



# In Otter News...

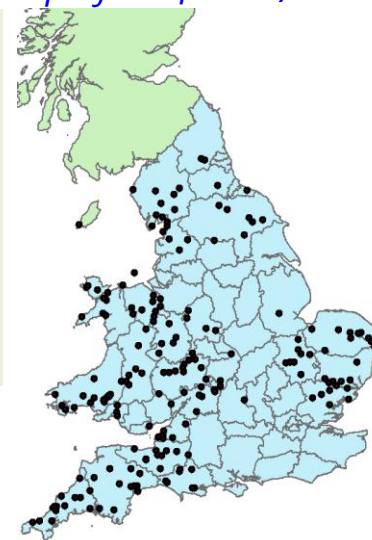


Welcome to the Cardiff University Otter project's (CUOP) third annual newsletter. 2013 saw a whole range of new collaborations, research directions and a fair bit of media attention - 2014 promises to be an exciting year with new results to come on disease, diet and reproductive health. Check our website for more information - [www.otterproject.cf.ac.uk/](http://www.otterproject.cf.ac.uk/)

## Otters received in 2013

In 2013 we received 206 otters (2306 in total to date) – numbers are remaining stable around 200 per year. Most came from the South West and Wales (see right), reflecting otter densities. Interestingly we received our first ever otter from the Isle of Man – otters aren't thought to be resident on the island, but several (live) sightings in 2013 suggest long distance swimming.

The breakdown remains similar to previous years, with about 3:2 male to female, and about 50% adult. Most (85.4%) were road kill (but bear in mind that we're more likely to find roadkill than otters that die from other causes). More detail about all the otters can be found in the [annual report](#) on our website.



Otters received in 2013

## Otters from Scotland

Thanks to funding from the **IOSF** we are expanding into Scotland! Otters from Scotland have not routinely been post mortemed for 20+ years, so it will be really interesting to compare their health and contaminant burden with those from England and Wales.



## Contaminants and reproductive health



In collaboration with **CHEMTrust**, we published a report (**Kean et al., 2013**) which investigated otter health and the levels of persistent organic pollutants (POPs). Findings were mixed, but raised concern about reproductive abnormalities in male otters in particular. Otter baculum (penis bone) weights have been decreasing over time. This worrying trend is now being investigated further by Professional Training Year (PTY) student Robert Elmer. Rob is working with researchers at Heath Hospital, using CT scanning to assess whether the change reflects size, or bone density. Watch this space for results next year...



## Parasites and disease

Last year, we reported that parasite *Toxoplasma gondii* is common and widespread in otters, but we don't know how genetically diverse they are, and whether this reflects their diversity in humans (c.30% of the human population are infected, often without knowing). Student Heather Wood is working to extract parasite DNA from otter tissues to see if the parasites occur in some tissues more than others

## Diet

Eel populations have declined massively in recent decades – and this is having a knock on effect on otters. Eels are a favoured prey item, but our research has shown that otters are now eating less eels, and that otter body condition is linked to the proportion of eel in the diet. Rose Moorhouse-Gann is currently writing up this analysis for publication.

A huge THANK YOU to our funders, finders and volunteers

If you are interested in volunteering or would like any further information, please contact Heather or Rob at email [woodh2@cf.ac.uk](mailto:woodh2@cf.ac.uk) or [elmerr@cf.ac.uk](mailto:elmerr@cf.ac.uk). You can also find us on Facebook and follow us on twitter @Otter\_Project.



**Forthcoming appearances in 2014:** CUOP will have an exhibit with Project Splatter in the **Natural History Museum** during **Universities Week** (June 9-15) with a range of exciting interactive displays and activities.

Rose & Willow will be appearing in an episode of **Rhys Jones' Wildlife Patrol** on BBC1 in Spring of this year where they perform a post mortem on an otter that Rhys found dead.

**Funding:** A difficult year. Having supported us for many years, the Environment Agency has withdrawn funding due to government funding cuts. They remain very supportive, coordinating otter collections and deliveries all over England. Natural Resources Wales have provided funding for 2013-14, and we were delighted to receive an anonymous donation of £10,000 in response to our plea for help on Farming Today. This will allow us to continue through 2014, but future commitments remain unclear. IOSF's funding for Scottish otters is fantastic, and we hope will open up new opportunities. We are applying to a range of potential funders, and are optimistic for the future.

**Project Splatter:** 2013 saw the birth of a new citizen science scheme - **Project Splatter**. This new research effort aims to quantify and map wildlife roadkill across the UK using information reported by members of the public over social media networks such as Twitter. The Project hopes to use this collated data to reduce the impact of roads on UK wildlife.



**Team otter:** Liz Chadwick and Eleanor Kean have both returned from maternity leave (welcome to Amy, and Dylan respectively!), and are running the project with the aid of Rob Elmer and Heather Wood. Rose Moorhouse-Gann has started a PhD at Cardiff (off to Mauritius studying tortoises), Willow Smallbone has left the project to finish her degree course, and Ellie Sherrard Smith finished her PhD on otter parasites last spring (well done Ellie - now working for Public Health England).

**In the public eye 2013...** The CHEMTrust report generated loads of media interest, leading to interviews on BBC Radio 1 Wales, Irish Radio, and the Voice of Russia. Print news coverage included such lurid titles as 'Male sex in otter shock' (The Daily Mail) and 'Fears for fellas as otter organs shrink' (The Sun).



Rose appeared on BBC1's Countryfile, and Liz and Willow did a post mortem while being interviewed for BBC Radio 4's Farming Today (right). Team otter held a stall at the **BBC Summer of Wildlife Event** (left), with activities including footprint finding & parasite identification. As part of **National Science and Engineering Week**, Willow ran workshops where children examined adaptations of the otter to their environment. A post-mortem and interview with Liz by **Understanding Animal Research** were used to produce two short **videos** about our work.



**Conferences & meetings:** Rose attended the **WILDCRU** conference in Oxford in March and presented the diverse range of research that the project carries out. Willow attended the **British Society for Parasitology** conference in Bristol in April, and presented a talk on her findings on *Toxoplasma gondii* infection. Rose and Willow both attended the **European Otter Workshop** in Ireland in April. Rose talked about diet as determined by examination of stomach contents, and Willow about seroprevalence of *Toxoplasma gondii* – both presented a poster giving an overview of the Otter Project. Rose attended a **WILDCOMS** partners meeting in London, and Liz a stakeholder meeting in Edinburgh.

**Recent publications: Kean, Lyons, & Chadwick 2013.** Persistent organic pollutants and indicators of otter health. CHEMTrust report. **Sherrard-Smith, Chadwick & Cable 2013** Climatic variables are associated with the prevalence of biliary trematodes in otters. *IJP*, 43 (9), 729-737. **Walker et al., 2013.** Liver concentrations of flame retardants in Eurasian otters (*Lutra lutra*) collected from Britain in 2010 & 2011: a PBMS Report.

**IN PRESS: Sherrard Smith, Chadwick, & Cable.** The impact of introduced hosts on parasite transmission: opisthorchiid infections in American mink (*Neovison vison*). *Biological Invasions*. **Stanton et al.** Contrasting genetic structure of the Eurasian otter (*Lutra lutra*) across a latitudinal divide. *J of Mammalogy*.