CONTACT

Center for International Collaboration and Advanced Studies in Primatology (CICASP) Kyoto University Primate Research Institute

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EMPLOYMENT HISTORY

2017~ Associate Professor, Kyoto University Primate Research Institute
2014~2017 Associate Professor, Kyoto University Wildlife Research Center
2012–2014 Assistant Professor, CICASP
2011–2012 Research Associate (Postdoc), CICASP
2010–2011 Research Fellow (Postdoc), Department of Ecology and Social Behavior

EDUCATION HISTORY

2007–2010 Primate Research Institute, Kyoto University (Doctor of Science, DSc)
2000–2002 Department of Anthropology, University of Calgary (Master of Arts, MA)
1997–2000 Department of Anthropology, University of Calgary (Bachelor of Science, BSc)

AWARDS & SCHOLARSHIPS

2013 Takashima Prize, Primate Society of Japan & Kyouei Steel Co. (research excellence)
2013 Primates most-cited paper award, Japan Monkey Center, Primate Society of Japan, Springer
2007 DSc scholarship: Ministry of Education, Culture, Sports, Science and Technology (MEXT) Monbukagakusho scholarship, Japan, 150,000 yen/month (ca. 1,500 USD) * 3.5 years
2001 MA scholarship: Province of Alberta Graduate Scholarship (PAGS), Canada, 12,000 CAD

RESEARCH KEYWORDS

• behavioural ecology • behavioural organization • social and ecological networks • parasite/disease ecology • wildlife epidemiology • health and conservation • biostatistics • complexity science/theory (biological fractals)

RESEARCH GRANTS

2020 Japan Society for the Promotion of Science (JSPS) Grant-in-Aid for Scientific Research B, Japan, ~17,000,000JPY (ca. 160,000 USD) #20H03333 [4 years]
2019 JSPS/CAS bilateral grant Japan/Czech (PI: Klara Petrzelkova, Czech Academy of Science & Keiko Matsuura, Oita University) #JPJSBP120192506 [2 years]
2018 JSPS Grant-in-Aid for Scientific Research C, Japan (PI: Naoki Agetsuma, Hokkaido University) [3 years]
2016 JSPS Grant-in-Aid for Young Scientists A, Japan, 16,200,000 JPY (ca. 150,000 USD) #16H06181 [4 years]
2015 Kyoto University Step Up Grant, Japan, 1,600,000 JPY (ca. 13,000 USD) [1 year]
2014 JSPS ‘Sakura’ grant Japan/France (PI: Akinori Takahashi, National Institute of Polar Research) [2 years]
2012 JSPS Grant-in-Aid for Young Scientists B, Japan, 3,500,000 JPY (ca. 35,000 USD) #24770232 [3 years]

2012 JSPS Research Exchange Grant, Japan/France, 575,000 JPY (ca. 7,000 USD) [1 year]

INVITED LECTURES/SEMINARS

2021 *Vignettes from the wormy world of primates: behavioral ecology of host-parasite interactions viewed through a primate lens*. University of Lausanne, Switzerland. Online
2020 *Show me chaos! Measuring organizational complexity through fractal time series analysis of behavior sequences in indicator species*. International Bio-logging Society Webinar – Approaches to Modeling Bio-logging Data. Online
2019 (1) *Show me chaos! Fractal time in animal behavior as a bioindicator of ecological challenge*; (2) *Behavioral ecology and epidemiology of gastrointestinal parasitism in primates: patterns, processes and host responses* (Czech Academy of Sciences, Czechia)
2017 *Monkeys in the middle: sociality and parasitism in a primate-helminth model system* (Primatology and Evolutionary Anthropology Young Scholars Forum, Sun Yat Sen University, Guangzhou, China)
2017 *Parasites and primate social systems evolution* (SoHaPi Workshop, German Primate Center (DPZ), Gottingen, Germany)
2016 (1) Project l'AMMER: Adélie Penguins as Monitors of the Marine Environment; (2) The Wormy World of Primates: Vignettes from an Empirical Model System in Japan (National Institute of Ecology, South Korea)
2013 *Complexity lost: assessing behavioural organization in stress and disease* (Central European Institute of Technology mini-symposium and HPI-lab workshop, University of Veterinary and Pharmaceutical Sciences Brno, Czech Republic)
2013 *The complex primate: interdisciplinary science and the math behind the monkey* (Takashima Prize Lecture at the 29th Congress of the Primate Society of Japan, Okayama)
2013 *Epidemiology of nematode parasite infection among wild Japanese macaques: heterogeneity in the external and internal environments* (Symposium: "Ecological Roles of Primates in Forest Ecosystems", KUPRI, Japan)
2012 *A fractal ethos for ethology: revealing behavioural stereotypies in stress and disease* (German Primate Center (DPZ) Kolloquium Series, Gottingen, Germany)

