



6th World Fisheries Congress, 8th-11th May 2012 Edinburgh International Conference Centre

Had they been at the 6th World Fisheries Congress in May of this year I suspect that the founders of the FSBI would have been amazed at how far the society they founded in 1967 has come. As expressed by Ian Winfield in his President's Piece later on in the Newsletter, the 6th WFC was the most ambitious project the Society has ever undertaken. Although the execution of the project cost the Society financially, the event paid off in terms of achieving the Society's objective of being 'An international learned society that promotes the interests of fish biology and fisheries management'.

The credit for the organization has been fully recognized by the President on page 4, so this report will be focused on my impressions of the conference as a delegate, albeit one who had been involved in the meeting's organisation.

The Edinburgh International Conference Centre should be given credit on two counts as host location for the meeting. First, the administrators of the centre picked up in 2001 that there was such a thing as the World Fisheries Congress. Just after I finished as FSBI President in 2001, I received a letter from the EICC asking if there was a chance of the World Fisheries Congress coming to Scotland and to Edinburgh? I passed this information on to Inigo Everson, who followed me as President and he then took the process forward eventually winning the bid to hold the meeting at the EICC. The second way in which the Conference Centre should be given credit is in the quality of the building and the assistance given by the plentiful staff. The number of rooms available for subthemes, the size and flexibility of the main hall, the generous space for the trade exhibition and finally the numerous helpers that were placed at every decision point in the building. These people, always friendly, were able to point delegates in the right direction.

The conference was preceded by workshops on fish welfare, scientific writing and field sampling methods. I took part in the fish welfare workshop which was well attended and stimulated much debate



HRH the Prince of Wales (aka the Duke of Rothesay) addressing the opening session of the 6th World Fisheries Congress.

on the issues surrounding a topic which is difficult and often contentious. Later in the main conference there was a day-long session devoted to papers on fish welfare and these ranged from issues arising in aquaculture to capture fisheries. Research is underway to discover good methods of killing fish

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caught by trawls using electricity, a somewhat difficult force to deal with on a wet and slippery trawler deck.



Lowri Evans introducing the issues that the Common Fisheries Policy reform will be designed to solve.

The first day of the meeting proper was dominated by the presence of HRH the Prince of Wales or the Duke of Rothsay as he is known in Scotland. Many were surprised by the Prince's coherent and well delivered address which picked up on all the major issues that we need to solve to bring about sustainable fisheries. Equally impressive were the Keynote talks of Ray Hilborn from the University of Washington, Seattle and Mike Mitchell from Young's Seafoods.

After the excitement of the royal visit it was downhill all the way! Far from such a demise, the first day also included a panel session on the CFP reform which included Richard Lochhead (Scottish Government), Richard Benyon (UK Government) and Lowri Evans (EU Commission) on the panel. This session was packed and the discussions ably led by David Miller from the BBC Scotland. On the second day of the conference another discussion session dealt with standards, certification and labelling. A final discussion session was held on Thursday dealing with illegal fishing. These three discussions complimented the more formal sessions where a huge diversity of papers were presented arranged into themes.

On the evening of the first day, a subset of delegates were invited to a reception in the 16th century Great Hall of Edinburgh Castle. About 100 delegates were invited and who were greeted by a piper at the entrance and then Alex Salmond, Scotland's First Minister who was described in a recent newspaper article as 'the charismatic, bumptious leader of the Scottish Nationalists'. Mr Salmond gave a witty welcoming speech to the delegates and then left us to enjoy the canapés and discuss the issues of the day. The reception was sponsored by the Royal Society for the Protection of

Birds (RSPB), which seemed strange at a conference about fish. As was made clear at the reception the RSPB has been directing and funding a programme to reduce the damage done to oceanic birds such as albatrosses and petrels by the fishing industry.

The electronic posters were new to me and to many delegates. Of course the WFC was not the first meeting to use them, but their presence is not common, although I suspect that future meetings will see them more often. Their advantage is that they take up less space and can be searched by people browsing for particular topics. It is also possible for authors to use video and to make their presentations more dynamic. Views amongst the delegates were mixed as to their utility.

