

Patrick J Tkaczynski PhD

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📍 Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany

Research Interests

- Development
- Behavioural endocrinology
- Behavioural and developmental plasticity
- Sociality and social network analysis

Education

- 01/2013 – 09/2016 **PhD in Biological Anthropology**, University of Roehampton
Thesis title: “The behavioural ecology of personality in wild Barbary macaques (*Macaca sylvanus*)”
Supervisors: Dr Caroline Ross; Prof Ann MacLarnon; Dr Julia Lehmann
- 10/2008 – 09/2009 **MRes in Primatology (Merit)**, University of Roehampton
Dissertation title: “Spatial competition and its impact on stress levels in crop-raiding olive baboons (*Papio hamadryas anubis*)”
- 10/2001 – 07/2004 **BSc Hons in Zoology (2:1)**, University of Bristol
Dissertation title: “Effect of Australian tea tree oil on *Gyrodactylus* spp. infection of the three-spined stickleback”

Academic Appointments

- 09/2016 – present **Post-doctoral research fellow**,
Max Planck Institute for Evolutionary Anthropology
I am currently investigating developmental processes in wild chimpanzees within the Tai Chimpanzee Project research group. I am also a scientific advisor for a collaborative project between our research group and Max Planck Institute for Cognitive Behavioural Science, focusing on the relationship between brain development plasticity, sociality, and language.

Awards

- 2013 **University of Roehampton Vice Chancellor Scholarship**
£46,770
- 2013 **University of Roehampton Project Funding**
£3,500

Teaching Experience

- 01/2020 – present **Mac Planck Institute of Evolutionary Anthrpology**
I am currently co-supervising the PhD project of Mathilde Grampp, investigating behavioural flexibility in monkeys and apes.
- 01/2020 – 01/2021 **University of Leipzig**
Primate Evolution and Taxonomy (Postgraduate)
Primate Ecology (Postgraduate)
Research Methods in Primatology (Postgraduate)
- 09/2018 – 09/2018 **International Max Planck Research School of Human Origins Leipzig**
Comparative Methods in Primatology (Postgraduate)
- 01/2013 – 09/2016 **University of Roehampton**
Human Biology and Adaptation (Undergraduate)
Primate Biology and Conservation (Undergraduate)
Mammal Biology (Undergraduate)
Research Methods in Zoology (Undergraduate)
Research Methods in Health Science (Postgraduate)
- 01/2013 – 09/2016 **Winterwood Tutors**
Secondary school science

Publications

- 2021 **Behavioural correlates of greeting calls in two populations of wild chimpanzees.**, *Animal Behaviour* (in press)
Fedurek, P., Tkaczynski, P.J., Hobaiter, C., Samuni, L., Zuberbühler, K., Wittig, R.M. & Crockford, C.
- 2021 **Systematic mapping of developmental milestones in wild chimpanzees**, *Development Science*, , e12988 [↗](#)
Bründl, C.A., Tkaczynski, P.J., Nohon Kohou, G., Boesch, C., Wittig, R.W. & Crockford, C.
- 2020 **Patterns of cortisol secretion during ontogeny suggest species differences in mother-offspring conflict during weaning in chimpanzees and bonobos.**,
Journal of Human Evolution, 147, 102869 [↗](#)
Tkaczynski, P.J., Behringer, V., Ackermann, C., Fedurek, F., Fruth, B., Girard-Buttoz, C., Hobaiter, C., Lee, S., Löhrich, T., Preis, A., Samuni, L., Zommers, Z., Zuberbühler, K., Deschner, T., Wittig, R.W., Hohmann, G. & Crockford, C.

