

International Ichthyoparasitology Newsletter No. 14 January 2007

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EDITORIAL

I extend many thanks to Lia Paggi, who has been Regional Representative for Italy since the inception of the Newsletter. Her contribution over the years is greatly appreciated and I wish her well in her retirement. I welcome Professor Bahram Dezfuli from the University of Ferrara as the new representative for Italy. He has extensive experience in the study of fish parasites and especially on acanthocephalans.

Anyone wishing to contribute to the next issue of the Newsletter (Number 15) should note that the deadline date for submission is November 15, 2007. My contact details are at the end of this Newsletter.

This, and future issues will be available on David Gibson's Web Pages at:

<http://www.diplectanum.dsl.pipex.com/newsletter/>

ANNOUNCEMENTS

Fisheries Society of the British Isles 2008



THE FISHERIES SOCIETY
OF THE BRITISH ISLES



The Fisheries Society of the British Isles (FSBI) is pleased to announce that its Annual International Symposium in 2008 will be on the theme of "**Parasites as Agents of Natural and Sexual Selection in Fishes**". The conference will be held at Cardiff University, UK, from **July 21st – 25th, 2008**. A wide selection of symposium sessions will be arranged, with sessions expected on parasite detection and avoidance; host-parasite co-evolution; parasites and host reproductive physiology and ecology; parasites, mate choice and mating tactics; impacts of parasites on host predator-prey interactions; and piscine brood parasitism. Further details, registration forms and abstract submission information are available on the FSBI website (<http://www.fsbi.org.uk/>).

Marie Curie Fellowships in Fish Health University of Valencia (Spain)



Two positions within the project ***Pathogen Research in Mediterranean Aquaculture*** funded by the EC's 6th Framework Programme are available:

1. Postdoctoral Position (2 years): The appointee is expected to develop diagnosis and typing techniques for pathogens of Mediterranean fish species. *Extensive knowledge of relevant molecular tools and/or diagnosis of fish viruses will be especially valued.* Gross salary will be c. € 44,000 p.a. plus a generous travel and mobility allowance.

Applicants should hold a doctorate or have 4+ years of postgraduate research experience and should be nationals of an EU Member State or an Associated State, or be permanent residents in member/associated states for ≥ 4 of the last 5 years.

2. Research Associate (6 months): The appointee will work in close association with the project's coordinator, assisting him to plan and supervise the experiments, to organise relevant workshops, to develop new research approaches and to assist with reporting to the EC.

The post is offered for 6 months, preferably divided into 2-3 month secondments along the extent of the project (January 2007 to October 2009), with a flat stipend of c.16,000 €, plus health insurance and travel and mobility allowances, and is compatible with employment at another institution.

Candidates should have 10+ years fulltime postgraduate experience and a consolidated publication record in one or several of the following fields: experimental fish parasitology, fish immunology, molecular diagnosis of fish pathogens and fish virology. Applicants should also have wide experience in project management and organisation of relevant training activities. ***Nationality of an EU Member/Associated State is not a requirement for this position.***

The successful candidates will join a friendly, lively and multidisciplinary team of biologists, who have research excellence as a top priority. Our modern facilities, including a plant for experimental aquaculture holding over 100,000 litres, will provide the ideal setting for the investigations. (You will find more about us at <http://www.uv.es/cavanilles/zoomarin/>).



Applications in triplicate must include a statement of your research plans and expectations, a CV, copies of up to 3 selected publications and the names and e-mail addresses of 2 referees.

Address applications and informal enquiries to:

Dr Juan Antonio Balbuena
Cavanilles Institute of Biodiversity and Evolutionary Biology
University of Valencia, P.O. Box 22085, E-46071 Valencia, Spain
Tel.: +34 96 354 3658; E-mail: zoomar@uv.es



Closing date: January 31, 2007

The University of Valencia is an equal opportunities employer. Female candidates in particular are encouraged to apply.



