Alida de Flamingh (BSc., BSc. (hons), MSc., Ph.D.)

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EDUCATION

May 2024 - present

(IV) Postdoctoral Research Associate; Community-engaged and Indigenous centered research at the Center for Indigenous Science (CIS)

Carl R. Woese Institute for Genomic Biology, University of Illinois at Urbana-Champaign (UIUC)

My appointment at CIS focusses on the development of wet-lab and dry-lab (computational) methodologies for the analysis of present-day and ancient DNA data, and the anthropological, ecological, and evolutionary interpretation of these data. My ongoing projects include the development of a DNA analysis pipeline of seaweed and seawater samples as part of a community-collaborative educational pipeline with the SeaAlaska Heritiage Institute; the development of long(er) read (e.g., Oxford Nanopore Technology) sequencing approaches for application in ancient DNA research; and the development of wet-lab and dry-lab metagenomic computational approaches to analyze fauna and flora DNA content in soil from archeological sites. These projects are united in their aim to develop genome-based methodologies for exploring present and historic ecology of species of bio-cultural and socio-cultural importance to Indigenous communities.

Sept 2022 – May 2024

(III) Postdoctoral Research Associate; Ancient and modern salmon population genomics; in Dr. Julian Catchen & Dr. Ripan Malhi's laboratories UIUC, in research partnership with the Kenaitze Indian Tribe & Kenai Peninsula College. This collaborative project is ongoing and maps the use of salmon as cultural keystone species of Dena'ina peoples gaining insight into continuities and changes in the community's relationship with salmon through European contact to present times. I contributed to the initiation of genomic field work and sample collection, and community engagement. I visited Kenaitze Indian Tribe four times to collect samples, report results and further discussions about the project. I completed molecular and bioinformatic work on >60 present-day salmon (Illumina tagmentation short-read libraries, PacBio Hifi libraries, Tell-Seq libraries and Dovetail Hi-C libraries) and >40 ancient salmon genomes (Illumina short-read sequencing), and used comparative analyses to investigate population genomics at specific time points over 2,000 years.

May 2021 – Aug 2022

(II) Postdoctoral Research Associate in Dr. Ripan Malhi's lab; Department of Anthropology and Carl R. Woese Institute for Genomic Biology, UIUC

Project outcomes focused on building relationships and providing paleogenomic results of ancestors to community partners such as the Muwekma Ohlone Tribe in CA and the Blackfoot Confederacy (see Severson et al. 2022 and First Rider et al. 2024 in my publication list). Other projects included: the metagenomic analysis of saliva and other DNA from historic pipestems that were used by enslaved people and excavated on plantations in St. Lucia, as part of the *Resisting Silence* collaborative project with Dr. Ashley Coutu (Oxford), and training Sahara Vilchis (Indigenous scholar) and Ariane Thomas in ancient DNA analysis from dental calculus and from dog bones and teeth, respectively.

May 2020 – May 2021

(I) Postdoctoral Research Associate; Conservation Genomics; Dr. Alfred Roca's lab, Department of Animal Sciences, UIUC

In collaboration with the Conservation Ecology Research Unit (CERU) at the University of Pretoria (http://www.ceru.up.ac.za/) and with funding (which I negotiated) by with International Fund for Animal Welfare (https://www.ifaw.org), I developed methodologies to map out landscape linkages within and between elephant populations across the southern African continent. The design of these linkages relies on the integration of spatial telemetry information on elephant movement with historical and contemporary genetic profiles of elephant populations (see de Flamingh et al., 2024). I also developed and tested an accessible, non-invasive DNA collection and analysis protocol that allows for genome-scale analysis of wild and endangered species (see de Flamingh et al 2023). The outcomes of my postdoctoral research are broadly applicable to elephant and other animal conservation, and allows for the identification of priority conservation areas world-wide.

August 2015-May 2020

PhD Ecology, Evolution and Conservation biology (PEEC) – UIUC (GPA: 4.0 on a 4-scale)

Thesis title: Conservation genetics of African elephants, in Dr. Alfred Roca's lab at UIUC

I developed and applied genetic and spatial analyses to extirpated and extant elephant populations to inform local and regional African elephant conservation strategies. My PhD thesis research provides an interdisciplinary toolset and

framework for future conservation genetic studies that focus on wildlife conservation planning. I developed and evaluated an approach to delineate landscape connectivity corridors for African elephant conservation planning in southern Africa. My thesis research also showed that Kruger National Park's elephant population is part of a functional entity in which migration maintained a relatively diverse gene pool. As part of my thesis research, I studied ancient DNA from a 16th century Namibian shipwreck. I showed that present-day West African forest elephant populations have limited genetic diversity compared to that found in historical populations. My thesis research highlighted the need for proactive and preventative conservation strategies that aim to conserve the genetic diversity within remaining elephant populations.