TEACHING

2017~ Lecturer: *Conservation Biology*, *Zoo Biology*, *Comparative Cognition*, Kyoto University
2014~ Lecturer: *Animal Behavior*, Kyoto University
2016~ Instructor (field school): *Yakushima Field and Genome Science Training Course*, Kyoto University [semi-annual]
2011~ Instructor: *CICASP Seminar in Science Communication*, KUPRI [ongoing weekly]
2011 Instructor (field school): *Formation of a strategic base for biodiversity & evolutionary research: from genome to ecosystem* (Japan), Kyoto University Global COE Program
2003 Instructor: *English as a Foreign Language* (EFL), Tokyo, Japan [3 years]
2001 Teaching Assistant (field school): *Field Primatology* (Ghana), University of Calgary
2001 Teaching Assistant: *Primate Behaviour*, University of Calgary
2000 Teaching Assistant: *Introduction to Social and Cultural Anthropology*, University of Calgary

GRADUATE STUDENTS & POSTDOCTORAL FELLOWS SUPERVISED

2021~ Doctoral Student: Katherine Majewski ("*Impact on small carnivore community and infectious disease dynamics on Yakushima Island resulting from the introduction of non-native raccoon dogs (Nyctereues procyonoides)*"

2019~ JSPS Postdoctoral Fellow: Cecile Sarabian ("*Cognitive and physiological responses to disgust elicitors in chimpanzees*")
2019~ Doctoral Student: Kenneth Keuk ("*Networks, uncertainty and epidemiology*")
2019~ Master's Student: Abdullah Langgeng ("*Investigating the effects of hot spring bathing on parasitism and gut bacterial communities in a nonhuman primate*")
2018~ Master's Student: Zhihong Xu ("*Linking social interactions with parasitism in complete and incomplete networks*")
2018~ JSPS Postdoctoral Fellow: Marie Sigaud ("*Measuring fitness costs of habitat degradation in an endangered primate*")
2017~ JSPS Postdoctoral Fellow: Barbora Kubenova ("*Infant handling and social integration of infants and juveniles in wild Japanese macaques*")
2017~2019 JSPS Postdoctoral Fellow: Valeria Romano ("*Understanding the link between environmental pressures, sociality and health*")
2016~2018 JSPS Postdoctoral Fellow: Julie Duboscq ("*Connecting the dots: linking host behavior to parasite transmission and infection risk*")
2016 Master's Student: Kenneth Keuk ("*Social networks, social style and the dynamics of parasite infection*"; University of Strasbourg, France)
2015~2019 Doctoral Student: Liesbeth Frias ("*Host-Parasite Systems Dynamics in Human-Modified Habitats*")
2015~2019 Doctoral Student: Cecile Sarabian ("*The Origins of Hygiene: Infection-risk Avoidance in Papionini and Hominidae*")
2015~2017 Graduate Student: Kelly Finn ("*Complexity as a new frontier in primate behavior, ecology and cognition*"; University of California at Davis, USA)
2013~2016 Doctoral Student: Xavier Meyer ("*Does complexity in behavioral organization allow seabirds to adapt to changes in their environment?*"; University of Strasbourg, France)
2013~2017 Doctoral Student: Valeria Romano de Paula ("*Primate Social Networks as a Trade-off between Information and Disease Transmission*"; University of Strasbourg, France)
2013~2018 Doctoral Student: Jade Burgunder ("*Complexity in Behavioral Organization: a Novel Approach to Assessing Clinical Outcomes of Parasitic Diseases*"; Masaryk University, Czech Republic)
2013–2015 Postdoctoral Fellow: Julie Duboscq ("*Social networks as a trade-off between optimal decision-making, information transmission and reduced disease transmission*"; University of Strasbourg Institute for Advanced Studies, France)
2013 Master's student: Elodie Thomas ("*Influence of Nematode Parasites on Stress among Koshima Macaques, Macaca fuscata*"; University of Toulouse, France)
2012–2014 Master's student: Cecile Sarabian ("*Hygienic Tendencies Constrain Geohelminth Infection in Free-ranging Macaques*"; Rennes 1 University, France)

