



Shetland Fisheries Training Centre Trust  
Annual Review 2007/08



# Welcome

Since it was first set up in 1992 the Centre has made a real difference to Shetland by providing training, research and services for the benefit of the Shetland community.

The expansion of education to meet the needs of the fishing and fish farming industries, as well as the Merchant Navy, has been especially beneficial. The Centre also provides all the general engineering training for the islands.

The marine research work of the Centre has received international attention and is important for the management of both local and North Sea fisheries.

The Centre gives advice directly to Shetland Islands Council on works licensing and marine planning and has taken the lead within Scotland by preparing a marine spatial plan for Shetland. Quality control within the fishing and fish

farming industries relies on the work done at the Centre by Shetland Seafood Quality Control Ltd. We must recognise the foresight and inspiration which led to the building of the Centre and must continue to give the Centre our support in the years to come.

**Councillor Iris Hawkins**  
Chair of the Trustees

## Director's Introduction

**The NAFC Marine Centre (NAFC) has had another successful year. It has continued to meet the maritime education and research needs of Shetland and to provide high quality advice, support and research for the local fishing and aquaculture industries.**

New ideas have been developed by the Centre for the sustainable development of coastal marine resources in Shetland, and links have been strengthened with local government and the local maritime industries. Overall, the NAFC Marine Centre makes a substantial contribution to the economic and social wellbeing of Shetland through its skilled staff and high quality facilities.

Training has been especially successful and has been provided through the Shetland School of Nautical Studies to meet the needs of fishing and aquaculture industries, the Merchant Navy, and also in general seamanship, boat handling and sea survival. A full range of engineering courses has been provided for the maritime industries and the Centre has also run general engineering courses for the whole of Shetland. Vocational and short courses in aquaculture have been arranged to meet the needs of this important local industry. The Centre has supported the education and training of fishermen by identifying training opportunities and providing grants. A total of 757 students were enrolled on courses covering 51 different subjects in 2007/08. Student retention and success rates at the Centre have remained very

high. The Centre has also provided a Graduate Placement Scheme placing new or recent graduates with local companies.

The work of the Centre in marine science and technology is one of its great strengths and is recognised internationally. A range of research projects has been undertaken with funding from Shetland Islands Council and external sources. Sampling has been carried out in the key fisheries and data collected and analysed to provide scientific advice on fisheries, the environment and aquaculture issues and on wider maritime policy to the local and national fishing and aquaculture industries.

Over the year, the Scottish Sustainable Marine Environment Initiative (SSMEI), a national pilot project for Coastal Zone Management funded by the Scottish Executive and others, has continued and has provided a marine spatial plan for Shetland as a basis for future planning decisions. Planning and works licensing has been carried out for all marine developments for Shetland Islands Council.

An associated company, Shetland Seafood Quality Control Ltd, has provided inspection

services, analytical laboratory services and environmental monitoring for both local and national companies and organisations.

It was in 1992 that the Centre opened at Scalloway, and there has been a steady increase in its activities ever since. This year it was decided that a far-reaching review of the Centre was needed. The review reported at the end of 2007. It stressed the importance of the role that the Centre now plays in providing support to the maritime industries and communities of Shetland. A number of recommendations were made to make the Centre more stable, take forward proposals for change and improve the future prospects of the Centre.

There is a bright future for the NAFC Marine Centre and I would like to thank my predecessor as director, Peter A Dryburgh, the Trustees, and the staff of the Centre for all their hard work over the past year and for their contribution towards making the Centre a success.

**Professor A D Hawkins**  
Interim Director

Benefiting the people of Shetland through:

# EDUCATION AND TRAINING



## Aquaculture

During 2007/08, the team continued with the delivery of the Scottish Progression Award in Aquaculture for schools.

The NAFC Marine Centre is one of very few educational institutions delivering this training. Pupils from three secondary schools in Shetland attended for a full day every fortnight to learn about a range of activities including: mussel farming; salmon husbandry; the history of aquaculture; enterprise; first aid; sea survival and some boat handling. After two years of study, the pupils are awarded an SQA Intermediate Certificate.

A number of students attended the Centre to achieve their Scottish Vocational Qualification (SVQ) Level II and III. Most of the training – from health and safety to feed control, and cage and net maintenance – is delivered at the NAFC which, in turn, is contracted by Train Shetland to provide this qualification.

Local aquaculture industry staff attend a variety of short courses at the Centre including Workboat Skipper - a vital component of their training in this industry sector.