January 2010-June 2013

MSc Zoology (*cum laude*), *Population Genetics*, University of Pretoria, South Africa. Thesis: Genetic structure of the savannah elephant population (*Loxodonta africana* (Blumenbach 1797)) in the Kavango-Zambezi Transfrontier Conservation Area. Supervisor: Prof. Rudi van Aarde, co-supervisor: Dr. Catherine Sole. External Examiners: Prof. Samuel Wasser (University of Washington, USA) and Prof. Paul Grobler (University of the Freestate, SA).

January- December 2009

BSc (hons) Zoology (*cum laude*), *Large-mammal Ecology*, University of Pretoria, SA. December 2009 Thesis: Elephants and People in the Landscape: a case study in the Caprivi region, Namibia. Supervisor: Prof. Rudi van Aarde, co-supervisor: Dr. Morgan Trimble

January 2004-December 2008

BSc Zoology, *Specialization in Ecology*, University of Pretoria, SA. December 2008 - Population Ecology (*cum laude*), Mammalogy (*cum laude*), Physiology (*cum laude*), Community Ecology, Ecophysiology (*cum laude*), Conservation Ecology, Behavioural Ecology (*cum laude*), and Evolution and Phylogeny

PUBLICATIONS

GOOGLE SCHOLAR: https://scholar.google.com/citations?hl=en&user=lPLjBRcAAAAJ
RESEARCH GATE: https://www.researchgate.net/profile/Alida_Flamingh
ORCID: https://orcid.org/0000-0003-1223-6654

PEER-REVIEWED JOURNAL ARTICLES

** Publication independent of MSc, PhD or postdoctoral advisor*

2025

1. Lopopolo, M., Avanzi, C., Duchene, S., Luisi, P., **de Flamingh, A.,** … Malhi, R., Rasmussen, S., Rascovan, N. (2025) Uncovering pre-European contact leprosy in the Americas and its enduring persistence. *Science* **368:** 6490. https://doi.org/10.1126/science.adu7144
2. ***** Hesselbarth, M. H., Nowosad, J., **de Flamingh**, A., Simpkins, C. E., Jung, M., Gerber, G., & Bosch, M. (2025). Computational Methods in Landscape Ecology. *Current Landscape Ecology Reports* ***10*:** 1-18. https://doi.org/10.1007/s40823-024-00104-6 *published online 16 December 2024*
3. Pečnerová, P., Ishida, Y., Garcia-Erill, G., Bertola, L., Santander, C., Liu, X., Brüniche-Olsen, A., Khan, A., Hennelly, L., Balboa, R., Lin, L., Rasmussen, M., Wang, X., Schubert, M., Al-Chaer, A., Urbaniak, S., Nobuta, K., Treadup, S., Viaud-Martinez, K., **de Flamingh, A.,** … Siegismund, H. and Roca, A. (*Accepted pending minor revision* - *Nature Communications*). The genomic consequences of population declines in the African savanna and forest elephants.
4. **de Flamingh, A.,** Perrin-Stowe, T., Guldemond, R., Coetzee, B.W.T., Roca, A.L., Miller, D.C., and Coutu, A. (*Under Review*) Towards sustainable conservation practices? Insights from a systematic review of human-elephant conflict mitigation strategies in Africa. Edited Volume: *Elephant Modernities*, as part of the *Future Rural Africa* series with James Currey and edited by Prof. Michael Bollig and Emilie Köhler.
5. **de Flamingh, A.,** Alexander, N., Diaz, J., Bader, A. and Malhi, R. (*Under Review – Conservation Biology*) Considerations for BioBanking non-human genome data: Indigenous data sovereignty, access and benefit sharing.

2024

6. Lanoë, F., Reuther, J., Fields, S., […], **de Flamingh, A.,** Kemp, B.M., Malhi, R.S., Witt, K. (2024) Late Pleistocene onset of mutualistic human/canid (*Canis* spp.) relationships in subarctic Alaska. *Science Advances* **10:** eads1335. https://doi.org/10.1126/sciadv.ads1335
7. **de Flamingh, A.**, Tom P. Gnoske, Julian C. Kerbis Peterhans, Velizar Simeonovski, Nduhiu Gitahi, Ogeto Mwebi, Bernard R. Agwanda, Julian M. Catchen, Alfred L. Roca, and Ripan Singh Malhi. (2024*)* Compacted Hair in Broken Carnivore Teeth Reveal Dietary Prey of Historic Lions. *Current Biology* **34:**1-8 https://doi.org/10.1016/j.cub.2024.09.029
8. First Rider, D., Crop Eared Wolf, A., Murray, J., **de Flamingh, A.,** Dos Santos, A.L.C., Lanoe, F., Zedeño, M.N., DeGiorgio, M., Lindo, J., & Malhi, R.S. (2024) Genomic analyses correspond with deep persistence of Blackfoot Confederacy from glacial times. *Science Advances* **10:** eadl6595 https://doi.org/10.1126/sciadv.adl6595

