



7th and 8th September 2015

Environmental DNA Working Group Meeting 2015

Funded by the Global Innovation Initiative from the British Council, and run by the Molecular Ecology and Fisheries Genetics Laboratory of Bangor University.

Dear Delegate,

Please find attached the final schedule for the UK's eDNA Working Group Meeting to be held at Bangor University on the 7th and 8th of September 2015. Please see below for the list of participants who selected to give a speed talk, all who registered to do so are included. Please prepare a 10-minute talk (20 minutes for keynote speakers), and send to Mark (email addresses on the right →) by 3rd September. We are very much looking forward to seeing you all at the meeting, and hearing all about your eDNA work.

Many thanks,

The Bangor eDNA team



Programme

Monday 7th September
12.00 - 13.00 Lunch & registration

13.00 - 15.05 Talks

15.05 - 16.00 Coffee & networking

16.00 - 17.15 Talks

19.00 - Dinner

Tuesday 8th September
9.00 - 10.20 Talks

10.20 - 11.00 Coffee & networking

11.00 - 12.00 - Talks

12.00 - 13.00 - Lunch

13.00 - 14.20 Talks

14.20 - 15.00 Coffee

15.00 - 15.50 Talks

15.50 - 17.00 - Wrap up

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Detailed Schedule

Registration will be set up outside the Main Arts Lecture Theatre (see attached maps for directions). All talk sessions are to be held in the Main Arts Lecture Theatre (MALT), and all coffee breaks, lunch and dinner are to be held in Powis Hall, both located in the Main Arts Building at Bangor University. Please note for those who requested parking, this is located at the Ffriddoedd site, a 5 min walk away.

Day/Time	Event	Who
Mon 7th Sept 11.00	Registration opens	All participants
12.00-13.00	Registration & Lunch	All participants
Mon 13.00-13.30 (30 mins)	Welcome by Gary, Mark, Alice & Si. Si to briefly overview the field	Gary/Si/Mark/Alice
Mon 13.30-13.50 (20 mins)	Keynote 1	Jeremy Biggs, Freshwater Habitats Trust: National Volunteer GCN monitoring programme: an update
Mon 13.50-15.05 (75 mins)	Stakeholder Presentations/Discussions (6 x 10 mins each plus 15 mins for questions/discussion)	<i>Chaired by: Kerry Walsh</i> <ol style="list-style-type: none"> 1. Paul Woodcock, JNCC: Opportunities and barriers to using eDNA in UK-wide monitoring for conservation policy 2. Helen Pickett, Severn Trent Water: Monitoring challenges for the water industry – invasive and non-native species 3. Phil Davison, CEFAS: Using eDNA to inform management of an invasive fish 4. David Halfmaerten, Research Institute for Nature and Forest (INBO): Application of eDNA detection in the effective management of invasive American bullfrog 5. Rosetta Blackman, University of Hull: Freshwater macroinvertebrate detection using eDNA 6. Tim Bean, CEFAS: Benthic macrofaunal samples
Mon 15.05-16.00	Tea/Coffee & Networking	All participants
Mon 16.00-17.15 (75 mins)	Stakeholder Presentations/Discussion continued (4 x speed talks 10 mins each, 10 minutes for questions, 25 mins discussion on future stakeholder priorities)	<i>Chaired by: Simon Creer</i> <ol style="list-style-type: none"> 7. Bernd Hänfling, University of Hull: eDNA based meta-barcoding as a tool for monitoring of fish populations in large lakes 8. Rein Brys, Research Institute for Nature and Forest (INBO): Efficiency of metabarcoding in detecting freshwater fish communities: linking molecular data with effective abundances of whole lake manipulations 9. Neil Boonham, Food and Environmental Research Agency (FERA): Benthic diatom profiling using molecular methods - comparison

		with light microscopy 10. Martyn Kelly, Bowburn Consultancy: Comparison of variability in light microscope and NGS analyses of benthic diatoms
Mon 19.00-late	Dinner & CASH BAR , followed by Band	Those who registered, see attached delegate list
Tues 8th Sept 09.00-09.20 (20 mins)	Keynote 2	Kristy Deiner, Notre Dame: Glass half full or half empty?
09.20-10.20 (60 mins)	Speed Talks x 5 (10 mins each & 2)	<i>Chaired by: Gary Carvalho</i> 1. Micaela H�ellstrom, University of Copenhagen, Centre of Geogenetics: Improving eDNA methods for high throughput surveys in aquatic ecosystems; the route from lake/sea water to meta-population analyses 2. Laura Gargan, University College Dublin: Utilising eDNA for species detection at seamounts 3. Emre Keskin, Evolutionary Genetics Laboratory, Turkey: Detection of invasive/endangered aquatic species using eDNA / Determination of Trophic Networks in Freshwater Systems using eDNA 4. Alice Evans, Bangor University: Environmental DNA for Rapid Assessment of Biodiversity 5. Caitlin Potter, Bangor University: Using metagenomics to understand climate-driven carbon release from Welsh peatlands
10.20-11.00	Tea/Coffee	All participants
11.00-12.00 (60 mins)	Speed Talks x 5 (10 mins each & 2)	<i>Chaired by: Alice Evans</i> 6. Iliana Bista, Bangor University: Lake biomonitoring using environmental DNA 7. Si Creer, Bangor University: Ecological signatures derived from UK Estuarine Ecosystems 8. Andrew Buxton, DICE (University of Kent): GCN eDNA detection limits 9. Ben Price, The Natural History Museum London: From Dinosaurs to DNA: The NHM and the freshwater genomic library 10. Amanda Arnold, QMUL: Biomass, biodiversity and molecular operational taxonomic units: some preliminary data from freshwater kick samples
12.00-13.00	Lunch	All participants
13.00-14.24 (84 mins)	Speed Talks x 7 (10 mins each & 2)	<i>Chaired by: Mark de Bruyn</i> 11. Gill Murray-Dickson, Royal Zoological Society of Scotland: Searching for snails: Using eDNA to find a rare and endangered species.

