



Thursday 7<sup>th</sup> February 2012

## CVO Dutch North Sea brown shrimp

### Marine Stewardship Council Certification

Certification Body: Food Certification International Ltd

### Nominations for Assessment Team Membership

Food Certification International (FCI) is currently undertaking the assessment of the above fishery against the Marine Stewardship Council (MSC) Principles and Criteria for Sustainable Fishing. Following an internal review of assessment team composition, it has been decided to revise the announced assessment team, by including Paul Macintyre. This is to provide additional expertise in terms of traceability for an already strong assessment team.

The persons proposed as team members of this fishery assessment team are set out below, together with a resumé of their experience and expertise. They have been proposed on the basis of their experience in the areas of stock assessment, ecosystem interactions and fishery management. The assessment coordinator from FCI remains Melissa McFadden.

All stakeholders are now invited to provide comments on the suitability or otherwise of any of the nominees. **Any such comments must reach us by 17:00 GMT on 17<sup>th</sup> February 2012.**

**Please note:** Any claim/s regarding the suitability or otherwise of the proposed assessment team for this fishery assessment **must** be accompanied by objective evidence in support of the aforementioned claim/s.

The MSC provides a set of guidelines and templates to assist in the transfer of information between stakeholders and Certification Bodies. These should be used for any comments you wish to make on this or any other stage of the assessment process and can be found here:

<http://www.msc.org/documents/get-certified/stakeholders>

Comments should be sent in the first instance to:

**Joanna Kabut** - Fisheries Administrator

[joanna.kabut@foodcertint.com](mailto:joanna.kabut@foodcertint.com)

**Name:** Mr Crick Carleton

**Position in team:** Lead assessor with particular responsibility for assessment under Principle 3

**BSc** Zoology, University of Bristol, 1970

**MSc** Tech. Economics, University of Stirling, 1975

**EAFE** Member of the European Association of Fisheries Economists

**IFFET** Member of the International Institute for Fisheries Economics & Trade

## Key Qualifications

Crick Carleton is the founder and Chief Executive of Nautilus Consultants Ltd., an international firm of consultants specialising in the economic, social, commercial and environmental aspects of natural resource use. His particular areas of expertise are in institutional and corporate restructuring, management and decision-making systems, natural resource policy, and programme and project evaluations. These draw on academic training in the natural sciences and applied economics, and work experience over a 30 year career covering some eighty countries.

He has advised at senior levels in national government, has worked with the senior management teams of public sector bodies, and advised corporate managers on various aspects of policy, reform, development and improved decision-making. He balances an increasing workload within Europe with restructuring and privatisation work in emerging and transition economies in both temperate and tropical locations around the world.

Crick has regularly contributed to the formulation of policy in the matter of fishery sector management, sustainable development, international trade, the rules governing public agency operation and support to private sector development, and the rules governing competition between public and private bodies.

## Experience Record

**1979 - present** Founder and Chief Executive, Nautilus Consultants Ltd., Edinburgh, UK.

**1975 - 1978** Consultant, Fisheries Development Ltd., London, UK.

**1973 - 1974** Hospital Surgical Sales Representative, Lepetit Pharm., UK.

**1971 - 1972** Fisheries Superintendent, Kano State, N. Nigeria, (Voluntary Service Overseas; position sponsored by Oxfam)

## Work Record

He has undertaken over 200 short and medium duration assignments over the last 25 years. Brief summaries and examples of such work are presented below. More detailed information is available on request.

The experience gained from working in over seventy countries around the world has been used since the late eighties to advise on many aspects of economic and institutional reform. At the institutional level such work has focused on the better use of management information, the introduction of incentive systems that better reflect corporate and institutional ambitions, and restructuring in such a way as to better reflect operational and financial requirements.

A key focus for such advice has been public administrations, support agencies, charitable organisations and semi-state bodies where the distinctions between social and commercial objectives are particularly blurred, and the impacts of good and bad policy are particularly telling.

The above has been balanced by work of a more private sector orientation normally related to improvements in management and strategic planning, capture of best practice systems, assessment of development proposals, and identification as to whether a case for public sector investment in such proposals exists.

In addition to the above, Crick has regularly contributed to the formulation of policy in the matter of fishery sector management, international trade, the rules governing public agency operation and support to private sector development, and the rules governing competition between public and private bodies.

All of these aspects have been addressed in the completion of sector studies associated with fisheries development in such places as Sri Lanka, Oman and Iran, focusing on the re-alignment of national policy in support of private sector development. In addition he has contributed to planning in respect of trade policy in such diverse areas of the world as the South Pacific island countries, West Africa, the horn of Africa and South East Asia.

He has also contributed to thinking on a variety of issues associated with fisheries management in Europe and elsewhere. Matters that have been addressed include vessel decommissioning, quota trading, compliance systems, the role of Producer Organisations, regional fisheries management, moves towards more sustainable fishing practices, and the use of market mechanisms in support of the achievement of more sustainable fishery sector practices.