9. **de Flamingh, A.,** Gnoske, T., Rivera-Colón, A.G., Simeonovski, V., Kerbis Peterhans, J.C., Yamaguchi, N., Witt, K.E., Catchen, J., Roca, A.L. & Malhi, R.S. (2024) Genomic analysis supports Cape Lion population connectivity prior to colonial eradication and extinction. *Journal of Heredity* **115:** 155-165. https://doi.org/10.1093/jhered/esad081
10. Thomas, A.E., Hill, M.E., Stricker, L., Lavin, M., Givens, D., **de Flamingh, A.,** Witt, K.E., Malhi, R.S. and Kitchen, A. (2024) The Dogs of Tsenacomoco: Ancient DNA Reveals Presence of Local Dogs at Jamestown Colony in Early Seventeenth Century. *American Antiquity* (2024): 1-19.
11. **de Flamingh, A.,** Alexander, N., Schooley, R.L., Guldemondt, R., Malhi, R.S., van Aarde, R.J. & Roca, A.L. (2024) Integrating habitat use modeling with gene flow improves delineation of landscape connections among African savanna elephants. *Biodiversity and Conservation* **33:** 3231-3252. https://doi.org/10.1007/s10531-024-02910-0
12. ***** Alexander, N., **de Flamingh, A.,** Cosentino, B.J. & Schooley, R.L. Phylogenetic assessment within a species complex of a subterranean rodent (*Geomys bursarius*) with conservation implications for an isolated subspecies. *Journal of Heredity*, **115:** 565-574. https://doi.org/10.1093/jhered/esae035

2023

13. Rogers-LaVanne, M.P., Bader, A., **de Flamingh, A.** […] Ripan S. Malhi (2023) Association between gene methylation and experiences of historical trauma in Alaska Native Peoples. *International Journal for Equity in Health* ***22:*** *182.* https://doi.org/10.1186/s12939-023-01967-7
14. ***** Perrin-Stowe, T., Coon, J.J., Lynch, L.R., **de Flamingh,** A., Alexander, N.B., Golebie, E., Swartz, T.M., Bader, A.C., & Halsey, S.J. (2023) "Where do I even start?" Recommendations for faculty diversifying syllabi in the Life and Environmental Sciences. *Ecology and Evolution* **13:** e9719. https://doi.org/10.1002/ece3.9719
15. **de Flamingh, A.,** Rivera-Colón, A. G., Gnoske, T. P., Kerbis Peterhans, J. C., Catchen, J., Malhi, R. S., & Roca, A. L. (2023). Numt Parser: Automated identification and removal of nuclear mitochondrial pseudogenes (numts) for accurate mitochondrial genome reconstruction in Panthera. *Journal of Heredity*, *114*(2), 120-130. https://doi.org/10.1093/jhered/esac065
16. **de Flamingh, A.,** Ishida, Y., Pečnerová, P., Vilchis, S., Siegismund, H. R., Malhi, R. S., & Roca, A. L. (2023). Combining methods for non-invasive fecal DNA enables whole genome and metagenomic analyses in wildlife biology. *Frontiers in Genetics*, **13:** p.1021004 https://doi.org/10.3389/fgene.2022.1021004

2022

17. Severson, A.L., Byrd, B.F., Mallott, E.K., Owings, A.C., DeGiorgio, M., **de Flamingh, A.,** Nijmeh, C., Arellano, M., Leventhal, A., Rosenberg, N.A. & Malhi, R.S. (2022) Ancient and modern genomics of the Ohlone Indigenous population of California. *PNAS: Proceedings of the National Academy of Sciences* **119:** e2111533119. https://doi.org/10.1073/pnas.2111533119
18. ***** Bautista, C., Alfuraiji, N., Drangowska-Way, A., Ganwani, K., **de Flamingh, A**. & Bourne, P. (2022) Ten simple rules for improving communication among scientists. *PLOS Computational Biology* 18.6:e1010130
19. Yarlagadda, K., Zachwieja, A., **de Flamingh, A.,** Phungviwatnikul, T., Rivera-Colón, A., Roseman, C., Shackleford, L., Swanson, K., Malhi, R. (2022) Geographically diverse canid sampling provides novel insights into pre-industrial microbiomes. *Proceedings of the Royal Society B* **289**.1974: 20220052.

2021

20. **de Flamingh, A.,** Coutu, A., Sealy, J., Chirikure, S., Bastos, A.D.S., Libanda-Mubusisi, N.M., Malhi, R.S., Roca, A.L. (2021) Sourcing Elephant Ivory from a Sixteenth-Century Portuguese Shipwreck. *Current Biology* **31**: 621-628, DOI:https://doi.org/10.1016/j.cub.2020.10.086