SCIENTIFIC OUTREACH

2012~ *The PrimateCast – a podcast series dedicated to the study and conservation of primates* (host, producer) www.theprimatecast.com; www.cicasp.pri.kyoto-u.ac.jp/news/podcasts
2011 Public Lecture: *Of worms and monkeys: the secret struggle for health in the wild* ("Yakushima Kenkyuu Koza", co-hosted by the Kyoto University Global COE Program and The Yakushima Environmental Culture Foundation, Japan) (in Japanese)

OTHER PROFESSIONAL EXPERIENCE

Editorial Assignments: *Frontiers in Ecology and Evolution* (2019~), Primates (Advisory Board: 2017~), *EcoHealth* (2016~), *Scientific Reports* (2015~2020), *Primate Research* (2015~)

ad hoc reviewer: Behav. Ecol. Sociobiol., IJPPAW, Kor. J. Parasitol., Mol Ecol Resources, EcoHealth, PNAS, Phil. Trans. R. Soc. B. Biol. Sci., Proc. R. Soc. B. Biol. Sci., Anim. Behav., Am. J. Primatol., Int. J. Primatol., Primates, Ethology, Behav. Proc., PLoS ONE, Peer J, Int. J. Parasitol., Integr. Zool., Am. Soc. Trop. Med. Hyg., Folia Primatol., National Science Foundation (USA), European Science Foundation, Oxford University Press, The Leakey Foundation, Nat Geo Society, Ranger Rick

Symposium Organization: (i) *Communicating Science: Expert Panel on Engaging the Media, the Public, and Policy Makers* & (ii) *10 years of CICASP: making an impact within and beyond Academia in a global community*, 12th International Symposium on Primatology and Wildlife Science (September, 2019); (iii) *Penguins, in Full Color*, 10th International Symposium on Primatology and Wildlife Science (September, 2018)

PUBLICATIONS

Refereed Journal Articles: 56
Book Chapters: 10
Google Scholar: http://scholar.google.co.jp/citations?user=zCPdEMoAAAAJ&hl=en