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## Project Examples

- » **Assessment (6) and pre-assessment (>15) of various fisheries to the MSC standard**  
*Various private and public sector clients (2006-ongoing)*
- » **Strengthening management of the Suriname seabob fishery in preparation for MSC assessment**  
*Private client Morubel / Heiploeg (2008-ongoing)*
- » **Evaluation of the effectiveness of management of the brown crab fisheries of the British Isles**  
*UK and Irish Fishermen's Organisations (2010)*
- » **Strengthening management of 26 inshore fisheries using the MSC standard as an audit tool**  
*Sussex Sea Fisheries Committee / UK Sustainable Inshore Fisheries Pilot Project (2009-10)*
- » **Reform of the Common Fisheries Policy – submission on behalf of Irish islands**  
*Irish Islands Confederation (2009)*
- » **How the MSC standard can and does impact on the operations and behaviour of public institutions**  
*OECD / FAO round table on eco-labelling and certification in the fisheries sector (2009)*
- » **Estimation of IUU fisheries as a means of reducing errors in assessment of Baltic Sea cod stocks**  
*Baltic Sea Fisheries (private client) / Sustainable Fisheries Partnership (2009)*
- » **Facilitation of industry meeting on the future of Scottish / Outer Hebrides salmon farming**  
*Western Isles Enterprise (2009)*
- » **Evaluation of tools available for the spatial monitoring / management of small-scale fisheries**  
*Natural England (2008-9)*
- » **Evaluation of the effectiveness of the Advisory Committee on Fisheries and Aquaculture (ACFA)**  
*DG MARE, European Commission (2008/9)*
- » **Consolidation and documentation of the achievements of Seafood Cornwall project**  
*Seafish / Seafood Cornwall (2009)*
- » **Fisheries component of strategy to re-develop marine tourism in Montserrat**  
*Montserrat Department of Tourism (2007/8)*
- » **Support in the establishment of procedural and management systems for certification of fisheries**  
*Food Certification International (2006-8)*
- » **Provision of assistance to Turkey in establishing an EU compatible fisheries management system**

- » *European Commission (2006-8)*  
**Strategy for improving Berwickshire fisheries competitiveness and environmental management**
- » *Scottish Sustainable Marine Environment Initiative / Scottish Borders Council (2007)*  
**Introductory chapter and profiling of the Invest in Fish SW project for stock regeneration**
- » *Invest in Fish South West (2007)*  
**Social, economic & resource profile of the fisheries of the Irish Gaelic speaking islands of Ireland**
- » *Irish Islands Confederation (2007)*  
**Demand for and layout of upgraded industrial / artisanal scale fishing port facilities in Angola**
- » *Private client (2007)*  
**Drafting and costing of a seafood branding and marketing programme for IoM fisheries**
- » *Isle of Man Government (2007)*  
**Sustainable seafood development strategy for the South East of England**
- » *South East England Development Agency (SSEDA) (2007)*  
**Performance review of the role of UK fish producer organizations in fisheries management**
- » *UK Fishery Administrations (2007)*  
**Asian markets for giant freshwater shrimp – contribution to poverty alleviation programmes**
- » *UK DFID (2006)*  
**Due diligence review of funding proposal for construction a new fishing harbour in Sri Lanka**
- » *the Netherlands Development Bank (2006)*  
**Design of a assessment system to communicate the sustainability qualities of Cornish seafood**
- » *Seafish / Seafood Cornwall (2006)*  
**Assessment of the market for provision of serviced fish / food processing facilities in Scotland**
- » *Western Isles Enterprise (WIE (2006))*  
**Re-validation of the national protected area system of marine and terrestrial reserves and parks**
- » *Turks and Caicos Islands Government / DFID (2005/6)*  
**Assessment of fisheries legislation impact as part of the UK administrative burden programme**
- » *UK Department for Environment, Food and Rural Affairs (2005)*  
**Economic Valuation of Environmental Resource Services in the Turks and Caicos Islands (TCI)**
- » *DFID & The government of the Turks & Caicos islands (2005)*  
**Aquaculture strategy for the Western Isles**
- » *Western Isles Islands Council*  
**Development of the business case for the installation of a new ice plant at Kallin Harbour**
- » *Western Isles Islands Council (2005)*  
**Establishing a Falkland Islands Mussel Export Industry**
- » *Falkland Islands Development Corporation and Falkland Islands Government (2004)*  
**Facilitation of public meetings on fishing interests in the Solway Firth**
- » *Solway Firth Partnership (2004)*  
**Coastal aquaculture comparative advantage study, Vietnam**
- » *Danish International Development Agency (2004)*  
**Building-up Community Held Fishing Quota in the Highlands & Islands of Scotland**
- » *Highlands & Islands Enterprise (2004)*  
**Facilitation of a range of public meetings in the preparation of the Solway Firth Fisheries Initiative**
- » *Solway Firth Partnership (2004)*  
**North East England Fisheries: Future Options**
- » *ONE Northeast (2003 - 2004)*

