either of these journals have been published separately in *Journal of Natural History*:

www.tandf.co.uk/journals/tnah

New Faces

Judit Pungor

PhD student at Stanford University's Hopkins Marine Station

Email: jpungor@stanford.edu

Thesis title: The Functional Map of the Cephalopod Visual System

Supervisors: Dr. William Gilly and Dr. Stuart Thompson



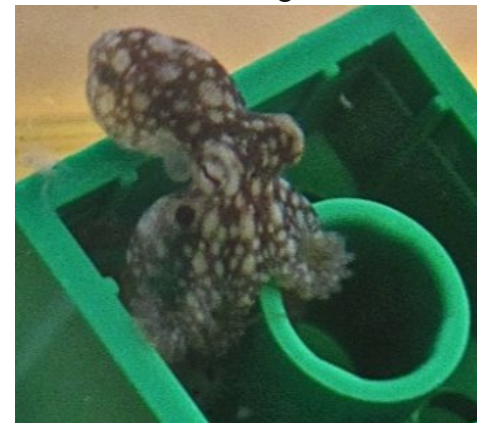
I am interested in the visual processing systems of cephalopods. Cephalopods use abundant visual cues in their lives, from predator avoidance and prey capture to mating and aggression displays. Evolving in competition with vertebrates, cephalopods have developed a visual system comparable in complexity and acuity to that of

the vertebrates. Although the visual systems of cephalopods have evolved to deal with the same challenges as their vertebrate counterparts, there are dramatic anatomical and processing differences between the two systems.

A vast amount of work has focused on understanding the functional processing of visual information in vertebrate systems, but comparatively little has been done to explore the functional mapping of cephalopod systems. Much remains unclear as to how these animals have evolved to integrate visual information, what information they use, and how their morphology facilitates information processing for different environments.

The overall goal of my project is to understand how visual processing occurs in cephalopods, and what neural mechanisms underlie the processing. I am also interested in how those functions and underlying neural circuits may have evolved to deal with different environmental challenges in species with

disparate life histories. Using immunohistochemistry, I am examining the organization of the optic lobe in a wide variety of species in order to document how optic lobe organization varies across animals living in different



surroundings. I am also examining, using the two model species of *Octopus bimaculoides* and *Doryteuthis opalescens*, the dissemination and processing of visual information in the optic lobe using in-vivo microscopy techniques.

My work is funded by the Myers Trust Grant and Stanford University.

Jennifer M. Smith

PhD student at School of Biological Sciences, University of Aberdeen, Scotland

Email: jennifer.smith@abdn.ac.uk

Thesis title: Growth investment and distribution of the squid *Loligo forbesii* in northeast Atlantic waters

Supervisors: Graham Pierce and Ioannis Theodossiou

The driving research question behind my thesis follows the theme of variability in the squid fishery in northeast Atlantic waters, with a special focus on the waters around Scotland, and attempts to contribute to understanding variability in fisheries for *Loligo forbesii*, in particular, How is this resource

variable, and how can this variability be dealt with in terms of establishing and maintaining a successful and sustainable fishery?

Two ways to approach answering this question are by looking at (1) life cycle processes and at (2) fisheries. For the life history of *L. forbesii*, I am investigating the intrinsic and extrinsic signals affecting growth and maturation, and the time-course of these processes. This involves analysing growth of body size and onset of maturity, how these



processes are related, and whether these relationships differ on a geographic scale across European Atlantic waters. Adding to the insights on biology, it is beneficial to identify how *L. forbesii* uses its habitat, from immature animals through to the



end of its life cycle, and I will attempt to identify which environmental variables, including substrate and water column characteristics, are associated with the presence (or absence) of animals across different life history stages, hence aiming to model and predict the locations of spawning and nursery areas.

To gain an understanding of the fisheries side of variability, I will examine changes in *L. forbesii* fisheries in the northeast Atlantic, using the small-scale, directed fishery in the Moray Firth, Scotland as a case study. Trends during the past decade in landings, effort and market value will be identified, and fishers' knowledge will be sourced on aspects of variability in the fishery among gear methods, timing and location of the fishery,



and suspected habitat use by the targeted species. When life history models stemming from analysis of growth and maturation, patterns of habitat use, fishers' knowledge, and resource-users' opinions toward management are determined, potential spawning, recruitment and fishing grounds can be predicted and either protected or targeted by managers and fishers, as appropriate.