- 2020 **Long-term repeatability in social behaviours suggests stable social phenotypes in wild chimpanzees.,**
Royal Society Open Science, 7 (8), 200454 [↗](#)
Tkaczynski, P.J.*, Mielke, A.*, Samuni, L., Preis, A., Wittig, R.M. & Crockford, C.
- 2020 **Information transfer efficiency differs in wild chimpanzees and bonobos, but not social cognition.,**
Proceedings of the Royal Society B, 287 (1929), 20200523 [↗](#)
Girard-Buttoz, C., Surbeck, M., Samuni, L., Tkaczynski, P.J., Boesch, C., Fruth, B., Wittig, R., Hohmann, G. & Crockford, C.
- 2020 **Maternal effects on offspring growth indicate post-weaning juvenile dependence in chimpanzees (*Pan troglodytes verus*),**
Frontiers in Zoology, 17: 1 [↗](#)
Samuni, L.*, Tkaczynski, P. J.*, Deschner, T., Löhrlich, T., Wittig, R. M., & Crockford, C.
- 2020 **Maternal cannibalism in two populations of wild chimpanzees,**
Primates, 61: 181–187 [↗](#)
Fedurek, P.*, Tkaczynski, P.J.*, Asimwe, C., Hobaiter, C., Samuni, L., Lowe, A.E., Dijrian, A.G., Zuberbühler, K., Wittig, R.M. & Crockford, C.
- 2019 **Repeatable glucocorticoid expression is associated with behavioural syndromes in males but not females in a wild primate,** Royal Society Open Science, 6 (9), 190256 [↗](#)
Tkaczynski, P.J., Ross, C., Lehmann, J., Mouna, M., Majolo, B. & MacLarnon, A.
- 2019 **Measuring personality in the field: An In Situ comparison of personality quantification methods in wild Barbary macaques (*Macaca sylvanus*),**
Journal of Comparative Psychology, 133(3), 313-325 [↗](#)
Tkaczynski, P. J., Ross, C., MacLarnon, A., Mouna, M., Majolo, B., & Lehmann, J.
- 2019 **The male and female perspective in the link between male infant care and mating behaviour in Barbary macaques,**
Ethology, 125(12), 914-924 [↗](#)
Kuběnová, B., Ostner, J., Schülke, O., Majolo, B., Šmilauer, P., Waterman, J., Tkaczynski, P.J. & Konečná, M.
- 2018 **Behavioural thermoregulation via microhabitat selection of winter sleeping areas in an endangered primate: implications for habitat conservation,**
Royal Society Open Science, 5(12), 181113 [↗](#)
Campbell, L. A., Tkaczynski, P. J., Mouna, M., Derrou, A., Oukannou, L., Majolo, B., & van Lavieren, E.

- 2018 **Circadian rhythms of urinary cortisol levels vary between individuals in wild male chimpanzees: a reaction norm approach**, *Frontiers in Ecology and Evolution*, 6, 85. [↗](#)
Sonnweber, R., Araya-Ajoy, Y.G., Behringer, V., Deschner, T., Tkaczynski, P.J., Fedurek, P., Preis, A., Samuni, L., Zommers, Z., Gomes, C. & Zuberbühler, K.
- 2018 **Social thermoregulation as a potential mechanism linking sociality and fitness: Barbary macaques with more social partners form larger huddles**, *Scientific Reports*, 8(1), 6074 [↗](#)
Campbell, L. A., Tkaczynski, P. J., Lehmann, J., Mouna, M., & Majolo, B.
- 2016 **Behavioral responses to injury and death in wild Barbary macaques (*Macaca sylvanus*)**, *Primates*, 57(3), 309-315 [↗](#)
Campbell, L. A.*, Tkaczynski, P. J.*, Mouna, M., Qarro, M., Waterman, J., & Majolo, B.
- 2015 **Assessing adaptability and reactive scope: Introducing a new measure and illustrating its use through a case study of environmental stress in forest-living baboons**, *General and Comparative Endocrinology*, 215, 10-24 [↗](#)
MacLarnon, A. M., Sommer, V., Goffe, A. S., Higham, J. P., Lodge, E., Tkaczynski, P.J., & Ross, C.
- 2014 **Associations between spatial position, stress, and anxiety in forest baboons *Papio anubis*.**, *Behavioural Processes*, 108, 1-6 [↗](#)
Tkaczynski, P.J., MacLarnon, A., & Ross, C.
- 2014 **Shifting environmental baselines in the Red Sea**, *Marine Pollution Bulletin*, 78(1-2), 96-101 [↗](#)
Price, A.R.G., Ghazi, S.J., Tkaczynski, P.J., Venkatachalam, A.J., Santillan, A., Pancho, T., Metcalfe, R. & Saunders, J.
- 2005 **Effect of Australian tea tree oil on *Gyrodactylus* spp. infection of the three-spined stickleback *Gasterosteus aculeatus***, *Diseases of Aquatic Organisms*, 66, 29-32 [↗](#)
Steverding, D., Morgan, E., Tkaczynski, P., Walder, F., Tinsley, R.
- Non-genetic maternal effects shape cortisol phenotypes in wild chimpanzees**, *Proceedings of the National Academy of Science of the USA* (in review)
Tkaczynski, P.J., Mafessoni, F., Girard-Buttoz, C., Samuni, L., Ackermann, C., Fedurek, P., Gomes, C., Hobaiter, C., Lorch, T., Manin, V., Preis, A., Sommers, Z., Sonnweber, R., Vale, P., Wittiger, L., Zuberbuehler, K., Deschner, T., Vigilant, L., Wittig, R.W. & Crockford, C.

