

ALIZA LE ROUX

ASSOCIATE PROFESSOR:

ZOOLOGY

NRF RATING: C2

VISION

With experience and training in inclusive leadership, I am ready to take the Natural & Agricultural Sciences faculty forward. The future of science is not only multidisciplinary, but transdisciplinary (impacting society) and highly collaborative. I will work to reduce the impact of physical isolation in Qwaqwa, encouraging intra-faculty collaborations and mentoring as well as connections with other faculties on campus, such as the development of a new multi-faculty "Science for Society" Honours program. Using my professional networks and project management expertise, I will create opportunities for new collaborative research ventures with other universities, and upgrade facilities to support teaching and research activities that embrace the 4th Industrial Revolution. I want the Qwaqwa NAS faculty to be known for its research excellence, engaged staff and students. Moreover, I intend to understand and build on individual staff members' strengths, actively fostering their career growth and development of leadership skills. I will lead by example and continue to do high-profile research while developing my own skill set. But the strength and diversity of my colleagues will be what makes this faculty shine.

OVERVIEW

- h-index = 13 (Scopus); 13 (Google Scholar)
- Peer-reviewed articles (published): **42**
- Successful external grants/awards: **11**
- **Postgraduate students** supervised (completed):
PhD: 4 (2); MSc: 4(3); BSc Hons: 7 (6).
- Postgraduate students co-supervised:
PhD: 1; MSc: 1 BSc Hons: 1
- Co-chair: South African Young Academy of Science (**SAYAS**) 2018-2019
- Fellow: African Science Leadership Program
- Executive council member: Zoological Society of Southern Africa (**ZSSA**)
- Highest qualification: **PhD** from Stellenbosch University (2007)

CONTACT INFORMATION

- Email: lerouxa3@ufs.ac.za
- Phone: 079 073 3477
- ORCID: 0000-0002-9869-2580
- University of the Free State Qwaqwa Campus, Private Bag X13, Phuthaditjhaba, 9866, South Africa

LEADERSHIP EXPERIENCE

ASSISTANT DEAN

NAS faculty, UFS | 2020-current

- Helping to steer faculty as a unified body across two campuses, during COVID pandemic
- Creating new vision for Qwaqwa campus, new Program Qualifications Mix, and standardized operational procedures

SUBJECT HEAD

Dept of Zoology & Entomology, UFS | 2013-2016;2019

- Spearheaded development and implementation of new Life Sciences curriculum
- Obtained funding for departmental Teaching & Learning workshop/retreat
- Led the departmental application for Central Research Funds on a multi-disciplinary project (Hunting for Health; 2018-current)
- Working with individual lecturers to improve T&L practices, publication outputs, and conflict management

COORDINATOR

Afromontane Research Unit | 2015-2017

- Coordinated 12 distinct research projects
- Obtained National Research Foundation (**NRF**) funding in support of highly successful ARU colloquium (2016), active part of organising committee
- Obtained R5 million in NRF bridge funding for new ARU building; worked with architects on building design and construction

CO-CHAIR

SAYAS | 2018-2019

- Overseeing all projects and activities in the Young Academy, strategising for its continued growth
- Principal investigator on national research project, assessing consequences of hidden aspects of young academics' identities
- Created and managed the popular **SAYAS blog**, giving voice to postgraduate students on a public, interactive platform (since 2015)

CHAIRPERSON

Gender Forum, Qwaqwa campus | 2016-2018

- Heading the only ITP (Internal Transformation Program) project currently in Qwaqwa, a mentorship project for female academics
- Steered successful activities such as Women's Day programs, and GLBTQI+ dialogues on campus

COMMUNITY ENGAGEMENT

- Researched student responses to **#Sciencemustfall**, presenting at ZSSA conference and SA Science Forum in 2017
- Hosted a popular symposium "Science for Society" at the 2017 ZSSA conference.
- Writing for popular press, (e.g., **The Conversation**); one of top 5 public scholars of the UFS in 2017
- Started a citizen-science project at Qwaqwa high schools
- Published a paper on a citizen-science collaboration with the Endangered Wildlife Trust
- Created transdisciplinary module, **Science for Society**
- Member of the nascent Qwaqwa **Community Engagement Management Committee**

RESEARCH: MAMMAL COGNITION | TEACHING & LEARNING

- NRF-rated researcher since 2013, describing the cognitive and behavioural responses of wild mammals to social / ecological challenges.
- Supervised 21 students to date (incl. current); two MSc students *graduating with distinction*
- Highest-impact paper to date: **Nature Communications** (IF 11:5)
- International collaborations include work with SnapShot Safari Project at University of Minnesota, Durham University in the UK.
- **Multidisciplinary projects** comprise research on diseases, urban ecology, and road ecology
- Published 2 papers and 1 book chapter on the **Scholarship of Teaching and Learning (SOTL)**
- Currently leading two research projects on early-career researchers, assessing factors impacting negatively and positive on career progress

