

ALBERTO J. C. MICHELETTI

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ACADEMIC EMPLOYMENT

Jan 2019 - **Institute for Advanced Study in Toulouse, France**
date *Research Fellow*

- Conduct independent research
- Collaborate on research projects with faculty at IAST and beyond.

Oct-Dec **School of Biology, University of St Andrews, UK**
2018 *ERC Research Fellow*

PI: Prof Andy Gardner (European Research Council Consolidator Grant 'Sociocomplexity')

- Conduct research on human warfare evolution; development & publication

EDUCATION

2015-2019 **University of St Andrews, UK**

(awarded) *PhD Biology* (funded by the School of Biology)

Supervisors: Prof Andy Gardner and Prof Graeme Ruxton

Examiners: Dr Nathan Bailey (Biology, St Andrews) and Dr Laura Fortunato (Anth., Oxford)

Evolutionary Theory of Human Warfare: Genes, Individuals, Groups

I develop novel theory and apply existing modelling frameworks to investigate the evolutionary-ecological factors driving warfare and other forms of competition between human groups and their role in the evolution of cooperation and complex societies. I identify which stable strategies result as outcomes of conflicts of interest over social behaviours between parties at the same and at different levels of the biological hierarchy (genes, individuals, groups), with particular attention to the role of epigenetic mechanisms, such as genomic imprinting and cultural transmission.

2011-2015 **University of St Andrews, UK**

BSc (Hons) Evolutionary Biology, First class, GPA: 17.6/20.0

3rd Year Abroad at the **University of Toronto, Canada**

(St Andrews Abroad programme) GPA: 88 % (A)

Senior Honours project: Function of mobbing calls in Blue tits

Relevant modules include: Principles of Evolution, Behaviour and Behavioural Ecology, Evolution of the Human Genome, Evolutionary Ecology, Biostatistics, Plant-Animal Interactions, Animal Communication and Cognition, Breeding Systems and Sexual Conflict, Biology and Behaviour of Social Insects

2006-2011 **Liceo Scientifico Statale "A. Volta", Milano, Italy**

Maturità scientifica PNI, Final grade: 100/100

Piano Nazionale Informatica (PNI): enhanced coverage of Mathematics, Physics, Computer Science, Physical and Biological Sciences.

PUBLICATIONS

Micheletti AJC*, Ruxton GD & Gardner A (2018). Why war is a man's game, *Proc R Soc B*, 285, 20100975 [[link](#)]

Micheletti AJC*, Ruxton GD & Gardner A (2017). Intrafamily and intragenomic conflicts in human warfare, *Proc R Soc B*, 284, 20162699 [[link](#)]

POPULAR PUBLICATIONS

Micheletti AJC (2018). Why warfare evolved as a man's game – and why that could be changing, *The Conversation* [[link](#)]

Micheletti AJC (2018). EHBEA 2018 conference report, *EHBEA Newsletter* [[link](#)]

RESEARCH PRESENTATIONS

Invited seminars

Micheletti AJC. Conflicts of interest between fathers, mothers and sons over warfare an evolutionary modelling study

- Talk at 'War in Human Societies: Interdisciplinary Perspectives' Postgraduate Workshop, University of St Andrews, UK (18th May 2018). Also: organiser.

Micheletti AJC. Conflicts of interest in human warfare

- Talk at 'Evolutionary models of human conflict and cooperation' Workshop, Lanzhou University, China (2nd Dec 2017). Invited by Ruth Mace

Conference presentations

Micheletti AJC, Ruxton GD & Gardner A. Conflicts of interest over military alliances inhibit the evolution of large-scale human societies

- Talk at European Human Behaviour & Evolution Association EHBEA Annual Conference, Toulouse, France (2019, forthcoming)

Micheletti AJC, Ruxton GD & Gardner A. Why war is a man's game

- Talk at Human Behaviour and Evolution Society HBES Annual Meeting, Amsterdam, The Netherlands (2018)
- Talk at European Human Behaviour & Evolution Association EHBEA Annual Conference, Pécs, Hungary (2018)
- Talk at 4th Annual Symposium of the Institute of Behavioural and Neural Sciences (IBANS) of the University of St Andrews (2017)

Micheletti AJC, Ruxton GD & Gardner A. Intrafamily and intragenomic conflicts in human warfare.