- » **Strategic review of fishery management relating to hydro schemes and environmental legislation**  
*Electricity Supply Board of Ireland (2004)*
- » **Feasibility for a short sea shipping RoRo relay service integrating three existing RoRo services.**  
*Northern Maritime Corridor Programme (2004)*
- » **New jobs for the fishing industry, Hastings**  
*Hastings Borough Council (2004)*
- » **Drafting of secondary legislation relating to POs and fish marketing**  
*Maltese Government (2004)*
- » **“Red Team” advisor to the UK Strategy Unit studying the reform of UK fishery policy**  
*UK Cabinet Office Strategy Unit (2003)*
- » **Facilitation of development of a County Donegal Seafish Industry Strategy**  
*Donegal County Council, Ireland (2003)*
- » **Mapping of disposition of seafood production & distribution in the NE Atlantic**  
*NMC / Rogaland Council (2003)*
- » **Development of an inventory of fishing ports in Wales**  
*Welsh Development Agency (2003)*
- » **Development of the European seafood processor web-site <[www.euseafood.com](http://www.euseafood.com)>**  
*EC Framework 5 R&D project (2003)*
- » **Coaching in the development of a fish products export strategy, Tanzania**  
*International Trade Centre, Geneva (2002 – 2003)*
- » **Drafting of secondary fishery legislation**  
*Government of Malta (2002 – 2003)*
- » **Northern Maritime Periphery project – seafood transport logistics**  
*Highlands & Islands Enterprise (2003)*
- » **Northern Maritime Corridor project – seafood transport logistics**  
*Aberdeenshire Council (2002 – 2003)*
- » **“Roadmap” for fisheries exporters to the EU**  
*International Trade Centre, Geneva (2002)*
- » **EU trade mission for Kenyan and Ghanaian fish industry representatives**  
*International Trade Centre, Geneva (2002)*
- » **Developing natural resources policy in the Overseas Territories (Part II – case study)**  
*Overseas Territories Unit, Dept. for International Development, UK Govt. (2001)*
- » **Impact of FIFG measures on the EU fish processing industry**  
*DG XIV, European Commission, (2002 - ongoing)*
- » **Development of fishing and aquaculture environmental indicators for Europe**  
*European Environmental Agency (2002)*
- » **Facilitation services to seafood strategy planning committee for Wales**  
*Welsh Development Agency (2002)*
- » **Valuing natural resource contributions to society and the economy – a case study**  
*The Overseas Territories Unit of the UK Dept. for International Development (DFID) (2002)*
- » **Feasibility of sustainable tourism in a marine protected area, Jamaica**  
*Inter American Development Bank (2001)*
- » **Review of the Merseyside Objective 1 FIFG Fishery Sector Development Programme**  
*Government Office North West, UK (2001)*
- » **Drafting of action plan for the Fisheries Objective 1 programme for Wales**

- » Welsh Development Agency (2001)  
**Assessment of the global seafood business and trading environment**
- » Highlands and Islands Enterprise, Scotland (2001)  
**Valuation of fisheries in a damage compensation claim, Cork Harbour, Ireland**
- » Private Client (2001)  
**Institutional analysis of the government fisheries research service, Albania**
- » EU PHARE Programme (2001)  
**Developing natural resources policy in the Overseas Territories (Part I)**
- » Overseas Territories Unit, Dept. for International Development, UK Govt. (2001)  
**The commercial impact of a move to a white meat fishery for king scallop**
- » Sea Fish Industry Authority (2001)  
**Fishery Management and Port Facilities Evaluation, Albania**
- » World Bank / Govt. of Albania (2001)  
**Overview of international trade in shrimp, salmon, cod and other whitefish**
- » Private client (2001)  
**Logistical benefits associated with introducing an electronic auction to Fraserburgh**
- » Private Client (2001)  
**Making IT & modern communications do what you want**
- » Irish Sea Fisheries Board (BIM) (2001)  
**Achievement of improvements in value chain management from net to market**
- » Irish Sea Fisheries Board (BIM) (2001)  
**Five year development strategy for commercial & recreational fisheries in Wales**
- » National Assembly for Wales (2000)  
**Assessment of the impact of public subsidies to the fisheries industries of the EU**
- » DG XIV of the European Commission (2000)  
**The impact of electronic auctions on the Northern Ireland fishing industry**
- » LEDU (2000)  
**The application of electronic auctioning systems and the internet to the fishery sector**
- » The Food and Agriculture Organisation of the United Nations (2000)

**Full publication list available on request**

**Name:** Dr Paul Medley

**Position in team:** Fishery scientist / stock assessment specialist with particular responsibility for assessment under Principles 1 and 2

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## Education

- 1985-1989 PhD, Biology. Imperial College of Science, Technology and Medicine, University of London, UK. *Interaction between Longline and Purse Seine in the South-West Pacific Tuna Fishery.*
- 1981-1984 University of York, York, UK. (Department of Biology) BSc (Hons, First Class) in Biology and Computer Science.
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## Profile

My main experience is mathematical modelling of fisheries and ecological systems and data management, including data acquisition to fit and test models. Bioeconomic modelling, with particular reference to interactions between different tuna fishing fleets, formed the main subject of my PhD thesis. I write my own software to carry out analyses, which requires an in-depth understanding of stock assessment models and statistics. The same models and stock assessment methods are used in cold and tropical waters.