JOURNAL ARTICLES

*These authors contributed equally to this work
†Invited Paper

1. Cheron M, Raoelison L, Kato A, Ropert-Coudert Y, Meyer X, **MacIntosh AJJ**, Brischoux F (In Press) Ontogenetic changes in activity, locomotion and behavioural complexity in tadpoles. *Biol J Linnean Soc*
2. Xu Z, **MacIntosh AJJ**, Casellano-Navarro A, Macanas-Martinez E, Suzumura T, Duboscq J (2021) Linking Parasitism to Network Centrality and the Impact of Sampling Bias in its Interpretation. *bioRxiv* DOI: 10.1101/2021.06.07.447302
3. Sarabian C, Belais R, **MacIntosh AJJ** (2021) Avoidance of contaminated food correlates with low protozoan infection in bonobos. *Front Ecol Evol* 9:651159
4. Frias L, Hasegawa H, Chua TH, Sipangkui S, Stark D, Salgado-Lyn M, Goossens B, Keuk K, Okamoto M, **MacIntosh AJJ** (2021) Parasite community structure in sympatric Bornean primates. *Int J Parasitol* DOI: 10.1016/j.ijpara.2021.03.003
5. Castellano-Navarro A, Macanas-Martinez E, Xu Z, Guillen-Salazar F, **MacIntosh AJJ**, Amici F, Albiach-Serrano A (2021) Japanese Macaques' (Macaca fuscata) sensitivity to human gaze and visual perspective in contexts of threat, cooperation, and competition. *Sci Rep* 11:5264
6. Gomez-Melara JL, Acosta-Naranjo R, **MacIntosh AJJ**, Maulany RI, Ngakan PO, Amici F (2021) Dominance style predicts differences in food retrieval strategies. *Sci Rep* 11:2726
7. Amici F, Widdig A, **MacIntosh AJJ**, Beltrán Francés V, Castellano-Navarro A, Lopez Caicoya, Karimullah K, Maulany RI, Ngakan PO, Hamzah AS, Majolo B (2020) Dominance style only partially predicts differences in neophobia and social tolerance over food in four macaque species. *Sci Rep* 10:22069
8. Beltrán Francés V, Castellano-Navarro A, Maulany RI, Ngakan PO, **MacIntosh AJJ**, Llorente M, Amici F (2020) Play behavior in immature moor macaques (*Macaca maura*) and Japanese macaques (*Macaca fuscata*). *Amer J Primatol* 82(10):e23192.
9. Romano V, **MacIntosh AJJ**, Sueur C (2020) Stemming the flow: information, infection, and social evolution. *Trends in Ecology and Evolution* 35(10): 849-853.