2020

21. Buonasera, T., Eerkens, J., **de Flamingh, A.,** Engbring, L., Yip, J., Li, H., Haas, R., DiGiuseppe, D., Grant, D., Salemi, M., Nijmeh, C., Arellano, M., Leventhal, A., Phinney, B., Byrd, B., Malhi, R.S. & Parker, G. (2020) A Comparison of Proteomic, Genomic, and Osteological Methods of Archaeological Sex Estimation. *Scientific Reports* **10**:11897 DOI: https://doi.org/10.1038/s41598-020-68550-w
22. ***** Borthwick, R., **de Flamingh, A.,** Hesselbarth, M., Parandhaman, A., Holland, J., Wagner, H.H., and Abdel Moniem, H.E. (2020) Alternative quantifications of landscape complementarity to model gene flow in Banded Longhorn Beetle (*Typocerus velutinus velutinus*). *Frontiers in Genetics* **11:** 307 DOI: https://doi.org/10.3389/fgene.2020.00307
23. **de Flamingh, A.,** Coutu, A., Chirikure, S., Roca, A.L. & Malhi, R.S. (2020) Accurate sex identification of ancient elephant and other animal remains using low coverage DNA shotgun sequencing data *G3: Genes, Genomes, Genetics,* **10:** 1427–1432*,* DOI: https://doi.org/10.1534/g3.119.400833

2019

24. Zhao, K., Ishida, Y., Green, C.E., Davidson, A.G., Sitam, F.A.T., Donnelly, C.L., **de Flamingh, A.,** Perrin-Stowe, T.I.N., Bourgeois, S., Brandt, A.L., Mundis, S.J., van Aarde, R.J., Greenberg, J.A., Malhi, R.S.,

Georgiadis, N.J., McEwing, R. and Roca, A.L. (2019) Loxodonta Localizer: a software tool for inferring the provenance of African elephants and their ivory using mitochondrial DNA, *Journal of Heredity* **110** (7): *761-768* DOI: https://doi.org/10.1093/jhered/esz058

2018

25. **de Flamingh, A.**, Roca, A.L. and van Aarde, R. (2018) Origin and phylogeography of African savannah elephants (*Loxodonta africana*) in Kruger and nearby parks in southern Africa. *Conservation Genetics*, **19**:155-167 DOI: https://doi.org/10.1007/s10592-017-1005-z
26. **de Flamingh, A.,** Malhi, R.S., Roca, A.L. (2018) Species identification and mitochondrial genomes of ancient fish bones from the Riverine Kachemak tradition of the Kenai Peninsula, Alaska. *Mitochondrial DNA: Part B*, **3**: 409-411 DOI: https://doi.org/10.1080/23802359.2018.1456371

2015

27. **de Flamingh, A.,** Sole, C.L. and van Aarde, R. (2015) Genetic evidence for spatial structuring in a continuous African elephant (*Loxodonta africana*) population, *Conservation Genetics* **16**:613-623 DOI: https://doi.org/10.1007/s10592-014-0686-9

2014

28. **de Flamingh, A.,** Sole, C.L. and van Aarde, R. (2014) Microsatellite repeat motif and amplicon length affect amplification success of degraded faecal DNA. *Conservation Genetics Resources*, **6**:503-505 DOI: https://doi.org/10.1007/s12686-014-0160-5

BOOKS & BOOK CHAPTERS

van Aarde, R.J., **de Flamingh, A.,** Fourie, J., Guldemond, R., Lee, T., Mole, M., Norgaard, C., Ntumi, C., Olivier, P., D'Araujo, S.R., Roever, C., Trimble, M., & Young, K. 2013. *Elephants: A way forward.* Conservation Ecology Research Unit, University of Pretoria and the International Fund for Animal Welfare, Cape Town, South Africa. (https://issuu.com/ifaw/docs/a_way_forward_ceru-ifaw)

ARTICLE REVIEW FOR (SELECTED LIST)

American Journal of Biological Anthropology (Impact Factor: 1.7) (May 2025)
Biology Letters (Impact Factor: 3.904) (April 2023)
Current Biology (Impact Factor: 8.1) (January 2024)
Cell (2020 Impact Factor: 41.58) (February 2022)
Evolutionary Applications (Impact Factor: 3.2) (June 2025)
Genome Biology and Evolution (Impact Factor: 3.3) (June 2023; August 2024)
G3: Genes Genomes Genetics (Impact factor: 2.78) (November 2023)
International Journal of Osteoarcheology (2020 Impact Factor: 1.228) (March 2020)
Journal of Heredity (Impact Factor: 2.679) (February 2022, March 2023, Sep 2024)
Methods in Ecology and Evolution (Impact Factor: 6.36) (2020, January 2022)
Molecular Biology Reports (2020 Impact Factor: 2.3) (July 2021; February 2022)
Molecular Ecology (2014 Impact Factor: 6.494) (August 2015)
Molecular Ecology Resources (Impact Factor: 5.5) (January 2025)
Science (Impact Factor: 47.73) (July 2024)
Scientific Reports (2016 Impact Factor: 4.847) (January 2018, April 2025)

AUTHORED MEDIA ARTICLES:

de Flamingh, A (May 2021) Being a Responsible Early Career Scientist, Genetics Society of America – Early Career Leadership Program.
The Green Observer Environmental magazine at UIUC (2016-2018) 6 articles.

