## CV of the Researcher

# Cécile Sarabian, D. Sc. – www.cecilesarabian.com



#### PROFESSIONAL EXPERIENCE

# Oct. 2023 ~ Research Fellow, Institute for Advanced Study in Toulouse, France

Toulouse School of Economics, Université Toulouse Capitole

# Mar. - Sept. 2023 Canon Foundation Research Fellow, Nagoya University, Japan

Department of Cognitive & Psychological Sciences, Laboratory for Comparative Cognition & Neurobiology Advisor: Prof. Nobuyuki Kawai

# May 2022 - Jan. 2023 ▶ Postdoctoral Research Fellow, The University of Hong Kong, China

School of Biological Sciences, Applied Behavioural Ecology & Conservation Lab

Advisor: Dr. Hannah Mumby

# Sept. 2019 - Nov. 2021 **■ JSPS Postdoctoral Fellow, Kyoto University, Japan**

Primate Research Institute, Language & Intelligence Section

Advisors: Dr. Ikuma Adachi, Dr. Andrew MacIntosh

#### **EDUCATION**

# 2015-2019 ▶ PhD in Cognitive Ecology & Primatology, Kyoto University, Japan

Thesis: "Exploring the origins of disgust: Evolution of parasite avoidance behaviors in primates" Committee: Andrew MacIntosh; Takeshi Furuichi; Michael Huffman; Ikuma Adachi; invited: Valerie Curtis† (London School of Hygiene & Tropical Medicine)

# 2013-2014 MSc in Ecophysiology & Ethology, University of Strasbourg, France

Thesis: "In the dirt: Hygienic behaviors and revulsion for feces as parasite avoidance strategies in Japanese macaques of Koshima island" \*rank: 1/23\*

2012-2013 Research assistant, Kyoto University Primate Research Institute, Japan

2011-2012 1st year of MSc in Animal & Human Behavior, University of Rennes 1, France

# 2009-2011 ■ BSc in Animal Biology, University of Caen Normandy, France

Thesis: "Cannibalism in wild chimpanzees, a literature review"

2010-2011 Exchange student, Faculty of Science & Forestry, University of Joensuu, Finland

# RESEARCH PROJECTS

#### 2023~ Parasite avoidance and hygiene among Koshima macaques revisited

Co-I; PI: Andrew MacIntosh, Khalid Mazid (Kyoto University)

## 2023~ Primates' cognitive & physiological responses to bats and rats as natural disease reservoirs

PI; Co-Is: Nobuyuki Kawai (Nagoya University), Ikuma Adachi (Kyoto U), Anne Laudisoit (EcoHealth Alliance)

# 2022 Risk perception in human-wild boar interactions and wildlife management applications in Hong Kong

PI; Co-Is: Yifu Wang, Hannah Mumby (The University of Hong Kong)

#### 2021~ Conditioned aversion as a strategy for crop consumption mitigation in Himalayan langurs

Co-PI with Himani Nautiyal (Howard University); Co-I: Virendra Mathur (University of Toronto)

#### 2021-2023 Molecular tracing of traded otters to monitor and combat illegal trade in Southeast Asia

Co-I; PI: Worata Klinsawat (King Mongkut's University of Technology Thonburi)

Other Co-Is: Mayako Fujihara, Miho Murayama, Akiyuki Suzuki, Vanessa Gris (Kyoto University), Marie Sigaud (CESCO-MNHN), Wanlop Chutipong (King Mongkut's University of Technology Thonburi)

## 2021~ Attention and behavioral reactions to coprophagy in great apes

Co-I; PI: Yena Kim (Leiden University); Other Co-Is: Juan Perea Garcia, Mariska Kret (Leiden University)

# 2019-2021 Cognitive and physiological responses to disgust and fear elicitors in chimpanzees

<u>PI</u>; Co-Is: Ikuma Adachi, Andrew MacIntosh, André Gonçalves (Kyoto U), Nobuyuki Kawai (Nagoya U) **2019~ Primate community-based conservation** 

<u>Co-I</u>; PI: Victor Narat (CNRS/MNHN); Other Co-Is: Noémie Bonnin (Liverpool John Moores University), Gaspard Van Hamme (EHESS), Sarah Bortolamiol (CNRS/IPE & Ladyss)