My first degree included computer science, and I have continued to develop my programming and data handling skills. I have worked on spatial data management, through implementation of a Geographical Information System (GIS) for natural resources management, on numerical tools for new stock assessment techniques, a Caribbean fisheries database and a decision analysis for stock assessment.

I have a wide practical experience covering more than 20 years in marine biology, including design and implementation of surveys and fisheries experiments using SCUBA and small research vessels. This includes addressing wider environmental issues of ecological management, including maintenance of marine biodiversity. Although specializing in tropical fisheries ecology, marine ecology expertise is broad and includes knowledge of temperate and cold water ecosystems.

I have been a member of the Caribbean working group for conch and lobster, and shrimp and groundfish since their inception 5 years ago. These working groups are modeled on similar systems used in Europe and United States. I produce stock assessments through this process which are peer reviewed. The stock assessment methods include age structured, biomass dynamics and length-based methods, as well as innovative methods. In addition, I have been invited to various Food and Agriculture Organisation meetings, where assessments have been conducted and published, such as for Flyingfish, for Brazil-Guianas shrimp and groundfish, for Caribbean spiny lobster and for queen conch. This covers experience for stock assessment includes both scale and shell fish.

I have an in-depth understanding of the MSC methodology. I have been involved in developing the MSC certification methodology and various MSC assessments, including a number of North Sea pelagics, Netherlands Sole, Antarctic toothfish, icefish and krill. I have also helped prepare some fisheries for MSC certification. I also regularly conduct technical stock assessment reviews for the Centre for Independent Experts for the United States mainly temperate fisheries and I have conducted fisheries project reviews for the European Union projects.

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## Professional Experience

- » Guyana and Suriname, 2007 – 2009, Seabob Shrimp Fishery, Morubel nv
  - » Consultant supporting a data collection initiative leading to a stock assessment and fishery advice for processing and government sectors. The current objective is to complete a stock assessment for June 2009 CRFM Scientific Meeting.
  - » UK, March-July 2008, Flying Fish Stock Assessment, UN FAO
  - » Lead stock assessment scientist at the WECAFC working group meeting in Tobago, including data preparation, analysis and completing a report.
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- » USA/UK, 2008-2009 Stock Assessment Review Program, CIE University of Miami
- » I served on the review panels for South East US (SEDAR 16 and SEDAR Caribbean Data Workshop), North East GARM III Models Meeting.
- » Caribbean, April-July 2008, Review Data Collection and Data Management for the Guyana Montserrat St. Lucia and Grenada, Caribbean Regional Fisheries Mechanism
- » Consultant scientist conducting a review of data collection methods and supporting the data management, particularly use of the CARIFIS database.
- » Caribbean, 2006-2009, Annual CRFM Scientific Meeting, Caribbean Regional Fisheries Mechanism
- » Consultant scientist conducting stock assessment workshops and reporting to the first three annual CRFM meeting serving the region by providing scientific advice for the management of fish stocks. Also, a member of the ad hoc methods working group which meets separately.
- » UK, 2007 - 2008, Marine Stewardship Council Certification, Various certifiers
- » Reviewer of a number of fisheries for pre-assessment and North Sea herring and the North Atlantic mackerel, Ross Sea toothfish, South Georgia toothfish and icefish, and Antarctic krill for full assessment.
- » USA/UK, 2004-2007 Stock Assessment Review Program, CIE University of Miami
- » I served on the review panels for Chesapeake Blue Crab Stock Assessment (August 8-11, 2005), for SEDAR 8 assessments of Florida and US Caribbean fisheries for spiny lobster and yellowtail snapper (May 14-20, 2005), STAR Pacific Hake (January 2006), WCPO Yellowfin Tuna (October 2006) and SEDAR 12 red grouper (January 2007), Alaska flatfish (June 2007), STAR Canary Rockfish/Arrowtooth Flounder (August 2007), and Pacific Halibut (July 2007).
- » UK, January-December 2006, Testing a Catch-Only Stock Assessment Method, UN FAO
- » Carry out a series of tests on a new method of stock assessment for catch-only time series, including developing a new fitting method.
- » UK, September 2006, ACP Fish II Feasibility Study, Poseidon
- » Consultant to update the feasibility study for EU project ACP Fish II.
- » South Pacific, February 2006, EC South Pacific Inshore Fisheries Project Mid-Term Review, MRAG
- » The aims of the evaluation were to determine the efficiency, effectiveness and impact of the PROCFish/C project in meeting its objectives, and the sustainability of the outcomes, as well as ascertain the need for an extension.
- » Mexico, September 2006, WECAFC Spiny Lobster, UN FAO
- » Consultant on the Western Central Atlantic Fishery Commission 2006 Assessment and Management Workshop on the Caribbean Spiny Lobster.
- » UK, March-December 2005, Guidelines for Certification of Small Scale / Data Deficient Fisheries, Marine Stewardship Council
- » Consultant for the development of guidelines document for certifiers to set out a methodology to certify under the MSC small scale fisheries which may use non-standard management and assessment methods, but still have sustainable fisheries.
- » Denmark, September 2005, North Sea Commission Fisheries Partnership Meeting
- » Attended meeting where ICES scientific working presented a variety stock assessments to fishermen representatives. I provided technical support and comment to fishermen as independent scientist.
- » UK, April-November 2005, ParFish Project, MRAG
- » Dissemination, including developing teaching materials and a workshop in Mangalore, India, of the new ParFish stock assessment methodology guidelines and software. The methodology is most suitable for small scale fisheries and community based fisheries management. The project was funded under the Fisheries Management and Science Programme, Department for International Development, UK Government.
- » UK, April-November 2005, Fisheries Enhancement Decision Tool Software, Imperial College London
- » Development of decision support tool software for the analysis of stock enhancement using hatchery fish. The project was funded under the Fisheries Management and Science Programme, Department for International Development, UK Government.
- » Barbados, March 2005, Stock Assessment Methods Meeting, Caribbean Regional Fisheries Mechanism
- » Member of the methods working group and participant in the first meeting to develop appropriate stock assessment methods for the Caribbean region.
- » Trinidad and Tobago, January 2005, Joint Venezuela / Trinidad and Tobago Shrimp Stock Assessment Workshop, UN FAO

