

SCHOOL OF BIOLOGY, UNIVERSITY OF NEWCASTLE

RESEARCH ASSOCIATE (RA1A)

Information for Candidates

I

A researcher is required for a European Commission FP6 funded project entitled *Developing ubiquitous restoration practices for Indo-Pacific reefs*. This position will involve extensive field work near Bolinao, northern Luzon, Philippines based at the Bolinao Marine Laboratory (BML) of the Marine Science Institute of the University of the Philippines to evaluate various techniques of reef restoration. The successful candidate will be responsible for carrying out field research to investigate the growth and survivorship of coral “nubbins” and branches of about 10 selected species after transplantation to the reef. Excellent underwater research skills and a good understanding of coral reef ecology, experimental design, and statistical analysis are essential for this post. Experience in underwater photography, use of databases in monitoring research and image analysis techniques would be desirable. An immediate start is wanted. Accommodation and a contribution towards subsistence expenses are provided whilst working in the Philippines. BML is a well-established laboratory about 6 hours north of Manila and has internet access. Fieldwork needs to commence not later than September 2005.

II

The post

This Research Associate position is funded by the FP6 project, REEFRES and runs for 3 years within this 4 year project. REEFRES is a 7 member consortium of research institutions and a SME involved in coral culture. Consortium members are from Israel, Thailand, Italy, Singapore, UK and Philippines. The objective of REEFRES is to develop restoration practices which can be effectively applied to reefs throughout the Indo-West Pacific. The various work packages within the project evaluate different techniques of coral reef restoration and the collective outputs will form the basis for best practice guidelines for reef restoration in the Indo-Pacific. Preliminary pilot studies of short term survival and attachments techniques for a range of coral species are already underway at the Bolinao study site.

The study will be evaluating:

- The relative survival and growth of a range of common species of coral, transplanted both as “nubbins” and as whole coral branches, with a view to determining which species are most suitable for transplantation.
- The longer term (up to 3 years) efficacy of different protocols and the cost-effectiveness of different techniques.

The primary outputs will be:

- Best practice solutions based on currently available technologies and know-how.

III

Duties and Responsibilities

The successful candidate will be responsible for carrying out field research in support of two work packages within the REEFRES project. One seeks to investigate the growth and survivorship of coral “nubbins” and one the growth and survivorship of coral branches of about 10 selected species after transplantation to the reef. The position will involve working closely with a Philippines postdoctoral or masters level researcher.

The candidate will be responsible for or have a leading role in the following tasks:

- Establishing the final experimental design (based on ongoing pilot studies) and deploying “nubbin” transplants of c. 10 species of coral to standardised giant clam shell substrates (from locally cultured *Tridacna gigas*, which died during bleaching)
- Assisting deployment of branch transplants of c. 10 species of coral to standardised giant clam shell substrates
- Monitoring the growth and survival of the “nubbins” and assisting in monitoring of the coral branches over a period of 2-3 years to evaluate the long-term efficacy of this type of restoration and its cost-effectiveness.
- Monitoring of control colonies on natural reef areas
- Entry of field data into an Access database and analysis of data
- Oral presentations on progress of research to annual meetings in Philippines, Singapore, Thailand and Israel.
- Production of annual written reports of research progress and a significant role in preparation of scientific papers for international peer-reviewed journals.
- Other experiments which funds and time may allow

There will be scope for interactions with other consortium partners who are working in Eilat, Phuket and Singapore and with GEF/World Bank funded reef restoration research also being carried out at Bolinao as part of the Coral Reef Targeted Research programme (<http://www.gefcoral.org>). The latter will be investigating *inter alia* the culture of nubbins before transplantation as well as studying the processes which influence the recovery of coral reefs from natural and anthropogenic disturbances. There may be significant opportunities to participate in international workshops on reef restoration in the latter part of the project.