Early maternal loss affects diurnal cortisol slopes in immature but not mature wild chimpanzees, eLife (in review)

Girard-Buttoz, C., **Tkaczynski, P.J.**, Samuni, L., Fedurek, P., Gomes, C., Lohirch, T., Manin, V., Preis, A., Vale, P., Deschner, T., Wittig, R., & Crockford, C.

** co-lead authorship*

Presentations & Outreach

Invited Talks & Seminars

Durham University (Jan 2021)

Maternal effects on offspring development in apes

University of Stirling (Jan 2021)

Maternal effects on offspring development in apes

University of Roehampton (Feb 2020)

Maternal effects on offspring physiology in apes

Conferences

Animal Behaviour Society Virtual Conference (Aug 2020)

Urinary cortisol patterns of young chimpanzees and bonobos reveal flexibility in developmental processes

International Society for Wildlife Endocrinology Meeting (Oct 2019)

Post-weaning maternal effects on offspring growth in wild chimpanzees

European Federation of Primatology Conference (Sept 2019)

The long-lasting impacts of maternal loss in wild chimpanzees

European Conference of Behavioural Biology (July 2014)

Personality in wild Barbary macaques

Celebrating 10 years of Primatology Masters, University of Roehampton (Sept 2013)

Associations between spatial position, stress, and anxiety in forest baboons

Gashaka Field Day, University College London (Mar 2013)

Stress and group position in baboons

Workshops

Becoming Social – A paleoethological perspective: Johannes

Gutenberg University (Nov 2020)

Development of social relationships, cognition, and physiology in wild chimpanzees

Social Network Analysis Workshop, Oxford University (Jan 2016)

Behavioural and Evolutionary Ecology of Personality in Wild Barbary Macaques

Posters

Animal Behaviour Society Conference (2019)

Maternal effects on growth in wild chimpanzees

Other Outreach

Parc Nationale D'Ifrane, Morocco (Feb 2014)

Ecotourism Solutions for the Barbary Macaques of Parc Nationale D'Ifrane

Professional Experience

- 12/2014 – 03/2015 **Consultant**
Moroccan Primate Conservation Foundation, Morocco
During my PhD I worked with this NGO to develop technical proposals to improve ecotourism within the national park, with the specific aim of improving safety for both tourists and Barbary macaques (*Macaca sylvanus*).
- 04/2012 – 09/2012 **Research assistant**
Mono Caí Project (Deutsches Primatenzentrum)
I assisted data collection for projects examining deception and inter-sex spatial tolerance in wild tufted capuchins (*Cebus apella*) found in Iguazu National Park, Argentina. This project was supervised by Dr Brandon Wheeler and Dr Barbara Tiddi.
- 03/2010 – 03/2012 **Ecologist**
Presidency of Meteorology & Environment, Saudi Arabia
Our project conducted an ecological survey of the flora and fauna of the Red Sea coastline of Saudi Arabia. These data were used to designate important conservation areas, such as mangroves and coral reefs, and highlight impacts of human activity along the coastline.
- 12/2011 – 01/2012 **Ecologist**
The UN Compensation Commission, Saudi Arabia
I acted as an ecological consultant to a pilot study funded by the United Nations Compensation Commission developing a process for the regeneration of mangroves in the Arabian Gulf damaged during the Gulf War.
- 09/2005 – 03/2010 **Analyst and editor**
Epicom, Tangmere, UK
I worked as part of a team that provided research news and analysis of recent developments within the medical and health care industries.

Other Contributions

Reviewer

Current Biology; Royal Society Open Science; American Journal of Primatology; Plos One; Animals; Ethology; Current Zoology

Media Coverage

BBC Earth; BBC Radio; Science Daily; Daily Mail; Discover Magazine; United Press International; Inside Ecology

Professional Memberships

- Association for the Study of Animal Behaviour
- Animal Behaviour Society

Additional Training

01/2016	Social network analysis course, 4-day workshop conducted by Dr Damien Farine
12/2018	Statistical Rethinking, 10-week course on Bayesian statistics by Prof Richard McElreath
03/2019	Frequentist statistical analysis course, 5-day course conducted by Dr Roger Mundry

References

Dr Catherine Crockford, *Independent Research Group Leader*,
Max Planck Institute for Evolutionary Anthropology
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Dr Caroline Ross, *Head of Life Sciences*, University of Roehampton
c.ross@roehampton.ac.uk, +44 (0)20 8392 3529