- » Consultant and advisor for the stock assessment meeting between Trinidad and Venezuela which advised on the management of the shared shrimp resources.
- » Caribbean, February 2005, May 2006, Queen Conch Fisheries Management Manual, UN FAO
- » Author of a manual to advise developing countries in the Caribbean on management of queen conch (*Strombus gigas*) which is protected under CITES Appendix II. The manual advises countries and CITES on expectations to continue export under CITES arrangements.
- » USA, 2001-2003 Stock Assessment Review Program, CIE University of Miami
- » Served on the US Government SARC panel (June 2003), STAR panel (April 2002) and reviewer of the Pacific Dolphin by-catch assessments (November 2001, June/July 2002) as an external reviewer.
- » South Pacific, November 2004, EC South Pacific Tuna Project Mid-Term Review, MRAG
- » The objectives of the evaluation were to determine the efficiency, effectiveness and impact of PROCFish/O in meeting its objectives and the sustainability of the outcomes and to ascertain the need for an extension in time and other resources in order to effect a smooth transfer of activities to the WCPFC (and, for some activities, to its member ACP States and OCTs).
- » UK, May-December 2004, PFSA, MRAG
- » Developing software and tool kit supporting Participatory Fisheries Stock Assessment. The software applies decision theory based on interviews with fishers (multi-attribute decision making) and standard fisheries data and new modeling techniques. The project intends to develop additional support materials, a “user friendly” interface and more easily understood outputs.
- » UK, May-September 2004, Advisor to United Nations, Industrial Economics Inc.
- » Consultant scientist reviewing claims and providing advice to the United Nations regarding compensation for the 1992 Iraq oil release.
- » Caribbean, November 2003 -January 2004, Shrimp and Groundfish Workshops, Caribbean Regional Fisheries Mechanism
- » Lead consultant scientist conducting stock assessment workshops for Guyana, Suriname, Belize, Jamaica and Trinidad on shrimp and groundfish resources.
- » Caribbean, November 2003 -January 2004, Shrimp and Groundfish Workshops, Caribbean Regional Fisheries Mechanism
- » Lead consultant scientist conducting stock assessment workshops for Guyana, Suriname, Belize, Jamaica and Trinidad on shrimp and groundfish resources.
- » USA, February 2004, Coral Reef Fish Stock Assessment Workshop, Western Pacific Fishery Management Council
- » Served as an expert panellist advising WPFMC on how to meet its National Standards 1 requirements for coral reef fisheries.
- » USA, 2000-2003 Stock Assessment Review Program, CIE University of Miami
- » Served on the US Government STAR panel (June 2000), 32<sup>nd</sup> SARC panel (November 2000), SARC panel (June 2003), STAR panel (April 2002) and reviewer of the Pacific Dolphin by-catch assessments (November 2001, June/July 2002) as an external reviewer.
- » UK, August 2001-November 2003, Marine Resources Assessment Group
- » Research project to improve decision-making in small-scale developing country fisheries, based upon a pragmatic Bayesian approach, including priors estimated from stakeholder interview data, as well as rigorous fisheries sampling and experimental work. Methods are developed within a software program PFSA which applies decision to support decision-making in co-managed fisheries.
- » Cuba, September 2002, FAO
- » 2002 Assessment and Management Workshop on the Caribbean Spiny Lobster.
- » UK, July 2001, Moody Marine Ltd.
- » Marine Stewardship Council assessment of South Georgia Patagonian toothfish, including assessment of the interaction between the fishery and bird populations.
- » Caribbean, August 2001-December 2002, CARICOM Fisheries Unit
- » Help design, then implement new fisheries database (Delphi application, Visual FoxPro Server) “CARIFIS 1.0” for the CARICOM region.
- » Caribbean, August-December 2001, CARICOM Fisheries Unit
- » Advisor to Bahamas and Dominican Republic on data collection programme, including sampling theory and strategy and data management.
- » UK, December 2000, University of British Columbia

