

CURRENT STATUS

- NERC-funded Doctoral Candidate Department of Zoology, University of Cambridge, Cambridge, UK, 2015-; supervised by Professor Andrew Balmford (Zoology, Cambridge) and Dr Pete Scarborough (Public Health, Oxford)
- Sustainability Developer, EntoTrust
- Member, Insects and People of the Indian Ocean (IPSIO) Insect Farming Working Group

PEER-REVIEWED PUBLICATIONS

2018

- Jucker, T., Wintle, B., Shackelford, G., Bocquillon, P., Geffert, J. L., Kasoar, T., Jovacs, E., Mumby, H. S., Orland, C., Schleicher, J., Tew, E., Zabala, A., Amano, T., Bell, A., Bongalov, B., Chambers, J. M., Corrigan, C., Durán, A. P., Duvic-Paoli, L.-A., Emilson, C., da Silva, J. F., Garnett, E. E., Green, E. J., Guth, M. K., Hackett-Pain, A., Hinsley, A., Igea, J., Kunz, M., Luke, S. H., Lynam, W., Martin, P. A., Nunes, M. H., Ockendon, N., Pavitt, A., **Payne, C. L. R.**, Plutshack, V., Rademacher, T., Robertson, R. J., Rose, D. C., Serban, A., Simmons, B. I., Szkokan-Emilson, E. J., Tayleur, C., Wordley, C. and Mukherjee, N. (2018) Ten-year assessment of the 100 priority questions for global biodiversity conservation. *Conservation Biology*. 14th June 2018.
- Payne C L R (2018) Can edible insects really reduce our ecological footprint and save wild species? *Ecological Citizen* 2(1)

2017

- Payne C L R and Itterbeeck J V I (2017) Ecosystem services from edible insects in agricultural systems: A review. *Insects*, 8(1):24
- Payne C L R and Evans J (2017) Nested Houses: Domestication dynamics of human-wasp relations in contemporary rural Japan. *Journal of Ethnobiology and Ethnomedicine*, 13:13

2016

- Payne, C. L. R., Dobermann, D., Forkes, A., House, J., Josephs, J., McBride, A., ... & Soares, S. (2016). Insects as food and feed: European perspectives on recent research and future priorities. *Journal of Insects as Food and Feed*.
- Müller, A., Evans, J., Payne, C. L. R., & Roberts, R. (2016). Entomophagy and Power. *Journal of Insects as Food and Feed*, 2(2), 121-136.

Dunkel F and Payne C L R (2016) Chapter 1. Introduction to edible insects, in: Dossey A T, Morales-Ramos J and Rojas G

- (Ed.) *Insects as a Sustainable Food Ingredient*, Elsevier
- Payne C L R, Scarborough P, Cobiac L (2016) Do low-carbon emissions diets lead to higher nutritional quality and positive health outcomes? A systematic review of the literature. *Public Health Nutrition* doi:10.1017/S1368980016000495
- Payne C L R, Fruth B, Mato B, (2016) Entomophagy in the area surrounding LuiKotale, Salonga National Park, Democratic Republic of Congo, *African Study Monographs* 37(1):1-12
- Payne, C.L.R., Scarborough, P., Rayner, M., Nonaka, K. (2016) A systematic review of nutrient composition data available for twelve commercially available edible insects, and comparison with reference values, *Trends in Food Science & Technology* 47:69-77, doi: 10.1016/j.tifs.2015.10.012.

2015

- Payne, C L R, Scarborough, P, Rayner, M, Nonaka, K (2015) Are edible insects more or less 'healthy' than commonly consumed meats? A comparison using two nutrient profiling models developed to combat over- and undernutrition, *European Journal of Clinical Nutrition*, advance online publication 16 September 2015; doi: 10.1038/ejcn.2015.149
- Payne, C. L. R., Umemura, M., Dube, S., Azuma, A., Takenaka C., & Nonaka, K. (2015). The mineral composition of five insects as sold for human consumption in Southern Africa. *African Journal of Biotechnology*, 14(31), 2443-2448.
- Payne, C L R (2015) Perception and Practice of Entomophagy in Central Rural Japan, *The Transactions of the Asiatic Society of Japan*, fifth series, volume 7, 139-149
- Payne, C L R (2015) The 'domestication' of edible insects, *Seibutsukagaku (Journal of Biological Sciences)* 66(3):166-176 (In Japanese)
- Payne, C L R (2015) A report from the first international conference on entomophagy, *Seibutsukagaku (Journal of Biological Sciences)* 66(3):166-176 (In Japanese)