10. Miyabe-Nishiwaki T, Miwa M, Konoike N, Kaneko A, Ishigami A, Natsume T, **MacIntosh AJJ**, Nakamura K (2020) Evaluation of anaesthetic and cardiorespiratory effects after intramuscular administration of alfaxalone alone, alfaxalone-ketamine and alfaxalone- butorphanol -medetomidine in common marmosets (*Callithrix jacchus*). *J Med Primatol* 49(6):291-299
11. Meyer X, **MacIntosh AJJ**, Chiaradia A, Kato A, Ramirez F, Sueur C, Ropert-Coudert Y (2020) Oceanic thermal structure mediates dive sequences in a foraging seabird. *Ecol Evol* 10:6610–6622
12. Sarabian C, Ngoubangoye B, **MacIntosh AJJ** (2020) Divergent strategies in faeces avoidance between two cercopithecoid primates. *R Soc Open Sci* 7: 191861.
13. Tasdemir D, **MacIntosh AJJ**, Stergiou P, Kaiser M, Mansour N, Bickle Q, Huffman MA (2020) Antiprotozoal and antihelminthic properties of plants ingested by wild Japanese macaques (*Macaca fuscata yakui*) in Yakushima Island. *J Ethnopharmacol* 247:112270
14. Romano V, **MacIntosh AJJ**, Sueur C (2020) The trade-off between information and pathogen transmission in animal societies. *EcoEvoRxiv* DOI:10.32942/osf.io/vqt4g
15. Hasegawa H, Frias L, Peter S, Hasan NH, Stark D, Salgado-Lyn M, Sipangkui S, Goossens B, Matsuura K, Okamoto M, **MacIntosh AJJ** (2020) First description of male worms of *Enterobius* (*Colobenterobius*) *serratus* (Nematoda: Oxyuridae), the pinworm parasite of proboscis monkeys. *Zootaxa* 4722(3):287–294
16. Miyabe-Nishiwaki T, **MacIntosh AJJ**, Kaneko A, Morimoto M, Suzuki J, Akari H, Okamoto M (2019) Hematological and blood chemistry values in captive Japanese macaques (*Macaca fuscata fuscata*). *J Med Primatol* 48:338–350
17. Frias L, Stark DJ, Salgado Lynn M, Nathan S, Goossens B, Okamoto M, **MacIntosh AJJ** (2019) Molecular characterization of nodule worm in a community of Bornean primates. *Ecol Evol* 9:3937-3945
18. Poirotte C*, Sarabian C*, Ngoubangoye B, **MacIntosh AJJ**, Charpentier M (2019) Faecal avoidance differs across sexes but not with nematode infection-risk in mandrills. *Anim Behav* 149:97-106
19. Frias L, Hasegawa H, Stark DJ, Salgado-Lynn M, Nathan KSS Senthilvel, Chua T, Goossens B, Okamoto M, **MacIntosh AJJ** (2018) A pinworm's tale: the evolutionary history of *Lemuricola (Protenterobius) nycticebi*. *Int J Parasitol: Parasites & Wildlife*. 8:25-32
20. Le Guen C, Kato A, Raymond B, Barbraud C, Beaulieu M, Bost, C-A, Delord K, **MacIntosh AJJ**, Meyer X, Raclot T, Sumner M, Takahashi A, Thiebot J-B, Ropert-Coudert Y (2018) Reproductive performance and foraging behaviour share a common sea-ice concentration optimum in Adélie penguins (*Pygoscelis adeliae*). *Global Change Biol* 24:5304–5317
21. Romano V, Shen M, Pansanel J, **MacIntosh AJJ**, Sueur C (2018) Social transmission in networks: global efficiency peaks with intermediate levels of modularity. *Behav Ecol Sociobiol* 72:154
22. Burgunder J, Petrzelkova KJ, Modry D, Kato A, **MacIntosh AJJ** (2018) Fractal measures in activity patterns: do gastrointestinal parasites affect the complexity of sheep behaviour? *Appl Anim Behav Sci* 205:44-53
23. Sarabian C, Belais R, **MacIntosh AJJ** (2018) Feeding decisions under contamination risk in bonobos. *Phil Trans B* 373: 20170195
24. Frias L, Stark DJ, Salgado Lynn M, Nathan SKSS, Goossens B, Okamoto M, **MacIntosh AJJ** (2018) Lurking in the dark: Cryptic *Strongyloides* in a Bornean slow loris. *Int J Parasitol: Parasites & Wildlife* 7:141-146.
25. Sarabian C, Ngoubangoye B, **MacIntosh AJJ** (2017) Avoidance of biological contaminants through sight, smell and touch in chimpanzees. *R Soc Open Sci* 4:170968
26. Balasubramaniam KN, Beisner BA, Berman CM, De Marco A, Duboscq J, Koirala S, Majolo B, **MacIntosh AJ**, McFarland R, Molesti S, Ogawa H, Petit O, Schino G, Sosa S, Sueur C, Thierry B, de Waal FBM, and McCowan B (2017) The influence of phylogeny, social style, and sociodemographic factors on macaque social network structure. *Am J Primatol* 80(1):e22727
27. Duboscq J, Romano V, Sueur C, **MacIntosh AJJ** (2017) One step at a time in investigating relationships between self-directed behaviours and parasitological, social and environmental variables. *R Soc Open Sci* 4:170461
28. Meyer X, **MacIntosh AJJ**, Chiaradia A, Kato A, Mattern T, Sueur C, Ropert-Coudert Y (2017) Shallow divers, deep waters, and the rise of behavioural stochasticity. *Mar Biol* 164:149
29. Burgunder J, Hashimoto C, Modry D, Kalousova B, Petrzelkova K, **MacIntosh AJJ** (2017) Complexity in behavioural organisation and strongylid infection among wild chimpanzees. *Anim Behaviour* 129:257-268