Julia Stewart

PhD student at Stanford University (Hopkins Marine Station)

Email: jules32@stanford.edu



Thesis title: Humboldt Squid in the California Current Ecosystem

Thesis advisor: William Gilly (Stanford)

Thesis committee: Mark Denny and George Somero (Stanford); John Field and Steven Bograd (NOAA)

As you may have heard, Humboldt squid recently have been spending quite a bit of time in Californian waters. These are large, fast-swimming animals that have only made brief appearances in the past century, but have now shown up nearly every year since the 1997-1998 El Niño. For my PhD thesis, I am investigating when they are in California and what they are doing here. I am particularly interested in how answering these questions will help fisheries biologists manage fish stocks, both of the Humboldt squid directly if it becomes a commercial fishery, but also indirectly, since they eat many fish that we also enjoy.

I am looking for patterns in the phenology, or timing, of their presence in relation to oceanographic properties, specifically upwelling. Upwelling is a process triggered by winds that drives the high productivity in the marine environment along the California coast. There is often a relationship with marine predators and upwelling because predators feed on the food chain that begins with the high concentration of nutrients and supports phytoplankton, zooplankton, and beyond. But unlike many other marine predators, Humboldt squid are out-of-phase with upwelling, and arrive instead when upwelling is very weak. I am currently creating a method to predict when Humboldt squid will arrive based on this inverse relationship with upwelling.

In order to learn about their behaviour and habitat use, I tag Humboldt squid. This involves going out



to sea and fishing for squid, bringing an animal onboard and keeping it calm while attaching the tag and then releasing it gently back into the water. The tag records temperature and depth data before it pops off the squid and floats to the surface, uploading the data to a satellite. With the data I am comparing their behaviour to what we have seen in Mexico, and also trying to identify on a geographic scale where they have been moving in California. My work is highly collaborative, and I am working with wonderful researchers from around the Monterey Bay area at Hopkins Marine Station, NOAA Fisheries and NOAA Environmental Research Division, and the Monterey Bay Aquarium Research Institute (MBARI).

[Photos:
Ian Wilson and Greg Auger]