The conference dinner was held at Murrayfield, the home of Scottish rugby. The initial plan was to have the drinks reception on the pitch, but it was a foul night with heavy rain, so that idea was abandoned. The location was good but perhaps lacked a certain atmosphere that might have been expected in an



HRH the Prince of Wales meets the two winners of the national competition for children in primary schools to design a T-shirt for the conference. The competition was run by Seafood Scotland.

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EDITORIAL

When the Society was established in 1967 it is unlikely that any of the founding members would have envisaged the organisation supporting and driving an event as large and as significant as the World Fisheries Congress. The founding president Jack Jones was nationally engaged in the science and management of freshwater fisheries. His friend and co-founder, Peter Tomblason was an angling journalist and member of various river authority boards. Although Jones had international contacts his sphere of influence was very much England and Wales. The change in perspective illustrated by the WFC demonstrates how science in general and fisheries science in particular has become more international. This is reflected in the make up of the Society which includes members from all over the world.

This change in perspective and the broadening of the location of the Society's membership has raised the issue (again) of what the Society should be called. There are two elements to the name that have been called into question over the years 'British Isles' and 'fisheries'. The first implies that membership is confined to people living in the United Kingdom and the Republic of Ireland yet as just mentioned, there are now members all over the world. The Council has taken note of this by appointing members from European countries and this has been happening for at least 20 years now. There are those who say that the

words 'British Isles' need to be removed altogether although that would alter the well-known acronym of FSBI.

The 'fisheries' issue has been a problem in that it implies that the Society is mostly concerned with the human exploitation of fish, whereas over the past 30 years the main focus has really been on fish biology. The definition of the sphere of influence has been taken as being any topic that would be published in the *Journal of Fish Biology*. As this didn't publish papers on fisheries as such, this applied aspect was excluded. Over the past few years, the stringent insistence on fish biology has been relaxed and there is now a recognition that the Society has both fish biology and fisheries within its remit.

There is never going to be an easy solution to the question but there are suggestions that the Society should retain the acronym, FSBI, but then include a heading that emphasises the international scope of the society and its broad research interest in all aspects of fisheries science. In many ways the WFC helped to place the Society in the place that it wants to be in. A thriving international society, with a base in the UK, and supporting all aspects of fisheries science.

Paul Hart

Leicester August 2012

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ancient city such as Edinburgh. The food was good and the piping in of the haggis provided an excellent opportunity to present an unusual aspect of Scottish culture which probably caused some bemusement in delegates from the rest of the world. Later the Céilidh went with a wild swing and the band were astounded to find that from the first tune they played there were dozens of people on the rather cramped dance floor. They normally expect to have to cajole people to dance so it would seem that fishery people are more social than most. The activity of the dancers was so great that towards the end of the evening the dance floor began to disintegrate – some feat!

The trade exhibition provided a good meeting place for delegates between sessions. Given the economic state of the world, it had been a tough job to persuade companies to exhibit but there was never a feeling that the exhibition was under populated. For some exhibitors there were rather too many academics around for their liking and not enough business people.

The weather for the week was mixed with some periods of heavy rain but also sun here and there. Most delegates I spoke with liked the EICC and had



The winning T-shirt designers Niamh Scott (9) from Wilton Primary School, Hawick and Sam Mutch (9) from Pittenweem Primary School, Fife, with their parents, teachers and Richard Lochhead MSP, Cabinet Secretary for Rural Affairs and Environment.

greatly enjoyed the conference. They were particularly impressed by the quality of the keynote talks, which were indeed of a very high standard.

Paul Hart

Leicester, August 2012

FSBI President's Piece

After 4 years of planning and an immense amount of hard work by many FSBI members and others, the 6th World Fisheries Congress took place in Edinburgh between 7 and 11 May 2012. This major international conference is facilitated by the World Council of Fisheries Societies and is held every 4 years. Following the first such meeting in Greece in 1991, subsequent events have been held in Australia, China, Canada and Japan, with the U.K. now joining this illustrious list with FSBI acting as host and primary sponsor.

