

# DNA Working Group Meeting

26 & 27 November 2018

University of Derby, Enterprise Centre, Bridge Street, Derby, DE1 3LD United Kingdom

Programme – day 1		
08:30	Registration opens	
<b>Session 1 Introductory session - Setting the scene</b> <b>Chair: Michael Sweet</b>		
09:30	Welcome & introduction	Michael Sweet
09:35	Introduction to the UK Research Excellence Framework	Si Creer
09:50	NERC Omics	Peter Kille
10:05	Developing a DEFRA Centre of Excellence	Andy Nisbet
10:20	Q&A	
10:30-11:05	Coffee	
<b>Session 2 Marine</b> <b>Chair: Iveta Matejusova</b>		
11:05	Harnessing natural samplers for DNA-based environmental monitoring: a shrimp's tale	Stefano Mariani
11:20	How long does eDNA last in the marine environment?	Rupert Collins
11:35	Epiplastic communities in surface waters of the South Atlantic and Austral Oceans	Ana Luzi de F. Lacerda
11:50	Q&A	
<b>Session 3 Speed Talks</b> <b>Chair: Quentin Mauvisseau</b>		
12:00	<i>Detection of Mnemiopsis leidyi in UK coastal waters using an environmental DNA approach</i>	<i>Phil Davison</i>
12:05	<i>Know your enemy: using DNA metabarcoding to investigate the role of diet and host microbial communities in invasive-native species interactions</i>	<i>Samuel Browett</i>
12:10	<i>Environmental DNA for the management of fish assemblages in Brazilian rivers</i>	<i>Naiara Sales</i>
12:15	<i>Landscape scale analysis on fish biodiversity and distribution in 40 interconnected lakes in Northern Sweden based on GIS and verified eDNA analysis"</i>	<i>Micaela Hellström</i>
12:20	<i>The distribution and diet of Sheffield's otters</i>	<i>Deborah Dawson</i>
12:25 - 13:15	Lunch	
13:15 -13:45	Posters	

## Programme – day 1 contd.

### Session 4 INNS Chair: Lori Lawson Handley

13:45	Environmental DNA (eDNA) based monitoring: efficient detection and quantification of two invasive Ponto Caspian gobies in lotic systems	Rein Brys
14:00	What /are/ you measuring?: lessons from synthetic control sequences	Leighton Pritchard
14:15	Using environmental DNA to reveal the wheres, whens and whys of marine invasive species	Luke Holman
14:30	Q&A	

### Session 5 Terrestrial Chair: Andy Nisbet

14:40	Environmental DNA metabarcoding as a tool to detect and monitor elusive and common mammals in the United Kingdom	Allan McDevitt
14:55	Soil fungal and bacterial communities: The paradox of soil pH	Andy Taylor
15:10	Diversity of Phytophthora species in public parks and gardens as revealed by metabarcoding	Sarah Green
15:25	Q&A	
<b>15:35-16:10</b>	Break	

### Session 6 Fish Chair: Bernd Hänfling

16:10	Draining-down the lakes: evaluating performances of eDNA metabarcoding protocols for fish biodiversity and abundance assessment	Cristina Di Muri
16:25	Altitudinal profile of fish communities of a fragmented European river	Deiene Rodriguez
16:40	Combining citizen science with eDNA metabarcoding for fish surveys in a SSSI	Kat Bruce
16:55	Q&A	
<b>17:05</b>	Day 1 close Dinner At <a href="#">Masa</a>	

## Programme – day 2

<b>09:00</b>	Introduction day 2 - News from DNAqua-net: a framework to communicate readiness-for-use of PCR-based species detection tests'	Kat Bruce
<b>Session 7 Macro-invertebrates</b> <b>Chair: Kerry Walsh</b>		
09:20	Metabarcoding macroinvertebrate communities for ecological assessment in rivers: a cautionary tale	Rosetta Blackman
09:35	Aquatic insect detection through eDNA and kicknet: Concordance on species richness but not necessary composition	Elvira Mächler
09:50	Improving eDNA based predictions of species occurrence: a site-occupancy approach	Mark Bulling
10:05	Results for the NERC highlight topic grant, LOFRESH	Mathew Seymour
10:20	Q&A	
10:30- 11:05	Coffee	
<b>Session 8 Standards and Innovation</b> <b>Chair: Si Creer</b>		
11:05	Extracting quantitative information from eDNA and bulk arthropod samples	Douglas Yu
11:20	Evaluation of endpoint PCR, droplet digital PCR and metabarcoding to quantify eDNA of fish within Alpine rivers	Dominik Kirschner
11:35	Is Linnaean taxonomy a help or hindrance when developing molecular approaches to phytobenthos assessment in rivers?	Martyn Kelly
11:50	Q&A	
<b>Session 9 Speed Talks</b> <b>Chair: Mark Bulling</b>		
12:00	<i>Species-level effects of grass pollen on human health: integrating molecular genetics, epidemiology and bioaerosol models</i>	<i>Caitlin Potter</i>
12:05	<i>Early detection of an emerging invasive species: eDNA monitoring of a parthenogenetic crayfish in freshwater systems</i>	<i>Quentin Mauvisseau</i>
12:10	<i>Plant health testing and natural ecosystem surveillance; Phytophthora eDNA barcoding as a case study</i>	<i>David Cooke</i>
12:15	<i>Mind the gap: what's missing from our reference databases?</i>	<i>Ben Price</i>
12:20	<i>A comparison of environmental DNA sampling with traditional fyke net surveys to monitor European eels.</i>	<i>Laura Weldon</i>
12:25- 13:20	Lunch	

## Programme – day 2 contd.

### Session 10 Ponds Chair: Lynsey Harper + Helen Rees

13:20	Assessing the impact of the threatened crucian carp ( <i>Carassius carassius</i> ) on pond invertebrate diversity - a comparison of conventional and molecular tools	Lynsey Harper
13:35	OTU clustering using a label propagation algorithm	Romain Derelle
13:50	Great crested newts strategic licensing project: eDNA informing a landscape-approach	Benjamin Payne
14:05	Q&A	
<b>14:15</b>	Closing comments	Mike Sweet
<b>Technical groups break out</b>		
14:30-16:00		