ISFP VII

7th International Symposium on Fish Parasites

We would like to announce that the **7th International Symposium on Fish Parasites (ISFP VII)** will be held in Viterbo, Italy from **September 24–28, 2007**. Please see the regularly updated ISFP VII website (<http://www.7isfp.com>) for further information on registration, the conference venue, the scientific, accompanying persons and social programmes, accommodation, transport and tours.

Registration fees. 250 Euros for full delegates, 150 Euros for students and 120 Euros for accompanying persons. Discounts will be available to those who register early. Some competitive scholarships will be available for young scientists to attend. More information and forms will be available on the website.

Conference venue. The Symposium will be held in the conference centre “**Domus la Quercia**” (pictured right), located in Viterbo, and organised by the Department of Public Health Sciences, Section of Parasitology, of the University of Rome “La Sapienza”, in collaboration with Tuscia University in Viterbo. It will be under the auspices of the Italian Society of Parasitology (SolPa). For more information on Viterbo please see the conference website.



For any other specific information and/or suggestions please contact us at: info@7isfp.com or secretariat@7isfp.com

We very much look forward to your participation at the ISFP VII. Hopefully, attending the conference will be academically beneficial, a pleasant experience and a good way to appreciate our country!

Thank you very much for your interest.

With best wishes

Yours sincerely

Simonetta Mattiucci
(Local organiser)

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SCOFDA

(Sustainable Control of Fish Diseases in Aquaculture)

A two-day workshop and PhD course on the “Diagnosis and Control of Fish Diseases” will be held at the Research School, Department of Veterinary Pathobiology, Royal Veterinary and Agricultural University, Frederiksberg C, Denmark on April 11 and 12, 2007. The programme is still being finalised but 3 invited speakers are confirmed. Dr **Andy Shinn** University of Stirling, Stirling, Scotland will give 3 lectures: (1) “Gyrodactylids on the Web”; (2) “Waging War on White Spot: The Mechanical Device to Control *Ichthyophthirius multifiliis* Infections in Trout Farms”; and (3) “Functional Morphology of the Opisthaptorale Musculature of *Gyrodactylus*”. Dr **Trygve Poppe** of the Norwegian School for Veterinary Sciences, Oslo, Norway will discuss “Heart Diseases of Fish”. Dr **Anders Kiessling**, University of Life Sciences and Environment, Oslo, Norway will give a presentation entitled “Global Aspects of Fish Nutrition”.

Free coffee and lunch will be available if registered before February 15, 2007. For further information on registration, the programme or venue, please contact Kurt Buchmann at kub@kvl.dk

See you at KVL!

Kurt Buchmann,
Professor, Section of Fish Diseases,
Department of Veterinary Pathobiology, Royal Veterinary and Agricultural University,
Stigbøjlen 7, DK-1870 Frederiksberg C., Denmark

POSITION WANTED

Dr **Geetanjali Chaurasia** is seeking a Postdoctoral Position. He completed his D. Phil. in Environmental Parasitology at the University of Allahabad entitled “Investigations to Identify Biodiversity Determinants in Ichthyoparasitology”. He did his Masters in Fisheries and Environmental Sciences. He has identified a number of marine and freshwater parasites of fishes (particularly nematodes, cestodes, trematodes and myxosporidians) and has worked on their population dynamics and seasonal distribution patterns with hydrobiological interaction from marine habitats off the west coast of Goa (at the National Institute of Oceanography) as well as in the freshwater habitats of the Gangetic plains (at the Department of Zoology, University of Allahabad), India. He is also well versed in microbial culture techniques, isolation and identification. He is keen to pursue his work on marine parasites and is looking forward to a Postdoctoral or Research Associate opportunity with a suitable fellowship abroad. If you have such a position and would like further information or Dr Geetanjali Chaurasia’s CV, you can contact at him at drgeetanjalic@yahoo.co.in

