

PLANFORBIO News

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PLANFORBIO gets underway

The COFORD funded PLANFORBIO research programme officially kicked-off in January 2007. The first two projects to get underway were FORESTBIO, *Management of biodiversity in a range of Irish forest types*, (UCC, TCD, Coillte) and HENHARRIER, *Optimum scenarios for Hen harrier conservation in Ireland*, (UCC). The FORESTBIO project aims to further our knowledge of biodiversity in native and plantation woodlands in Ireland. Botanists and zoologists will work together to achieve this by examining the diversity of birds, insects and plants in forests throughout Ireland. The first meeting of researchers on

this project was held at Trinity College Dublin in March 2007 and the first field season is now well underway.

The HENHARRIER project will examine many aspects of Hen Harrier biology with a view to informing management decisions. This project is also supported by the National Parks and Wildlife Service and receives voluntary support from members of the Irish Raptor Study Group. The first meeting of researchers from all groups working on the HENHARRIER project was held at Doneraile in North Cork in April ahead of the very busy 2007 field season.

PLANFORBIO Director: John O'Halloran; Project Manager: Sandra Irwin; Academic staff: Daniel Kelly, Tom Kelly, Fidelma Butler, Fraser Mitchell, Nick McCarthy

FORESTBIO Staff: Post-doctoral researchers: Linda Coote (TCD), Anne Oxbrough (UCC) and Mark Wilson (UCC); PhD students: Rebecca Martin (UCC) Howard Fox (TCD) and Oisín Sweeney (UCC); Research Assistant, Karen Moore (TCD).

HENHARRIER Staff: Post-doctoral researcher: Mark Wilson (UCC); PhD student: Barry O'Donoghue (UCC, NPWS); Research Assistant Barry O'Mahony (UCC).

Website Launch

PLANFORBIO team members selected a logo to represent the project and compiled the programme website (www.ucc.ie/en/planforbio), which was launched during May. The website includes detailed descriptions of all four projects in the PLANFORBIO programme, as well as

each of the PhD projects. It also includes information for members of the public interested in the summer surveys, and will be updated regularly as the project progresses in order that interested parties can follow the progress of the project.



Young Hen Harrier chick in the Ballyhoura Mountains

Tagging of Hen Harrier Chicks

Researchers on the Hen Harrier project have been busy in recent months finding nests in four specific locations in the south of Ireland. So far they have successfully pin-pointed the locations of more than thirty individual nests in Kerry, Clare, the Slieve Aughtie Mountains and the Ballyhoura Mountains. Some of these nests already have

nestlings, and the remaining eggs are expected to hatch in the near future. Over the coming weeks ringers will be visiting these nests to measure breeding success and tagging the chicks with year and location specific wing tags as well as individual BTO identification rings. This tagging will be carried out by licensed ringers, some of whom are

working on a voluntary basis. Just 6 hen harrier chicks have previously been tagged, and this work represents a significant step forward in terms of their conservation in Ireland. If you see any Hen Harriers at any time of year, please take note of any tags you can see and contact Barry O'Donoghue at Barry_O'Donoghue@environ.ie.



Karen Moore collecting soil samples

FORESTBIO Summer Surveys 2007

2007 fieldwork got underway during April and is progressing well. At the first project meeting in March they categories of site to be surveyed this year were selected and individual sites subsequently selected. Permission has been sought from landowners where applicable for researchers to conduct their surveys during the summer months

The TCD field work team of Linda Coote, Karen Moore and Howard Fox started botanical recording in the first week of June. They have been working on a tough schedule of four days in the field and one day back in the lab and office to process

samples, enter data and prepare for the following week. By the end of June they had surveyed 13 sites spread across the Wicklow, Cork/Waterford, Cork/Kerry/Limerick and Laois/Offaly clusters. Despite the inclemency of the weather, the schedule is on target. The initial focus has been on a range of refor sites. Surveying the native woodland sites will be the reward towards the end of the schedule in August. This will also allow Karen to take some leave to write up her MSc thesis on the refor sites. Towards the end of September Karen and Howard will complete a tree climbing course and then

head straight into the epiphyte survey. Here's hoping for a dry autumn!

The bird surveys are being conducted by Oisín Sweeney and Mark Wilson twice at each of the 30 sites selected for survey this year, and the first round of surveys were finished at the end of May and the second round of by the end of June. Pitfall traps were set during April by Anne Oxbrough and are being changed every three weeks, which will continue as planned until the end of August. Fieldwork schedules have been hindered slightly by the recent bad weather, but no significant delays are foreseen.