SOFTWARE DEVELOPMENT

GitHub page: https://github.com/adeflamingh

1) *NuMt Parser:* I have developed a program for genomic data filtering that is broadly applicable to the larger STEM field of Genetics and Genomics. *NuMt Parser* is an automated program for the identification and removal nuclear mitochondrial elements (NUMTs) from high-throughput sequencing data for mitochondrial genome reconstruction. https://doi.org/10.1093/jhered/esac065

2) *Loxodonta localizer:* I helped develop a software tool that determines the origin of poached ivory from illegal ivory confiscations (https://www.loxodontalocalizer.org). Publication: Zhao et al (2019) Loxodonta Localizer: a software tool

for inferring the provenance of African elephants and their ivory using mitochondrial DNA, *Journal of Heredity* **110** (7): *761-768*

3) *GenSID/Rx sex determination:* I have adapted and published a method for the accurate sex determination of animal remains using genetic data. Identifying the sex of animals can yield insights into population structure, demographic histories and social interactions. It can add to knowledge of extinct and extant animal populations and reveal how they have changed across time. Sex identification can aid our understanding of extinct animal biology, past hunting practices and animal domestication, and can contribute towards developing successful conservation initiatives for wildlife. Publication: de Flamingh, et al (2020) Accurate sex identification of ancient elephant and other animal remains using low coverage DNA shotgun sequencing data G3: Genes, Genomes, Genetics,
DOI: https://doi.org/10.1534/g3.119.400833

GRANTS, AWARDS AND ACHIEVEMENTS

IN PREP (GRANT INTAKE INITIATED)

- **Exploring 10,000 years of human-elephant co-existence and cave culture in the Mt. Elgon cave system in Kenya.** *In preparation for submission to* NSF-NERC DIVISION OF ENVIRONMENTAL BIOLOGY. Project leads: Alida de Flamingh (NSF-DEB) and Ashley Coutu (NERC)

AWARDED BUT FEDERALLY PAUSED/WITHDRAWN IN 2025

- **Decarbonizing dairy protein production using precision fermented alternative proteins and dairy waste valorization.** I am a Co-PI on this project lead by Ginko BioWorks where my contribution focusses on developing and implementing a community benefits plan. **Department of Energy (DOE)** Office of Energy Efficiency and Renewable Energy (EERE) in response to the FY24 Energy and Emissions Intensive Industries FOA

UNDER CONSIDERATION

- **A community-based approach to understanding changes in black seaweed (Pyropia abbotiae) abundance, appearance and microbiome in Pacific Northwest of North America;** I am a Co-PI on this grant through the **Personalized Nutrition Initiative** at the **University of Illinois** (internal grant). The proposed research plan will be used to develop pilot data and preliminary analyses to submit a National Science Foundation grant proposal to the Navigating the New Arctic (NNA) program. ($72 176)

CURRENT

- **Contributor to NSF IBSS-L: Epigenomic Effects of Colonization on Indigenous Populations,** Award Number: 1620239, **PI/co-PI(s):** Derek Wildman, Monica Uddin, Ripan Malhi,
- **Contributor to NSF BCS: Collaborative Research: Time transect of ancient genomes of Indigenous North Americans,** Award Number: 2018200, **PI/co-PI(s):** Ripan Malhi

PAST

- **Beyond The R1: Providing Teaching Experiences for Women and Minorities at A Student-Serving/Teaching Institution**; I am a project lead on this funded teaching program that seeks to provide postdoctoral fellows, students, and professionals from international and historically underserved backgrounds an opportunity to learn about careers at community colleges. It will give them an opportunity to exchange ideas with tenure-track faculty and lecturer mentors at Parkland College, Urbana-Champaign. To further support teaching fellows as they develop their lectures, A-WIS (Academic Women in Stem) and the IGB Postdoctoral Association will work with the Center for Innovation in Teaching and Learning to organize a teaching workshop focused on pedagogical training and to develop a resource packet for the broader IGB community. ($4000)
- **NSF: OPP - ASSP-Arctic Social Science- Collaborative Research: Salmon stewardship: mapping a cultural keystone species and building genomics capacity for Alaskan Native Peoples**
  This grant is part of a collaborative research partnership that includes the Kenaitze Indian Tribe & Norma Johnson (Tribal Archaeologist), Dr. Julian Catchen & Dr. Ripan Malhi from UIUC, and Dr. Adam Dunstan from Kenai Peninsula College. I completed my Postdoctoral Research Associate (III) position under this grant from 2022-2024.
- **2020 IFAW (International Fund for Animal Welfare), postdoctoral salary support** (A. de Flamingh wrote proposal, PI: A. Roca, $77,649; approved 12/6/19)
- **Program in Ecology, Evolution and Conservation Biology Summer Research Support Grant** (four separate grants for summer research support - 2016, 2017, 2018 2019), School of Integrative Biology, University of Illinois at Urbana-Champaign (US$ 1000, Total $4000)
- **The Clark Research Support** Grant (2018), School of Integrative Biology, University of Illinois at Urbana-Champaign (US$ 1000)