CURRENT RESEARCH ACTIVITIES IN VARIOUS COUNTRIES

AUSTRALIA

provided by Ian Whittington, whittington.ian@saugov.sa.gov.au

The Australian Society for Parasitology held its Annual Scientific Meeting at Surfer's Paradise in Queensland during July 2006. Despite the exotic-sounding location, the ichthyoparasitologists who attended the meeting really attended the meeting instead of surfing! **Alistair Dove** (Marine Sciences Research Center, Stony Brook University, NY, USA), of fishdisease.net fame, was an invited speaker on parasite ecology together with his mentor, **Tom Cribb** (Trematode biology & systematics; University of Queensland), **Barbara Nowak** (Parasites in aquaculture; University of Tasmania –Launceston) and **Ingo Ernst** (Australian government policy on diseases in aquaculture; Dept. of Agriculture, Fisheries & Forestry, Canberra) in a session on Biodiversity, Ecology & Evolution. **Nathan Bott** (Tuna health, especially sanguinicolids and their life-cycle; SARDI, South Australia), **Julia Lackenby** (Temperature effects on development rate of *Benedenia seriolae* on kingfish) and **Allan Mooney** (Time to sexual maturity in *Zeuxapta seriolae* from kingfish at different temperatures), both from the Marine Parasitology Lab. at the University of Adelaide, South Australia contributed papers to this conference.

Aussie fish Parasitology was well represented at ICOPA XI in Glasgow (August 2006) by: **Ashley Roberts-Thomson** (*Amyloodinium ocellatum*), **Connor Jones** (cymothoid isopods), **Rachel Fogelman** (castration of host by *Anilocra apogonae* from her Masters project with **Lexa Grutter**) and **Terry Miller** (cryptogonimid trematodes) from University of Queensland; **Danny Tang** (taeniocanthid copepods) from University of Western Australia; **Ian Beveridge**, **Robin Gasser** and **Shokoofeh Shamsi** (anisakids) from University of Melbourne and **Ian Whittington** (*Neobenedenia*) from the South Australian Museum/University of Adelaide.

Also in August 2006 was the Skretting Australasian Aquaculture Conference in Adelaide, South Australia. This conference, well-attended by international delegates, was a veritable A to Z of aquaculture covering aquaponics, branding and commercialisation to sustainability and virtual hatchery tours. Health aspects included: risks, surveillance and science for tuna farming (**Barbara Nowak**, **Craig Hayward**, **Hamish Aiken** from University of Tasmania – Launceston and **Marty Deveney** and **Nathan Bott** from PIRSA and SARDI, respectively in South Australia); metazoans from yellowtail kingfish (*Seriola lalandi*) by **Kate Hutson**, Ingo Ernst & Ian Whittington (University of Adelaide), *Cardicola forsteri* (Sanguinicolidae) from southern bluefin tuna (*Thunnus maccoyi*) by **Hamish Aiken** (Univ. of Tasmania – Launceston) and crustacean parasites of striped trumpeter (*Latris lineata*) by **Melanie Andrews** (Univ. of Tasmania – Launceston).

Kate Hutson, from the Marine Parasitology Laboratory at the University of Adelaide, won an award from the Royal Society of South Australia in October for an oral presentation on her studies. She has documented metazoan parasites (54 species in total) of wild *Seriola lalandi* off southern Australia to assess their risks to farmed kingfish in the growing industry in Spencer Gulf, South Australia. Kate has recently submitted a paper with Danny Tang on bomolochid copepods in *Naricolax*. **Vanessa Glennon** continues her studies on a

community of Monogenea from the skin, gills and cloaca of a rhinobatid, *Trygonorrhina fasciata*. She has had great success in staining monogenean larvae with CFSE fluorescent stain to track their host invasion route.

David Schmarr from the University of Adelaide and SARDI in South Australia has recently submitted a paper about the 3 techniques (parasites, genetics and otoliths) he is using in his PhD study to discriminate stocks of blue mackerel (*Scomber australasicus*) in Australasian waters.