## Deck and Engineering

745 students passed through the doors of the Shetland School of Nautical Studies this year to undertake specialist training in a variety of courses, including:

### Merchant Navy Cadet programme

A full complement of 24 cadets joined the training programme at the Shetland School of Nautical Studies in September - 12 deck cadets and 12 engineering cadets.

The three-year programme offers students the opportunity to undertake their training in Shetland; working towards professional qualifications in order to serve as officers on merchant vessels. The first ever group of Merchant Navy officer cadets to have been trained in Shetland from start to finish achieved their Officer of the Watch (Unlimited) Certificates, and HND in Nautical Science (Deck) or Mechanical Engineering (Engineer) during the summer of 2007.

### Engineering

A full range of courses is provided for Shetland's maritime and general engineering industries, including National Certificate and Modern Apprenticeship programmes.

The 'Skills for Work' engineering skills course started with a pilot programme involving Secondary 4 school pupils in September, and students completing this programme moved straight into employment as Modern Apprentice engineers. The Centre's Modern Apprenticeship training programme in Engineering celebrated its 10th anniversary this year; 12 students took up this highly successful scheme which has already benefited more than 80 young engineers in Shetland since its inception.

## Fishermen

The fish catching Skillseekers' programme, delivered by the NAFC Marine Centre, provides quality training opportunities to give fishermen the right start in their chosen career.

This year has seen a promotional drive to encourage new entrants to apply to the programme as well as aiming to attract fishing vessels looking to employ a Skillseeker for on-the-job training.

Funding was secured to cover the cost of paying a training allowance during the 12 month programme for young people seeking to achieve the SVQ Level II Marine Vessel Support (Fishing) qualification.

The Centre continues to offer training at all levels to the fish catching sector, including the Class 1 and Class 2 Certificates of Competency in Deck and Engineering, as well as the range of short courses required for the Inshore Skippers ticket.

Benefiting the people of Shetland through:

# MARINE SCIENCE



## Marine Policy Advice

**The main work within this section has been monitoring developments in maritime policy at Scottish, UK and European levels that might affect Shetland's fish catching industry.**

Relevant information is then provided to trustees, Council members and other interested parties. Part of this has included responding to consultations such as the 'Consultation on Rights-Based Fisheries Management' by the European Commission.

During 2007/08, the department also produced a series of information notes on various topics, including scientific advice from ICES on fisheries management and a report on white fish landings in Shetland.

A contribution was also made to 'Scottish Seas: Towards Understanding Their State' published by the Scottish Government.



## Fisheries Research

**A research project investigating 'Technical Measures to Enhance Selectivity in Pelagic Fisheries' was funded by the Scottish Industry Science Partnership (SISP) and aimed to assess the effectiveness of selectivity grids trialled in the mackerel fishery.**

The grids are designed to enable the escape of small mackerel and herring bycatch. Since the completion of this project, most of the Shetland pelagic fleet has adopted these grids.

During the year, the fisheries research team undertook a project, funded through the Department for Environment, Food and Rural Affairs (Defra), to produce a 'Fisheries Handbook' on fish stocks and fishing fleets in ICES Sub-Area VI (west of Scotland and Rockall). The handbook was produced for the North West Waters Regional Advisory Council to assist with the development of long-term management proposals for ICES Sub-Area VI.

The annual fishermen's North Sea Stock Survey was also completed. Questionnaires are filled in by fishers from countries around the North Sea and their views on the state of fish stocks are compiled into a report, which is submitted to the International Council for the Exploration of the Sea.

Collaboration with Fisheries Research Services (FRS) has continued, examples of work include the Northern Shelf Monkfish survey and the collation of monkfish tally book data from Shetland.



## Shellfish Research

**A major part of ongoing work is the annual shellfish stock assessment programme. This is carried out on behalf of the Shetland Shellfish Management Organisation and provides a basis upon which the sustainable management of Shetland's inshore fisheries can be carried out.**

In early 2008 the fourth annual stock assessment was produced using eight years' worth of data collected and analysed by staff at the Centre.

In addition to the stock assessments, applied shellfish research is also carried out, including a monitoring programme which looked at mussel spat settlement over the course of the summer months and how this relates to environmental variables.

A brown crab tagging programme has also been carried out with 2,000 crabs tagged to the west of Shetland. The data which is now being collected will provide information on where the brown crabs travel and whether they are found on different fishing grounds at different times of the year. This information will help to determine if the crabs are travelling to offshore areas where they may be subject to additional fishing effort from large itinerant vivier crabbers.