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EDUCATION

University of Cambridge
Cambridge, UK 2007-2009
Archaeology &
Anthropology MA Cantab.
Part I: Class I
Part IIA: Class I
Part IIB: Class I

Tokyo School of
the Japanese Language
Shibuya, Tokyo 2009-2010
Japanese Language
Proficiency Test N3: Pass

Rikkyo University
Ikebukuro, Tokyo 2013-2015
Postgraduate non-degree
research student
(MEXT Government
scholarship)



NATIONALITY

British

PEER-REVIEWED PUBLICATIONS (Continued from previous page)

2014

- Payne, C L R (2014) Wild harvesting declines as pesticides and imports rise: The collection and consumption of insects in contemporary rural Japan, *Journal of Insects as Food and Feed*
- Webster, T H, McGrew, W C, Marchant, L F, Payne, C L R, and Hunt, K D (2014) Selective insectivory at Toro-Semliki, Uganda: Comparative analyses suggest no 'savanna' chimpanzee pattern *Journal of Human Evolution* 71:20-27

Before 2014

- Scarborough, P, Payne, C L R, Agu, C G, Kaur, A, Mizdrak, A, Rayner, M, Halford, J C G, and Boyland, E (2013) How important is the choice of the nutrient profile model used to regulate broadcast advertising of foods to children? A comparison using a targeted data set, *European Journal of Clinical Nutrition* (2013) 67, 815–820
- McGrew, W C, Marchant, L F, Payne, C L R, Webster, T H, and Hunt, K D (2010). Chimpanzees at Semliki Ignore Oil Palms. *Pan Africa News* 17(2): 19-21.
- Payne, C L R, Webster, T H and Hunt, K D (2008) Coprophagy by the Semi-Habituated Chimpanzees of Semliki, Uganda, *Pan Africa News* 15(2)

In press / review / revision

- Payne C L R, Umemura M, Dube S, Azuma A, Takenaka C & Nonaka K (In prep) The mineral content of edible wasp (*Vespa flaviceps*) larvae differs by rearing practice and location, but not caste.

SELECTED TALKS

- Payne, C L R (2018) Six-legged snacks: changing food systems in a changing climate, *Postcolonial Ecologies*, Cambridge, UK
- Payne, C L R (2018) The nutritional role of insects as food, *Insects to Feed the World* conference, Wuhan, China (Plenary)
- Payne, C L R, Evans, J., Müller, A., & Roberts, R (2016) The state of research on insects as food: A systematic review of the literature, *International Congress of Entomology*, Orlando, Florida, USA
- Payne C L R (2015) Are insects 'healthy'? A systematic review of the evidence. Annual Meeting of the Japanese Society of Environmental Entomology and Zoology (Invited seminar)
- Payne C L R (2015) Edible insects on supermarket shelves: The public health implications of one alternative protein source, Departmental seminar, Nuffield Department of Population Health, University of Oxford (Invited seminar)
- Payne C L R (2015) Profitable pests: The role of edible insects in traditional farming systems Oxford Food Security Forum annual conference
- Payne C L R (2014) Entomophagy in contemporary Japan: Imported insects compensate for a decline in wild foraging, *Insects to Feed the World* conference, Wageningen University and FAO (organisers)
- Payne C L R (2014) Wild harvesting and food security: A case study on edible wasp and hornet collection in rural Japan, Ox Food Security Forum annual conference
- Payne C L R (2014) Is there a future for wasp husbandry? Celebrating the wasp harvest in central rural Japan, Sustainable use of edible insects for human consumption, CIAS Joint Research Seminar (Invited seminar)
- Payne C L R and Nonaka K (2014) Cooperative hunting for wasps, opportunistic collection of grasshoppers: The behavioural ecology of insect consumption in rural Japan, AAPA Annual meeting, Calgary