30. Duboscq J, Romano V, Sueur C, MacIntosh AJJ (2016) Scratch that itch: revisiting links between self-directed behaviour and parasitological, social and environmental factors in a free-ranging primate. *R Soc Open Sci* 3:160571
31. Rigaill L, MacIntosh AJJ, Higham JP, Winters S, Shimizu K, Mouri K, Suzumura T, Furuichi T, Garcia C (2016) Testing for links between face color and age, dominance status, parity, weight, and intestinal nematode infection in a sample of female Japanese macaques. *Primates* 58:83-91
32. Duboscq J, Romano V, MacIntosh A, Sueur C (2016) Social information transmission in animals: Lessons from studies of diffusion. *Front Psych* 7:1147
33. Romano V, Duboscq J, Sueur C, MacIntosh AJJ (2016) Modelling infection transmission in primate networks to predict centrality-based risk. *Am J Primatol* 78:767–779
34. Duboscq J, Romano V, Sueur C, MacIntosh AJJ (2016) Network centrality and seasonality interact to predict lice load in a social primate. *Sci Rep* 6:22095
35. Sarabian C, MacIntosh AJJ (2015) Hygienic tendencies correlate with low geohelminth infection in free-ranging macaques. *Biol Lett* 11:20150757
36. †MacIntosh AJJ (2015) At the edge of chaos – error tolerance and the maintenance of Levy statistics in animal movement: Comment on "Liberating Lévy walk research from the shackles of optimal foraging" by A.M. Reynolds. *Phys Life Rev* 14:105–107
37. Reynolds AM, Ropert-Coudert Y, Kato A, Chiaradia A, MacIntosh AJJ (2015) A priority-based queuing process explanation for scale-free foraging behaviours. *Anim Behav* 108:67-71
38. Meyer X*, MacIntosh AJJ*, Kato A, Chiaradia A, Ropert-Coudert Y (2015) Hydrodynamic handicaps and organizational complexity in the foraging behavior of two free-ranging penguin species. *Anim Biotel* 3:25
39. Rigaill LR, MacIntosh AJJ, Higham JP, Winters S, Shimizu K, Mouri K, Furuichi T, Garcia C (2015) Multimodal advertisement of pregnancy in free-ranging female Japanese macaques (*Macaca fuscata*). *PLoS ONE* 10(8): e0135127
40. Ropert-Coudert Y, Kato A, Meyer X, Pellé M, MacIntosh AJJ, Angelier F, Chastel O, Widmann M, Arthur B, Raymond B, Raclot T (2015) A complete breeding failure in an Adélie penguin colony correlates with unusual, extreme environmental events. *Ecography* 38:111-113
41. †MacIntosh AJJ (2014) The fractal primate: interdisciplinary science and the math behind the monkey. *Pri Res* 30:95-119
42. †MacIntosh AJJ (2014) Ecology and epidemiology of nematode infection in Japanese macaques: building an empirical model. *Pri Res* 30:23-51
43. Pasquaretta C, Levé M, Claidière N, van de Waal E, Whiten A, MacIntosh AJJ, Pelé M, Borgeaud C, Brosnan S, Crofoot M, Fedigan L, Fichtel C, Hopper L, Mareno MC, Petit O, Schnoell AV, di Sorrentino EP, Thierry B, Tiddi B, Sueur C (2014) Social networks in primates: smart and tolerant species have more efficient networks. *Sci Rep* 4:7600
44. Hill DA, Fukui D, Agetsuma N, MacIntosh AJJ (2014) Influence of trap environment on the effectiveness of an acoustic lure for capturing vespertilionid bats in two temperate forest zones in Japan. *Mammal Study* 39:229-236
45. Cottin M*, MacIntosh AJJ*, Kato A, Takahashi A, Debin M, Raclot T, Ropert-Coudert Y (2014) Corticosterone administration leads to a transient alteration of foraging behaviour and complexity in a diving seabird. *Mar Ecol Progr Ser* 496:249-262
46. MacIntosh AJJ*, Pelletier L*, Chiaradia A, Kato A, Ropert-Coudert Y (2013) Temporal fractals in seabird foraging behaviour: diving through the scales of time. *Sci Rep* 3:1884
47. Sueur C, MacIntosh AJJ, Jacobs AT, Watanabe K, Petit O (2013) Predicting leadership using nutrient requirements and dominance rank of group members. *Behav Ecol Sociobiol* 67: 457-470
48. MacIntosh AJJ, Jacobs A, Garcia C, Shimizu K, Mouri K, Huffman MA, Hernandez AD (2012) Monkeys in the middle: parasite transmission through the social network of a wild primate. *PLoS ONE* 7:e51144
49. Pebsworth PA, MacIntosh AJJ, Morgan HR, Huffman MA (2012) Factors influencing the ranging behaviour of chacma baboons (*Papio hamadryas ursinus*) living in a human-modified habitat. *Int J Primatol* 33:872-887