Benefiting the people of Shetland through:

# MARINE MANAGEMENT SERVICES



## Marine Spatial Plan

**A draft Marine Spatial Plan for Shetland, developed under the auspices of the Scottish Sustainable Marine Environment Initiative (SSMEI) and the first of its kind in Scotland, was developed through consultation with stakeholders during 2007 and widely consulted on during 2008.**

SSMEI was initiated by the Scottish Government to inform future marine policy and test new management framework options for Scotland's marine and coastal environment. The Shetland Marine Spatial Plan, one of four pilot projects falling under the SSMEI umbrella, has been developed with a view to building on the islands' marine planning processes.

It outlines what developers already have to comply with and also what might arise when applying for planning permission or a works licence. Potential issues can then be identified at an early stage and alternative plans proposed. The Plan has also been designed to be an asset from a regulator's point of view.

Well received by the majority of stakeholders, the plan is undergoing revision and a final version is due for release in early 2009.



## Planning Applications and Works Licences

**The number of planning applications received this year was 11 (six finfish and five shellfish). 20 planning applications were determined (13 finfish and seven shellfish).**

During the year, 36 works licence applications were received (22 finfish, eight shellfish and six constructions). The number of works licence applications determined was 38 (25 finfish, nine shellfish and four constructions).



## Aquaculture Inspections

**In addition to dealing with applications, the team was also required to carry out monitoring and, if necessary, enforcement of the 304 approved aquaculture sites in Shetland's marine waters, and report the findings to Shetland Islands Council's Planning Board.**

An inspection of each farm is carried out at least twice annually to check that on-site equipment complies with that permitted. The aim is to increase this to four visits annually over the next year.

Benefiting Shetland companies with services:

# SHETLAND SEAFOOD QUALITY CONTROL



## Marine Farm Services

During the period Marine Farm Services undertook a wide range of work including benthic surveys, hydrographic surveys, fish farm site modelling and environmental impact assessments.

The main body of work continues to be providing a service to the aquaculture industry in Shetland with some work in non-aquaculture related industries. This included Tidal Atlas work for the Ports and Harbours division of Shetland Islands Council.

The section has also increased its quality control participation by taking part in the National Marine Biological Analytical Quality Control Scheme. This allows the team to increase its already vast knowledge and experience in marine biological data.



## Analytical Services

### Microbiology

The microbiology lab continues to offer a wide range of tests for the food industries locally and beyond. Sample analysis ranges from hygiene swabs from process factories, silage and food products to storage water, seawater, pool water and ice.

In January 2008, Shetland Seafood Quality Control (SSQC) was successful in gaining the Food Standards Agency contract for the provision of monitoring of E coli in shellfish for harvesting area classification in Shetland and Orkney, as part of the Food Safety Programme. This replaced the previous sub-contract arrangement with Fisheries Research Services (FRS).

The section's main objective is to replace the LabCred scheme by attaining full United Kingdom Accreditation Service (UKAS) approval for all microbiology tests.

### Chemistry

The main bulk of the work continues to be fat analysis on salmon, water chemistry testing on effluent, biotoxin analysis on shellfish and organic sediment analysis. UKAS accreditation remains the aim for the continuing improvement of the chemistry section.



## Inspectorate Services

**SSQC provides inspectorate services to the aquaculture and fishing industries.**

The salmon farming industry adheres to the UKAS accredited Superior Quality Shetland Salmon scheme which involves SSQC providing a biannual inspection service for many of Shetland's salmon farmers and processors. 17 farms and three processors remain in the scheme to date.

This section also carries out third party auditing for the salmon industry for standards such as Code of Good Practice (CoGP), Label Rouge, Tartan Quality Mark (TQM) and Protected Geographical Index (PGI).

The Shetland whitefish fleet continues to show improvements with better prices and the markets reporting increased landings. Whitefish landings at both Lerwick and Scalloway are regularly monitored for quality. The Inspectorate section has also made progress in assisting the Shetland fleet work towards achieving accreditation in the Seafish Responsible Fishing Scheme.

Under the spotlight:

# OTHER DEVELOPMENTS IN THE YEAR



## Da Haaf Restaurant

The financial year 2007/08 saw a period of change in company operations, with the running of 'Da Haaf' restaurant being transferred to an independent proprietor from June 2007 to March 2008.

Operations have now transferred back to Shetland Fisheries Centre Ltd, a wholly owned company belonging to Shetland Fisheries Training Centre Trust.

The relaxed family friendly restaurant serves a variety of hot meals and drinks Monday to Friday. Its close proximity to the sea and local fish markets means that the daily menu includes dishes determined by the catch landed each day.



## Seas Around Us Project

The 'Seas Around Us' pilot initiative was launched in May 2007 to give school children an appreciation of marine life in the seas around Shetland.

