



# Quarterly Update

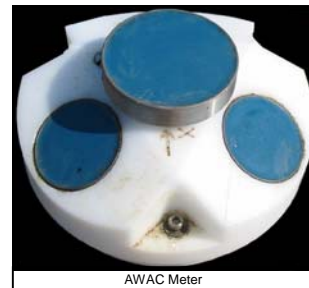


## September 2006

NAFC Marine Centre

### New Services offered by SSQC Ltd.

Since 1998 SSQC Ltd has undertaken hydrographic surveys, currently at a rate of 15-20 per year. These are predominantly for the salmon farm industry as part of discharge consent applications. Surveys are also provided for marine civil engineering purposes and marine renewable energy site surveys. The new Acoustic Wave and Current meter (AWAC) can measure wave height and direction as well as taking current profiles. It will allow SSQC to measure waves as well as current parameters, in order to give useful additional information for marine construction and also for wave and tidal energy projects.



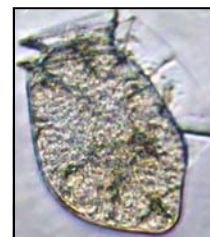
AWAC Meter



CTD Meter

The new Conductivity, Temperature and Depth meter (CTD) can assess water quality, measuring; oxygen, salinity, chlorophyll levels, temperature and pressure. Industry has two practical uses for this service; water quality assessments and discharge consents. Water Quality Assessment: Long and short term monitoring of water parameters either for monitoring purposes or in response to water quality concerns. Measurements can be taken at a set depth or full water column profiling can be undertaken. Discharge consents: The meter can also be used to identify haloclines and thermoclines which are important when considering dispersion from discharge pipes.

The CTD will be available for short and long term hire to the aquaculture industry. If it picks up low oxygen or high chlorophyll levels, SSQC can also help with that using the new plankton identification service. This can identify any problem species of algae and jellyfish present, in order to implement management measures alleviating any further problems.



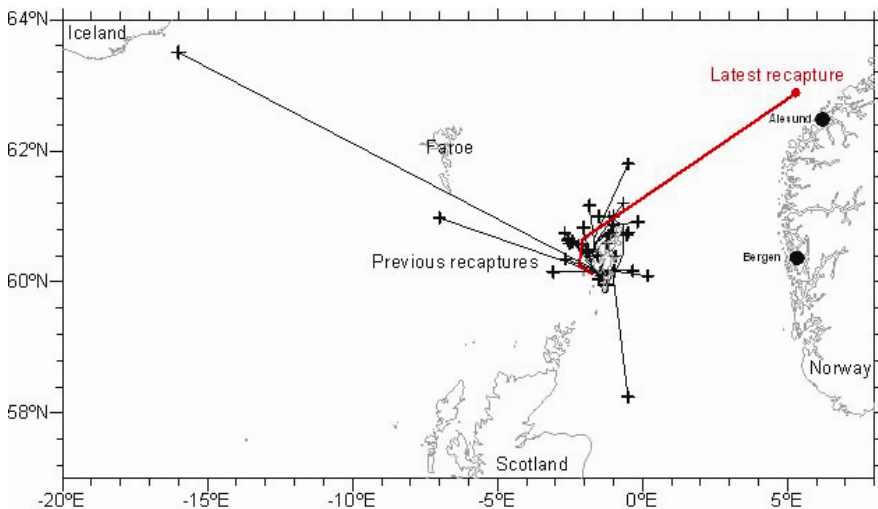
Dinophysis (harmful but common species of plankton)

### Inside this issue:

- More Lobsters Released by NAFC 2
- North Sea Stock Survey 2
- More fish farmers trained at NAFC 2
- UHI Academic Partner Review 2
- New Faces and student placements 3
- Jigging Trails Continue With Mixed Results 3
- FREE Training Courses 4
- Available Course Places 4

### Monk Return Update

Another of the monkfish tagged at NAFC Marine Centre has been recaptured, this time in Norway. The monkfish was originally caught, tagged and released in the Scalloway Deep on 13<sup>th</sup> September 2000. It has now been caught close to the Norwegian coast in an area



to the north west of Ålesund (62° 06'N 1° 22.5'E). During the 5 years 9 months since being released it had grown from 45 cm to 104 cm in length, an average growth rate of 10.3 cm per year.

In addition to the many recaptures in waters around Shetland, monkfish released during the project have been recaptured from as far away as Faroe, Iceland and now Norway. Fishermen are still requested to look for the yellow dart tags inserted into the tail muscle and report any recaptures to Dr Chevonne Laurenson at the NAFC Marine Centre (direct line 01595 772306).