-- part of the 'French-speaking Society of Primatology' working group Primate Community-based Conservation

# 2019~ Exotic animal cafés and wildlife trade in Japan

Co-PI with Marie Sigaud (CESCO-MNHN); Co-I: Tomomi Kitade (WWF/TRAFFIC Japan)

# 2016~ Contaminated food aversion in captive Asian elephants and welfare implications

<u>Co-PI</u> with Nachiketha Sharma (Kyoto University); Co-I: Yena Kim (Leiden University)

# 2014-2019 Parasite handling strategies in non-human primates

<u>PI</u>; Co-Is: Andrew MacIntosh, Takeshi Furuichi (Kyoto University), Clémence Poirotte (DPZ), Marie Charpentier (CNRS/CEFE), Barthélémy Ngoubangoye (CIRMF), Raphaël Belais (Lola ya Bonobo)

# **PUBLICATIONS**

- **15** peer-reviewed publications including 12 as (co-)first author. The following publications have evolved from my doctoral dissertation: 2, 4, 5, 7-12. Note: I prioritize open access non-profit & learned society-associated journals. \* = Corresponding author
- 15. <u>Sarabian C</u>, Wilkinson A, Sigaud M, Kano F, Tobajas J, Darmaillacq A-S, Kalema-Zikusoka G, Plotnik J, MacIntosh A (2023) **Disgust in animals and the application of disease avoidance to wildlife management and conservation**. *Journal of Animal Ecology* 92(8): 1489-1508
- -- part of the special issue: Contemporary Methods for Studying Animal Sociality in the Wild (invited)
- 14. Sigaud M, Kitade T, <u>Sarabian C</u> (2023) Exotic animal cafés in Japan: a new fashion with potential implications for biodiversity, global health and animal welfare. *Conservation Science & Practice* e12867
- 13. Twining-Ward C, Ramos-Luna J, Back J, Barakagwira J, Cesar Bicca-Marques J, Chanvin M, Diko N, Duboscq J, Fan P, Galán-Acedo C, Gogarten J, Guo S, Guzman-Caro D, Hou R, Kalbitzer U, Kaplin B, Lee S, Mekonnen A, Mungongo P, Nautiyal H, Omeja P, Ramananjato V, Razafindratsima O, <u>Sarabian C</u>, Sarkar D, Serio-Silva J, Yanti R, Chapman C (2022) **Social media's potential to promote conservation at the local level:** An assessment in eleven primate range countries. *Folia Primatologica* 1: 1-11
- 12. <u>Sarabian C</u>, Belais R, MacIntosh A (2021) **Avoidance of contaminated food correlates with low protozoan infection in bonobos.** *Frontiers in Ecology & Evolution* **9: 651159**
- -- part of the special issue: Ecology and Evolution of Non-Consumptive Effects in Host-Parasite Interactions (invited)
- 11. <u>Sarabian C</u>, Ngoubangoye B, MacIntosh A (2020) **Divergent strategies in faeces avoidance** between two cercopithecoid primates. *Royal Society Open Science* 7(3): 191861
- 10. Poirotte C\*, <u>Sarabian C</u>\*, Ngoubangoye B, MacIntosh A\*\*, Charpentier M\*\* (2019) **Faecal avoidance differs** between the sexes but not with nematode infection risk in mandrills. *Animal Behaviour* 149: 97-106
- 9. <u>Sarabian C</u>, Curtis V, McMullan R (2018) **Evolution of pathogen and parasite avoidance behaviours**. **Philosophical Transactions of the Royal Society B** 373(1751): 20170256
- -- part of the special issue: Evolution of pathogen and parasite avoidance behaviours (co-edited)
- 8. <u>Sarabian C</u>, Belais R, MacIntosh A (2018) **Feeding decisions under contamination risk in bonobos**. *Philosophical Transactions of the Royal Society B* 373(1751): 20170195
- -- part of the special issue: Evolution of pathogen and parasite avoidance behaviours (co-edited)
- 7. <u>Sarabian C</u>, Ngoubangoye B, MacIntosh A (2017) **Avoidance of biological contaminants through sight, smell and touch in chimpanzees.** *Royal Society Open Science* **4(11): 170968**
- 6. Romano V, Duboscq J, <u>Sarabian C</u>, Thomas E, Sueur C, MacIntosh A (2016) **Modeling infection transmission in primate networks to predict centrality-based risk**. *American Journal of Primatology* 78(3): 22542