The NAFC Marine Centre liaised with local schools to host escorted group tours of its wet room area in the marine hatchery. From the first to last visit in July, 469 children visited the educational resource in a total of 22 hosted trips.

Two public open days were also held during the season for families to see the "touchy feely" tanks, glass aquariums containing a variety of sea species and speak to staff who were on hand to answer questions.

Experience has shown the Centre that school visits are followed up with projects on the seashore and can spark a real interest in exactly what can be found just off the coast of Shetland.

The project was extended to 2008 thanks to funding from Shetland Aquaculture Trust.



## Hatchery

This year, the team investigated the collection of mussel spat in the hatchery. Mussel larvae were fed different types of cultured algae and spat settled out onto strings. The spat was then transferred to the sea to grow. Shetland's mussel farmers, who sometimes experience poor settlement, were interested in the results of the project.

A wrasse feasibility study involved identifying wrasse captured locally. Most of the wrasse caught were ballan wrasse. The intention now is to use these in a controlled sea trial to study their efficacy in removing sea lice off farmed salmon and to identify and deal with any problems in their use. Carried out in conjunction with UHI HI Links, Aquascot and Shetland Aquaculture, this initial project also sought to establish whether there were sufficient quantities to run commercial trials, and the conclusion was there were not.

A further 'winter trial' using some of the wrasse caught was undertaken over the winter months. Certain types of wrasse can suffer in low temperatures and in low salinity but it was found that here in Shetland the ballan wrasse coped well.

# Financial Summary

The NAFC Marine Centre is the operating name of the Shetland Fisheries Training Centre Trust (SFTCT)

## Income

Total incoming resources for 2007/08 were approximately £2.9 million.

The Centre's largest source of income for 2007/08 was Shetland Islands Council (SIC). This grant provides NAFC's core funding to deliver a range of services for the local fisheries industry, which includes training, monitoring, advice, and some research and development. Funding for additional activities has to be sought from external sources.

### SFTCT Income

56%	SIC Grant
10%	Project Income
11%	Other Income
12%	Student Fees
11%	Other Funders

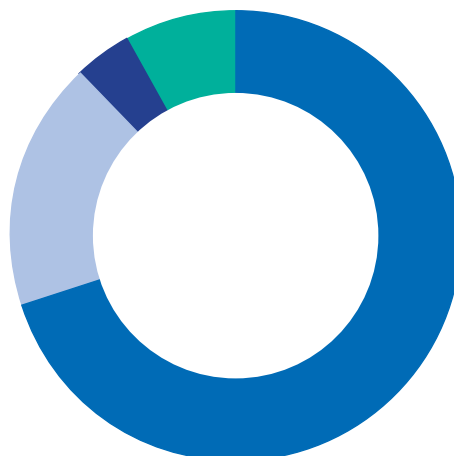


## Expenditure

Staffing costs are the single largest item of expenditure, totalling some £1.9 million. Maintenance and services of the campus buildings and facilities equate to a further £485,000. Spending on professional fees and equipment and materials account for the rest of the Centre's expenditure.

### SFTCT Expenditure

70%	Salary and Other Staff Costs
8%	Equipment and Materials
4%	Professional Fees
18%	Maintenance and Services



# Our Staff

(as at 31 March 2008)