The congress adopted a theme of sustainable fisheries in a changing world and made a particular effort to promote dialogue between scientists, managers and industry, which it undoubtedly achieved by attracting 1,305 delegates from 65 countries to a programme containing 590 oral and 350 electronic poster presentations, together with a series of innovative question and answer sessions. A satellite programme of field visits and workshops aimed at early career scientists was run over the weekend immediately before the congress and was also well attended and received, and efforts to encourage and to help students to attend also proved to be very fruitful. Given the current extremely challenging financial conditions, I think that these statistics are a remarkable achievement.

The opening session of the congress included a welcome address from Richard Lochhead MSP and the Scottish Government's Cabinet Secretary for Rural Affairs and the Environment. It also included a keynote address by HRH The Prince of Wales on the subject of facilitating the transition to sustainable fisheries, which understandably surprised many delegates and captured the majority of the considerable media attention given to the week's events. Finally on the first day, The Right Honourable Alex Salmond MSP First Minister of Scotland spoke at a reception held in the Great Hall of Edinburgh Castle. In between and after these high profile events, the congress offered a great diversity of

fisheries science, management and industry perspectives delivered in up to 10 simultaneous sessions.

Without doubt, hosting this congress has by some distance been FSBI's most ambitious undertaking in its almost 45 year history. Although my involvement as current president has been very limited beyond flying the flag for FSBI during the congress itself, we are greatly indebted to our former presidents John Thorpe, under whom the initial bid was formulated, and Felicity Huntingford, under whom the successful bid was substantially developed. In addition, after 'retirement' (in more ways than one) Felicity continued in her role as Congress President and together with former FSBI Officers Michel Kaiser (as Congress Vice-President) and Inigo Everson (as Chair of Exhibition and Sponsorship) and myself (as Treasurer) led the so-called 'Inner Circle' of the Local Organising Committee. Felicity, Michel and Inigo contributed huge amounts of time and effort, particularly during the last few months leading up to the congress. Finally in this extensive round of thanks, space does not permit me to identify all of the other FSBI members who were involved with the congress through the Local Organising Committee or other activities, nor all of our external collaborators, partners and sponsors, but all of these contributions are greatly appreciated and together they have contributed a great service to the world's fisheries research, management and industry communities at a particularly difficult time.

For those of you who keep very long-range diaries I can tell you that the 7th World Fisheries Congress in 2016 (specific dates are yet to be confirmed, but are proposed to be 7 to 11 November) will be held in Busan, Korea.

Ian J. Winfield
Centre for Ecology & Hydrology, U.K.
27 June 2012

More pictures from: 6th World Fisheries Congress, 8-12 May 2012

The piping in of the haggis at the conference dinner, Ian Winfield at the pre-conference dinner reception and the Congrex/FSBI team winding down at the end of the conference.



Early Stage Career Participation in the 6th World Fisheries Congress 2012

The Local Organising Committee were delighted that over 250 students and scientists in the early stages of their career were able to attend the Congress, with 156 early career oral presentations and 121 e-posters. Donations from the Fisheries Society of the British Isles and ICES allowed contributions to the travel expenses of 20 students from 14 different countries. Excerpts of their travel reports are given below. Many students also chose to attend the pre-Congress workshops on effective scientific communication, fish welfare in research and practical conservation management of freshwater fishes. The standard of early career presentations was high. Six oral presentations and six e-posters were shortlisted for the early career stage competition and were attended by a panel of judges. These were oral presentations by Gwladys Lambert, Ana Gonçalves, Jennifer Houle, Rafael Leon, Vivian Nguyen, and Diana Sharpe and e-poster presentations by Simone Delgado, Timothy Emery, Kenzo Kaifu, Tanja Miethé, Winnie Nkalubo and