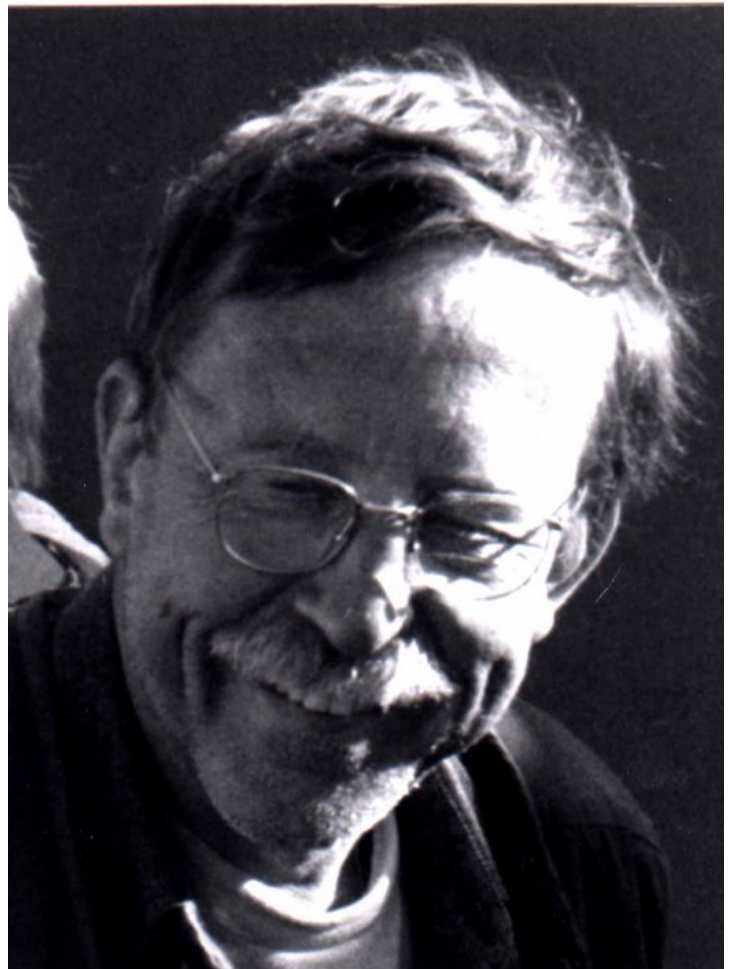


Old Faces

Pio Fioroni (1933 - 2003)

zoologist and developmental biologist
by Sigurd von Boletzky

Any serious teuthologist will sooner or later come across the name Fioroni (often misspelled as Fiorini) in the cephalopod literature, and given the first name Pio, many people imagine an Italian specialist of “polpi, seppie, calamari”. Wrong: Pio Fioroni was the son of an originally Italian family, but he was born in Basel, his first language was the Swiss-German dialect of his home-town, where “High German” is the official language of higher education, non-local literature, and newspapers. In other words, the official German language is the first foreign language that school children learn, and most citizens keep a strong local accent throughout their life. Pio was no exception to that rule! When at age 38 he left his position of senior assistant and lecturer at the Zoology Institute of the Basel University, to become a full professor of zoology at the University of Münster (northern Germany), he realized that his “High German” was not yet up to the style of a German “Herr Professor”; indeed, the students sometimes had



difficulties to understand his spoken prose during the “Vorlesungen”. Thanks to his great gift of imitating people, he soon made himself into a genuine German Professor whenever needed, and he kept his Basel accent for private occasions. His written German was perfect, slightly old-fashioned, with long sentences, reminding one of authors like Naef. This is probably one of the reasons why many of his major publications in German were largely ignored by readers not familiar with the German language. The English translation of the titles of Fioroni’s German papers and books on cephalopods (see further below) provide a first glimpse of the breadth of his interests; but this certainly is not enough. Full translations of at least twenty publications will have to be made available in the near future (similar expectations relate to more than 100 other publications).

Early on Pio Fioroni “discovered” cephalopod eggs and embryos in the Banyuls laboratory while patiently waiting for the gastropod material he had ordered. His malacological

interests from then on were concerned with both gastropods and cephalopods. More than just occasionally he also worked on the embryology of crustaceans, in the scope of a truly comparative embryology set against an evolutionary background – long before “evo-devo” became inevitable. During his early years already, when he was a research assistant with the Director of the Basel Institute, Adolf Portmann, he also became a broad-based marine zoologist, with an encyclopaedic knowledge of the faunas of the Western Mediterranean (Banyuls, Villefranche) and the Channel coast (Roscoff), where he took his students for field courses. As a university teacher, Pio had the rare gift to combine the thrill of showing interesting “new stuff” to his students with a great sense of humour. Whenever an animal with an unfamiliar form turned up, he would celebrate the funny sides of nature rather than uttering dry comments on “systematic characters” or even “character states”. No wonder his former students (among them many high-school teachers and quite a few professional

researchers) still get together from time to time to exchange memories of their extraordinary zoology teacher.

When Pio retired in 1998, he really retired; he gave away most of his precious old zoology books (I received his original copy of Kölliker’s 1844 cephalopod embryology!) and moved to southern Switzerland to live with his wife Esther in their house in Muralto. He turned whole-heartedly to painting and drawing (his early hobby), cutting silhouettes, and assembling odd pieces found in river beds and on garbage dumps into wonderful “trash art” creations. Framed and “conditioned” by Pio the artist, humble objects like rusty nails and screws or fragments of bottles and dishes became true transfigurations of “matter”. He tremendously enjoyed his “new” life until he reached the age of 70. After a stroke suffered in summer 2003, he was diagnosed with lung and brain cancer. To the very end, he remained the friendly fellow he had always been and the patient man he had to be ever since his health failed for the first time, with a dangerous heart condition.