## NAFC Marine Centre

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NAFC Marine Centre is an  
academic partner in the  
UHI Millennium Institute

## Quarterly Update

### More lobsters released by NAFC

The NAFC Marine Centre Lobster Restocking Programme successfully continues to produce and release juvenile lobsters. On Friday 11 August 2006 a second batch, this time over 600, were released by Richard Gray (lobster fisherman) off the north Mainland coast of Shetland. This brings the total released so far to 1300.

Two temporary members of staff were recruited to help NAFC Marine Centre Staff with the labour intensive production which involves keeping the tiny lobsters separate from each other due to their carnivorous nature.

Daniel Gear from Scalloway, has returned to NAFC Marine Centre as part of the Shell Technology Enterprise Programme (STEP), during his holidays from Heriot Watt University. Daniel started his training at NAFC Marine Centre when he did an HNC in Fisheries Science & Technology in 2001. Irene Martinez from Murcia in Spain has also returned, as she was on the Leonardo Da Vinci Programme last year from March to September doing various jobs in the hatchery .



Irene Martinez and Daniel Gear

### North Sea Stock Survey

Dr Chevonne Laurenson has just completed the analysis of the annual North Sea Stock Survey. In this survey fishermen from the UK, Belgium, Denmark and the Netherlands submit their opinions on the state of the stocks of the 8 main fished species (cod, haddock, whiting, saithe, monkfish, Nephrops, sole and plaice) in the 10 fishing areas in the North Sea. The analysed responses are then presented to the relevant ICES Working Group.

This survey provides an opportunity for the opinions of fishermen to be compared with those generated by scientific research. It also provides an opportunity to evaluate how perceptions on the health of stocks are changing in each area over an increasing number of years.

### More fish farmers trained at NAFC Marine Centre

Delivery of SVQ courses has been ongoing for some time at the NAFC Marine Centre. Nine trainees are currently receiving training and six new trainees are to commence SVQ Level 2 and 3 Aquaculture: Salmon (Sea) in September 2006. This demonstrates the importance that the Shetland aquaculture industry sees in vocational training, and thus NAFC Marine Centre's continuing support of the Shetland aquaculture industry, and its important role in the provision of training & education.

Most of the training will be carried out on site in the form of work assessments with one or two days per month at NAFC Marine Centre for the theory. For very distant sites all training will be site based.

The six new trainees are from Scottish Seafarms, Hoganess Salmon Ltd, Johnson Seafarms Ltd, North Atlantic Seafarms Ltd and Lakeland Unst Ltd.

SVQ courses are targeted at people currently employed in the fish farming industry, and designed to provide an occupational standard consistent throughout the industry. The courses are focussed on the assessment of candidates in the workplace, and cover basic fish husbandry, maintenance of equipment, work performance, small craft operation, health & safety and task management. A number of optional units mean that these courses can be tailor-made to particular employees. The level II course is aimed at all people involved in fish husbandry, whilst level III is for employees who wish to progress to a more managerial level.

Trevor Meyer "The provision of vocational training has long been seen as a major role of the NAFC Marine Centre in its support of the Shetland aquaculture industry, and the number of recent applicants for the SVQ level II and level III courses in sea salmon aquaculture reflects continuing interest from industry."

### UHI Academic Partner Review

At the end of April NAFC hosted a team from UHI to conduct an Academic Partner Review (APR) of the Higher Education and Research conducted by NAFC Marine Centre. Each UHI Academic Partner receives a review every 5 years with the aim of ensuring academic quality across the network.

The published APR was very positive with commendations for, amongst others, our clearly articulated vision and mission; students positive attitude to the Centre; the openness of staff; the student advisory system including feedback that came to lecturers on their teaching and the quality of support provided by the student advisor; the library, accommodation and IT facilities; the good environment for research. No urgent requirements were reported and a small number of requirements are being attended to.

The UHI has been undergoing 6 months of Taught Degree Awarding Power (tDAP) scrutiny, a key factor in applying for university status. Assessors from other universities have been observing procedures at each of the Academic Partners and at the Executive Office. Their final report has been submitted and we should know the result of the application by the end of September and, if successful, the UHI will be able to award its own degrees in the 2007-08 academic year.

## Some New Faces Joining NAFC In The Last Few Months



Scott Parkin

Scott Parkin was trained as a chef by the British forces in Cyprus. He then worked in numerous hotels and restaurants. He followed that by joining the RAF, cooking for all levels of personnel all over the world. This included competition catering. His aim is to make Da Haaf the best restaurant in Shetland by including more tropical fish on the menu, increasing the variety

of healthy options, improving quality and service and giving the restaurant a more ambient welcoming feel.



John Clayton

John Clayton has taken over from Paul Rivett as head of ICT. Previously in the SSQC Microbiology Labs, John has an honours degree in Microbiology and a Masters in Computing Science. Prior to joining NAFC, John worked for a number of companies in Kent as a software engineer, website designer and database manager.