AWARDS & RECOGNITION (SINCE JOINING UFS)

- 2019 - NRF rating upgraded (category C2)
- 2018 - Elected as co-chair: **South African Young Academy of Science (SAYAS)** for 2018/2019
- Product grant from Wildlife Acoustics
 - Institutional Transformation Plan grant for mentorship program
 - Afromontane Research Unit (ARU) grant for transdisciplinary pilot project
 - ARU **top academic award**
- 2017 - Co-investigator on successful NRF grant application: Community Engagement
- NRF Research Development Grant
- 2016 - NRF: Knowledge Interchange and Collaboration grant
- Selected as fellow of prestigious **African Science Leadership Program**
 - Selected to **Organisation of Women in Science in the Developing World**
 - NRF Infrastructure Bridging Fund
 - ARU seed funding
- 2014 - Elected to SAYAS; serving on Executive Committee 2014/2015
- 2013 - NRF: Thuthuka research grant
- NRF: Rated researcher (category Y2)
 - UFS **Vice-Chancellor's Award for Excellence in Teaching**
 - Winner of UFS-Qwaqwa's Innovation Award: Improving Teaching & Learning in your Department
- 2012 - Winner of UFS-Qwaqwa's Innovation Award: Excellence in Advancement of Student Learning

PUBLICATIONS (MOST RECENT)

1. Jumbam, K.R., Périquet, S., Dalerum, F., & le Roux, A. (2019). Spatial and temporal variation in the use of supplementary food in an obligate termite specialist, the bat-eared fox. *African Zoology* 54:63-71
2. Petelle, M., Périquet, S., & le Roux, A. (2019). Tameness does not correlate with the learning of an appetitive association in a wild canid. *Current Zoology* 65 (1); 61-65.
3. Le Roux, A., Mathibane, A.N., Nowak, K. (Accepted). Wild samango monkeys, *Cercopithecus mitis*, balance risk and opportunity to interact with novel objects in village gardens. *International Journal of Primatology*.
4. le Roux, A. (2018). Trends in behavioural ecology: Putting South African research in a global perspective. *South African Journal of Science* 114(5-6): 21-26.
5. Périquet, S., Roxburgh, L., le Roux, A., & Collinson, W. J. (2018). Testing the value of citizen science for roadkill studies: A case study from South Africa. *Frontiers in Ecology and Evolution* 6: <https://doi.org/10.3389/fevo.2018.00015>
6. Welch, R., le Roux, A., Petelle, M., & Périquet, S. (2018). The influence of environmental and social factors on high- and low-cost vigilance in bat-eared foxes. *Behavioral Ecology and Sociobiology* 72(2): 29.
7. Périquet, S., & A. le Roux. (2018). Seasonal patterns of habitat selection in the myrmecophagous bat-eared fox. *African Journal of Ecology* 56: 548-554.
8. de Bruin, R., Ganswindt, A., Laver, A., & le Roux, A. (2018). Friendly foxes: the relationship between steroid hormones and social behaviour in a monogamous African canid. *Frontiers in Zoology*. 306: 110-118. <https://doi.org/10.1111/jzo.12574>
9. Renda, S., & le Roux, A. (2017). Sensory ecology of prey detection in the bat-eared fox (*Otocyon megalotis*). *Behaviour* 154 (2): 227-240.
10. Nowak, K., Wimberger, K., Hill, R. A., Richards, S. A., & le Roux, A. (2017). Samango monkeys (*Cercopithecus albogularis labiatus*) manage risk in a seasonal, heterogeneous landscape in Amathole Mountains, South Africa. *International Journal of Primatology* 38: 194-206.
11. Welch, R., Périquet, S., Petelle, M., & le Roux, A. (2017). Hunter or hunted? Perceptions of risk and reward in a small mesopredator. *Journal of Mammalogy*. 98(6): 1531-1537.
12. De Bruin, R., Ganswindt, A., & le Roux, A. (2016). From killer to carer: Steroid hormones and paternal behaviour. *African Zoology* 51(4): 173-182.
13. Benitez, M., Beehner, J., Fischer, J., le Roux, A. & Bergman, T. (2016). Acoustic and temporal variation in gelada loud calls advertise male quality. *International Journal of Primatology* 37(4): 568–585.
14. Nowak, K. Richards, S.A., le Roux, A. & Hill, R. A. (2016). Influence of live-capture on risk perceptions of habituated samango monkeys. *Journal of Mammalogy* 97 (5): 1461-1468.
15. Jacobs, P.J. & le Roux, A. (2016). First report of a myrmecophagous bat-eared fox (*Otocyon megalotis*) hunting a hare (*Lepus* sp.). *African Journal of Ecology* 54(1): 128-130.
16. le Roux, A., Botha, H., Dalerum, F. & Ganswindt, A. (2016). Non-invasive measurement of adrenocortical activity in a myrmecophagous mammal, the bat-eared fox. *African Zoology* 51(1): 47-51.
17. Nowak, K., R. A. Hill, K. Wimberger, & A. le Roux. (2016). Risk-taking in samango monkeys in relation to humans at two sites in South Africa. In: *Ethnoprimateology: Primate Conservation in the 21st Century* (Ed. By M. Waller), pp. 301-314, UK: Springer.
18. le Roux, A. & Breshears, D. (2016). Introducing open source reference management software to a rural South African campus: Evaluating the effectiveness of workshops at the University of the Free State's Qwaqwa campus. *Journal of Higher Education in Africa* 14(2): 49-60.
19. le Roux, A. (2016). Inverted engagement: A case study of the flipped classroom on a rural South African campus. *Journal for New Generation Science* (special edition) 14(1): 51- 62.