- **The Van Cleave Research Support Award (**2016), School of Integrative Biology, University of Illinois at Urbana-Champaign (US$ 1000)
- **The Clark Research Support Grant** (2016), School of Integrative Biology, University of Illinois at Urbana-Champaign (US$ 1000)
- **The Graduate Collage Dissertation Travel Award** (2016), University of Illinois at Urbana-Champaign (~$5000)
- **National Research Fund (2010):** Block Grant for MSc Zoology (R40 000) (*South African equivalent to NSF-GRFP*)
- **Wilderness Trust Bursary** (2009): Support for undergraduate tuition fees (R25 000)
- **Postgraduate Achievement Bursary**, University of Pretoria (2009, 2010) (R16 800)
- **University of Pretoria Achievement Bursary (**2005) (R12 000)
- **University of Pretoria Leadership Bursary** (2005) (R500)

AWARDS AND ACHIEVEMENTS

2021 Society for Molecular Biology and Evolution (SMBE) Graduate student excellence award ($500 and free travel sponsorship to an in-person meeting).

2020 Loustaunau Graduate Fellowship in Computational Genomics in partnership with the Carl R. Woese Institute for Genomic Biology at the University of Illinois, Urbana-Champaign.

Graduate Teachers Certificate (2020) through the Center for Innovation in Teaching and Learning at the University of Illinois, Urbana-Champaign

Centre for Innovation in Teaching and Learning - Teachers ranked as excellent by their students (Fall 2017, Fall 2018 for IB 104: Animal Biology) (https://citl.illinois.edu/citl-101/measurement-evaluation/teaching-evaluation/teaching-evaluations-(ices)/teachers-ranked-as-excellent)

2018 Graduate Image of Research 3rd Prize winner for my entry "The ivory poaching crisis: which way forward?" (http://publish.illinois.edu/imageofresearch/2018/04/06/congratulations-to-the-winners-of-the-2018-graduate-image-of-research-competition/) ($200)

Prize winner, Best post-prelim presentation, 20th Annual Graduates in Ecology and Evolutionary Biology (GEEB) Symposium, 10 February 2018, ($50)

Prize winner, Best Presentation, University of Pretoria, Annual General Meeting of the Department of Zoology and Entomology, 2012

Membership to Golden Key International Honors Society (2009-present)

SUPERVISION AND TRAINING OF UNDERGRADUATE & GRADUATE STUDENTS

***Students that I trained/mentored, with whom I have co-authored publications*

1. Josh Diaz***** (Indigenous scholar, graduate student, training in molecular laboratory and genetic analysis of Oxford Nanopore Sequencing data at the Carl R. Woese Institute for Genomic Biology, 2025-present, University of Illinois).
2. Lauren Moy (BIPOC scholar, undergraduate student, training in molecular laboratory and genetic analysis at the Carl R. Woese Institute for Genomic Biology, 2023-present, University of Illinois)
3. Brian Graves, ADA accommodations (graduate student, training in molecular laboratory and genetic analysis at the Carl R. Woese Institute for Genomic Biology, 2023-present, University of Illinois)
4. Ariane Thomas*****, Department of Anthropology, University of Iowa (graduate student, training in molecular laboratory and genetic analysis, training in ancient DNA molecular techniques at the Carl R. Woese Institute for Genomic Biology, 2020, 2023, University of Illinois)
5. Vivian Cheng (BIPOC scholar, graduate student, training in molecular laboratory and genetic analysis, training in ancient DNA molecular techniques at the Carl R. Woese Institute for Genomic Biology, 2023-present, University of Illinois)
6. Sahara Vilchis***** (Indigenous scholar, graduate student, training in molecular laboratory and genetic analysis, training in ancient DNA molecular techniques at the Carl R. Woese Institute for Genomic Biology, 2021 – present, University of Illinois)
7. Dr. Karthik Yarlagadda***** (BIPOC scholar, graduate student, training in ancient DNA molecular techniques at the Carl R. Woese Institute for Genomic Biology, 2018 – University of Illinois)
8. Aimée Carbaugh (graduate student, training in ancient DNA molecular techniques at the Carl R. Woese Institute for Genomic Biology, 2018 – University of Illinois)
9. Cassidy Donnelly***** (undergraduate student, training in molecular laboratory and genetic analysis methodologies, 2017 & 2018 – University of Illinois)
10. Maria Cox (graduate student, training in ancient DNA molecular techniques at the Carl R. Woese Institute for Genomic Biology, 2017 – University of Illinois)

11. Puseletso Motsomane (BIPOC scholar, undergraduate & graduate student, training in molecular laboratory techniques, 2014 & 2015 – University of Pretoria)
12. Ali Coleman (graduate student, BSc. (hons) Zoology thesis project **co-supervision and thesis committee member**, 2014)
13. Teagan Carpenter-Kling (undergraduate student, training in molecular laboratory techniques, 2012 – University of Pretoria)
14. Jessica Humphreys (undergraduate student, training in molecular laboratory techniques, 2011 – University of Pretoria)

TEACHING EXPERIENCE

Courses taught/presented:

- **Visiting Instructor or record (Summer 2025)** Indigenous Summer STEAM Camp – Relational Microbiomes: Fish, Forests, and the Invisible Ecologies Within. I conceptualized, developed, and taught this course through collaboration with SeaAlaska Heritage Institute (SHI) and University of Alaska Southeast (3 credits; CRN 51584): https://go.illinois.edu/Relational_Microbiomes_Course
- **Instructor of record** (Fall 2015, Spring & Fall 2016, Spring 2017): Instructor for the Animal Sciences class ANSC207, Companion Animal Care and Biology, University of Illinois at Urbana-Champaign
- **Teaching Assistant** (Fall 2018) Animal Biology IB 104, dissection lab, School of Integrative Biology, University of Illinois at Urbana Champaign (*CITL achievement - Teacher ranked as excellent by their students*)
- **Teaching Assistant** (Spring 2018) Environmental Biology IB 105, School of Integrative Biology, University of Illinois at Urbana Champaign
- **Teaching Assistant** (Fall 2017) Animal Biology IB 104, dissection lab, School of Integrative Biology, University of Illinois at Urbana Champaign (*CITL achievement - Teacher ranked as excellent by their students*)
- **Guest Lecture** (Spring 2023) VCM 540 Conservation and Ecosystem Health (topic: Conservation Genetics).
- **Guest Lecture** (Spring 2022)**:** ANSC 406 Population Genetics. Introduction to Paleogenomics
- **Guest Lecture** (Spring 2021, 2022, 2023): NRES 407: Population Ecology. Conservation Genetics and Genomics
- **Guest Lecture** (Spring 2017 & 2019): ANTH 247: Forensic Genetics. Conservation Genetics and Wildlife Forensics
- **Guest Lecture** (Spring 2016) Why elephants don't get cancer. 500-level seminar course, Southern Illinois University
- **Workshop Speaker** (September 2012): Microsatellite workshop presented by the Forestry and Agricultural Biotechnology Institute, University of Pretoria: Landscape Genetics: uniting genetics and ecology through the use of microsatellites.
- **Workshop Speaker** (May 2012): Microsatellite workshop presented by the Forestry and Agricultural Biotechnology Institute, University of Pretoria: Microsatellite analysis of Degraded DNA: what to choose, what to use and what to do.
- **Field research assistant** (2011), assisting in small mammal trapping practical classes for the final year mammalogy students.

Instructional courses attended to increase my teaching effectiveness:

- Islands in the Stream: Fluidity in Teaching: Adapting to a Constantly Changing Teaching Environment, by Dr. Andrea Faber Taylor (1hr, 09/07/2023), Centre for Innovation in Teaching and Learning (CITL), University of Illinois at Urbana-Champaign
- MakerGirl – Teaching with Technology (1hr, 10/05/2016), CITL
- Making the most out of discussions (1.5hr, 03/02/2017), CITL
- Designing cooperative learning experiences (1.5hr, 03/17/2020), CITL
- The power of presentations: Enhancing your slides for teaching engagement (1.5hr, 03/30/2020), CITL
- Inclusive Lab Leaders (Fall 2019), a workshop seminar series that aims to boost trainee effectiveness. Topics include integrating diverse experiences and perspectives, navigating interpersonal challenges, and innovating new systems for mentoring and scientific advancement. 21st Century Scientists & The Beckman
- Exploring Difference in the Biology Classroom: What Genetic Ancestry Tests Mean (and What They Don't), Tuesday, 11 April 2023

SERVICE, COMMUNITY ENGAGEMENT AND OUTREACH

- **Workshop organizer and presenter:** "Where do I even start?" Recommendations for faculty diversifying syllabi in the Life and Environmental Sciences. **see publication list for associated paper. (9 May 2023)