IV

Person specification

The University seeks to appoint a candidate who has the following:

Essential attributes

- A Masters or PhD in tropical marine ecology or a related discipline
- Proven diving skills for underwater research work
- A PADI Divemaster qualification or equivalent

- Experience of the design and implementation of underwater experiments
- Experience of working collaboratively with people of other nationalities
- Willingness to work abroad for periods of up to 6-9 months based at a research station in the rural Philippines and to travel internationally by air
- A high degree of self motivation
- Good database and statistical skills
- A good understanding of the main issues with regard to the spatio-temporal dynamics of coral reef communities and their recovery from damage
- Ability to identify Indo-Pacific coral species
- Excellent interpersonal skills, with the ability to communicate technical information to non-technical end-users
- Fluency in English, both oral and written
- Clean driving licence

Desirable attributes

- Experience with digital photography, image manipulation and image analysis
- Experience with multivariate techniques for spatio-temporal analysis of biological communities
- Experience of using cameras underwater
- Evidence of an ability to write scientific papers and publish results in peer reviewed journals

V

The School of Biology

The mission of the School of Biology is to promote and undertake high-quality research in biological sciences, delivering excellent teaching and learning activities in an environment informed by vibrant research, and making significant contributions to economic, social and cultural developments within and beyond the region. Its overall strategy is to develop interaction and integration between complimentary biological disciplines focused on brain and behaviour, evolution and behaviour, life sciences modelling, microbial ecology and technology, molecular ecophysiology and animal-plant-environment interactions. Strategies and policies are based on the four main drivers of 5* research, teaching demand, teaching efficiency and effectiveness, and financial viability.

Undergraduate teaching is focused on the high demand and growth areas of Psychology and Biology. Currently BSc biology programmes, admitting about 110 undergraduate per year, are offered in Zoology, Applied Biology, Biology and Environmental Biology. Major contributions are also made to the BSc programme in Animal Science.

The School manages MSc programmes in Environmental Resource Assessment, Wildlife Conservation and Management, Integrated Pest Management, and Industrial Biotechnology as well as making significant contributions to three other MSc programmes including one in Tropical Coastal Management.

Areas of research activity are structured to ensure that the School will achieve 5* ratings. The School is a key contributor to a number of University Research Institutes including the Institutes of Environment and Sustainability, Neuroscience and also Informatics with the objective of encouraging interdisciplinary and multidisciplinary research. The School has a large and vibrant postgraduate research community.

A major priority for the success of the School is to underpin research and teaching activities through third strand funding. We are currently developing several spin-out companies, Knowledge Transfer Partnerships and Marie Cure Fellowship Schemes.

The School is one of the largest in the Faculty of Science, Agriculture and Engineering (SAGE) with a total of 50 academic staff, 27 postdoctoral researchers, 8 clerical staff and 23 members of technical staff. The School houses well equipped teaching and research laboratories, workshops and growth rooms on the University precinct in the centre of the city. The School also possesses excellent field station facilities at the Moorbank Botanic Gardens in the city and Close House field station in the Tyne Valley.

These include laboratories and facilities for physiology, ecotoxicology, molecular ecology, molecular genetics, biochemistry, integrated pest management, air pollution and microbiology. Laboratories are well provided with up-to-date computing and analytical apparatus. The in-house microcomputer facilities are complemented by the University's distributed computer facilities accessible over a highly efficient campus network. Major analytical items such as high resolution NMR, mass spectrometry, automated gene sequencing and confocal and electron microscopy are available.

Newcastle upon Tyne

The city has good residential areas in close proximity to the University and boasts a number of good schools. The Theatre Royal hosts major touring drama, dance and light entertainment including annual seasons by the Royal Shakespeare Company and Scottish Opera. The city has a fine Chamber Orchestra, the Northern Sinfonia and one of the best film theatres in the country, the Tyneside Cinema. Among other cultural venues is the Baltic gallery of modern art which has attracted national attention. There is, within an hour's drive of Newcastle, a wide variety of fine country, National Park and designated Areas of Outstanding Natural Beauty. Within easy reach are the Pennines, Lake District, North York Moors and the Northumbria coastline and Scotland.

Communications are good with scheduled flights from Newcastle Airport to Heathrow, Gatwick, Amsterdam, Brussels, Paris and North America. A frequent train service to London takes less than three hours.