Study Visit to Spanish University

During June members of HENHARRER, together with NPWS staff, visited a research team in Spain to undertake training in capturing Montagu's harriers. Four researchers were lucky enough to spend some time with the research group of Beatriz Arroyo at Instituto de Investigación en Recursos Cinegéticos, Consejo Superior de Investigaciones Científicas. The techniques they are using to capture

adults are transferable to Hen Harriers, and as nobody is currently capturing adult Hen Harriers in the UK, visiting Beatriz's research team presented the best opportunity for Irish researchers to gain experience of capturing breeding harriers. No one in Ireland currently has experience of capturing adult Hen Harriers, so this training constitutes a significant transfer of knowledge,

increasing the capability of Irish research teams to work with and conserve this threatened species. Gaining such experience will play a crucial role in determining the success of the team's efforts to deploy GPS tags on Hen Harriers next year as part of the HENHARRIER project, which will enable us to collect data of unparalleled quality on Hen Harrier habitat use.



Tagging a Montagu's Harrier in Spain

Canopy Fogging Trials

Rebecca Martin (UCC) will be using thermal canopy fogging to collect invertebrate samples from individual trees in forest canopies as part of her FORESTBIO PhD project. This method was trialled during May 2007, and some difficulties were encountered with the original protocol, which was devised from literature reviews and

consultation with previous workers. A petrol driven fogging machine was used with a water based insecticide (AquaPy) (see pic). This particular insecticide was chosen as it is not persistent in the environment and shows no phytotoxic effects, but unfortunately this method resulted in disappointingly small numbers of animals in

samples collected. The method was reviewed and a new kerosene based insecticide (Pybuthrin 33) was been selected for trial. This insecticide is the most commonly used in published canopy fogging studies and yielded far more promising results, with a huge increase in sample yield seen in early trials by Rebecca.



*Rebecca Martin
Testing fogging equipment*

RHODO Project Negotiations

The third project in the series to get underway will be RHODO, *Achieving effective Rhododendron control* (UCC, WIT), which will get commence during the summer 2007. Contract negotiations are ongoing with

COFORD and a PhD student will be employed in October. The aim of the RHODO project is to provide information that will assist with protection of environmental quality and to contribute to the

development of alternative methods and skills in controlling rhododendron in Ireland. The project will support one PhD student at Waterford Institute of Technology, under the supervision of Nick McCarthy.

Seasonal Staff

PLANFORBIO

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The team at TCD will be joined in July by Corinne Vézeau, an SFI funded UREKA student from Université Laval (Quebec). As well as helping out with field recording, she will focus on recording the light

environment in the forests using hemispherical photography which will form the basis of her project which she will complete in early September. Heather Cagney will join the team at UCC in July and August to assist

with invertebrate sample sorting in the laboratory. Heather is currently an applied ecology student at UCC and will be starting the final year of her degree course in the Autumn.

BIOFOREST update

Publications

The most recent BIOFOREST paper appeared in Biological Conservation. '*Enhancing vegetation diversity in glades, rides and roads in plantation forests*' by Smith *et al.*, describes variation in species richness and diversity of vascular plants and bryophytes as they related to solar radiation, soil and management in Irish plantation forests. The final BIOFOREST synthesis report has also recently been published on the web and sees the culmination of five years of hard work.

Many of those who worked on BIOFOREST have moved

on and are now involved in a variety of exciting projects. Sue Iremonger is currently taking some time out to be a homemaker for her daughter and they have moved to Westport. She is also studying for a Higher Diploma in GIS by distance learning with Ulster University. Sue's interests remain in biodiversity, landscape ecology and the use of GIS and remote sensing for planning and land management, but she is also branching out into Lego and electric trains!

Tom Gittings is working as a part-time postdoctoral researcher at UCC and as a

freelance ecological consultant. His current research is on habitat loss and fragmentation on isolated wetlands in agricultural landscapes and is part of the Biochange project (www.biochange.ie).

Joe Pithon has been teaching ecology and environmental studies at degree and masters level in an agricultural college in Angers, France for 3 years now. Next year she starts work on a 3-year research project looking at biodiversity (plants and birds) in vineyards, funded by the French Ministry for the Environment.

EPA Call for Proposals

The EPA issued calls for proposals on June 22 under its STRIVE Programme 2007-2013. One of these calls is in biodiversity, with a budget of €1.6 million. One of the specific areas under this theme is 'Sectoral Impacts on Biodiversity', which specifically calls for proposals on the pressures and impacts of agriculture

and forestry on biodiversity. The EPA also have active calls for 'Support for Environmental Research Infrastructure' and 'Developing Environmental Research Potential (DERP)'. The deadline is Wednesday 12th September. For further information please consult <http://www.epa.ie/researchandeducation/research/>.

The Department of Agriculture and Food have also launched a call for proposals under their Research Stimulus Fund Programme (RSF). The closing date is Thursday 26th July, and further information can be obtained at <http://www.agriculture.gov.ie/index.jsp?file=research/index.xml>