Marcello Schiavina. All of these presentations were of exceptional quality and the judges enjoyed listening to the talks and discussing e-posters with the candidates. Prizes for the competition were kindly donated by Wiley-Blackwell and Lotek Wireless Inc. For the oral presentation first prize went to Diana Sharpe for her talk entitled 'Evidence for fisheries-induced evolution from inland waters? Four decades of life history change in *Rastrineobola argentea*'. For the e-posters first prize was awarded to Timothy Emery for his talk on 'Emergence of "Race-to-Fish" behaviour in an individual transferable quota fishery when the total allowable catch is non-binding'.

Selected Travel Report Excerpts:

'The conference not only gave me the motivation to fulfil my Ph.D., but also gave me novel ideas for and a refreshed motivation to continue research work, hopefully in collaboration with some of the great people I met at this year's WFC.' **Petra Rodewald**; 'The Congress helped me improve my presentations and how to frame them into a more

international context. It made me realize how big the fisheries world is and the multitude of international work that is going on. Overall, it was one of the best academic experiences I've gained in terms of broadening my perspective and my network, and expanding my interests into more international areas.' **Vivian Nguyen**; 'I attended forage fish talks and was able to develop a compelling set of capelin research questions. As a direct result of this, I was able to secure a postdoctoral position studying capelin dynamics here in Newfoundland. Further, methodological talks on underwater cameras will help me refine my subsequent postdoctoral work mitigating shark bycatch. Attending the World Fisheries Congress was an excellent re-entry to fisheries science following my maternity leave.' **Erin Carruthers**; 'One of the highlights of the Congress was presenting my work on modelling the biodiversity-productivity relationship for large marine fish communities. This provided a valuable means of communicating my research to an international, multi-disciplinary audience, and my talk generated much constructive feedback. As a result of all these activities, my attendance at the 6th World Fisheries Congress has significantly improved my capacity to conduct research, using ecosystem models, that is both relevant and beneficial to fisheries management and policy-making. I have also gained several new contacts useful for a continued career in this research area.' **Tak Fung**; 'This conference was a great opportunity to meet people working on similar or complementary topics, providing me with various pieces of advice, interesting ideas that could be included in my research and possible collaborations, especially with people working on more applied aspects of uncertainty in fisheries that could feed into our models.' **Loïc Gasche**.

Kath Sloman



From left to right: Professor David Noakes (judge), Professor Felicity Huntingford (judge), Tanja Miethé, Dr Katherine Sloman (judge), Simone Delgado, Marcello Schiavina, Timothy Emery, Winnie Nkalubo, Kenzo Kaifu, Professor Aubrey Manning (judge). Photo by Andrew Johnson.

The Fisheries Society of the British Isles, 2012 Annual Symposium – The Physiology of Fish Behaviour, University of East Anglia, Norwich, 9-13 July, 2012.

The 2012 FSBI Annual symposium on the Physiology of Fish Behaviour was held at the campus of UEA in Norwich. The aim of this symposium was to bring together fish biologists from a broad range of backgrounds to advance our knowledge and understanding of the interactions between fish behaviour and physiology. The symposium identified the critical importance of behaviour-physiology interactions at all levels of organisation, from the molecular to the population level. The symposium covered a diverse range of topics incorporating the integration of physiology and fish behaviour, including communication and behaviour, parasites and behaviour, environment and behaviour, cognition and neuroplasticity, and aquaculture and behaviour.

The conference was attended by 71 participants, which made for a very lively interactive meeting. The symposium consisted of 45 oral presentations including 6 invited keynote talks, together with 17 poster presentations. The symposium opened with a welcoming address by Professor David Richardson, Pro-Vice-Chancellor of the University of East Anglia. In recognition of her outstanding contribution to the field of fish behaviour Felicity Huntingford gave the opening Jack Jones Memorial Lecture on the topic "The physiology of fish behaviour: what's changed in the last 40 years". This opening lecture gave the audience a fascinating insight into the tumultuous changes in techniques which have revolutionized research in fish behaviour/physiology over the last 40 years. In the following session on Parasites and Fish Behaviour, Jenny Shaw gave a keynote lecture on the *Active manipulation of host behaviour*, focusing on the killifish as a model species. In the session on Hormones and Behaviour, Rui Oliveria gave a keynote lecture on *Genomics and physiology of social plasticity in fish*, while on the same day David Righton gave an illuminating keynote lecture entitled *Climbing downhill backwards: understanding how animals we don't fully know respond to environments we can't fully measure*.