- » Project to estimate discards from demersal trawls in the North Atlantic with the "Sea-Around Us Project"
- » UK, November 2000, FAO
- » Technical editor for Klyashtorin, L. B. (2000) Climate Change and Long Term Fluctuations of Commercial Catches: The Possibility of Forecasting.
- » Venezuela, October 2000, FAO
- » 2000 Assessment and Management Workshop on the Shrimp and Groundfish Fisheries on the Brazil-Guianas Shelf. Editor of the final report.
- » Mexico, September 2000, FAO
- » 2000 Assessment and Management Workshop on the Caribbean Spiny Lobster.
- » Oman, August/September 2000, MEP
- » Stock assessment of 10 commercial stocks exploited by the demersal trawl fishery and analyses of biological sample data.
- » Rome, June 2000, FAO
- » Editor/contributor for the "Status of World Fisheries and Aquaculture 2000" report.
- » Spain, May 2000, ICCAT
- » ICCAT Working Group on Assessment Methods.
- » UK, 1998-2000, UN FAO
- » Contributor / editor / reviewer for DANIDA Stock Assessment Training Programme Documents: 'Guidelines for Routine Capture Fisheries Data Collection', 'Manual for VPA', 'Spiny Lobster Workshop Proceedings' and 'Guidelines for Regional Working Groups'.

**Full Publication list and Details of pre-2000 work available on request**

**Name:** Mr Tristan Southall

**Position in team:** Fishery scientist and industry analyst with particular responsibility for assessment under Principles 2 and 3

**Profession:** Marine resource management policy analyst

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## Key Qualifications

Tristan is an experienced marine and fisheries industry analyst with a range of professional experience in questions of sustainable marine resource exploitation, working with a wide spectrum of stakeholders but with particular focus and expertise on the management and evaluation of capture fisheries, both in the UK, EU and internationally. His consultancy expertise includes project management, feasibility studies, economic appraisal, policy analysis and management advice and draws on an extensive understanding of fishery management and operations, as well as strong experience and understanding of a number of other marine industries – notably aquaculture. This focus on management is supported by a solid understanding and appreciation of marine ecosystems and a practical understanding of working at sea.

Tristan has considerable professional experience of the EU Common Fisheries Policy and has coordinated EU fisheries training and promotion activities – covering all aspects of sustainable fisheries management and control. In addition Tristan has excellent understanding of a range of non-EU fishery management systems in countries as diverse as Turkey, Suriname and the Gambia, meaning that his expertise and experience is applicable to a wide variety of situations, enabling valuable comparative analysis. In recent years Tristan has put his skills and extensive fisheries management experience to good use in undertaking a number of MSC sustainability assessments of fisheries around the world and is increasingly serving as team leader on assessment teams. As a result he has an excellent understanding of MSC Fisheries Assessment Methodology, and equally importantly, it's practical application.

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## Education

2000 - 2001 MSc Marine Resource Development & Protection, Heriot Watt University, (Distinction)  
 1994 – 1998 BSc (Hons) Marine Biology (2:1), University of Newcastle upon Tyne

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## Experience Record

2005 - Independent Fisheries & Marine Industry Consultant – [www.tdsouthall.co.uk](http://www.tdsouthall.co.uk)  
 2007 - Fisheries Assessor with Food Certification International  
 2006 – 2007 Fisheries Training & Promotions Advisor for EC Technical Assistance Project to Turkish Ministry of Agriculture & Rural Affairs.  
 2001 - 2004 Nautilus Consultants Ltd.  
 1999 - 2000 Assistant Manager & Research Coordinator, Technical Dept. Marine Harvest (Scotland)  
 1998 - 1999 Trainee Manager, Marine Harvest McConnell  
 1996 - 1997 Research Assistant, Brackish Water Aquaculture Development Centre, Java, Indonesia.  
 1994 Teaching and research assistant in bio-intensive and sustainable rural agriculture, 'Hlekweni', Friends Rural Service Centre, Zimbabwe

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## Geographical Experience

<b>Europe:</b>	England, Scotland (inc. Orkney, Shetland & Western Isles), Wales, Republic of Ireland, France, Greece, Netherlands, Belgium, Turkey, Denmark
<b>Global:</b>	Zimbabwe, Suriname, Russia, The Gambia, Java, Indonesia

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## Further Skills

**English:** Written: 5, Spoken: 5, Reading: 5 (Mother Tongue)

**French:** Written: 4, Spoken: 4, Reading: 4

**Spanish:** Written: 2, Spoken: 3, Reading: 3

**Bahasa Indonesia:** Written: 1, Spoken: 2, Reading: 1

MS Office, statistical and MCDA software packages.

