

MYXOZOAN WORKSHOP IV - 2010

6th International Symposium on Aquatic Animal Health in Tampa, Florida, USA

ISAAH6 had three sessions dedicated to myxozoans. In the first two, contributors shared their research via oral presentations, which included reports of novel species, genetics, histopathology, wild and farmed fish interactions, parasite interactions and the use of qPCR to quantify waterborne stages and predict fish mortality thresholds. There was also a round-table discussion in which we identified current myxozoan research needs and bottlenecks, and fostered contacts between individuals and research groups. We shared some of our recent triumphs and current trials and tribulations.

A primary research need is a **web-based myxozoan database**. Many of us have been faced with the daunting task of determining the identity of a myxozoan, whether it might be novel and having to source old literature and paw through manuscripts. To prevent this process being repeated again and again, and with the aim to having an accessible and dynamic summary of myxozoan taxa, we proposed establishing an online database. This would include images, GenBank accession numbers, links to literature and downloadable pdf versions of hard-to-get material. Several people also suggested that the database interface include a system for feedback so that disputed or poor quality records could be identified and discussed. Stephen Atkinson offered to create a draft online taxon submission form which would be shared around to get feedback. Heather Ellery volunteered to liaise with Stephen and kick start the database with entries on *Myxobolus* and *Henneguya*. The hope is that as folks delve into a genus they will share their literature findings through this online database, and we will all progressively add new taxa as we describe them. We have begun to look at templates for this database, and if anyone has suggestions or examples of ones they feel particularly relevant please forward to Stephen Atkinson <stephen@2am.com.au>

To aid access to **old literature**, Monica Caffara advertised a website where you can find and download very old books: www.biodiversitylibrary.org

There was consensus on the importance of consistent and adequate **descriptions** of myxozoans. DNA sequence data and a description of developmental stages using light or electron microscopy should be an integral part of characterising new species.

We all sympathised about **culturing** issues (invertebrates and parasites). It would be useful to know who has attempted to culture invertebrates – and what worked and didn't work for you? We exchanged tips and tricks. The following labs are known to have had success and currently maintain populations: David Morris - bryozoans, Mansour El-Matbouli - *Tubifex tubifex* oligochaetes, and Jerri Bartholomew - *Manyunkia speciosa* polychaetes.

There was discussion of which **genes** to target for myxozoan research. We observed that until we have a complete myxozoan genome sequence (ideally several), finding loci for comparative analysis will remain a challenge.

Sascha Hallett promoted a 2009 publication by Stephen Bustin and colleagues which provides guidelines for qPCR experiments. The information is useful to researchers as well as to reviewers of qPCR work. Further information can be found at www.gene-quantification.de/miqe.html, which includes a link to the manuscript.

Attendees were reminded of the Myxozoan Network Website www.myxozoa.org. It would help facilitate connections if all members could provide a short biography and photograph to accompany their contact details. A link to your research website and a list of your last five publications would also be useful. These can be sent to Stephen Atkinson stephen@2am.com.au

When do we next convene? One of the goals of the Myxozoan Network is to meet annually. Two international meetings flagged as possibilities next year are the ISFP in Chile www.8isfp.com and the EAFP in Croatia eafp.org/split-2011, both in September. Participants were asked which meeting they were likely to attend and the majority indicated the EAFP because the location favored pre- and post-conference collaborations and lab visits.

See you in **Croatia next year!**



Round-table discussion: (clockwise from 12 o'clock) Sarah Bjork (USA), Matt Griffin (USA), Linda Pote (USA), Charlene Hurst (USA), Tatiana Gavruseva (Russia), Arik Diamant (Israel), Astrid Holzer (Spain), Calin-Decebal Cojocar (Romania), Jerri Bartholomew (USA), Oswaldo Palenzuela (Spain), Sascha Hallett (USA), Monica Caffara (Italy), Bartolomeo Gorgoglione (Scotland), Simon Jones (Canada), Hans-Peter Fagerholm (Finland) and Heather Ellery (USA). Photographer: Stephen Atkinson.