Dr Guy Woodward (Imperial College London) – brief cv

2013 – Reader (Imperial)
2004-2013 – Lecturer, Senior Lecturer, Reader – QMUL
2000-04 – Postdocs (NERC – Edinburgh; EU - Cork)
1999 PhD – QMUL

>£7m grant funding

>100 papers (H index 36), inc Nature, Science

NERC Panel Member (2008-11)

Series Editor: Advances in Ecological Research

International Advisory Panels (e.g. Future Earth)

Current research grants (6 postdocs, 10 PhD students)

Title	Funding Body	£	Start
Catastrophic f…	N.E.R.C.	£65,000	2013
River restoration large-scale experiments	Private	£120,000	2013
Fragility of stream ecosystem functioning in response to drought: an experimental test	N.E.R.C.	£701,000	2012
Diversity of Upland Rivers for Ecosystem Service Sustainability (DURESS)	N.E.R.C.	£3,200,000	2012
Using individual metabolism and body size to predict climate warming impacts on aquatic food webs	N.E.R.C.	£311,000	2011
The temperature dependence of biogeochemical cycles	AXA Insurance	£90,000	2011
Predictable feedbacks between warming, community structure and ecosystem functioning	N.E.R.C.	£468,000	2010
Manipulating the chemosynthetic and photosynthetic support of river food webs	N.E.R.C.	£531,000	2010

Pesticides

Habitat Restoration

Drought

Land-use

Warming

Warming

Warming

Nutrients

£5,686,000

(mostly NERC funded)

Building from the PhD

- **The PhD is simply a stepping stone in your career – only papers matter – so make sure you publish them!!!**
- **Plan strategically – where will your papers go and in what order and timeframe? Aim as high as you can – quality matters more than quantity (but compromises may be needed initially if time is short)**
- **For your postdoc you need to demonstrate a STEP-CHANGE from the PhD, not just incremental "more-of-the-same"**
- **Increasing independence from your supervisor – e.g. seedcorn funding**

Getting your first postdoc

- **Speak with academics about your ideas – but be prepared to be flexible and to respond to advice – don't take rejection/criticism personally. Have a well-formed idea (not just a vague desire to work in some exotic part of the world etc etc…)**
- **Key things to focus on are IMPORTANCE and NOVELTY of your research project.**
- **Be AMBITIOUS but also REALISTIC – many grants fail for being too risky and over-optimistic**

Writing skills – the "missing link"

- **Practice writing skills – the weakest but most important area for scientists to address – not endlessly coding in R!**
- **Write for your audience not yourself and adapt your style accordingly – use Plain English and communicate effectively – it is a sales pitch, not a vehicle to show off your big brain…**
- **Grant writing and paper writing are VERY different skills – practice both – be concise, be clear, be direct**
- **Aim to publish at least 6 good papers per year – focus on quality, *not* quantity**
- **If your papers are accepted first time with few/minor revisions then you are not aiming high enough…be more ambitious**
- **Papers are the foundation of your career**

What is the research gap and what is the bigger picture?

- **Leave plenty of time to prepare your bid – typically you are looking at about 1 year from conception of the idea to employment (if successful!)**
- **When writing state the big question and how you will answer it right at the start – don't write a "murder-mystery"**
- **Set the context – why is it important? Focus on the novelty – and state your exciting hypotheses clearly**
- **Don't get bogged down in trivial details – it is not a technical manual that you are writing. Demonstrate you can do it, but then focus on the bigger issues. For readers methods are boring, questions are engaging…**

Getting started with grant writing

- **Start with seedcorn funding if needs be and then grow from there…**
- **Develop a thick skin – most grants are rejected, so prepare for this – you might need to try several times**
- **Follow the call instructions clearly – never try to force a square peg into a round hole…is your bid applied or fundamental? Blue Skies or targeted?**
- **Always submit the most highly polished version possible – if it is not up to scratch wait unit it is – you do not want to attract a bad reputation for sloppy discipline…**
- **Take the "ancillary" sections seriously – in many cases these tip the balance of funding – it is not just about the science**

Tracking and Setting the Research Agenda

- Keep an eye on the field – **sense the emerging themes** from conferences, opinion papers etc
- If your field is not being funded, **adapt and survive** – look for opportunities to evolve or your research will wither.
- **Set the research agenda** yourself where possible – don't simply follow it – e.g., via opinion papers, lobbying funding bodies, proposals to RCUK SPAG etc.
- **Sit on refereeing and assessment panels** where possible, to see the other side of the coin
- **Mock assessment panels** – these MUST resemble the real process to be useful

Collaborations

- **Play to your strengths** and recognise your weaknesses – work with others to form a strong “whole”
- **Build your alliances** (and non-alliances) strategically – do not carry unproductive partners, and add complementary (not redundant skills) to your team of collaborators
- **Plan collaborations** in terms of likely funding and build your portfolio of contacts accordingly….also, develop a plan that is both national and international (so you can cover both RCUK and EU collaborative grants)

"Horizon Scanning…anticipating future research themes"

What are some of the emerging trends in ecology?