- 5. <u>Sarabian C</u>, MacIntosh A (2015) **Hygienic tendencies correlate with low geohelminth infection in free-ranging macaques**. *Biology Letters* 11(11): 20150757 ----- Book Chapters -----
- 4. <u>Sarabian C</u> (In Press) **Les origines du dégoût : Évitement du risque infectieux par les sens chez les primates** [*The origins of disgust: Sensory avoidance of infection risk in primates*]. In Battesti V & Candau J « Apprendre des sens, apprendre par les sens : anthropologie des perceptions sensorielles [*Learning from the senses, learning through the senses: Anthropology of sensory perceptions*] » **Éditions PETRA**, Paris
- 3. <u>Sarabian C</u> (2017) **Répartition géographique et éthologie de l'Ours** [Geographical distribution and ethology of bears]. In Hoffmann-Schickel K, Le Roux P, Navet E « Sous la peau de l'Ours, L'humanité et les ursidés : approche interdisciplinaire [Under the skin of bear, humanity and bears: interdisciplinary approach]» **Connaissances et Savoirs**, Paris
- ---- PhD Thesis ----
- 2. <u>Sarabian C</u> (2019) Exploring the origins of disgust: Evolution of parasite avoidance behaviors in primates. **Kyoto University**, Kyoto, Japan, 149pp. (accessible via KURENAI)
- ---- Position Paper ----
- 1. Hong Kong Wildlife Trade Working Group (2022) Position paper on the live exotic animal pet trade. *ADM Capital Foundation*. Hong Kong, Hong Kong SAR (accessible online)

# **PRESENTATIONS**

**98** presentations (82 as lead author) at international/domestic conferences including **4 invited plenary & keynotes** leading to **4 awards**; 29 invited lectures/seminars and **10 outreach in recreative settings**; see website

#### ---- Selected Conference Presentations -----

<u>Sarabian C</u> (2023) Aux origines du dégoût : Perception & évitement du risque infectieux chez les primates. RESHAPE working group annual meeting, **Marseille**, **France** 

<u>Sarabian C</u>, Laudisoit A (2022) Cascading effects of forest fragmentation on species interaction webs: Hints from DRCongo. British Ecological Society Annual Meeting, **Edinburgh**, **United Kingdom** -- part of the co-organized symposium: Human-wildlife interactions in the Global South

<u>Sarabian C</u>, Kim Y, Sharma N (2022) Contaminated food aversion in captive Asian elephants. International **Elephant Conservation & Research Symposium**, Virtual (Online)

<u>Sarabian C</u>, MacIntosh A, Adachi I (2021) Exploring the effects of disgust-related images on cognition in chimpanzees. CogSci 2021 Comparative Cognition - Animal Minds, Vienna, Austria (Online poster)

<u>Sarabian C</u>, Plotnik J, Curtis V, Chapman C, MacIntosh A (2019) Conservation through disgust and public health: Introducing a new framework. International Congress for Conservation Biology (ICCB), **Kuala Lumpur**, **Malaysia** <u>Sarabian C</u>, Belais R, MacIntosh A (2018) Feeding decisions under contamination risk in bonobos. 27<sup>th</sup> International Primatological Society Congress, **Nairobi**, **Kenya** 

<u>Sarabian C</u>, MacIntosh A (2016) A primate's sense of cleanliness: perspectives from *Papionini* and *Hominini*. Congress of the International Primatological Society, **Chicago**, **United States** 

<u>Sarabian C</u>, MacIntosh A (2014) Hygienic behaviors and revulsion as parasite avoidance adaptations in Japanese macaques. International Primatological Society Congress, **Hanoi**, **Vietnam** (Poster)

