

# DR MELANIE CLAPHAM

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## EDUCATION

2009 – 2012	<b>Lancaster University, England</b>	Ph.D. Conservation Biology
2005 – 2008	<b>University of Central Lancashire, England</b>	B.Sc. (Honours) Animal Conservation Science

## RESEARCH EXPERIENCE

<b>Postdoctoral Research Fellow</b> Assessing the social and spatial behaviour of brown bears in coastal British Columbia using non-invasive techniques	<b>University of Victoria</b> 2015-present
<b>Postdoctoral research assistant</b> Publishing doctoral research and further data collection on the scent marking behaviour of wild brown bears	<b>Central Queensland University &amp; University of Cumbria</b> 2013-2014
<b>Ph.D. Candidate</b> Chemical signalling in brown bears <i>Ursus arctos</i> : an assessment of scent marking strategies and social function. Supervised by Prof Owen Nevin, Dr Andrew Ramsey & Prof Frank Rosell.	<b>Lancaster University</b> 2009-2012
<b>Research Team Member</b> Connectivity in brown bear populations: an assessment of gene flow in coastal British Columbia. Contracted research project.	<b>University of Cumbria</b> 2012-ongoing
<b>Research Team Member</b> Investigating the presence of Himalayan brown bears <i>Ursus arctos isabellinus</i> in Ile-Alatau National Park, Kazakhstan	<b>University of Cumbria</b> 2012
<b>Independent Research Project</b> Preliminary assessment of Banhavgarh National Park, India as a field site to conduct behavioural research on tigers <i>Panthera tigris</i>	<b>University of Cumbria</b> 2009-2010
<b>Graduate Research Assistant</b> Atlantic oakwood soil carbon storage project; Atlantic salmon stock assessment; red squirrel ethical exclusion project & analysis and identification of European small mammal hair.	<b>University of Cumbria</b> 2008

## SCIENTIFIC PAPERS

**Clapham, M** & Kitchin, J (2016) Social play in wild brown bears of varying age-sex class. *Acta Ethologica*, 19 (3): 181-188.

**Clapham, M.**, Nevin, O. T., Ramsey, A. D. and Rosell, F. (2014) Scent marking investment and marking motor patterns are affected by the age and sex of wild brown bears. *Animal Behaviour*, 94: 107-116.

**Clapham, M.**, Nevin, O. T., Ramsey, A. D. and Rosell, F. (2013) The function of strategic tree selectivity in the chemical signalling of brown bears. *Animal Behaviour*, 85 (6): 1351-1357.

**Clapham, M.**, Nevin, O. T., Ramsey, A. D. and Rosell, F. (2012) A hypothetico-deductive approach to assessing the social function of chemical signalling in a non-territorial solitary carnivore. *PLoS ONE* 7(4): e35404

**Clapham, M.**, Nevin, O. T. & Darimont, C. T. Assessing the scent marking frequencies of wild brown bears in response to varying population density, food availability and habitat characteristics. In prep for submission to *Animal Ecology*.

**Clapham, M.** Darimont, C. T. & Rosell, F. Preliminary chemical analysis of brown bear cutaneous scent. In prep for submission to *Journal of Zoology*.

Rosell F., Owen M., **Clapham M.**, Tinnesand H. V., Swaisgood R. R., Swenson J. E. & Zedrosser, A. Chemical communication in bears (Ursidae). In prep for submission to *Mammal Review*.

## TECHNICAL REPORTS

**Clapham, M.** and Nevin, O.T. (2009) A preliminary stock assessment and investigation of mortality sources of Atlantic salmon in the River Eden drainage. Technical Report to the Solway Haaf Netters Atlantic Salmon Conservation Trust.