GRANTS & AWARDS FOR RESEARCH ACTIVITIES

- Vice-Chancellor's Award for Public Engagement with Research, University of Cambridge £1000 (July 2018)
- Prize for best poster, Department of Zoology Departmental Seminar Day, University of Cambridge (April 2018)
- Public Engagement Starter fund £1079 (December 2017)
- Bedford Fund + Fieldwork fund £3350 (May 2017)
- Experiment.com crowdfunding \$3100 (March 2017)
- Barilla Center for Food and Nutrition €8000 (December 2016)
- NERC DTP Scholarship £10000+ (Oct 2015 – March 2019)
- Vice Chancellor's Award (Oct 2015 – March 2019)
- GB Sasakawa Foundation Small Grant £1800 (November 2014)
- Daiwa Foundation Small Grant £3000 (June 2014)
- MEXT government scholarship £19000 (April 2012)
- Daiwa scholarship £23000 (August 2008)
- King's Scholar £150 (August 2008)
- Rylands Prize £150 (August 2008)
- Durham Fund £500 (June 2008)
- Bedford Fund £600 (June 2008)
- Anthony Wilkin Fund £100 (June 2008)
- Bartle Frere Award £240 (June 2008)
- Rylands Prize £150 (August 2007)
- Harmer Prize £75 (August 2007)
- Durham Fund £500 (June 2007)
- Bedford Fund + Worts Scholar £850 (March 2007)

PUBLIC ENGAGEMENT

Non-academic publications

- Payne C (2018) Entomophagy: How giving up meat and eating bugs can help save the planet, Independent, 21st March 2018
Payne C (2018) Edible insects: Do insects actually taste any good? BBC World News, 18th January 2018
Payne, C L R and Nonaka, K (2014) Erntefest Auf Japanisch: Wespen als leckerbissen in fernost [Black wasps and giant hornets: A harvest feast in central Japan] Bugs magazin (In German)
Payne C L R (2016) Insects as Food and Feed – an interdisciplinary workshop held in Oxford, December 2015, Antenna (Royal Entomological Society).

Television/Radio

- April 2017, “Are edible caterpillars the future of sustainable protein?”, CrowdScience, BBC World Service
June 2015, That’s Oxford, regional TV channel; BBC Oxford, regional radio
November 2013 NHK Asaichi, national television, morning programme
November 2013 Chukyo TV, regional television, evening programme

Symposiums

- Insects as Food and Feed Workshop, Oxford Martin School, December 2015 (symposium, 55 participants)
Food and sustainability in Japan and the UK, Ena, Japan, May 2015 (symposium, 30+ participants)

Journal reviews

- Agronomy for Sustainable Development; Basic and Applied Ecology; Journal of Food Science; International Journal of Food Science and Technology; Journal of Insects as Food and Feed; Journal of Applied Life Sciences International; African Journal of Food Science; African Journal of Plant Science

Newspaper features/interviews

- April 2017, “Caterpillar farms: Growing the food of the future?” BBC News, international
June 2015 Oxford Mail, regional newspaper
May – September 2014 Kamome Books, online magazine, 4 instalments
July 2014 Chunichi shinbun, national newspaper
March 2014 Asahi shinbun Globe supplement, national newspaper

Outreach

- St Matthews’ School, Cambridge, edible insects workshop, 2016
‘Bug Banquet’ educational workshop on edible insects, Green Man Festival, 2015
‘Look down’ educational workshop on edible insects, Tandem festival, 2015

Volunteer

- Conversations with the elderly, Ena City volunteering network, Ena, Japan, 2013-2015
Gatehouse Centre for the homeless, Volunteer, Oxford, UK, 2012
Hands on Tokyo, Volunteer (old peoples’ home; orphanage), Tokyo, Japan, 2010
Jimmy’s Nightshelter Voluntary Assistant, Footcare for the Homeless, Cambridge, UK, 2006-2009

TEACHING EXPERIENCE

- Theory and Practice in Biological Anthropology, University of Cambridge 2017-18 (TA, Supervisor)
- Human Behavioural Ecology and Social Networks, University of Cambridge, 2017 (Supervisor)
- Statistics in Biological Anthropology, University of Cambridge, UK 2016 (Supervisor)
- Research methods (to MA students) Hubli, India 2012 (Lecturer)
- Statistics in Biochemistry, University of Oxford, UK 2012 (Lecturer)