P. Fioroni: Publications on cephalopods

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- Fioroni, P. 1964. Zum embryonalen Größenwachstum bei Tintenfischen [On embryonic growth in cephalopods]. *Revue Suisse de Zoologie*, 71: 777–804.
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News & Projects

Encyclopedia of Life (EOL) Update

<http://www.eol.org/pages/2312>

Mike Vecchione

Alexandra Fries is volunteering with EOL this summer to enter info on cephs, working with Hassan Moustahfid using the LifeDesk program. I was asked by EOL whether I would be willing to provide direction for that activity. I agreed and indicated that I think the most productive way to get reliable info into EOL would be to enter the species info from Vol 1 (nautiloids and sepioids) of the revised FAO World Guide. I had already discussed this possible course with Clyde and he agreed that once the FAO guide was published this would be OK in principle. In other words, we would not consider including draft material from the upcoming volumes on squids and octopods until they are actually published by FAO. EOL is working with FAO to get broad permission to make FAO species pages from all phyla web-accessible through EOL, although the details of how this would be done have not yet been worked out. There are technical issues with automating the process because the FAO pages are only available electronically in pdf format. Alexandra is currently participating in the effort to work out these technical details while we are awaiting final permission from FAO to use both text and figures.

EOL is a modified Wiki-type system that allows direct entry of information by anyone as well as "harvesting" information from other web-based partner programs. That is why you will find very different types and levels of coverage as you browse

The screenshot shows the EOL website interface. At the top, there is a navigation bar with links for HOME, PREFERENCES, LANGUAGE: EN, FEEDBACK, PRESS ROOM, USING THE SITE, and ABOUT EOL. Below this is the EOL logo and a search bar with a 'FIND' button. The main heading is 'Cephalopoda' with a sub-heading 'Cephalopods'. There is a 'CLASSIFICATION' sidebar on the right showing a tree of life from Kingdom to Phylum. The main content area features a large image of a squid and a 'TABLE OF CONTENTS' section with links to Overview, Introduction, Description, General Description, and Barcode. There is also an 'INTRODUCTION' section and a 'CONTRIBUTE' section with links for Latest Changes, Submit an image, Submit text, and More information on how to help.

through the species pages and their sub-pages on EOL. The Curators are only allowed to evaluate the reliability of the entries and not to delete them. You may notice that one of the partners, from which a lot of text, and to a lesser extent images (depending on copyright), has derived is the Tree of Life (ToL) website <http://tolweb.org/Cephalopoda>.

I think the best way forward for entry of cephalopod information would be to enter the cephalopod species info from FAO into ToL, from which it could be harvested by EOL. EOL is OK with this strategy because it fits their planned function of serving as a meta-source for web-based information. Additionally, Hassan

and Roger Hanlon have put together very detailed info on a few commercially important species through the LifeDesk but not all has been uploaded because of concerns about control of the content in a Wiki-like environment (e.g., *Sepia apama* is up - <http://www.eol.org/pages/593213> - but *Octopus vulgaris* is not). I talked with Hassan about possibly putting the info into ToL, which is more content-controlled, and then allowing it to be harvested by EOL so that it would be easily available to the world through EOL but formatted more tightly for the cephalopod community in ToL. This whole process is evolving quickly and is a learning experience for all of us.

The Mystery of the 3rd Millennium

or: What happened to the FAO Cephalopods of the World Guide?

Patrizia Jereb

Dear colleagues and friends around the world, greetings from Rome and Washington, DC, where your friends and colleagues thought it was time to give you some news on what is becoming the mystery of the third millennium, after the giant squid was eventually photographed alive in the wild in September 2004, thus ceasing to focus the entire attention of the worldwide cephalopod community.....

a wonderful achievement!

.... The FAO Cephalopods of the World Catalogue Volume II and III

We will not bother you with all the details of these last five years of work..... Just, please, believe us when we say that we experienced a paramount variety of events: computers were stolen (!) but also crashed down several times, causing the loss of already processed sections (this happened on the FAO side as well, so we had good company!) people among us (we are talking of more than 10 people involved in this project) suffered heart operations (with the installation of several "by-passes") and sad losses of relatives which caused depression and additional stress; while others got married, some of us moved to a different town/house/office and members



of our own families had severe health problems and passed away ... You name it, it happened, since such is life.

