



TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

ID CODE 4712  
(Fellowship 1)

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at **Dipartimento di Scienze e Politiche Ambientali**

Scientist- in - charge: **Prof. Diego Rubolini**

[Sara Raj Pant]

## CURRICULUM VITAE

### PERSONAL INFORMATION

Surname	Raj Pant
Name	Sara
Date of birth	07/02/1991

### PRESENT OCCUPATION

Appointment	Structure
Guest researcher: working (remotely) on publishing papers from my recently completed PhD	University of Groningen (Netherlands)

### EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
Degree			
Specialization			
PhD	Behavioural Ecology	University of Groningen (Netherlands) & University of East Anglia (UK)	2019
Master	MSci Biological Sciences (4-years programme: 3 undergraduate years + a final master's year)	University College London (UK)	2013
Degree of medical			



specialization			
Degree of European specialization			
Other			

## REGISTRATION IN PROFESSIONAL ASSOCIATIONS

Date of registration	Association	City
2020	American Genetics Association	
2016	International Society of Behavioural Ecology	
2016	European Society for Evolutionary Biology	
2016	The Genetics Society	
2015	Association for the Study of Animal Behaviour	
2013	British Ecological Society	

## FOREIGN LANGUAGES

Languages	level of knowledge
Italian	Fluent (mother tongue)
English	Fluent
Spanish	Medium proficient
Nepali	Medium proficient
Dutch	Basic

## AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2020	Funds from the Berlin Natural History Museum for the invited talk presented at the evolutionary ecology seminar of the museum
2018	International Society for Behavioural Ecology (ISBE) travel award for the oral presentation at the 2018 ISBE conference
2015	Four-year PhD scholarship from the universities of Groningen and East Anglia
2015	British Trust for Ornithology travel grant for the bird-ringing training at the North Ronaldsay Bird Observatory (Orkney, UK)
2013	British Ecological Society and University College London grants for course fees and travel expenses of the advanced course in tropical ecology and conservation run by the Tropical Biology Association in September 2013 in Laikipia, Kenya
2013	University College London award for best poster & presentation of MSci Biological Sciences student research projects of 2013



## TRAINING OR RESEARCH ACTIVITY

### POST-MSci TRAINING

#### Field training

April-June 2015: Volunteer and trainee bird ringer at the **North Ronaldsay Bird Observatory** (Orkney, UK)

- Training in trapping and ringing different bird species by British Trust for Ornithology qualified ringers.
- Bird surveys, marine mammal monitoring, database organization, data analysis and estate management activities.

September 2013: Advanced field course in tropical ecology and conservation run by the **Tropical Biology Association** in Laikipia, Kenya.

#### Other courses

October-November 2015: Attendance of the postgraduate course *Univariate Statistics* in statistics using SPSS, taught by Prof. Jenny Gill (**University of East Anglia**)

November-December 2015: Attendance of the postgraduate course *Multivariate Statistics* in statistics using SPSS, taught by Prof. Jenny Gill (**University of East Anglia**)

30 November-4 December 2015: Attendance of the advanced course *Advancing in statistical modelling using R*, taught by Dr Luc Bussière and Dr Tom Houslay (**University of Glasgow**)

12 January-24 February 2016: Attendance of the postgraduate course *Statistics and modelling for scientists using R*, taught by Dr Douglas Yu (**University of East Anglia**)

31 October - 4 November 2016: Attendance of the advanced course *Short Course in Evolutionary Quantitative Genetics* taught by Prof Bruce Walsh (**University of Edinburgh**)

May-June 2017: Attendance of the postgraduate course *Advanced course in statistics and R*, taught by Prof. Ido Pen (**University of Groningen**)

October-November 2016: Attendance of the postgraduate course *GIS and its applications for modelling ecological and environmental change* taught by Dr Aldina Franco, Dr Iain Lake and Dr Katy Appleton (**University of East Anglia**).

November 2017-February 2018: Attendance of the postgraduate course *Writing a Scientific Article in 15 weeks*, taught by Dr Esther Chang (**University of Groningen**).

### RESEARCH PLACEMENTS AND ACTIVITIES

August-September 2015 & June-August 2016: Preliminary and main PhD fieldwork (**Seychelles warbler project**) on Cousin, Seychelles.

- Field season organization, including arranging research permits, equipment, field assistant and data-checking.
- Capture (with mist-nets), ringing and blood-sampling of birds.
- Tracking colour-ringed individuals, mapping their territories and finding nests.
- Behavioural observations for individual status assignment and monitoring of reproductive behaviour.



- Insect surveys and vegetation mapping.

June-August 2015: Funded research assistantship - **Pheasant Ecology and Cognition Project (University of Exeter)** based at the North Wyke Farm (Rothamsted Research, Okehampton, UK).

- Hand-rearing and training of juvenile pheasants in different behavioural tasks.
- Performance and video-recording of cognitive experiments.
- Analysis of videos and contribution in the writing of a scientific paper.

December 2013-November 2014: Volunteer research assistantship - **Kalahari Meerkat Project (University of Cambridge)** based at the Kuruman River Reserve, South Africa.

- Field data collection on habituated meerkat groups involved radio-tracking, weight measurements and behavioural observations.
- Other research activities: habituation of wild individuals, involvement in experimental work and assistance in radio-collaring, collecting measurements and blood samples during captures.
- Additional responsibilities: mapping of meerkat groups, data checks and data processing on the long-term database, faecal and urine sample sorting.

September-November 2014: Independent preliminary field study on rodent seed dispersal, advised by Prof. Jeremy Midgley (**University of Cape Town**)

- Field experiments were based at the Kuruman River Reserve (South Africa) and aimed at investigating the dispersal of seeds by small rodents.
- Experiments involved seed collection, tagging and use of camera trails.