ALL RESEARCH PROJECTS

2017-18

- *Decolonising ‘entomophagy’* University of Cambridge, UK; international collaboration.
- *Can the edible shea caterpillar be reared in an enclosed system?* U. Cambridge, UK; Rothamsted Research, UK; U. Ouagadougou, Burkina Faso
- *Insects and People of the South Indian Ocean (ISPIO)*, Madagascar Biodiversity Center, Antananarivo

2016

- *Environmental, social and economic impacts of edible caterpillars*, University of Cambridge, UK, U. Ouagadougou, Burkina Faso

2015

- *Is it possible to achieve a diet that is both healthy and sustainable? A systematic review.* U. Oxford, UK
- *Modeling the nutritional value of insects vs traditional livestock.* U. Oxford, UK
- *The nutrient content of selected species of edible insects: A systematic review.* U. Oxford, UK
- *The nutritional composition of edible insects consumed in Northeastern Zimbabwe.* Makoni, Zimbabwe

Before 2015

- *Insects as part of the traditional diet in rural central Japan.* Gifu, Japan. 2013
- *Entomophagy in Bandundu province, DRC.* DR Congo. 2013
- *Comparison of nutrient profiling models for regulating television advertising.* U. Oxford, UK 2012

- *Managing and visualizing high throughput phenotype data for disease modeling.* MRC Harwell, UK 2012
- *Impact of the DFP on Gender and Empowerment.* (Employed) researcher. Hubli, Karnataka, India 2011
- *Human-wildlife conflict in Yakushima, Japan.* (Funded) independent researcher. Yakushima, Japan 2011
- *Genetics and ecology of chimpanzees and elephants.* (Employed) research assistant. Kibale, Uganda 2009
- *Semliki chimpanzee research and habituation project.* (Funded) research assistant. Toro-Semliki, Uganda 2008
- *Triadic conflict in captive bonobos.* (Funded) research assistant. Planckendael Zoo, Belgium 2007

Charlotte L.R. Payne - Curriculum Vitae

EMPLOYMENT

- 2015 Department of Population Health, University of Oxford, Researcher Oxford, UK
- 2012-13 LuiKotale Bonobo Project, Habituation assistant Democratic Republic of Congo
- 2011-12 Medical Research Council Graduate Intern, Bioinformatics group Harwell, Oxon, UK
- 2011 Deshpande Centre for Social Entrepreneurship, Junior Fellow Hubli, Karnataka, India
- 2009-10 Kobokan Community Centre (Social welfare NGO) Tokyo, Japan

SELECTED PUBLIC INVITED PRESENTATIONS

- October 2017, What's stopping your diet from being more sustainable? Cambridge Festival of Ideas
- May 2015 NIAS group, Tsukuba University, research presentation
- February 2015 Chuken Service, Nagoya honten, research presentation (for new employees)
- February 2015 Edible insects and health, 2 presenters, 40+ attendees (Ena, Japan)
- February 2015 Edible insects workshop, 10 participants (Nagoya, Japan)
- December 2014 Asiatic Society of Japan Young Scholars Event, presentation, 50+ attendees
- November 2014 Central Japanese Forester's Union, presentation, 35 attendees
- November 2014 Enaka insect cuisine event and lecture, 16 participants
- September 2014 Family 'wasp experience' event, presentation on wasp ecology, 26 participants
- August 2014 Ena city library, presentation on global entomophagy, 50+ attendees
- July 2014 Kobokan community centre, research presentation
- April 2013 Institute of Advanced Media Arts and Sciences (IAMAS), invited lecture on entomophagy
- February 2013 Japan Vespula Society national summit, lecture on edible wasp culture in global perspective
- February 2013 Iwamura community centre, workshop on edible insects, 15 participants
- January 2013 Kasugai secondary school, presentation on personal experiences during research
- January 2013 Akechi Lions club, lecture on research into entomophagy
- December 2013 Ena city Lions club, lecture on research into entomophagy
- November 2013 Enaka, insect cuisine event and lecture, 26 participants

ADDITIONAL TRAINING COURSES & AWARDS

- Effective Supervision, University of Cambridge
- Systematic Reviews and Meta-analysis, University of East Anglia/NERC
- Insect taxonomy, Oxford Natural History Museum/NERC
- Wilderness Medical Training
- Multivariate statistics using R
- Computer programming using Java
- Computer Programming using Perl
- Millenium Volunteer Award
- Manual Handling and First Aid
- Essential Care Skills
- Disability Awareness Training
- Guiding the Visually Impaired.