On the final full day, keynote lectures were given by Kath Sloman on *Environmental contaminants and behavioural disruption in fish*, and Lars Ebbesson on *Environmental impacts on neural plasticity and cognition in salmon*. Selected papers from the Symposium will be published in a special edition of the Journal of Fish Biology, for which Tom Pottinger agreed to be Guest Editor.

The symposium also benefited from a lively social programme, starting with a Drinks Reception on the opening evening sponsored by Wiley-Blackwell. The second day ended with a BBQ at a traditional English Pub followed by a hotly contested pub quiz, won by the team headed by the Anglo-American axis of Felicity Huntingford and William Fisher (President of the American Fisheries Society). During the evening Dr. Robert Arlinghaus, Humbolt University, Berlin (pictured) was awarded the 2012 FSBI medal. Finally, on the Thursday evening the Symposium Banquet was held at The Assembly House, a spectacular Georgian grade I listed building located in the centre of Norwich. The reception and dinner drinks were generously sponsored by Loligo Systems. During the evening Ian Winfield, the President of the FSBI, had the honour of awarding the Beverton medal to Professor Charles Tyler, University of Exeter (pictured) and the Le Cren medal to Dr. David Cragg-Hine, now retired from the Environment Agency (pictured).

In addition to the generous sponsorship by Wiley-Blackwell and Loligo Systems, particular, special thanks are accredited to The Fisheries Society of the British Isles who were the primary sponsors of this symposium, which included travel grants awarded to 10 students. Finally, I would like to thank Tricia Ellis-Evans of Pace Projects for her dedication and tireless energy in organizing this symposium.

Ian Mayer
Oslo, Norway



Dr Robert Arlinghaus from Humbolt University, Berlin receives the FSBI medal from the Society's President Dr Ian Winfield.



Ian Winfield, President of the Society presents the Beverton Medal to Professor Charles Tyler from the University of Exeter.



David Cragg-Hine receives the LeCren medal from Ian Winfield. David was a PhD student under the supervision of Jack Jones, the Society's founding president, and did his doctoral work on Willow Brook, a tributary of the River Nene, Northamptonshire.

Ian Cowx awarded the International Fisheries Science Prize



Ian, who is Professor of Applied Fisheries Science & Director of the Hull International Fisheries Institute (HIFI), University of Hull, was awarded his prize at the reception held before the World Fisheries Congress dinner. Ian has had a long career in fisheries, mostly based in the Hull area. Like all good fish biologists of his era he did

his first degree in Zoology at the University of Liverpool, going on to the University of Exeter to do a PhD. After seven years working for the Severn-Trent Water Authority, Ian became a Senior Lecturer at the Humberside College of Higher Education before moving to the University of Hull in 1989. At the University he rose through the ranks to become Professor although he had been director of the Hull International Fisheries Institute for some years before achieving this final academic promotion.

Ian has extensive experience in developing countries, particularly Africa and Asia. He has also worked in the UK, in Europe and Australia. In all environments his work has been focused on management strategies for freshwater bodies and aquaculture. At the University of Hull, Ian teaches

Undergraduate and Postgraduate courses on Fisheries Ecology, Inland Fisheries Management, Fisheries Resources, and Aquatic Ecology. He is also a major contributor to short courses run both in-house and overseas on rehabilitation of inland fisheries, aquatic resource management planning, electric fishing, stocking and introduction of fish, and fish stock assessment.