Multidisciplinarity

- Scaling up & improved realism – time, space, complexity
- Mechanistic understanding – beyond description and inference
- Beyond the "event horizon" - broadening and deepening the science base – expansion into physical and social sciences

Emerging Technologies

- Bigger & Better Data – Citizen Science, ecoinformatics and NGS
- Predictive capacity – systems biology data-modelling approaches
- Remote sensing and automation – breaking methodological bottlenecks

Take-home message

Plan ahead – be strategic
Prioritise effectively – research first
Focus on the big question (not technical details)
Collaborate and delegate
Be active and proactive
Be positive and be ambitious
Develop a thick skin – and persevere!

Employers perspective – ‘Employability of first time Post Doctorates’

Alison Hester

Background – who am I and what do I do?

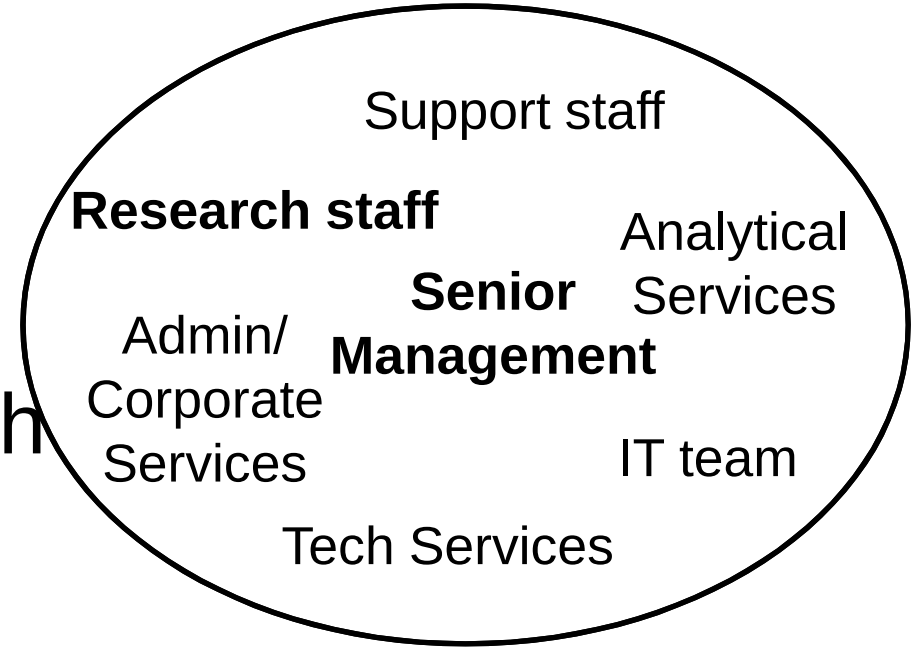
- Ecologist by training, have always had a keen interest in the outdoors….
  - BSc (Geog), MSc (Ecol), PhD (Ecol)
  - Royal Society Post-Doctoral Field Research Fellowship – Western Australia
  - 2 year contract NCC Hill Research Team
  - 2 yr Post-Doc then permanent job in research institute – 24 yrs!
- Currently at James Hutton Institute: Head of Theme - Safeguarding Natural Capital (=one of 6 Institute Research Themes)

James Hutton Institute as an employer

“Science connecting land and people”



- Integrated and innovative land use science - c. 650 staff
- 2 main sites, 3 research farms
- State of the art labs, equipment, greenhouses…



Key questions for today's talk

- Is a Post Doc enough to get the job?
- Expertise/Skills gained from doing a Post Doc?
- What else is important (besides the Post Doc)?
- Changing careers?

Is a Post Doc enough to get the job?

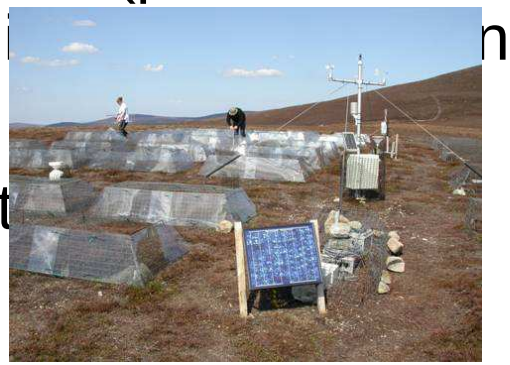
- It can be, depending on the job….but extra experience can help….(see 3 slides on)
- Think about what job you want and what skills/experience would be useful
- Lecturer/postdoctoral researcher – post-doc (or even just PhD sometimes) is ‘enough’ but additional experience is often listed as desirable….especially if there is a lot of competition for the type of job you want
- So - do some homework on the competition for the jobs you might want
- Ecological research – usually big competition for few jobs…