50. Zhang P, Li BG, Qi XG, **MacIntosh AJJ**, Watanabe K (2012) A proximity-based social network of a group of Sichuan snub-nosed monkeys (*Rhinopithecus roxellana*). *Int J Primatol* 33: 1081-1095
51. **MacIntosh AJJ**, Huffman MA, Nishiwaki K, Miyabe-Nishiwaki T (2012) Urological screening of a wild group of Japanese macaques (*Macaca fuscata yakui*): investigating trends in nutrition and health. *Int J Primatol* 33: 460-478
52. **MacIntosh AJJ**, Alados CL, Huffman MA (2011) Fractal analysis of behaviour in a wild primate: behavioural complexity in health and disease. *J R Soc Interface* 8(63):497–509
53. [**]**MacIntosh AJJ**, Hernandez AD, Huffman MA (2010) Host age, sex, and reproductive seasonality affect nematode parasitism in wild Japanese macaques. *Primates* 51:353–364
54. **MacIntosh AJJ**, Sicotte P (2009) Vigilance in ursine black and white colobus monkeys (*Colobus vellerosus*): an examination of the effects of conspecific threat and predation. *Am J Primatol* 71:919–927
55. Sicotte P, MacIntosh AJ (2004) Inter-group encounters and male incursions in *Colobus vellerosus* in Central Ghana. *Behaviour* 141(5):533–553
56. **MacIntosh AJJ** (2001) Rank relations in two captive juvenile male black-handed spider Monkeys (*Ateles geoffroyi*): a case study. *Laboratory Primate Newsletter* 40(2):1–4

BOOK CHAPTERS

1. Frias L, **MacIntosh AJJ** (2020) Global Diversity and Distribution of Soil-Transmitted Helminths in Monkeys. In: S Knauf & L Jones-Engel (eds) *Neglected Diseases in Monkeys - From the Monkey-Human Interface to One Health*. Springer Nature, pp. 291-322
2. Balasubramaniam KN, Sueur C, Huffman MA, **MacIntosh AJJ** (2020) Primate Infectious Disease Ecology: Insights and Future Directions at the Human-Macaque Interface. In: J-H Li et al. (eds) *The Behavioral Ecology of the Tibetan Macaque*. Springer, pp. 249-284
3. Duboscq J, Romano V, **MacIntosh AJJ** (2019) Social Behavior and Infectious Disease. In: J Choe (ed) *Encyclopedia of Animal Behavior, 2nd edition*. Elsevier, pp. 790-800
4. Frias L, **MacIntosh AJJ** (2019) Threatened Hosts, Threatened Parasites? Parasite Diversity and Distribution in Red-Listed Primates. In: A Behie et al. (eds) *Primate Research and Conservation in the Anthropocene*. Cambridge University Press, pp. 141-164
5. **MacIntosh AJ**, Frias L (2018) Parasites of gibbons. In: D Modry et al. (eds) *Parasites of apes: an atlas of coproscopic diagnostics*. Edition Chimaira, pp. 76–82
6. **MacIntosh AJJ**, Frias L (2017) "Coevolution of Hosts and Parasites". In: A Fuentes et al. (eds) *The International Encyclopedia of Primatology*. Wiley
7. **MacIntosh AJJ** (2017) "Pathogen". In: A Fuentes et al. (eds) *The International Encyclopedia of Primatology*. Wiley
8. Huffman MA, **MacIntosh AJJ** (2012) Plant-food diet of the Arashiyama Japanese macaques and its potential medicinal value. In: Leca J-B, Huffman MA, Vasey P (eds) *The Monkeys of Stormy Mountain: 60 Years of Primatological Research on the Japanese Macaques of Arashiyama*. Cambridge University Press, pp. 356–432
9. **MacIntosh AJJ**, Huffman MA (2010) Towards understanding the role of diet in host-parasite interactions: the case for Japanese macaques. In: Nakagawa N, Nakamichi M, Sugiura H (eds) *The Japanese macaques*. Springer, pp. 323–344
10. Hernandez AD, **MacIntosh AJ**, Huffman MA (2009) Primate parasite ecology: patterns and predictions from an on-going study of Japanese macaques. In: Huffman MA, Chapman CA (eds) *Primate parasite ecology: the dynamics of host-parasite relationships*. Cambridge University Press, pp. 387–401