June-August 2013: Independent research project on social information use in bumblebees, advised by Prof. Elli Leadbeater at **Queen Mary's University of London**.

- Lab-based behavioural experiments on naive *Bombus terrestris* foragers.
- Field capture of individuals belonging to five *Bombus* species (used as social cues in the experiments).

July-September 2012: Funded research internship on the evolution of body size in sloths, supervised by Prof. Anjali Goswami at **University College London**.

- Literature search for data on the body size of extinct and extant sloth species.
- Data analysis and write-up of a scientific paper.

July 2011: Volunteer placement - **London Wildlife Trust**.

- Biodiversity surveys.
- Maintenance of the nature reserve.
- Educational activities for visitors, including environmental education sessions for schoolchildren, and contribution to the production of environmental awareness videos.

## PROJECT ACTIVITY

Year	Project
2015-2019	PhD project: understanding the evolution of infidelity using the Seychelles warbler system (University of Groningen & University of East Anglia)



2015	Collaboration on the Pheasant Ecology and Cognition Project investigating the variation in individual performance in cognitive tasks by hand-reared pheasants (directed by Prof. Joah Madden, University of Exeter)
2014	Independent preliminary field study on rodent seed dispersal at the Kuruman River Reserve (South Africa), advised by Prof. Jeremy Midgley (University of Cape Town)
2013	Independent research project on social information use in bumblebees, advised by Prof. Elli Leadbeater at Queen Mary's University of London
2012	Collaboration on the project on the evolution of body size in sloths, supervised by Prof. Anjali Goswami at University College London
2011	Independent project on pond water quality and macro-invertebrate species composition at the Camley Street Nature Reserve in London (London Wildlife Trust)

## PATENTS

Patent

## CONGRESSES AND SEMINARS

Date	Title	Place
20 February 2020	Evolutionary biology seminar - invited oral contribution	Berlin Natural History Museum (Germany)
13 August 2018	ISBE (International Society of Behavioural Ecology) 2018 - oral presentation	University of Minnesota (USA)
20-25 August 2017	ESEB (European Society for Evolutionary Biology) 2017 - poster presentation and help in the organization and running of the conference	University of Groningen (Netherlands)
14-15 March 2016	CEEC (Centre for Ecology Evolution and Conservation) Rebellion Conference 2016 - organization and running of the conference within a team of PhD candidates	University of East Anglia (UK)
18-20 March 2015	ASAB (Association for the Study of Animal Behaviour) Easter Conference 2015 - poster presentation	Durham University (UK)

## PUBLICATIONS

Books
[title, place, publishing house, year ...]
[title, place, publishing house, year ...]
[title, place, publishing house, year ...]

Articles in reviews
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<u>Published/accepted:</u>
<b>Raj Pant S</b> , Hammers M, Komdeur J, Burke T, Dugdale HL, Richardson DS (accepted). Age-dependent changes in infidelity in Seychelles warblers. <i>Molecular Ecology</i>
<b>Raj Pant S</b> , Komdeur J, Burke T, Dugdale HL, Richardson DS (2019). Socio-ecological conditions and female infidelity in the Seychelles warbler. <i>Behavioural Ecology</i> , 30, 1254-1264
Meier C, <b>Raj Pant S</b> , van Horik JO, Laker PR, Langley EJJ, Whiteside MA, Verbruggen F, Madden JR (2017). A novel continuous inhibitory-control task: variation in individual performance by young pheasants ( <i>Phasianus colchicus</i> ). <i>Animal Cognition</i> , 20, 1035-1047
<b>Raj Pant S</b> , Goswami A, Finarelli J (2014). Complex body size trends in the evolution of sloths ( <i>Xenarthra: Pilosa</i> ). <i>BMC Evolutionary Biology</i> , 14, 184
<u>In the pipeline:</u>
<b>Raj Pant S</b> , Veerstegh M, Hammers M, Burke T, Dugdale HL, Richardson DS, Komdeur J. The contribution of infidelity to the lifetime and age-specific opportunity for selection in a socially monogamous species
<b>Raj Pant S</b> , Richardson DS, Komdeur J, Burke T, Dugdale HL. Heritability of female infidelity in a cooperatively breeding bird

Congress proceedings
[title, structure, place, year]
[title, structure, place, year]
[title, structure, place, year]

## OTHER INFORMATION

<u>Technical skills</u> <b>Statistics:</b> advanced statistical knowledge, including quantitative genetics (animal models) and Bayesian statistics. <b>IT:</b> R - data manipulation and statistical analyses; <i>Microsoft Access</i> - large dataset processing and query design; <i>ArcGIS</i> - data mapping; <i>TNT</i> , <i>Mesquite</i> and <i>Treefitter</i> - phylogenetic and biogeographic analyses. <b>Animal handling:</b> bird capturing, ringing, taking biometric measurements and blood sampling; small mammal trapping and handling; bee culturing, handling and behavioural experiments in the lab.
<u>Teaching</u> 2019: lectured at Master's level evolutionary ecology course (University of Groningen) 2019: teaching assistant in bio-statistics undergraduate course (University of Groningen) 2018-2019: supervision of undergraduate students in essay writing (University of Groningen) 2016-2017: teaching assistant in evolutionary biology undergraduate course (University of East Anglia) 2013: supervision of undergraduate students in lab experiments with bees (Queen Mary's University of London).
<u>Public outreach</u> •Speaker in the science podcast series <i>Museum Salon</i> (Berlin Natural History Museum).



- Gave an interview for the weekly University of Groningen newspaper (*UKrant*).
- Ran environmental education sessions for schoolchildren and contributed to the production of awareness videos at the Camley Street Nature Reserve in London (London Wildlife Trust).

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

Place and date: **Ghemme, 18/09/2020**

SIGNATURE