Ian's current research is on fish capture techniques, stock assessment for management purposes, rehabilitation of inland fisheries and aquatic resource management planning. This work has led to Ian being much in demand as a consultant and his experience includes rehabilitation techniques for freshwater fisheries, integrated aquatic resource management planning, environmental impact assessment, particularly associated with water resources development schemes, and aquaculture extension.

Ian also has extensive editorial experience. The conferences he has organized on electric fishing have usually resulted in a book edited by himself and he is Editor of the Wiley-Blackwell journal *Fisheries Management and Ecology*. In his 'spare time' Ian is Chair of the East Yorkshire Chalk Rivers Trust.

Ian has also been a strong contributor to a number of FSBI annual symposia and is a regular attendee at these. It is a great pleasure to congratulate him on his award which has been well earned.

Notices

The following four people were elected to Council at the Annual General Meeting held at the Annual Symposium in Norwich in July.

Name	Address	Interests
Ali Serhan Tarkan	Mu la University, Faculty of Fisheries, 48000 Kötekli-TURKEY	Life history traits and ecology of freshwater fish; impacts of alien fish
Andrew Gill	Building 37, Cranfield campus, Cranfield University, College Road, Cranfield, Bedfordshire, MK43 0AL	Effects of renewables on fish populations, particularly Elasmobranchs
Miran W. Aprahamian	Environment Agency, Richard Fairclough House, Knutsford Road, Warrington, WA4 1HG, U.K.	Freshwater fish ecology and management
Nicolas Bury	Diabetes and Nutritional Sciences School of Medicine Kings College, London	Fish ecotoxicology, endocrinology

THE NEXT EVOLUTION OF ACOUSTIC TELEMETRY GOES MOBILE



Seattle, July 24, 2012: Driven by the research needs of USGS scientists and others, the latest product for acoustic telemetry for fisheries research has arrived. Over the past decade, fisheries scientists around the world have used HTI acoustic telemetry to remotely track fish behavior with fine-scale 2D and 3D positions. These studies provided a wealth of information about fish passage, survival and behavior. Most often the surveys used fixed receivers for monitoring site-specific areas (e.g., water intakes, diversions, and hydropower dams). In recent years with increased need to evaluate fish behavior beyond fixed stations, an easy means for mobile surveys became essential.

HTI's new *Model 395 Micro Data Logger* finished testing this spring at various locations on the west coast. HTI (Hydroacoustic Technology, Inc.) announced its official release of the *Model 395 Logger* earlier this week.

Data loggers are not new in acoustic telemetry. However, there are three new game changers exclusive to the *Model 395 Micro Data Logger* that make it unique. Beyond its ability to detect and identify hundreds of fish at the same time in real-time, it's now possible to achieve fine-scale 2D/3D tracking of each tagged fish with multiple units.

To learn more about this new technology, HTI offers system details and potential fisheries research applications at http://www.htisonar.com/datalogger_Model395.html.

INFORMATION DESK

For all membership enquires (except subscription payments), including grant application submissions, please contact the FSBI office at:
FSBI, c/o Charity & Social Enterprise Unit, Brabners, Horton House, Exchange Flags, Liverpool L2 3YL, UK
Contact: Rosemary Taylor
Phone: +44 (0) 151 600 3285
Email Enquiries: grants@fsbi.org.uk

In the UK and Europe subscription enquiries should be addressed to
Gill Ashall
Charities and Social Enterprise Department, Brabners Chaffe Street
Horton House Exchange Flags
Liverpool L2 3YL
Tel: 0151 600 3000 (ext. 3362)
Fax: 0151 227 3185
<http://www.fsbi.org.uk/members.htm>
for further information.

Secretary:
Professor Brian Eddy
Faculty of Life Sciences,
Biological Science Institute,
University of Dundee, Dundee,
DD1 4HN, UK
Tel: +44 (0)1382 344292
Fax: +44 (0)1382 344275
E-mail: Secretary@fsbi.org.uk

www.fsbi.org.uk