## RESEARCH GRANTS

- Mitacs Elevate Fellowship – 2015-2017 - \$100,000 (stipend) & \$15,000 (research funding)
- Ph.D. Studentship - 2009-2012 - £36,000 (stipend) & £12,000 (tuition fees) - University of Cumbria through Lancaster University
- Faculty of Arts, Business and Science Postgraduate Research Fund 2011 - £1,960 (fieldwork travel and conference attendance)
- Faculty of Arts, Business and Science Postgraduate Research Fund 2012 - £2,229 (conference attendance and publication costs)
- In-kind contribution – Knight Inlet Lodge (field site base) Field and logistical support, field equipment & flights in Canada - \$106,450 (ongoing support)

## PRESENTATIONS AT SCIENTIFIC CONFERENCES

Rosell F., **Clapham M.**, Owen M., Swaisgood R. R., Swenson J. E. & Zedrosser, A. (2016) Chemical communication in bears. 24<sup>th</sup> International Conference on Bear Research and Management, Anchorage, Alaska.

**Clapham, M.**, Nevin, O.T., Ramsay, A.D. & Rosell, F. (2013) Assessing the scent marking behaviour of wild brown bears; an exploration of time and energy investment, motor patterns and age-related development. 22<sup>nd</sup> International Conference on Bear Research and Management, Provo, Utah.

**Clapham, M.**, Nevin, O.T., Ramsay, A.D. & Rosell, F. (2013) Food availability affects the scent marking frequencies of wild brown bears. 22<sup>nd</sup> International Conference on Bear Research and Management, Provo, Utah.

**Clapham, M.**, Nevin, O.T., Ramsay, A.D. & Rosell, F. (2012) Using camera traps to study behaviour in wild populations: a case study of the brown bear *Ursus arctos*. Invited symposium presentation at the 3<sup>rd</sup> European Congress on Conservation Biology (ECCB), Glasgow, Scotland.

**Clapham, M.**, Nevin, O. T., Ramsay, A.D. & Rosell, F. (2012) Using Markov Chain Analysis to Assess Stereotyped Scent Marking Behaviour in Wild Brown Bears. ISBE, Lund, Sweden.

**Clapham, M.,** Nevin, O. T., Ramsay, A.D. & Rosell, F. (2011) Inter-sexual and inter-seasonal differences in the chemical signalling strategies of brown bears. 20th International Conference on Bear Research & Management, Ottawa, Canada.

**Clapham, M.,** Nevin, O. T., Ramsey, A. D. and Rosell, F. (2010) Preliminary findings assessing the olfactory communication strategies of brown bears. 19<sup>th</sup> International Conference on Bear Research and Management, Tbilisi, Georgia.

**Clapham, M.,** Nevin, O. T., Sinclair, B. and Ramsey, A. (2009) Connectivity in brown bear populations: an assessment of gene flow in coastal British Columbia. 2<sup>nd</sup> European Congress of Conservation Biology (ECCB), Prague, Czech Republic.

## **TEACHING EXPERIENCE**

### **Part-time Lecturer**

**University of Cumbria (2009-2012)**

**M.Sc. level** - Module: Conservation Biology

**B.Sc. level** - Modules: Research Methods

Behavioural Applications to Conservation

Biodiversity Monitoring

### **Part-time Demonstrator**

**University of Cumbria (2009-2011)**

Modules: Biodiversity (selected dates 2009-2011)

Applied Field Studies (2-week field course, Bandhavgarh National Park, India, 2010)

## **PROFESSIONAL MEMBERSHIPS**

Society for Conservation Biology (SCB)

The International Bear Research and Management Association (IBA)

British Ecological Society (BES)

Canadian Society for Ecology and Evolution (CSEE)

## **PROFESSIONAL SKILLS**

Experience with:

Non-invasive ecological survey methods inc. camera trapping & genetic tagging

VHF telemetry equipment

Genetic data analysis programs

Training & certificates:

Basic firearms, Outdoor first aid, SVOP, MED A3, ROC-M, CBVA full bear guide

## **REFERENCES**

**Prof. Owen T Nevin** (Ph.D. supervisor)

Associate Vice-Chancellor

CQUniversity

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Gladstone, 4680

Australia

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**Dr. Chris T Darimont** (Postdoc supervisor)

Associate Professor

Department of Geography

University of Victoria

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