RYA Yachtmaster® (with MCA Commercial Endorsement), Sea Survival certificate, Red Cross First Aid.

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## Fishery Sustainability Assessments

*Tristan Southall has undertaken a number of Marine Stewardship Council (MSC) fishery assessments and pre-assessments (confidential), in association with Food Certification International – highlighted below:*

**Dutch North Sea Sole (Gill net)**

Dutch Fisheries Organisation (2009)

**Western Mackerel (Pelagic Trawl).**

Irish Pelagic Sustainability Group (2008-9)

**The Gambian Artisanal Sole Fishery & pilot of MSC data deficient, risk-based methodology.**

Marine Stewardship Council (2008)

**North Sea Herring & Western Mackerel (Pelagic Trawl).**

Scottish Pelagic Sustainability Group (2007-8)

*In addition to the above, Tristan is currently serving as team leader on a further 4 on-going MSC assessments.*

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## Selected Consultancy Record

**Socio-economic assessment of potential impacts of new and amended legislation on the cultivation of fish and shellfish species of current commercial importance.**

Scottish Aquaculture Research Forum (2008/09)

**Economic impact appraisal of Solway Shellfish Management Trading Ltd (SSMT) Regulating Body**

Scottish Enterprise, Dumfries and Galloway (2008)

**Review, revise and update of the Sea of Marmara ecosystem based fishery management plan for the Government of Turkey Ministry of Agriculture & Rural Affairs.**

Agrotec Spa / European Commission (2006 – 2007)

**EU Fisheries Training & Promotion Advisor for Technical Assistance Project to the Government of Turkey Ministry of Agriculture & Rural Affairs.**

European Commission (2006 – 2007)

**Audit of UK Fisheries Producer Organisations – Operation, Management structures and practice.**

DEFRA (In association with SEERAD) (2006)

**Strategic Environmental Assessment of the Scottish Aquaculture Relocation Programme.**

Scottish Executive (Location / Relocation Working Group) (2006)

**Moray Firth Fisheries Action Group Feasibility Study.**

Moray Firth Partnership (2005/6)

**Decision Making Mechanisms for the Marine Environment**

Scottish Executive (2005)

**New jobs for the fishing industry, Hastings**

Hastings Borough Council (2004)

**Shoreham Fisheries Project**

Adur economic partnership (2004)

**Scottish Sustainable Marine Environment Initiative**

Scottish Executive (2003 - 2004)

**Placing and advancing the North Shields fishing industry in its market context.**

North Tyneside Council (2003)

**UK contribution to an EU wide database of approved seafood processors.**

EC Quality of Life and Management of Living Resources Programme (2003)

**Scaling the costs and benefits of fishery management / marine conservation impacts.**

English Nature (2002 – 2003)

**Achieving improved efficiencies in seafood distribution to and from NE Scotland**

Northern Maritime Corridor Partnership, Aberdeenshire Council (2002-2003)

**Update of Merseyside Objective 1 FIFG Funding Review and compilation of local fisheries interests database.**

Government Office of the North West, 2002

**Feasibility study for fish waste ensilage plant in south west Ireland**

Private Client (2002)

**Arrange and facilitate Sustainable Environmental Aquaculture Feeds (SEAFEDS) workshop.**

EC Quality of Life and Management of Living Resources Programme (2002-2003)

**Market guide tour of the EU for Kenyan and Ghanaian seafood exporters**

UN International Trade Centre, Geneva (2002)

**Socio-economic study of the Sunderland inshore fishing fleet.**

Port of Sunderland (2002)

**The Kiev Report – an indicator based assessment of Europe’s Environment (Fisheries & Aquaculture chapter)**

European Environment Agency (2002)

**The Solway Firth shellfishery – application for a Regulating Order**

Dumfries and Galloway Council (2001)

**The use of Environmental Risk Assessment in Aquaculture**

FAO (2001)

**Review of North Sea Fishing Activity: A security assessment for an underwater fibre optic cable**

Private Client (2001)

**Comparative competitor trial of diets used in freshwater Atlantic salmon hatcheries.**

Marine Harvest (Scotland) (1999)

**Full publication list available on request**

**Name:** Dr Ralf Vorberg

**Position in team:** Marine ecologist and fishery biologist

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## Education

Biology degree - University of Hamburg, 1981-1988 - Diploma at the Institute for Hydrobiology and Fishery Science (Prof. H. Kausch). **Thesis title:** The effects of different corer sizes on the sampling strategy with regard to patchiness in a freshwater tidal-flat area

Dr. rer. nat. - University of Hamburg, 1997, Institute for Hydrobiology and Fishery Science (Prof. H. Thiel).

**Dissertation title:** Effects of the shrimp fishery on the sea bottom and the benthos in the Wadden Sea

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## Profile

I am an expert in marine biological science with the main focus on fishery science. I have particular knowledge of the German coastal fisheries, especially the shrimp fishery in the North Sea and awarded a doctorate from the University of Hamburg titled "Effects of the shrimp fishery on the sea bottom and the benthos in the Wadden Sea".

