

## Crab community indicators of Mangrove management

Dr Liz Ashton

On December 1st Estuaries published an article "A comparison of brachyuran crab community structure at four mangrove locations under different management systems along the Melaka Straits-Andaman Sea Coast of Malaysia and Thailand" by Liz Ashton, Peter Hogarth and Don Macintosh (Ashton et al., 2003).

This publication was the culmination of studies over five years in Malaysia and Thailand.

The findings show that management history plays an important role in moderating the crab community structure. The crab community structure also changes with the age of the mangrove forest stand. Sesamid crabs consistently dominated in mature forests, whereas young plantations were colonized mainly by ocypodid crabs. Heavily managed mangrove areas e.g. disused tin mining areas, former

concession forests, and abandoned shrimp ponds can be rehabilitated by planting mangroves and the crab community is a useful ecological indicator of habitat status.

The Coastal and Estuarine Science News Volume 1 Number 2 will also publish an abstract of this article for local managers to learn and understand and possibly use as a habitat restoration assessment tool. Simple ecological indicators are important tools for States and local managers to assess and monitor mangrove restoration, rehabilitation and management.

Dr Ashton and Dr Macintosh have been compiling for the past two years "Principles for a Code of Conduct for Sustainable Mangrove Management". The specific objective in developing these principles is to provide a tool for the effective management of mangrove ecosystems for local and national governments, resource managers, NGOs, traditional authorities and communities, donors and development agencies, and conservation groups.

Formulation of these principles for a Code of Conduct is based on existing knowledge, experience and needs. The articles presented identify key linkages and co-ordination needs among government departments, NGOs, nearby communities, researchers or research institutions and entrepreneurs who have an interest in the conservation of mangrove ecosystems and sustainable use of mangrove resources. It recommends key legislation and enforcement mechanisms (e.g., governmental and/or community-based) considered necessary to ensure the effective conservation, protection and sustainable use of mangroves. The draft Code can be found at the website (<http://www.biology.au.dk/cenTER>); please send any comments or suggestions to [eca1@stir.ac.uk](mailto:eca1@stir.ac.uk) by 01 April 2004. This document will be published in June 2004 and will be explained in more detail in the next Aquaculture News article.

Ashton, E.C., Hogarth, P.J. and Macintosh, D.J., 2003. A comparison of crab community structure at four mangrove locations under different management systems along the Melaka Straits-Andaman Sea coast of Malaysia and Thailand. *Estuaries* 26(6).

## DFID

### An Engineer Abroad

**Brian Howie, the Institute's Engineer shares the emotional and physical ups and downs of his recent trip to Bangladesh ... his first time outside of Europe.**

Earlier this year I was asked by James Muir if I would like to go out to Bangladesh to deliver a practical course on the construction of a portable field laboratory. The course would involve staff from the Faculty of Fisheries BAU Mymensingh and technicians from Bangladesh Fisheries Research Institute and the Department of Fisheries. As I had never been farther than Majorca it was an opportunity I could not pass up and so it was arranged for the 22<sup>nd</sup> of August. So it was with great excitement I flew out of



Back to basics.

Edinburgh on the first leg of my overseas adventure. After a brief stop in Birmingham it was on to Dubai and then on to Dhaka. I was met at the airport by Chris Morrice and whisked through customs by my facilitator and into a waiting Land Rover and out into the busy early morning traffic.

The road from Dhaka to Mymensingh is something to behold, it is the scariest drive I have ever had. Buses, lorries, rickshaws, people and animals everywhere but as you leave the mayhem of Dhaka the countryside starts to open out and the traffic gets slightly less scary. Along the sides of the road were rice fields and fish ponds and as it was the end of the monsoon everywhere was lush and green. On arriving at the BAU (Bangladesh Agricultural University) I was taken to the Faculty of Fisheries where I met up with Doctors Wahab, Raphiquil and Molla. It was great to meet them all again and they were all very interested to hear news about their friends back in the Institute at Stirling. I was then taken to the guesthouse that was to be home for the next ten days. It is a lovely building set in lush gardens and has coconut palms and banana trees on one side and the Brahmaputra river on the other. My room

The journey to Dhaka was every bit as scary as the first time and as I was not as jet lagged as I had been on my first journey I could take a better look at the scenery. I will never forget the site of people sitting with a huge pile of bricks on one side of them and breaking them up with a small hammer to make an even bigger pile of rubble on the other side to be used as bottoming for the roads. What I mistook for tennis courts were actually areas for drying rice and again rickshaws and lorries so overloaded I thought they would fall over. As we drove along through countryside and villages what really struck me was the way that so many people can seem to scrape a living out of virtually nothing. People here must be among the poorest in the world and yet despite the poverty they remain positive though life is tough.

Before I left Scotland I had great misgivings about the trip I was about to make. I had been told horror stories of other people's strips abroad and was very apprehensive but I should not have worried. The people I met and worked with were very friendly and made me feel really welcome. I was treated like royalty and still chuckle to myself when I think of the security guards standing to attention and saluting when I walked past. The memories of my trip to Mymensingh will stick with me for the rest of my life and if the work I did there can help in some small way then I will be very pleased. On Monday morning I flew out of Dhaka and back to Bonny Scotland a little more humble and appreciative of just how lucky we are.



A lot of familiar faces: made me very welcome.

was very comfortable and for the time I was there I shared it with a small lizard and a small frog that try as I might I could not catch. By the end of my visit I was on first name terms with both of them.

The next day I was introduced to the joys of rickshaw travel and to the students that would interpret for me and what an enthusiastic bunch they were, Milton, Bocul and Jewel. We were shown round the workshops that we would be using which was a bit of a shock as most of the machines were not just older than me but I am sure could have been used by Noah to make parts of the ark. It is to their great credit that with the skill and ingenuity of the engineering and carpentry staff we were never stuck or held back. We had to adapt and change the design of the portable lab as we went along to suit the materials and machinery available. The lack of modern technology was in some cases a help as it made me simplify some of the parts and so made it easier for them to manufacture.

My biggest problem was the humidity, I have never experienced anything like it. The staff had great difficulty concealing their mirth at the sight of me walking around as if I had just stepped out of the shower fully clothed. But they looked after me very well making sure I had plenty water to drink and a couple of big fans to keep me cool. As it is an agricultural

university the campus is littered with fish ponds and rice paddies and it was a bit strange seeing cows and horses grazing just outside the laboratories. It is a beautiful campus to stroll around and every time I was out walking I seemed to bump into an old friend who had attended Stirling. It was a pleasure to meet them again and every one seemed to have fond memories and a story to tell of their time at the Institute.

On the Friday before I came home a barbecue was arranged for me with all the ex Institute students. Over twenty old friends turned up from as far back as the early eighties and we had a fantastic feast of barbecued tilapia, chicken and mountains of nan bread. After we had finished eating every one stood up and told stories of their time at Stirling and friends they missed and asked me to pass on all their kindest regards to all at the Institute. At the end I was presented with a beautiful silk shirt and a map of Bangladesh. The next day we put the finishing touches to the portable lab and though I say so myself it looked excellent. All the technical staff that had taken part in the construction of all the different components seemed very happy with the finished item. That night I packed my case and said goodbye to my reptilian room mates as next morning I was off to Dhaka for my last night in the luxury of a hotel with hot water.



Rice drying tennis court?