Leslie Chisholm and Ian Whittington spent many weeks in the field during 2006. In



February/March, they attended the Annual New South Wales Game Fishing Tournament at Port Stephens, accompanied by PhD students Vanessa Glennon and **Lizzie Perkins**. Turning a rented unit into a parasitology laboratory complete with stereo and compound microscopes, fixatives, Eppendorf tubes and a liquid nitrogen dewar, the team (affectionately referred to as 'the parasite people') focused on collecting specimens of capsalines (Monogenea) from 3 species of marlin and any available tuna that were caught. This material is part

of a large project to generate a phylogeny for the Capsalidae by combining morphological and molecular genetic data-sets. Another aspect of the project is to revise the systematics of some capsalid groups, especially the Capsalinae. While in NSW, the team liaised with a local trawler and surveyed 2 local rhinobatid species, *Aptychotrema vincentiana* and *Trygonorrhina* sp. A for Monogenea in relation to Vanessa's studies to determine the identities, life histories and host-specificity of hexabothriid, microbothriid and monocotyloid monogeneans.

In May and June 2006, Ian, Leslie and Lizzie flew to La Paz in Mexico to investigate the identity and diversity of *Neobenedenia* on wild fishes in and around the Bay of La Paz. Funded by the Australian Academy of Science and the ARC & NH &MRC Research Network for Parasitology, 161 wild fish specimens (28 species, 14 families) were surveyed over a 40 day period working closely with **Roxana Inohuye Rivera** and **Juan Carlos Pérez Urbiola** at the Centro de Investigaciones Biológicas del Noroeste (CIBNOR). Experiments and observations were made on live larval and adult worms including assessments of fecundity *in vivo*. Almost 300 vials of samples were brought back to Adelaide for study using molecular genetic techniques (including mitochondrial genomics) and morphological analyses to re-evaluate the identity, diversity and biology of *Neobenedenia*. Additional 'opportunistic' observations on larvae and adults of several other monogeneans from teleost and elasmobranch fishes were made, including the discovery of 6 potentially new species of monocotylics from 3 ray species.



INDIA

provided by Rokkam Madhavi, madhvir@rediffmail.com

The Parasitology Division, Department of Zoology, Andhra University has been undertaking investigations in the field of Marine Parasitology for the last 3 decades. The initial studies were devoted to an analysis of the parasite fauna of marine fishes of the Bay of Bengal, covering different groups of parasites including: protozoans, monogeneans, digeneans, cestodes, nematodes, acanthocephalans and crustaceans. The parasite fauna is now more or less thoroughly explored. Investigations have also been undertaken on the cercarial fauna of the snails, the life cycles of digeneans of marine hosts and histopathological aspects.

With the background of knowledge accrued on the parasite fauna of different species of marine fishes in this region, the research group under the supervision of Prof. **R. Madhavi**, is now looking at the community structure of the metazoan parasites of selected species of marine fishes off the coast. Tunas, pomfrets and carangids were selected for the study. The helminth community of little tunny, *Euthynnus affinis*, was studied in detail and found to be dominated by didymozoids and species rich, with diversity values approaching those of aquatic birds. This richness was attributed to their high mobility, varied diet, long life span and endothermy. The study, initially undertaken during 1997–98, was repeated again in September 2006 in order to determine the long-term changes in the helminth community organisation as well as the effects of the tsunami which hit the coast recently.

Metazoan parasite communities of 3 species of pomfrets, *Parastromateus argenteus* (silver pomfret), *P. sinensis* (chinese pomfret) and *Alectis niger* (black pomfret) were also analysed as a part of the PhD work of Ms **Triveni Lakshmi**. The 3 species are sympatric in their distribution and feed predominantly on crustaceans. The major objective of the study was to compare the parasite communities of the 3 species of pomfrets collected from distant localities along the coast.

Four species of carangids, *Carangoides malabaricus*, *Selar crumenophthalmus*, *Megalaspis cordyla* and *Chorinemus tol*, were subjected to a similar study. The group is also undertaking molecular taxonomic studies on the digenean genera *Lecithocladium* (Hemiuridae) and *Didymocystis* (Didymozoidae), many species of which were recorded from marine fishes in the Bay of Bengal. Their taxonomy is currently confused.