SELECTED CONFERENCE PRESENTATIONS

[*]Best presentation prize
[†]Invited Talk

1. Frias L and **MacIntosh AJJ** (2021) Worming into the Anthropocene: disturbed parasite communities as indicators of ecosystem health. Commonwealth Science Conference 2021. Virtual (Feb. 22nd–26th, 2021)

2. Langgeng A, MacIntosh AJJ (2021) The Diversity of Gastrointestinal Helminths in Japanese Macaques of Jigokudani Snow Monkey Park. The 15th International Symposium on Primatology and Wildlife Science, Virtual Symposium
3. MacIntosh AJJ, Romano V, Duboscq J, Keuk K, Xu Z, Sueur C (2020) Monkeys in the Middle: Navigating the Costs and Benefits of Social Centrality. The 14th International Symposium on Primatology and Wildlife Science, Virtual Symposium
4. Xu Z, MacIntosh AJJ (2020) Comparative look at the transmission of parasites in macaque social and spatial networks. The 36th Congress of the Primatological Society of Japan. Virtual Conference
5. Keuk K, MacIntosh AJJ (2021) Enter SimuNet: a social network simulation framework, with a zest of empirism. The 15th International Symposium on Primatology and Wildlife Science, Virtual Symposium
6. Xu Z, MacIntosh AJJ (2020) Comparative look at the transmission of parasites in macaque social and spatial networks. The 14th International Symposium on Primatology and Wildlife Science, Virtual Symposium
7. Keuk K, MacIntosh AJJ (2020) Primate and Parasite communities in Sabah: the biodiversity-disease relationship across a Bornean landscape. The 14th International Symposium on Primatology and Wildlife Science, Virtual Symposium
8. Frias L, MacIntosh AJJ (2019) Worming into the Anthropocene: impacts of habitat fragmentation on parasite ecology. The 12th International Meeting of Asian Society of Conservation Medicine, Phnom Penh, Cambodia
9. MacIntosh AJJ, Meyer X, Chiaradia A, Kato A, Ropert-Coudert Y (2019) *Show me chaos! seeking fractal time in the behavior of indicator species*. The 29th International Congress for Conservation Biology, Kuala Lumpur, Malaysia.
10. Sarabian C, Plotnik JM, Curtis V, Chapman C, MacIntosh AJJ (2019) Conservation through disgust and public health: Introducing a new framework. The 29th International Congress for Conservation Biology, Kuala Lumpur, Malaysia
11. Sarabian C, Curtis V, Chapman C, MacIntosh AJJ (2019) Disgust as a tool to mitigate human-primate conflicts and enforce appropriate ecotourism practices? The 2nd African Primatological Society Conference, Entebbe, Uganda
12. MacIntosh AJJ, Frias L (2019) Altered parasite community structure in threatened primates. The 35th congress of the Primate Society of Japan, Kumamoto, Japan
13. MacIntosh AJJ, Martin CF (2019) Show me chaos! seeking fractal time in captive animal behavior. The 14th International Conference on Environmental Enrichment, Kyoto, Japan
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