## ---- Invited Plenary & Keynotes ----

<u>Sarabian C</u> (2020) Yuck! Behavioral immunity and potential conservation applications. The Association for the Study of Animal Behaviour (ASAB) Virtual Conference (theme: "How do pathogens and parasites affect behaviour?"), **London**, **United Kingdom** [*Plenary*]

<u>Sarabian C</u> (2019) Avoidance of biological contaminants in social primates. The Cognition, Behavior, Evolution & Network Conference (theme: "The costs and benefits of sociality"), **Amsterdam, the Netherlands** [*Keynote*]

<u>Sarabian C</u> (2019) Avoidance of biological contaminants in non-human primates. The 26<sup>th</sup> Annual PNIRS and GEBIN Scientific Meeting (member-sponsored symposium: "Disease avoidance: our first line of defense against pathogenic threats"), **Berlin, Germany** [*Keynote*]

<u>Sarabian C</u> (2017) A primate's sense of cleanliness: perspectives from *Papionini* and *Hominini*. Royal Society Theo Murphy International Scientific Meeting ("Evolution of parasite and pathogen avoidance behaviours"), **Buckinghamshire**, **United Kingdom** [Keynote] -- co-organized scientific meeting

#### ---- Invited Lectures & Seminars ----

International Wildlife Rehabilitation Council *USA*; Stirling University *UK*; University of Nîmes *France*; Leiden University *the Netherlands*; Muséum National d'Histoire Naturelle *France*; The University of Hong Kong *China*; EcoHealth Alliance *USA*; Max Planck Institute of Animal Behavior *Germany*; European Federation of Primatology *the Netherlands*; Kyoto University *Japan*; Maison Franco-Japonaise *Japan*; Dartmouth College *USA*; Robert Koch Institute *Germany*; Max Planck Institute for Evolutionary Anthropology *Germany*; German Primate Center *Germany*; University of Strasbourg *France*; Musée de l'Homme *France*; University of Oxford *UK*; University of California Davis *USA*; University of Kinshasa *DRCongo*; Lola ya Bonobo Sanctuary *DRCongo*; National Institute of Ecology *South Korea*; Centre International de Recherches Médicales de Franceville *Gabon*; Ngamba Island Chimpanzee Sanctuary *Uganda*; CNRS Station of Primatology *France* 

## ---- Outreach -----

Maison des Ceriseaux *France*; Exploring by the seat of your pants *Canada* (virtual); Gifu Kamo High School *Japan*; Inuyama Nerds *Japan*; Nerd Nite Kansai *Japan*; Biodiversity Foundation *South Korea*; Kalinzu Forest Education Center *Uganda*; Pierre Hilly Primary School *France* 

# CO-ORGANIZATION OF INTERNATIONAL CONFERENCES & SYMPOSIUMS

- 4. "Human-wildlife interactions in the Global South: A lens to navigate, assess and address ecological challenges", symposium at **British Ecological Society Meeting**, Edinburgh, United Kingdom (2022)
- 3. "(Anthropo)zoonotic disease risk to primates in fragmenting.ed landscapes", symposium at the **International Congress for Conservation Biology**, Kigali, Rwanda (2021)
- 2. Roundtable between Kyoto University and CNRS researchers, Musée de l'Homme, Paris, France (2018)
- 1. "Evolution of pathogen and parasite avoidance behaviours", **Royal Society Theo Murphy International Scientific Meeting**, Buckinghamshire, United Kingdom (2017) which led to a special issue in Phil. Trans. B

# TRANS-CONTINENTAL RESEARCH EXPERIENCE

Hong Kong, China (2022; 7mo); Primate Research Institute/Center for the Evolutionary Origins of Human Behavior/Nagoya University, Japan (2013-2023; 6y); Wamba, DRCongo (2018; 5mo); Lola ya Bonobo Sanctuary, DRCongo (2016; 3mo); CIRMF, Gabon (2015; 4mo); Koshima island, Japan (2012-2014; 14mo); Hellabrunn Zoo, Germany (2012; 2mo); CNRS Station of Primatology, France (2012; 2mo); Help Congo, Congo (2010; 2mo)