I have participated in interdisciplinary research projects and I am familiar with the issue "fishery vs. nature conservation", experienced in using scientific results for political consultation and combining fisheries and governmental/non-governmental nature protection interests. Since 1996 I am a self-employed consultant involved in regular consultancy work for governmental and non-governmental organisations, EIA's and planning with special reference on the regulations of the EU water framework directive and EU habitats directive.

Since 1995 I am responsible for an ongoing fish monitoring programme, which is part of the management plan of the National Park Schleswig-Holstein Wadden Sea. Since 2006 I am a member of the fish expert study group within the framework of the Trilateral Monitoring and Assessment Program (TMAP) of the Wadden Sea. Since 2002 I have been involved in research and development of remote sensing techniques for habitat mapping. In 2008 I have initiated and organized an international workshop on this topic.

Since 2005 I hold the position of Managing Editor of a monthly newspaper for the Association of the German Coastal Fisheries in co-operation with the German Fishery Association.

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## Professional Experience

**Current:** Self-employed consultant and expert in marine biology, ecology and fishery science

### Recent customers and partners:

- » National Park Office, Tönning
  - » National Park Administration , Wilhelmshaven
  - » Research Institute GKSS, Institute for Coastal Research, Geesthacht
  - » German Fisheries Association, Hamburg
  - » University of Trier, Environmental Specimen Bank
  - » Netherlands Institute of Ecology, Centre for Estuarine and Marine Ecology, Yerseke/NL
  - » von Thünen Institute, Institute for Sea Fisheries, Hamburg
  - » Common Wadden Sea Secretariat, Wilhelmshaven
  - » Bioconsult S-H, Husum
  - » Enova Energiesysteme GmbH & Co. KG, Bunderhee
  - » Federal Agency for Nature Conservation, Vilm
  - » ARSU GmbH, Oldenburg
  - » GDF Suez, Berlin
  - » DOW, Stade
  - » Institute for Hydrobiology and Fisheries Science, University of Hamburg
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**Previous:**

- » June - August 1986, research assistant, Federal Research Centre for Fisheries, Hamburg, participant of the 76<sup>th</sup> expedition of the fishery research vessel "Walther Herwig"
- » 1988 – 1989, research assistant, Institute for Hydrobiology and Fisheries Science, University of Hamburg. Project: Ecological investigations on the effects of the embankment of the Nordstrand Bight/North Frisia
- » 1989 – 1994, research assistant (in 1994 head of the project), Interdisciplinary Centre for Didactics, University of Hamburg. Project: Ecosystem Research Wadden Sea. Subproject: Fishery and nature conservation - impact, possible conflicts of interest and their prevention
- » June - December 1994, research assistant, Institute for Applied Biology, Freiburg/Elbe. Project: Ecological investigations on the effects of the construction of the "Europipe" in the Accumer Ee/East Frisia
- » 1995, research assistant, Institute for Hydrobiology and Fisheries Science, University of Hamburg. Project: Ecosystem Research Wadden Sea – synthesis and development of a management plan for the national park Schleswig-Holstein Wadden Sea
- » since 1995 responsible for the fish monitoring programme, which is part of the management plan of the national park Schleswig-Holstein Wadden Sea
- » since 1996 self-employed consultant with main focus on fishery science, monitoring and habitat mapping technology
- » since 2005 managing editor of the "Fischerblatt", a technical newspaper for the association of the German coastal fishery
- » since 2006 member of the fish expert working group of the Trilateral Monitoring and Assessment Program (TMAP) of the Wadden Sea

**Full publication list available on request**

**Name:** Paul MacIntyre

**Position in team:** MSC Chain of Custody and Traceability specialist / Lead Auditor

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### Qualifications

ISO 9001 Lead Auditor (QMI 1991); Registered Organic Inspector (DEFRA); Diploma in Advanced Food Hygiene (Queen Margaret University Edinburgh); BRC v5 Food Manufacturing Auditor BRC (London and Manchester); GlobalGAP IFA Trainer (GlobalGAP Cologne); RYA Yachtmaster Offshore (RYA Southport); Diploma Photography (Photography Institute)

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### Profile

15 years management experience within the aquaculture and fish processing sectors.  
20 years experience auditing ISO, HACCP, BRC, GlobalGAP, organic and conventional farming operations within the aquaculture production and fish processing sectors and including MSC Chain of Custody since 2005.

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### Career History

#### **Current Position: Operations and Certification Manager**

**Address:** Food Certification International Ltd, Inverness, Scotland

**Dates:** 2002 to Present

**Detail:** Responsible for managing FCIs inspection and certification services including audit and inspection for FCI and other standard owners.

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#### **Position: Senior Management Roles**

**Address:** Marine Harvest International, Fort William, Scotland

**Dates:** 1975 - 1990

**Detail:** 1975-1984 Farms Manager; 1984-1990 Factory Manager

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### Education

**Diploma:** High School only.

**Dates:** 1968 - 1974

**Detail:** Qualifications above all gained in later life.

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