Expertise/Skills gained from doing a Post Doc

- Greater degree of independence/leadership
- Out in the ‘real’ world – no longer ‘training’
- New experiences and outlook, especially with post-doc in a different country/ culture/ environment etc – ***I strongly recommend this!***
- More papers, hopefully high impact, new co-authors…
- Can give you the ‘edge’ on people with ‘just’ a PhD when applying for a research job

What else is important (besides Post-Doc)

- **Additional skills/experience relevant to the job** – so look for ways to add to your skills/experience
- Think carefully about what you do for your dissertations (BSc/MSc) and your PhD - subject/ collaborators/ publications etc…
- Think about your 'out of Uni' experiences- examples:
  - Did you move for your post-doc? If so, how far? New country/ new science area? (pros and cons
    team?/ part of broader di n
  - Hobbies/voluntary work.
  - Travel? Where and what



Changing careers – let’s discuss….

- Reasons why you might want to change career?
- What might you do to aid this process?
- Think about the competition from others who will be applying for the same jobs – what ‘advantages’ and ‘disadvantages’ might you have?
- How do you make the ‘advantages’ of employing you clear to a prospective employer?

THANK YOU

Recent Post Doc appointee perspective

How I got my job and what it's really like...

Dr. Charlotte S. Miller

University of Oslo, Norway

The Research Council of Norway

UiO : Universitetet i Oslo

My postdoc position

- Started applying for postdoc positions once I submitted thesis in August 2013
- Completed PhD in palaeoecology in February 2014
- Applying for postdocs for *c.* 1 year; applied for around 8 relevant positions
- Applied for one BES Research Grant and one Leverhulme Fellowship
- Had 4 interviews
- Oslo interview was casual via Skype
- Started 1st September 2014 at University of Oslo
- Postdoc position is very different to my PhD!

  Pollen analysis vs. organic geochemistry

Postdoc application process

1. Find relevant postdoctoral position (via jobs.ac.uk, university websites *etc.*)
2. **Write cover letter - make relevant to position**
3. **Update your CV – make relevant to position**
4. **Get application checked by colleagues/ supervisors**
5. Notify your references that you have applied for a position
6. Send the job details and your CV to your references
7. **SUBMIT!**

Timescales and outcome

- It may take a several weeks to be notified of an outcome
- ..sometimes postdoc positions are written for internal candidates..
- .. so don’t be disheartened if you don’t get shortlisted!..
- If you don’t hear back,

  don’t be afraid to email HR!
- **Apply for more positions whilst waiting for a response!**

Key advice whilst applying for postdoc positions

- Don’t expect to finish your PhD and walk straight into a postdoc position!
- Start applying early!
- Be persistent, just keep applying!
- If money is tight, get a part-time job whilst you apply
- Continue to write papers and stay active in research
- **STAY POSITIVE**

How does a PhD differ from a post doc?

PhD candidate	Postdoctoral researcher
Student	'Middle-man of academia!'.. A temporary career-building step on the path to a more permanent position
Fixed term position (3-4 years)	Fixed term position (1–5 years)
Possible undergraduate teaching responsibilities	More undergraduate teaching responsibilities
	Supervision of student projects
..a PhD student demonstrates that they can do research	**..a postdoc demonstrates that they can be trusted with a permanent academic position!**

What should you expect?

- Pay - variable, expect *c.* £25–40k (UK, *c.* £
- Contract length - 1–5 years
- Relocation - there aren’t so many postdoc positions available! You may have to relocate..
- Flexible hours, *c.* 35 hours
- Holiday, *c*. 25 days (5 weeks)/year
- Research support: via department (postdoc supervisor), more centrally (UIO, Department of Research Administration)
- IT resources: email, access to relevant journals

What is expected from you?

In addition to your research you may/will need to..

- Supervise undergraduate, Masters and PhD projects
- Teach some undergraduate/Masters classes
- Organise field work (and lab visits abroad)
- Write grant applications
- Establish new research collaborations
- Publish new papers from your postdoc (and any remaining PhD papers!)

Happiness is key: maintaining a work-life balance

- Set and respect your boundaries – embrace the off button!
- Prioritise and use your time wisely
- Balance work with leisure activities (*i.e*. join a gym, social groups *etc.*)
- Make new friends!

Where do I see myself in..

- **.. 5 years time..** most likely doing another postdoc..
- **.. 7 years time..** hopefully with more publications, which will enable me to write a fellowship and take it to a UK institution
- Eventually able to buy a house and settle down!

Final thoughts..

Is doing a postdoc the right career choice for you?

Negatives:

- Uncertainty of numerous temporary contracts
- Personally difficult to ‘settle down’
- Problems with family commitments and the need to be mobile
- Balancing research and teaching commitments

However… I read, learn, generate data and discover new things… and I get paid for it! Isn't that the best job in the world!?