Those of you who were in Vigo know that we (Clyde and myself) were confident to complete this monster of a project (Volume II) by September 2009, in order to give the draft to FAO and have them working onto the necessary technical/additional sections and make their final revision for publication by the end of last year. As some of you will remember, we were barely able to attend only a couple of the many interesting communications given in Vigo, because we were hiding in our hotel like octopuses in their dens (Louise Allcock for one witnessed all this, as you may see in the attached photos) and working, working, working, working This is not a new experience for us: we did the same in Phuket (in 2003), working on Volume I at that

time.... Nobody ever believes us when we say that we did not see

Phuket surroundings at all.... Actually, we did not even get to the sea, since our hotel had a swimming-pool, though infrequently used!

Well, sometimes, as we all know, even the best intentions do not work out. We missed our deadline with FAO.

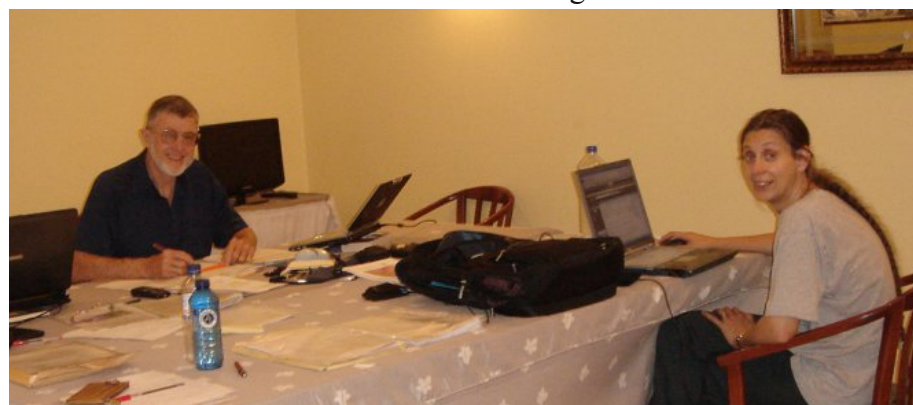
This, in turn, meant

that other projects were taken by the FAO team (and their new chief there) that needed attention, so FAO activities were re-scheduled and the Catalogue project was delayed to honor these new priorities. At last, our work is completed, and we now hope that the final review will be carried out by FAO within the next weeks, to have Volume II ready to be published by this fall. However, in the meantime FAO, as many other Organizations around the world, has suffered budget problems, so we have to look for funding to get the Volume actually printed (the costs are not trivial), but the electronic version will be available on-line. Our goal is to have the printed version guaranteed before putting the electronic version on-line, however, if this is likely to cause too much additional delay, the e-version will be made available first.

Volume III draft also is basically ready to publish, so we'll focus on its final editing after Volume II is out.

We wish you all a productive and pleasant summer, or winter, depending on your ... geographical distribution [Eds note: I guess I have to change this to spring/autumn due to the tardiness of this Newsletter!].

Patrizia & Clyde



ICES Co-operative Research Reports on Cephalopods

Graham Pierce

This autumn, the first of two multi-authored ICES reports on cephalopods, “*Cephalopod Biology and Fisheries in Europe*” appeared as part of the Co-operative Research Report Series. Both reports arise from the European co-ordination project “CEPHSTOCK” (*Cephalopod Stocks in European Waters: Review, Analysis, Assessment and Sustainable Management, Q5CA-2002-00962, 2002–2005*), which in turn aimed to consolidate outputs from a series of EU-funded collaborative research and fishery study projects on cephalopods that took place during the 1990s. The three large-scale research projects (1990-92, 1993-95 and 1997-2000) were co-ordinated by the late Pete Boyle and came to be known as the “Eurosquid” projects.

The basic rationale behind these new publications is that the European projects generated a huge amount of material that was not published in journal papers, at least some of which deserved to see the light of day rather than languishing unseen in long forgotten EU reports! In collaboration with the ICES Working Group on Cephalopod Life History and Fisheries (WGCEPH), the first report has been gradually assembled and edited over the last five years. It is now available at

www.ices.dk/products/cooperative.asp.