# PARTICIPATION IN INDUSTRIAL INNOVATION

**2020** WildPic: a mobile camera application (based on disgust) that will make you keep an appropriate distance with wildlife. Conservation X Labs challenge (PI); not funded. Currently under discussion for funding by Wildlife Conservation Network and *Develop for Good* 

# AWARDS, PRIZES & FUNDING

>€ 330,000 from organizations, companies and governments in Europe, Japan, India and Hong Kong

2023-2026 Institute for Advanced Study in Toulouse, Research Fellowship – €126,000 (10% success rate)

**2023** Marie Sklodowska-Curie, Postdoctoral Fellowship (Seal of Excellence)

2023 Canon Foundation in Europe, Research Fellowship – € 13,400 (10% success rate)

2022 The University of Hong Kong, Travel Grant – € 2,100

2021-2022 INLAKS India Foundation, Small Grant (Co-I) – € 2,600

2021-2022 Japan-ASEAN Science, Technology and Innovation Platform, Research Grant (Co-I) – € 5,000

2019-2021 Japan Society for the Promotion of Science, Postdoctoral Fellowship – € 63,000 (10% success rate)

- 2017-2019 Japan Society for the Promotion of Science, Doctoral Fellowship € 56,000 (10% success rate)
- 2017 The Royal Society, Travel Grant € 1,000
- 2017 Oral Presentation Award. International Symposium on Primatology and Wildlife Science, Inuyama
- 2015-2018 Leading Graduate Program in Primatology and Wildlife Science Ad-libitum (fieldwork, conferences)
- 2015-2018 MEXT Japan, Doctoral Fellowship € 36,000 (25% success rate; declined last year to accept JSPS)
- 2014, 2015 Best Poster Awards (three times). International Symposium on Primatology and Wildlife Science
- 2014 University of Strasbourg, "Unistra" Scholarship, France € 750
- 2014 Region of Alsace, "Boussole" Scholarship, France € 1,000
- 2014 Montbell, Sponsorship, Japan Outdoor gear equipment worth € 1,000
- 2013 Cooperative Research Grant, Kyoto University Primate Research Institute, Japan € 500
- 2012-2013 Fondation Rennes 1, "Cesure+" Scholarship, France € 2,500 (among the first awardees)
- 2010-2011 European Union, Erasmus Mundus Scholarship, Brussels, Belgium € 3,700

# **MENTORING & TEACHING**

- 2023~ Khalid Mazid (PhD student, Kyoto University). Hygiene in non-human primates revisited
- 2022~ Sagarika Phalke (PhD student, The University of Hong Kong HKU). Cognitive bias in Asian elephants
- 2022 Chan Chung Hei (FYP student, HKU). Farmers' interest in novel wild boar deterrence methods
- 2022~ Sanjana Kadam (PhD student, Kyoto University). The impact of negative emotions on chimpanzee cognition.
- **2021**~ <u>Virendra Mathur</u> (PhD student, University of Toronto) Testing adaptive crop-deterrent methods with langurs in an Himalayan modified landscape
- **2019-2021** <u>Saein Lee</u> (PhD candidate, Ewha Womans University, South Korea) Responses to novel food in captive Hamadryas baboons: The role of sensory cues
- 2022 Guest lecturer (2h), Foundations of Human Knowledge course, HKU, Hong Kong
- 2020 Guest lecturer (1h), Exotic Sensory Systems, Dartmouth College, United States
- 2020 Interviewer (1h), CICASP Science communication workshop, Kyoto University, Japan
- 2015, 2017, 2020 Teaching assistant (8h), Conservation Biology, Kyoto University, Japan

# SCIENCE COMMUNICATION

## ---- Conservation Education Initiatives ----

**2015-2021** Conserv'Session: collective of students and postdocs organizing screenings of conservation/environment-/animal welfare-related documentaries and/or discussion between the public and invited experts to reflect on these issues, Kyoto and Inuyama, Japan (co-founder and facilitator)

**2014-2021** Conservation Voices for The PrimateCast: *a podcast series dedicated to animal conservation*, Inuyama, Japan (host and co-producer)

2013-2019 Roots & Shoots Iran: The Jane Goodall Institute education and environmental awareness program (founder of the first group in Iran & overseas coordinator)