EMPLOYMENT HISTORY

ASSOCIATE PROFESSOR

Dept of Zoology & Entomology, UFS | 2017 - present

- Developing undergraduate and BSc (Honours) modules; teaching an average of 4 modules per year
- Actively improving own Teaching & Learning practices, encouraging this in colleagues through targeted interventions
- Presenting on several topics to aid staff development, including "Combining Teaching and Research" and "Engaged Lecturing", supporting activities of the Center for Teaching and Learning
- Supervising and co-supervising students in Mammal Cognition Research Group, including a growing number of external students, in recognition of my expertise in cognitive ecology and bat-eared fox behaviour
- Structuring research group to optimize peer learning and skills development
- Reviewing funding applications for the NRF, Swiss National Science Foundation
- Moderator for external modules; examiner for theses, peer-reviewer for several international publications

SENIOR LECTURER

Dept of Zoology & Entomology, UFS | 2012-2016

- Playing central role in development and implementation of new curriculum
- Member of Ethics Committee: Natural and Agricultural Sciences (2014-2017)
- Obtain funding for research projects that encourage students to conduct local projects as well as those further afield, in Limpopo, Eastern Cape, and Northern Cape
- Member of Animal Behaviour Society's working group creating online teaching resources for behavioural ecologists
- Reviewer for several international scientific journals, including Behavioural Processes and Mammalian Biology

BIOLOGY LECTURER

Schoolcraft College, Michigan | Jan - April 2011

- Taught introductory Biology courses, including a bridging course for non-traditional students

POSTDOCTORAL RESEARCH FELLOW

University of Michigan | 2008-2011

- Studied cognition, communication, and cooperation in gelada monkeys in the Ethiopian Highlands
- Managed remote field site and logistics for two years
- Mentored graduate students through initial stages of their fieldwork, planning new projects, grant submissions, and data collection protocols
- Created workshops, networking opportunities and mentorship experiences for young women in science through the UM chapter of the Association for Women in Science (AWIS)

SCIENCE WRITER/ RESEARCH COORDINATOR

Stellenbosch University | June - Dec 2007

- Mentored postgraduate medical students (practicing psychiatrists) at the department of Psychiatry, advising them on data collection and analysis, thesis writing
- Manuscript editing, data analysis, and publication submission

EDUCATION

PhD

Zoology | 2007 | Stellenbosch University

- Thesis title: "Communication in the yellow mongoose, *Cynictis penicillata*."

MSc *

Zoology | 2001 | Stellenbosch University

* Graduated with distinction (Cum Laude)

- Thesis title: "Alarm vocalizations in Brants' whistling rat, *Parotomys brantsii*."

BSc

Zoology & Animal Physiology | 1998 | Stellenbosch University

- Coursework included mathematical biology, biochemistry, and botany

REFERENCES

PROF. CORLI WITTHUHN

Vice-Rector: Research, University of the Free State

Email: WitthuhnRC@ufs.ac.za

Phone: 051 401 2116

PROF. ANDRE GANSWINDT

Director: Mammal Research Institute, University of Pretoria

Email: andre.ganswindt@up.ac.za

Phone: 012 420 3776

DR CONNIE NSHEMEREIRWE

Educator and Researcher: The Partnership for African Social and Governance Research (PASGR)

PO Box 2100, Kampala, Uganda

Co-Chair: Global Young Academy (member of Inter-Academy Partnership)

Email: cnshemereirwe@gmail.com

Phone: +256 782 543 549