Neil Mort

Neil Mort joins as a trainee IT Technician. He was previously at Shetland Office Supplies where he was a Computer Services Engineer. He trained at Shetland College, completing an HNC in Computing, the European Computer Driving Licence and a City & Guilds in Information Technology Support Services Technician.



Kathy Reid

Kathy Reid took over as accommodation manager with Thompson Cleaning Services at the end of June. She was previously the manager of the Checkout in Scalloway. As Port Arthur House is usually fully occupied, it is a busy and challenging role. She enjoys meeting so many people from so many different places.

## Student Placements



Rachel Williamson and Agnes Smith

Agnes Smith has been identifying tiny seabed creatures in the Benthic Lab during her break between 3rd and 4th year of a Marine Biology Degree at Stirling.

Rachel Williamson has been helping with e-coli testing on mussel samples, preparing samples and carrying out routine quality control and environmental checks in the Microbiology Lab. She is about to start her 4th year of a Biomedical Science degree at Napier University.



Jennifer Adamson

Jennifer Adamson is on a Nuffield bursary placement at NAFC between her 5th and 6th year at Anderson High School. Her project is an Investigation into Growth and Age of the common whelk, *Buccinum undatum* and includes investigation of shell morphology.

The project provides work experience, improves her CV and is an opportunity to make a contribution to scientific research. She can also use her report as her Advanced Higher Biology investigation and submit it for a Crest award. During her project, Jennifer has also spent a few days helping in the hatchery with the lobster juveniles.

## Jigging Trials Continue With Mixed Results

The jigging trials are part of an ongoing study into the commercial viability of jig fishing in the waters around the Shetland Isles.

The good weather over June and July have meant that trials have been continuing in various locations around the islands. It is planned that if the fine weather continues, experiments looking at the effects of different lures on catch rates will commence.

During the project the Centre has been approached by companies wishing to trial fishing products. As a result, trials have been carried out with sonic lures and they have proven quite successful. There are also plans to carry out fishing trials using synthetic fish pheromones which are known to trigger feeding in fish.

There has been a big increase in the number of small saithe caught during June and July. They are being found in large quantities, especially in both inshore and offshore areas around the south Mainland.

Paul MacDonald, Jig Fishing Technician said "The project has seen mixed results over the past couple of months with reasonable quantities of fish, especially lythe and saithe, being caught at the northern end of the Islands but there is still little sign of any fish of marketable size towards the south end."



Arthur Johnson with ling caught east of Muckle Flugga on jigging machines

## Free training courses

Thanks to funding from the EU's Financial Instrument for Fisheries Guidance (FIG) and the UK Fisheries Departments, Shetland Fisheries Training Association (SFTA) as a Seafish Group Training Association is able to offer a range of fishermen's training courses FREE for a limited period. Refresher Safety Training enables fishermen who completed basic certificates in Sea Survival, Firefighting and First Aid to renew these courses free of charge.



The Stability Awareness one-day course has been designed for existing fishermen to raise awareness of how daily working practices can affect a vessel's stability especially in unusual or extreme conditions. This course is highly visual, using computer graphics and a model fishing vessel for demonstration purposes. All fishermen know the possible dangers of overloading their boat or coming fast—this course offers the opportunity to discuss these issues and contribute to making the job safer.

Under existing legislation only engineers on fishing vessels with engines of 750kw propulsive power or more and Skippers and Mates on fishing vessels of 16.5 metres registered length and above are required to undertake formal training and hold an MCA Certificate of Competency (ticket). Evidence from the MCA and MAIB indicates that engine failure as well as poor navigation and watchkeeping are a major cause of accidents and incidents on fishing vessels of all sizes. By offering FREE training to fishermen in basic engine operation & maintenance and basic navigation and watchkeeping it is hoped to improve the level of engineering and navigational skills with the aim of reducing the number of incidents and accidents at sea.

## Spaces Are Available On The Courses Shown Below

Month	Course	Date	Price
September	Fishermen Safety Awareness	11th	£50
	Medical Care Onboard Ship	18th - 22nd	£450
October	Workboat Skipper (Part 1)	2nd - 13th	£350
	GMDSS SRC	5th - 6th	£112
	GMDSS ROC	18th - 20th	£263
	Workboat Stability	18th - 19th	£130
	Basic Firefighting & Prevention	26th	£90
November	ENS Fishing	6th - 24th	£300
	Workboat Skipper (Part 2)	13th - 15th	£200
	EDH	20th - 24th	£200
	Stability Awareness	24th	FREE
	Medical First Aid Aboard Ship	27th - 30th	£165
December	Elementary First Aid @ Sea	1st	£50
	Personal Survival Techniques	8th	£100
	GMDSS SRC	12th - 13th	£112
	Personal Survival & Social Responsibility	14th	£75
	Stability Awareness	15th	FREE

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Signed.....

Print name.....

Address.....

E-mail..... Tel.....