

# Uncertainties Workshop

## Workshop: environmental effects of chronic low level radioactive contamination



### Aim

By bringing together scientists involved in environmental and/or laboratory studies of radiation effects, allied ecological fields and radiation protection specialists we aimed to:

- discuss field based studies of effects of radiation at low chronic dose rates
- investigate the available radiation effects data for low dose rates and consider how these can be incorporated into improved radiation protection systems;
- discuss current methods for deriving numerical dose rate benchmarks for application in environmental assessments;
- consider uncertainties in dose estimation including measurements in the field
- start to understand the basis behind some of the contrasting results and interpretations on the effects of radiation in the environment;
- agree future research priorities and mechanisms whereby data can be shared.
- gain a greater understanding of the impacts of radiation on wildlife

### List of participants

### Workshop conclusions

## Agenda and links to presentations

### Monday 4<sup>th</sup> February 2013

Presentations on field based studies on radiation effects

#### Chernobyl

- Internal and external doses and the effects of low-dose radiation - Timothy A. Mousseau
- Biological effects of chronic exposure to radionuclides in plant populations (Chernobyl + Komi. S. Urals) - Stanislav Geraskin

#### Fukushima

- Radioactive contamination of nest materials due to the Fukushima nuclear accident in passerine birds - Shin Matsui
- Fukushima-derived radionuclide exposure and effects on birds and frogs - Christelle Adam-Guillermin
- From molecules to men: Effects of low-dose radiation at Chernobyl and Fukushima - A Møller

#### Others (Mayak., field irradiation)

- Lessons learned from the small mammal field irradiator studies in Canada - Steve Mihok
- Issues concerning the measurement of Radioadaptation of small mammals in the East Urals radioactive trace - Elena Grigorkina

### Tuesday 5<sup>th</sup> February 2013

- Radiobiological evidences for effects of chronic low doses on wildlife, with a particular focus on field data – Almudena Real
- Application of screening values – Jacqueline Garnier Laplace
- Uncertainties in measurement of radiation doses to biota in the field – Jordi Vives i Batlle
- Comparison between data from lab and field - Dave Spurgeon

Presentations were followed by breakout groups to discuss key uncertainties and what are the key research priorities.  
(Chairs : Paul Whitehouse – EA & Claus Svendsen – CEH)

### Wednesday 6<sup>th</sup> February 2013

- Breakout sessions and general discussion

## Publication lists of some participants

CEH

IRSN

Steve Mihok

Stanislav Geraskin

Timothy A. Mousseau (& Moller)

Anders Moller - all pdfs can be found at [http://cricket.biol.sc.edu/chernobyl/Chernobyl\\_Research\\_Initiative/Publications.html](http://cricket.biol.sc.edu/chernobyl/Chernobyl_Research_Initiative/Publications.html)