#### ---- Popular Articles (as writer) -----

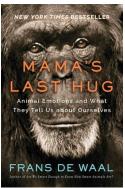
- 2023 Disease risk perception in animals and potential applications. Animal Ecology in Focus (EN, FR)
- 2018 A sense of disgust in bonobos? EurekAlert!. AAAS
- 2017 What grosses out a chimpanzee? EurekAlert!, AAAS
- 2017 In the dirt: do primates yuck? The Ethogram

# ---- Media Experience (as interviewee/reference) -----

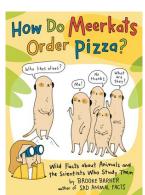
- 2023 Children's book on animals' emotions ("Les émotions des animaux") by Florence Pinaud
- 2023 Window closing on animal cafes due to health and welfare risks? Asahi Shimbun
- 2023 Facing extinction, but available for selfies in Japan's animal cafés. The New York Times
- 2023 A 'distinctly human' trait that might actually be universal. *The Atlantic*
- 2022 How do meerkats order pizza? Wild facts about animals and the scientists who study them by Brooke Barker
- 2022 The great adventure of taste ("La grande aventure du goût"). Le Monde de Jamy, France 3 ~1M TV viewers
- 2022 Animals disgusted too? ("Walgen dieren ook afkeer?"). Quest
- 2022 Animals are also disgusted by bad odors ("Walgen dieren ook van vieze geuren?"). De Standaard
- 2022 Interview on disgust with Alison George. New Scientist
- **2021** Sayonara, Cécile! (some reflections about studying the origins of disgust at KUPRI). *The PrimateCast* (#59)
- 2021 Children's book on animal emotions, chapter on disgust ("Ik voel ik voel wat jij niet ziet") by Lotte Stegeman

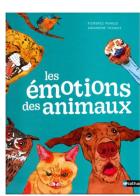
- 2021 The evolution of disgust and hygiene, and conservation. The Dissenter (#511), YouTube 724 views
- **2021** Ever feel your skin crawling? Maybe you can thank evolution. *The New York Times*
- 2021 Do not read this at lunch. The Atlantic
- **2021** Immune cells are more paranoid than we thought. *The Atlantic*
- 2021 The mere sight of illness may kick-start a canary's immune system. Science News
- **2021** The Entertainer. Who shat on the floor at my wedding? (Podcast; Episode 8)
- 2020 Giant pandas may roll in horse poop to feel warm. Science News
- 2020 That's disgusting: how primates decide what not to eat. Research Outreach
- 2020 What makes gross things gross? Brains On! Science show for curious kids (and adults)
- 2019 Mama's last hug: Animal emotions and what they tell us about ourselves. NYT bestseller by Frans de Waal
- 2018 The origins of disgust. MindField, VSauce, YouTube 973,000 views
- 2018 Why humans feel disgust, and why other animals might too. SciShow, YouTube 120,000 views
- 2018 Fastidious apes turn up their noses at filthy food. Nature
- 2017 What disgusts chimpanzees? The same as us ("O que causa nojo aos chimpanzés? O mesmo que a nós"). Público
- 2017 Is disgust a universal emotion? The Wire
- 2015 Monkeys keep their food clean, sort of. Discover
- 2013 The macaques of Koshima ("Les macaques de l'île de Koshima"). Allô la Planète, Le Mouv', Radio France











# **EDITORIAL SERVICES**

Guest Editor: Philosophical Transactions of the Royal Society B

-- In 2018, I co-edited with Dr. Rachel McMullan (The Open University) the above-mentioned special issue

**Ad-Hoc Reviewer**: Animal Behaviour, Animals, Behavioral Ecology & Sociobiology, Behaviour, Behavioural Processes, Biology, Biology Letters, Conservation Biology, Current Zoology, Diversity, EcoHealth, Environmental Science & Technology, Evolution and Human Behavior, Frontiers in Conservation Science, Frontiers in Veterinary Science, Functional Ecology, International Journal of Primatology, Journal of Experimental Biology, Methods in Ecology & Evolution, Nature Communications, Oikos, Parasitology, PeerJ, Philosophical Transactions of the Royal Society B, PLoS One, Primates, Proceedings of the Royal Society B