Volume 2, which remains at a considerably less advanced stage, will update and compile the series of species reviews prepared during CEPHSTOCK.

Executive Summary of volume 1

Over the past two decades, cephalopod molluscs have attracted increased attention from marine biologists and fishery scientists. Several species are important for European fisheries, as targets of small-scale coastal fisheries and/or as bycatch in multispecies fisheries for demersal fish. The present report draws on a series of reviews prepared in 2005 for the CEPHSTOCK project. The taxonomy of the main resource species is reviewed, and brief descriptions of each species are provided, along with information from studies of population genetics, habitat requirements of paralarvae and adults, and health and ecotoxicology. The main fisheries are described, including illustration of gears used in specialized small-scale fisheries and a discussion of the socio-economic importance of the fisheries. The current status of cephalopod aquaculture is reviewed, highlighting notable advances in commercial culture of octopus and cuttlefish. Current fishery data collection and fishery management are described, noting that there is no setting of landings quotas and no routine assessment of stock status. Options for stock assessment are discussed, drawing on one-off assessments made during specific projects and current practice elsewhere in the world. The “live fast, die young” life-history strategies of cephalopods present particular challenges, but parallels can be drawn with short-lived fish. Finally, the report looks to the future, reviewing possible effects of climate change on cephalopods. It discusses the future development of aquaculture and fisheries for cephalopods, including prospects for fishery forecasting and fishery management – especially in relation to the small-scale directed fisheries. Various knowledge gaps are identified, and ideas for research to fill these gaps are presented.

Wild Observations of Mesopelagic Squids

Tsunemi Kubodera

What follows are images from a recent publication by Kubodera “*Observations of mesopelagic large squids in the wild using recently developed underwater visual equipment*”, published in proceedings of an International Symposium: *Into the Unknown, Researching Mysterious Deep-sea Animals*, held in Okinawa, Japan in February 2007. The pdf of this publication is freely available but too large (ca. 15Mb) for email distribution. You can download it from the fastmoll file area (go to www.jiscmail.ac.uk and search for fastmoll).



First *Architeuthis* found at around 900m depth



**Above and below: *Taningia danae*
Opposite: *Architeuthis* being
landed alive!
Photos courtesy of NHK (Japan
Broadcasting Corporation).**



History of Cephalopod Biology in Brazil

Angel Perez

Past CIAC venues have always been delightful places (Cambridge, Naples, Cape Town, and many more) that provided not only a great atmosphere for scientific discussions but also an opportunity to enjoy the company of new and old friends in a special environment. But CIAC Symposiums have also been influenced by their hosts: scientists who were active cephalopod biology both locally and worldwide. This has always added a special interest to these venues; a chance to get in touch with science teams and institutions where significant advances have been achieved in

cephalopod systematics, biology, ecology, behaviour and fisheries. No doubt Brazil is a charming country for a pleasant (and inexpensive) CIAC Symposium venue. But for many years it would hardly have qualified as a centre of cephalopod research. Cephalopod studies were scarce and scattered, as were as cephalopod biologists. This scenario, however, has dramatically changed over the last decade in response to a growing economic interest in squids and octopods and also because of a general boost in the country's marine sciences. As an example, since 1992 nearly a

dozen new oceanography undergraduate programs and research centres have been created along the Brazilian coastline. This has gradually contributed to the settlement of recently graduated marine scientists, their association with existing graduate programs, the inclusion of cephalopods in comprehensive national marine projects, and the multiplication of opportunities for new students. Traditional artisanal fisheries for *Loligo plei*, *Octopus vulgaris* and *Octopus insularis* (a new species) have been extensively described in the Southern, Southeastern and Northeastern areas of our

coastline, but new “industrial” fisheries have also been developed for *O. vulgaris* (pot fishing) and *Illex argentinus* (trawling) off southern Brazil. Such development has demanded different levels of knowledge and also has created opportunities for collaborations of cephalopod scientists in fishery research centres in the harbour towns of Fortaleza (Ceara State), Santos (São Paulo State), Itajaí (Santa Catarina State) and Rio Grande (Rio Grande do Sul State).