- Talk: 16th Congress European Society for Evolutionary Biology ESEB (2017)
- Poster: European Human Behaviour & Evolution Association EHBEA Annual Conference, Paris, France (2017)
- Poster: 16th Congress International Society for Behavioural Ecology ISBE (2016)

AWARDS & GRANTS

- Sir Ken Murray Endowment Fund, PhD Student Conference Grant (£495; 2018)
- Genetics Society Junior Scientist Conference Grant (£700; 2017)
- EHBEA Student Travel Bursary (€100; 2017 & 2018)

- Margaret Laing Bell Prize (2014-15)
outstanding Senior Honours student in Plant and Environmental Biology
- Deans' list (2011-12, 2012-13, 2013-14, 2014-15)
awarded for average 1st class grade

ACADEMIC SERVICE

Reviews: *PNAS* (1), *Biol Lett* (1), *Behav Ecol* (1), *Ibis* (1), *R Soc Open Sci* (1).
Admin: Quantitative Biology Discussion Group (QBDG) seminar series, *Administrator* (2015-2017)
Conf.: Chair two panel at EHBEA 2019, Toulouse (forthcoming)

CONFERENCE ORGANISATION

18th May **Interdisciplinary Postgraduate Conference & Workshop**
2018 **'War in Human Societies: Interdisciplinary Perspectives' – St Andrews, UK**

- Explore how interdisciplinary dialogue between researchers in different fields can enhance understanding of warfare
- 1 guest speaker; 5 talks by St Andrews PhD Students; discussion session.
- Funding: University of St Andrews CAPOD Gradskills PG Conference Fund (£220), School of Classics (£300)
- Co-organiser (with T. Spinelli, Classics)

TEACHING

Apr University of St Andrews; Great Ideas II (ID1004, BSc/Ba-level),
2018 *Lecturer, 'Evolutionary approaches to the study of warfare'* (Student feedback: 'excellent')

Feb University of St Andrews; Complex Systems in Animal Behaviour (BL4285, BSc-level)
2018 *Guest Lecturer, 'Theory & Modelling'*

Sep - Dec University of St Andrews; Quantitative Methods for Biology (BL5111, MSc-level),
2016, 17, 18 *Tutor*

Jan - Apr University of St Andrews; Animal Behaviour: A Quantitative Approach
2017 (BL3319, BSc-level), *Experimental research mini-project advisor*

Jan - Apr University of St Andrews; Sustainable Development: Tools for Action
2017 (SD2002, Bsc-level), *Tutor*

Sep - Dec University of St Andrews; Evolutionary Biology (BL2303, Bsc-level),
2017 *Setting essay question and marking*

ADDITIONAL RESEARCH & SCIENTIFIC EXPERIENCE

Jun 2017 **Santa Fe Institute, NM, USA**; Complex Systems Summer School (CSSS)

- 4-week highly competitive summer programme
- Introduction to complex systems and interdisciplinary research
- Collaborative team project (see above)
- Lectures by leading scholars from SFI network. Labs and discussion sessions
- Topics include: nonlinear dynamics, information & computation theory, adaptation, network structure & dynamics, and computer modeling tools

May **University of St Andrews, UK**; School of Biology; Supervisor: Dr Chris Templeton
2014 - Senior Honours project: 'Function of mobbing calls in Blue tits'

- May 2015
- Aim: investigate if and how blue tit calls encode information about predator
 - Independent research project; worked on the field largely independently
 - Predator presentation experiments in the field using taxidermied predators
 - Recorded behavioural/acoustic data; analysed data independently
- Jan - Feb 2014
- University of Toronto, Canada;** EEB Department; Supervisor: Ms Rebecca Batstone
 'Exploring a potential genetic correlation leading to mutualism stability';
Position: Volunteer
- Helped Ms Batstone with her PhD research work; Tasks: cutting roots and transferring seedlings to Petri dishes, planting seedlings, autoclaving material
 - Wrote an essay on this topic for Evolutionary Ecology course.
- August 2013
- Gran Paradiso National Park, Italy;** Supervisor: Caterina Ferrari
 'Behavioural ecology of the alpine marmot, *Marmota marmota*'
Position: Volunteer research student
- Collected and entered in database weight data for five families of marmots
 - Worked largely independently. Worked around 8-10 hours on sunny days.
 - Three weeks; small mountain hut at 3300m sharing space with researchers.
- Jul 2012
- Gatsby Plant Science Summer School 2012 (University of Leeds, UK)**
- One of the three students chosen to represent the University of St Andrews
 - Lectures delivered by leaders in plant science research; practicals in the lab and the field; a career session.

ADDITIONAL INFORMATION

- IT skills Mathematica, R and R studio, Raven Pro
- Languages Italian (native), English (proficient), French (elementary), Mandarin (elementary)
- Training courses Tutoring & Demonstrating in the Sciences, Assessment & Academic Misconduct, Student Diversity, Unconscious Bias, Producing a thesis/dissertation, Voice coaching (University of St Andrews, CAPOD), 'Standing up for Science' Media Workshop (Sense About Science)
- Societies memberships European Human Behaviour and Evolution Association, European Society for Evolutionary Biology, Cultural Evolution Society
- Other interests: theatre At Edinburgh Fringe: *Temptation of St Anthony* by G. Flaubert, producer (2014)
 At Barron Theatre, St Andrews: *Sacrifice* by R. Tagore, director & actor (2016), *New Youth* by H. Cheng, co-director (2015), *Edge of Falling* by C. Guran, producer (2016), *RolePlay* by A. Ayckbourn, producer (2015), *Henry IV* by L. Pirandello, producer (2015), *The Physicists* by F. Dürrenmatt, asst. producer (2012)