Shahid	Akther	Lecturer in Nautical Studies	Full time	SSNS
Akbar	Ali	Lecturer in Nautical Studies	Full time	SSNS
Anne	Birnie	Receptionist/Admin Assistant	Full time	Admin & Finance
Bernie	Boyle	Laboratory Technician	Full time	SSQC Ltd
Muriel	Cheyne	General Operative	Part time	SSQC Ltd
John	Clayton	ICT Technician	Full time	Estates Management
Susan	Davie	Library Assistant	Part time	Estates Management
Laura	Donaghy	Marine Surveyor	Full time	SSQC Ltd
Peter	Dryburgh	Director	Full time	
Brian	Duncan	Analytical Chemist	Full time	SSQC Ltd
Mark	Gibson	Aquaculture Instructor/Technician	Full time	Marine Science & Technology
Kenny	Gifford	Aquaculture Development Manager	Full time	Marine Science & Technology
David	Grant	Lecturer in Engineering	Full time	SSNS
Lorraine	Gray	SSMEI Project Officer - Shetland	Full time	Marine Development
June	Hamilton	Finance Assistant	Full time	Admin & Finance
Alan	Harpin	Section Leader - Marine Farm Services	Full time	SSQC Ltd
Vicki	Henderson	Knowledge Transfer Associate	Full time	Marine Science & Technology
Lynne	Henry	Admin Officer	Full time	Admin & Finance
Martin	Holmes	Coastal Zone Manager	Full time	Marine Development
David	Hopwood	Estates Manager	Full time	Estates Management
Arthur	Inkster	Quality Control Inspector	Full time	SSQC Ltd
Arlene	Jamieson	Admin Assistant	Full time	Admin & Finance
Arthur	Johnson	Fisheries Technician	Full time	Marine Science & Technology
Isobel	Johnson	Financial Management Officer	Full time	Admin & Finance
Caroline	Keith	Liaison Officer	Full time	SSNS
Abdul	Khalique	Lecturer in Nautical Studies	Full time	SSNS
Duncan	Kidson	Section Leader - Engineering	Full time	SSNS
Chevonne	Laurenson	Fisheries Biologist	Full time	Marine Science & Technology
Kenny	Leask	Lecturer in Engineering	Full time	SSNS
Ryan	Leask	Marine Development Officer	Full time	Marine Development
Beth	Leslie	Shellfish Biologist	Full time	Marine Science & Technology
Paul	MacDonald	Fisheries Scientist	Full time	Marine Science & Technology
Louise	Malcolmson	Benthic Lab Technician	Full time	SSQC Ltd
Karen	McKelvie	Benthic Lab Technician	Part time	SSQC Ltd
Cameron	Mullay	Laboratory Analyst	Full time	SSQC Ltd
Ian	Napier	Fisheries Development Manager	Full time	Marine Science & Technology
Michael	Nisbet	ICT Technician	Full time	Estates Management
Margaret	Nugent	Technical Manager/Microbiologist	Full time	SSQC Ltd
Niall	O'Rourke	Analytical Services Manager	Full time	SSQC Ltd
Roger	Pascal	Lecturer in Engineering	Full time	SSNS
Jan	Rigden	Head of School of Nautical Studies	Full time	SSNS
John	Rosie	Marine Development Officer	Full time	Marine Development
Stewart	Sales	Technical Manager - Fish Farms	Full time	Marine Science & Technology
Sathappan	Saravanan	Marine Broodstock/Hatchery Technician	Full time	Marine Science & Technology
Richard	Shelmerdine	Shellfish Scientist	Full time	Marine Science & Technology
Stephen	Simmons	Fisheries Technician	Full time	Marine Science & Technology
Jurij	Sinicyn	Lecturer in Engineering	Full time	SSNS
Marion	Slater	Shellfish Sampling Programme Officer	Part time	Marine Science & Technology
Daniel	Stone	Marine Environment Modeller	Full time	SSQC Ltd
Leslie	Tait	Fisheries Technology Manager	Full time	Marine Development
Howard	Thomson	Lecturer in Engineering	Full time	SSNS
Bruce	Thornthwaite	Lecturer in Engineering	Full time	SSNS
Elizabeth	Tulloch	Microbiology Laboratory Analyst	Full time	SSQC Ltd
Fiona	Tulloch	Admin & Finance Manager	Full time	Admin & Finance
Leslie	Watt	Quality Control Inspector	Full time	SSQC Ltd
George L	Williamson	Shellfish Sampling Programme Officer	Part time	Marine Science & Technology
Sean	Williamson	Shellfish Sampling Programme Co-ordinator	Full time	Marine Science & Technology
Kathryn	Winter	Shellfish Sampling Programme Officer	Part time	Marine Science & Technology
Matthew	Wright	Assessor	Full time	SSQC Ltd
Geoff	Young	Estates Technician	Full time	Estates Management



# Trustees

## Shetland Islands Council/Shetland Development Trust

Iris Hawkins	Shetland Islands Council (Chairperson of the Trust)
Leslie Angus	Shetland Islands Council
Elizabeth L Fullerton	Shetland Islands Council
James H Henry	Shetland Islands Council
Joseph Simpson	Shetland Development Trust
Alexander J Cluness	Shetland Islands Council (resigned 23 April 2008)

## Fisheries Industries

Hansen Black	Chief Executive, Shetland Fishermen's Association
Ruth Henderson	Chief Executive, Seafood Shetland
David Sandison	General Manager, Shetland Aquaculture

## Independent

Arthur Nicolson	Independent (Vice Chairperson)
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NAFC Marine Centre is an academic partner in UHI Millennium Institute

NAFC Marine Centre is the operating name of the Shetland Fisheries Training Centre Trust, Scottish Charity Number SC003715

The Trust is a Management Agent for the Shetland Islands Council