VI

To apply for this position, you should submit your CV, giving full details of your qualifications and experience, and the names of **two** referees (at least one of whom should be a current or previous employer, and at least one of whom should be acquainted with your academic work) to Dr Alasdair Edwards, School of Biology, Ridley Building, University of Newcastle upon Tyne, Tyne & Wear, NE1 7RU to

arrive preferably before **20 July 2005** and **not later than 7 August 2005**. It would be very helpful if you could submit a covering letter together with a completed Employment Record Form. This may be downloaded from the University web page: <http://www.ncl.ac.uk/vacancies/employ.rtf>.

Candidates are asked to note that it is the University's normal procedure to approach referees for their confidential comments on candidates prior to interviews being held. This can mean that referees will be contacted either at the time a short-list is drawn up or, in some instances, referees' comments will be sought in advance to enable a short list to be finalised.

Candidates who do **not** wish any of their referees to be approached before receiving an invitation for interview, must inform the University at the time of submitting their applications.

Shortlisting for this position will take place in early August, with a view to holding interviews by the 18th August 2005. Interviews may be held by telephone or video link, for candidates unable to travel to Newcastle.

All applications will be considered for shortlisting. Following the interviews, the successful candidate will receive a formal written offer of employment from one of the following: Registrar, Deputy Registrar or the Human Resources Section. Please note that no other person has the authority to offer employment for this post, either orally or in writing.

When the successful candidate has accepted the post, all other candidates will receive notification of the outcome of their applications.

The appointment will be subject to the standard conditions of service. Further information on this and related topics will be issued with any invitation to interview and may also be obtained on request from the Human Resources Section.

The successful candidate will be eligible to join the Universities Superannuation Scheme (USS). The USS is currently the third largest private sector final salary pension scheme in the country. It offers an excellent range of benefits including an index linked pension, death in service benefits, dependants benefits and provision for early retirement in case you have to cease work due to ill health.

Currently, the member contribution rate is 6.35% while employing institutions currently contribute 14% of your pensionable salary. Further information about the scheme is available from the University or from the USS website at <http://www.ushq.co.uk>

Starting salary will be at the following point on the current RA1A salary scale:

£19,460 per annum

Equal Opportunities Policy Statement

The University welcomes applications from all sections of the community including candidates with a disability.

The Disability Discrimination Act 1995 defines disability as:

‘A physical or mental impairment which has a substantial and long-term adverse affect on a person’s ability to carry out normal day to day activities.’

You no longer have to be registered disabled. You may obtain further information from Disability on the Agenda, telephone 0345 622633.

Applications

The Employment Record Form and job details are available on tape or in large print. To request a copy please contact the Human Resources Section.

If you have a disability which prevents you from completing the documentation, please contact the Human Resources Section to discuss other acceptable methods of application.

Arrangements for interview

Please indicate on a separate sheet any special arrangements or adjustments we may need to make to our recruitment procedures to ensure that you are not placed at a disadvantage because of your disability, for example the provision of an accessible interview location, a sign-language interpreter or supportive person, disabled car parking space etc.

Arrangements if appointed

It would also be helpful to us if you are able to indicate what adjustments we may need to consider to enable you to do the job, if you are appointed.

General

If you would like an informal discussion to consider any adjustments or special arrangements that may need to be made in relation to your application or appointment please do not hesitate to contact the relevant Human Resources Officer via the contact details for this vacancy.

The University of Newcastle upon Tyne is committed to securing equality of opportunity in employment and to the creation of an environment in which individuals are selected, trained, promoted, appraised and otherwise treated on the sole basis of their relevant merits and abilities. The Vice-Chancellor oversees the effective operation of the policy and the responsibility for the implementation and monitoring

of it rests with the Director of Human Resources. All new employees are provided with a copy of the Policy on appointment. Further copies may be obtained from the Human Resources Section of the Registrar's Office.

The University also has a comprehensive entry on the World Wide Web. The address is:

<http://www.ncl.ac.uk/>