Another research group, under the guidance of Dr **C. Vijaya Lakshmi**, has been working on cestode and crustacean parasites of elasmobranchs, including both taxonomic and histopathological aspects. PhD student Ms **Sabitha Kumari** has just submitted her thesis on parasitic copepods of marine fishes off the coast.

Dr **G. Gnanamani** is interested in the ecological aspects of parasitism in the marine eel *Uroconger lepturus* and the host parasite interactions between the eel and the hemiurid *Stomachicola* sp. at both cellular and molecular levels.

Dr **U. Shameem** has just begun studies on the monogeneans (*Dactylogyru*s spp.) of carps from Kolleru Lake and adjacent culture ponds. The programme involves analyses of species diversity, abundance, interactions and niche selection. She also has plans to

develop herbal drugs for controlling these infections, which are adversely affecting the fishery.

NORWAY

provided by Ken Mackenzie, k.mackenzie@abdn.ac.uk

A new 3-year project “The parasite fauna of wild and cultured coastal Atlantic cod *Gadus morhua*: transmission of parasites?” (CODPAR) commenced in 2006. The project head is **Peter Andreas Heuch** (National Veterinary Institute, Oslo). The rest of the team consists of **Pål Arne Bjørn** (Norwegian Institute of Fisheries and Aquaculture Research), **Willy Hemmingsen** (University of Tromsø), **Peder Andreas Jansen** (National Veterinary Institute), **Erik Sterud** (National Veterinary Institute) and **Ken MacKenzie** (University of Aberdeen, Scotland). The project is funded by the **Norwegian Research Council** and **Innovation Norway**. Industry partners are **Helgelandstorsk**, **Fjord Marin Cod** and **Ultra Seafood Loppa**. The objectives of the study are: (1) to describe the natural parasite fauna of selected populations of wild coastal cod, and to follow the development of a parasite fauna of farmed cod from stocking to harvest; (2) to compare these datasets to assess parasite transfer between the host populations; and (3) to disseminate knowledge



on common cod parasites to fish health personnel and operators of cod-farming enterprises. To achieve these objectives, 3 different groups of cod will be sampled twice yearly (spring and autumn) from 2 sites, one in western Norway (Helgeland) and one in northern Norway (western Finnmark). The first year's sampling was successfully completed recently. Some of the CODPAR team are pictured doing intensive sampling (left to right: Peter Heuch, Peder Jansen, Erik Sterud, Willy Hemmingsen and Ken MacKenzie).

PERU

provided by José Iannacone, aphia2005@yahoo.com

The Peruvian Helminthologist Day and First Anniversary of the signing of the founding of the Peruvian Association of Helminthology and Associated Invertebrates (APHIA)



was commemorated on February 12, 2006 in the auditorium of the General Director of Epidemiology of the Ministry of Health. In addition, certificates of membership were given to 3 new associates of APHIA. The President of APHIA, Dr **José Iannacone**, on behalf of the Directive Council 2005-2007, addressed the audience with a brief speech entitled: “Helminthology in Relation to Human History”. His talk highlighted the possibility that infections by the fish cestode *Diphyllobothrium pacificum* are depicted in ceramic pottery



from Mochica pre-Columbian tombs, and that this appears to have been confirmed by the finding of eggs of *D. pacificum* in human coprolites in northern Peru. He also explained the meaning of the logo of APHIA. Pictured above are 4 members of APHIA on The Peruvian Helminthologist Day: from left to right, Biologist **Rufino Cabrera**, Biologist **Lidia Sánchez**, Dr José Iannacone and Biologist **Rosa Martinez**.

During mid- to late 2006, APHIA had an information stand at 3 fairs, "II National Fair of Environmental Education", "Fair of General Direction of Environmental Health" and "World and National Day of Food", in Lima, Peru. At these fairs, APHIA explained the close relationship between humans, helminths and the environment, and the impact of *D. pacificum* on human health was emphasised. Biologist **Christian Paredes** and Dr José Iannacone of APHIA are pictured to the right during one of the fairs.