		<p>12. Chloe Robinson, Swansea University: eDNA as a tool for detecting and monitoring aquatic invasive species</p> <p>13. Alex Aitken, The Natural History Museum London: Aquatic eDNA Collection and Molecular Methodologies at The Natural History Museum; the Good the Bad and the Unknown</p> <p>14. Joe Jianlong Li, University of Hull: Capture of environmental DNA affect detection of fish ponds biodiversity based on various length metabarcoders</p> <p>15. Judith Bakker, University of Salford: Sharkwaters: A novel environmental DNA approach to elasmobranch biodiversity assessment and monitoring</p> <p>16. Stefano Mariani, University of Salford: TBC</p> <p>17. Marc Rius, University of Southampton: Applications of environmental DNA to the study of marine biological invasions</p>
14.24-15.00	Tea/Coffee	All participants
15.00-15.48 (48 mins)	Speed Talks x 4 (10 mins each & 2)	<p><i>Chaired by: Simon Creer</i></p> <p>18. Oliver Smith, University of Warwick: Ancient DNA from marine sediments: making sense of metagenomic data</p> <p>19. Paul Barber, UCLA: Standardized surveys of coral reef biodiversity</p> <p>20. Krystle Chavarria, UCLA: Biogeography of the Marine Bacterial Genus, <i>Salinispora</i></p> <p>21. Melinda Wheelock, UCLA: Detecting non-indigenous invertebrate species in coastal California, USA.</p>
15.48-17.00 (72 mins)	Wrap up & future directions	Gary, Mark, Si, Alice - open for comments/discussion from participants

Attendance Details

Venue & getting here

The meeting will be held on the Bangor University Campus, with the Main Arts Lecture Theatre as the plenary room, and Powis Hall for lunch and dinner. Both are located in the Main Arts Building. Directions and a campus map can be found here: <http://www.bangor.ac.uk/tour/LocationMap.pdf>

If you are travelling to the university by car, you should have received your parking permit by now. Please display this permit in your car window when finding a parking space. We advise you to park at the Ffriddoedd Site, and walk to the Main Arts Centre, around a 5 min walk.

Accommodation

Unfortunately the grant covering the cost of the meeting will not extend to accommodation, so we asked delegates **to book their own**. You have hopefully booked your own accommodation by now through Bangor University at the university's Main University residential site on Ffriddoedd Road (£37.00) <http://www.bangor.ac.uk/tour/ffriddoedd-site.php.en> and returned it to conferences@bangor.ac.uk, or you can book your own at local BnBs or hotels (see suggested list below).

The Garden Hotel (£43-49 pp, 7 min walk to campus) - <http://www.gardenhotel.co.uk/rooms.html>

Adelpha (£110 8 min walk) - <http://www.adelpha.co.uk/>

Eryl Môr (£55 pp, 8 min walk to campus) - <http://www.erylmorhotel.co.uk/>

Travel Lodge (£55, 10 min taxi to campus) - <http://www.travelodge.co.uk/hotels/106/Bangor-hotel>

Premier Inn (£49, 10 min taxi to campus) - <http://www.premierinn.com/en/hotel/BANBRI/bangor?cmp=GLBC>

Victoria Hotel (enquire for price, 10 min taxi to campus) - <http://www.vicmenai.com/accomodation.html>

Ashbrook Boutique Bed and Breakfast (£110, 5 min taxi) - <http://ashbrookbangor.co.uk/rooms/2015042>

Talks

It would be great to get an update on current eDNA projects that are planned, ongoing or completed, and therefore all delegates were invited to present a "speed-talk". Please see above for those who registered to do so. These do not need to be polished talks on final results, but rather to hear about projects that are in the planning or early stages as well as those that are complete or near completion. Speed-talks will be 10 minutes plus LIMITED time for questions, please see above.

Posters

We don't plan to have a dedicated poster session, but if there is an express interest then we can make poster boards available.

Conference dinner & refreshments

A grant from the Global Innovation Initiative will be used to fund refreshments, lunches and the conference dinner. The conference dinner will be held on the Monday evening in Powis Hall. **There is a CASH BAR, so please bring CASH.** Please see attached delegates list for your chosen preference for conference dinner and dietary requirements you selected on the registration form.