So we are now more and better organized with respect to cephalopod projects than we have ever been. But looking back it is also important to recognize that there has been an historical accumulation of knowledge on Brazilian cephalopods, by pioneering scientists in the country, which has been critical to the development of our current

comprehensive review of Brazilian coastal cephalopods; a milestone for cephalopod studies in Brazil.

Marcelo Juanico (University of São Paulo) and Manuel Haimovici (University of Rio Grande) were the first to recognize the value of such a review (also incorporated into the FAO – Cephalopod Identification guide – 1983) and started to work on extensive collections obtained during fishing surveys off southeastern and southern Brazil during the 1970’s and 1980’s. Marcelo Juanico produced what may be the first study on loliginid ecology and population biology ever in Brazil. Manuel Haimovici improved Palacio’s account of Brazilian cephalopod fauna, including a description of a new eledonid species, *Eledone gaucha*. More importantly, as an active member of the Biological

and ecology), Angel Perez (*Eledone* spp. ecology and biology), Roberta Aguiar dos Santos (squid trophic relations and parasitology), and Erica Vidal (paralarvae ecology).

In the last decade members of this generation have gradually established themselves in different areas of the country and, along with the continuing efforts of Manuel Haimovici, have contributed to the formation of new groups both directly through undergraduate and graduate programs and indirectly through collaborative work with other research centers and universities. Tatiana Leite, Rodrigo Martins, Mary Gasalla, Acacio Tomás, Eduardo Marian and Tânia Zaleski are new members of the Brazilian cephalopod community, some of them not only active in cephalopod research but also involved in the formation of a whole “next generation” of cephalopod biologists in Brazil.

In summary, it is our wish that participants of the CIAC’12 in Brazil not only enjoy our warm country, but hopefully get in touch with all “generations” of Brazilian scientists and the bulk of knowledge being built on cephalopods from Brazilian waters. This knowledge today spans anatomy and systematics to population biology, fisheries, aquaculture, paralarval ecology and conservation. Last but not least, during the past three years, Angel Perez has chaired a CoML initiative called the “South Atlantic MAR-ECO Project”. In 2009 a first cruise of the RV Akademik Ioffe provided over one hundred specimens of cephalopods associated with the southern Mid-Atlantic ridge. Our next CIAC symposium in Brazil will also be a great opportunity to discuss what has been learned by members of the CIAC community about cephalopods of this largely unexplored part of the deep Atlantic Ocean.



@ Tatiana Leite

status. That history can be traced back to the late XIX century when European naturalists (i.e. Henri-de-Blainville, Alcide D’Orbigny and others) provided the first description of the Brazilian cephalopod fauna from specimens collected during early oceanic expeditions. Much of this knowledge, however, remained obscure for local scientists until 1977, when F.J. Palacios, one of Gill Voss’s students at Miami University, produced a

Oceanography graduate program at University of Rio Grande, he was able to involve a number of students in samples collected by a consistent series of fishery and oceanographic surveys. That not only resulted in a series of studies on cephalopod ecology and biology of southern Brazil but also allowed the formation of a “second generation” of Brazilian cephalopod scientists. These include Jose Milton Andriguetto Fo. (*Loligo sanpaulensis* biology

Fastmoll

Louise Allcock

Since CIAC 2009 in Vigo, we have been attempting to recruit to *fastmoll*: the cephalopod community's mailing list. Our aim is to get all active cephalopod biologists worldwide signed up to enhance communication between us all. List membership has almost doubled but certainly doesn't yet comprise the entire cephalopod community. To keep the spam out, the *fastmoll* list is 'closed': i.e., you have to be signed on by the list moderator. If you or your cephalopod colleagues wish to join the list, simply email louise.allcock@gmail.com requesting to join. Please spread the word!

Cephalopod Red Listing Update

Louise Allcock

The attempt to assess all cephalopods for the IUCN Red List continues apace (or slowly at least...) largely thanks to two of my UK colleagues: Iain Barratt and Gillian Lyons.