On August 17 and 18, 2006, APHIA offered a theoretical and practical course entitled: "Laboratory and field methods and techniques for helminthological studies". This course was run under the auspices of the Faculty of Biological Sciences, Ricardo Palma University. The entire Directive Council, Dr José Iannacone, Biologist Rufino Cabrera, Biologist Rosa Martinez, Biologist Lidia Sanchez and Dr **Manuel Tantaleán**, organised and participated as teachers during this short course. The main biological material used was parasites from marine fishes of Peru.

On August 31, 2006, Dr **Tomás Scholz** (Director of the Institute of Parasitology of the Czech Academy of Science) gave an invited presentation in Lima entitled: "Ichthyohelminthology in the Amazon". In addition, Dr Scholz received a certificate as first Honorary Associate of APHIA, commemorating his outstanding role as a scientist in ichthyoparasitology and in particular on Neotropical helminths.

PORTUGAL

provided by Maria João Santos, mjsantos@fc.up.pt

The Animal Pathology Group of the Department of Zoology-Anthropology / CIIMAR, University of Oporto, headed by **Jorge Eiras** (iceiras@fc.up.pt), includes senior researcher team members **Aurélia Saraiva** (amsaraiv@fc.up.pt), **Cristina Cruz** (cfcruz@fc.up.pt) and **Maria João Santos**, and a young researcher (fellow) **Margarida Hermida**. Several students are also currently working on their theses in fish parasitology: **Joana Marques** (PhD), **Custódio Boane** (PhD), **Francisca Cavaleiro** (MSc), **Carla Ventura** (MSc), **João Soares** (MSc) and **Luis Rangel** (MSc).

Various studies on fish parasites of eels, trout, seabass and polychaetes are being carried out. Currently, the following project is underway in our laboratory: "Black scabbardfish in the Portuguese waters: conservation measures and fish quality control", with a project on the use of parasites as possible biological tags, supported by the National Science Foundation (2004–2006) – J. Eiras, A. Saraiva, C. Cruz and M.J. Santos. Meanwhile,

collaborative projects with other Portuguese universities and with institutions from other countries are also being carried out. More detailed information about our previous work and publications can be seen at the web page:

<http://www.fc.up.pt/zoo-ant/seccoes/patol/patol.html>

MAY 21-24 2006 HORTA
**APPLIED ASPECTS OF
MARINE PARASITOLOGY**



In May, 2006 an international workshop (delegates below) on “**Applied Aspects of Marine Parasitology**”, with an emphasis on parasites as biological tags, was held at Horta, the Azores. It was organised by **Isabel Afonso-Dias** (idas@ualg.pt) (CCMAR, Universidade do Algarve, Portugal), **Gui Meneses** (University of the Azores, Portugal) and **Ken MacKenzie** (University of Aberdeen, Scotland). It was an initiative designed as part of the activities of CCMAR and IMAR/DOP sponsored by different institutions.



SOUTH AFRICA

provided by Linda Basson, BassonL.SCI@mail.uovs.ac.za

Parasitological Society of southern Africa (PARSA) – This year’s 35th conference of the Parasitological Society of southern Africa was a truly southern African venture, with the meeting held for the first time outside the borders of South Africa. We had a very successful meeting in Windhoek, Namibia with 120 participants. A total of 18 visitors came from countries other than South Africa and Namibia. It would seem that this was such a success that next year’s meeting is also going to be outside South Africa, with it being planned in Mozambique.

Research of the Aquatic Research Group (UFS) – at last we have finished building our permanent research camp in the Okavango, located in the far northern section of the panhandle in Botswana. Our research started in 1997, and we never could have foreseen the enormous success of this venture. So far 6 students have completed their MSc degree and 3 have completed their PhD. A further 7 students are presently involved in various postgraduate projects. The camp, called the Leseding Research Camp, forms part

of the Pabelêlo Research Trust, a joint venture initiative of community development specialists, 3 universities and conservationists. The aims and objectives of this trust are to combine research with community development and education on conservation, linked to the development of a commercial crocodile (already operational) and aquaculture production unit.



The first phase of this development was completed in 2005 with the construction of the Leseding Research Camp that consists of a well-equipped field laboratory (left), aquarium, kitchen (fully equipped), tented accommodation and ablution facilities. During the construction of the camp, no trees were removed and the camp is not visible from the air (see aerial photo below). The main users of this camp are members of the Department of Zoology and Entomology (University of the Free State), but it is also

available to all partners of the Pabalêlo Research Trust. Researchers of the Universities of Limpopo (Medunsa Campus) and Johannesburg regularly make use of this facility as well.

The next phase of development will start in December, 2006 and includes the construction of a community-based fish farm. The last phase, to also start soon, is the development and construction of an environmental Education Centre. The core business of the Okavango Leseding Project will, however, remain the research on the parasites of the fish in the system.



UNITED KINGDOM

provided by Ken Mackenzie, k.mackenzie@abdn.ac.uk

Collaborative studies of the myxosporean gall bladder parasites of anglerfishes *Lophius* spp. and sardines *Sardina pilchardus*, between **Ken MacKenzie** (University of Aberdeen) and **Isabel Afonso-Dias** (University of Algarve, Portugal), are continuing.

The 2-year project "A survey of *Anisakis* and *Pseudoterranova* in Scottish Fisheries and the efficacy of current detection methods", funded by **The Food Standards Agency Scotland**, commenced in July, 2005 and continues, with good progress having been made. The main objectives are to survey the levels of infection with these nematodes in anglerfish *Lophius piscatorius*, cod *Gadus morhua* and whiting *Merlangius merlangus* on Scottish fishing grounds and to determine the efficacy of current techniques for detecting infections in fish fillets. The project is a collaboration between The University of Stirling (**Rod Wootten** and **James Bron**) and the FRS Marine Laboratory (**David Bruno**, **Campbell Pert** and **Rachel Kilburn**), with Ken MacKenzie as consultant. The majority of the research is being carried out by full-time post-doctoral research assistant **Allan Petrie**.

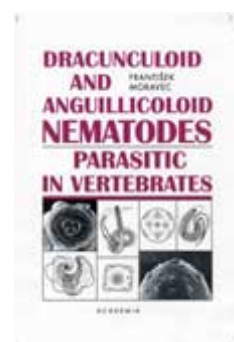
NEW BOOKS

Dracunculoid and Anguillicoloid Nematodes Parasitic in Vertebrates

Author: Moravec, F.

2006. Academia, Prague, the Czech Republic. c.600 p. Hardback
Price CZK (Czech crowns) 600; (c.\$ 30 US).

This volume represents the first monographical elaboration of 2 important groups of histozoic parasites with a world-wide distribution. This monograph provides basic data on all hitherto known species of dracunculoid and anguillicoloid nematodes and will enable their exact species determination.



EDITORIAL POLICY

Please note that material for the next issue should be sent to the Editor, Dr Leslie Chisholm [e-mail: chisholm.leslie@saugov.sa.gov.au], Parasitology Section, The Science Centre, South Australian Museum, North Terrace, Adelaide 5000, South Australia, Australia: Fax: +61 8 8207 7222, **before** November 15, 2007.

The Newsletter is issued once a year and the persons listed on the cover page act as regional representatives. Each representative may write or collect information from the members of their country or region. Naturally, direct contributions from any recipient to the Newsletter are also welcome. The Newsletter is intended for any news, notices, comments, etc. that you feel would be of interest to the world's ichthyoparasitologists. Please note that publication lists are not accepted. The editor would be grateful if submissions would follow the format similar to that of the present Newsletter. Images are welcome. Please send images as separate JPG files (do not incorporate them in your text file).

National representatives are asked to download a copy of each issue of the Newsletter and make this available (photocopies, e-mail, URL, etc) to his or her domestic members, where necessary. When it is impossible to download a copy, please advise the editor. In addition, the information in the Newsletter can be made available via E-mail.

Thank you

Leslie Chisholm

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