Thanks are also due to all those who looked at idiosepiid, cuttlefish and bob-tailed squid assessments. Mandy Reid has now done the awesome job of reading every single assessment. There are just a handful of these assessments outstanding now, and I hope to be handing these groups over to the IUCN shortly.

Currently out to review are the Argonautoidea, Ctenoglossa and Cirrata. These are in the hands of known experts including Dick Young, Mike Vecchione, Mark

Norman, Julian Finn, Roger Villanueva and Martin Collins, but if anyone else would like to provide feedback on these assessments you simply have to email me.

Similarly, if there are cephalopod biologists out there who want to tackle a group of squid or any incirrate octopods, you are most welcome to join us! Email me on: louise.allcock@gmail.com.



CIAC Workshop on Trophic Interactions

September 2009

Graham Pierce

The aim of this 1-day workshop, convened by Graham Pierce, was to present and discuss new research on cephalopods as predators and prey. The workshop was attended by around 25 persons.

Improving beak identification

Richard Young presented three-dimensional photos of cephalopod beaks (providing the audience with 3-d glasses), the aim being to show how a 3-d view made it easier to see the diagnostic characteristics for species identification and evolutionary relationships.

Jose Xavier and Yves Cherel made available their new guide to Southern Ocean cephalopod beaks, available as a book and CD-ROM, the latter offering video clips of beaks revolving on a vertical axis, allowing a 360 degree view.

Isotope methods versus traditional stomach contents analysis

Jean-Paul Robin provided an overview of the use of stable isotopes in squid diet analysis, highlighting some of the advantages and disadvantages. The potential for application in studies on squid and predator diets has been shown in published work by authors such as Gabrielle Stowasser, Iliana Ruiz-Cooley and Yves Cherel.

Pilar Sanchez presented new work on *Loligo vulgaris*. LPUE data show that the species is more abundant in the North and Central areas of the Catalan coast and less abundant in the south. *Posidonia oceanica* meadows are also more abundant in North and Central areas of Catalan

waters. The study will use stable carbon (C) isotope ratio of the mantle of *Loligo vulgaris* to typify the trophic state of the species and its relationship with *Posidonia oceanica*.

Cesar Salinas made a presentation on traditional stomach contents analysis.

Predator-prey relationships

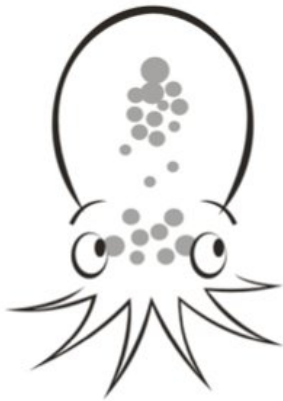
Francis Juanes and Michelle Staudinger presented information on predator-prey size relationships, with a particular focus on cephalopods as prey, including the use of quantile regression to determine how the maximum prey size relates to predator size. Frances Juanes suggested that this could form the basis of a future international collaborative study.

The role of cephalopods in marine ecosystems

Mary Gasalla discussed the inclusion of information on squids into models of ecosystem functioning (e.g. Ecopath with Ecosim) and the exploration of their different roles in marine ecosystems. A paper on this topic will appear in the forthcoming special (CIAC) issue of the ICES Journal of Marine Science. A proposal for comparative work was also presented.

CEPHBASE

The meeting spoke to James Wood via a Skype link. James expressed his interest in trying to resurrect the currently defunct CEPHBASE. It looks as though the most likely route is currently through the Encyclopedia of Life initiative (see Page 7).



VIII CLAMA

Congreso Latinoamericano de Malacología

12-17 June, 2011 - Puerto Madryn - Argentina

FIRST CIRCULAR

The Latin-American Congress of Malacology (CLAMA) will be held in Puerto Madryn, Chubut province, Argentina at the Centro Nacional Patagónico (CENPAT/CONICET). This is the 8th edition of the meeting and the 20th anniversary of the Asociación Latinoamericana de Malacología (ALM).

**The VIII CLAMA (Latin-American congress of Malacology)
will be held at Puerto Madryn, Argentina,
from 12 to 17 June, 2011**

Organize:



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(CENPAT / CONICET)



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