- **Program Chair:** Champaign County Audubon Society, Urbana-Champaign, IL (2021-2022): service includes organizing monthly scientific presentations and interfacing with the community at bird-related events.
- **Graduates in Ecology, Evolution and Biology** –EcoLunch – presentation on "How to start birding" as part of a weekly seminar series (2022)
- **STEAMpunk kids** about fossils at the Orpheum Children's Museum, Champaign, IL (23 February 2019)
- **Graduates in Ecology, Evolution and Biology** –Bird Strike Survey (2019)
- **Admissions Committee** - Program in Ecology, Evolution and Conservation Biology (2019)
- **World of Genomics Washington, DC** (April 16, 2019) as part of the Malhi ancient DNA lab
- **World of Genomics St. Louis** (October 18-20, 2018) as part of the Malhi ancient DNA lab
- **500 women scientists Champaign-Urbana:** Research talk on 16th Century shipwreck ivory in support of Ciencia Puerto Rico, April 18, 2018
- **Paleogenomics workshop in South Africa (Summer 2018)**: During the Summer 2018 semester I organized and presented a Paleogenomics workshop to 31 members of the University of Pretoria (UP), South Africa, that were from the Department of Zoology and Entomology, Department of Genetics, Molecular Ecology and Evolution Programme (MEEP) and other organizations affiliated with UP. Paleogenomic research - the study of ancient DNA - can be especially beneficial to countries like South Africa that have rich biological and anthropological histories. At present, however, UP does not have a facility to conduct paleogenomic research. Part of my summer research included setting up a temporary ancient DNA lab so that I could analyze ancient ivory from across Africa. This provided the opportunity to introduce paleogenomic research to researchers at UP, and encourage them to start their own paleogenomic research projects.
- **Guest Speaker – Illini Wildlife Conservation Club.** RSO at the University of Illinois. (October 2018)
- **Genomics for Police** at the Institute for Genomic Biology, University of Illinois, Urbana Champaign (16 October 2017) as part of the Malhi ancient DNA lab and PEEC
- **World of Genomics II for External Advisory Board** at (22 October 2017)
- **World of Genomics I volunteer** at the Field Museum in Chicago (May 18-20 2017)
- **PEEC student mentor** for Fall 2016 incoming students (international students needing advice/help)
- **Graduate WIS member** (2015, 2016) of the University of Illinois Woman in Science (WIS) club
- **IGB Genome Day** (October 2016): Grades K-4 at the Orpheum Children's Museum, hosted by the Institute of Genomic Biology
- **Panel Member for Illini Wildlife and Conservation Club** (February 2016): Discussion with undergraduate students about studies, research and teaching at a graduate level.
- **Participation in UP with Science** (June 2016): UP with SCIENCE is a science enrichment program for senior secondary school learners presented by the University of Pretoria, on the Hatfield Campus
- **Leal Science Night** (04/29/2016): Urbana's Leal School outreach in STEM fields
- **WeSTEM (Women Empowered in STEM)** (February 2016), one-day conference that provides a forum for STEM leaders to inspire one another to excel in their disciplines and develop solutions for challenges faced by our global community.

SELECTED PRESENTATIONS

de Flamingh, A. (May 2025) Genomes, lions, and colonialism: revealing the genetic traces of European colonialism in Africa's wildlife. Center for Indigenous Science. Carl R. Woese Institute for Genomic Biology Fellows Symposium

de Flamingh, A. (presenting author), Tom P. Gnoske, Julian C. Kerbis Peterhans, Velizar Simeonovski, Nduhiu Gitahi, Ogeto Mwebi, Bernard R. Agwanda, Julian M. Catchen, Alfred L. Roca, and Ripan Singh Malhi. (July 2024) Compacted Hair in Broken Carnivore Teeth Reveal Dietary Prey of Historic Lions. Society for Molecular Biology and Evolution – Annual meeting, Puerto Vallarta, Mexico.

de Flamingh, A. & Malhi, R.S. (May 2023) Indigenous Science: Using Community-based Frameworks in Research, Center for Indigenous Science. Carl R. Woese Institute for Genomic Biology Fellows Symposium

de Flamingh, A. & Center for Indigenous Sciences (19 July 2023) DNA analysis of seaweed and sea water microbiomes. Juneau, Alaska

de Flamingh, A. (presenting author), Ishida, Y., Pečnerová, P., Vilchis, S., Siegismund, H. R., Malhi, R. S., & Roca, A. L. (April 2023) Combining methods for non-invasive fecal DNA enables whole genome and metagenomic analyses in wildlife biology. The Wildlife Society, Illinois Chapter

Coon, JJ (presenting author), EM Smith**,** T Perrin-Stowe, M Horner, LR Lynch, **A de Flamingh,** NB Alexander, E Golebie, TM Swartz, AC Bader, & SJ Halsey. (Jun 2022.) Reflections on Incorporating Diverse and Anti-Colonial Material in Natural Science Classrooms. Virtual Presentation at the Friends Association for Higher Education Conference.

de Flamingh, A. (presenting author), Coutu, A., Sealy, J., Chirikure, S., Bastos, A.D.S., Libanda-Mubusisi, N.M., Malhi, R.S., Roca, A.L. (2022) Sourcing Elephant Ivory from a Sixteenth-Century Portuguese Shipwreck. 18th International Elephant Conservation & Research Symposium, 15 August 2022

de Flamingh, A. (2022). Graduates in Ecology and Evolutionary Biology Ecolunch: Introduction to birding and the Champaign Audubon Society. 6 April 2022

Routon, J., N. Alexander, J. Coon, **A. de Flaming**, and T. Perrin-Stowe (2021). Queering Sex Determination. The UP Center of Champaign County, LGBT Resource Center. Champaign, IL. 21 September 2021 (virtual) https://www.youtube.com/watch?v=elGpsuLzWe4&t=1229s

Alexander, N. (presenting author), J. Coon, **A. de Flaming**, T. Perrin-Stowe, and J. Routon (2021). Queering Sex Determination. Earlham College Population and Community Ecology, Richmond, IN. 14 September 2021 (virtual)

de Flamingh, A. (presenting author), Coutu, A., Sealy, J., Chirikure, S., Bastos, A.D.S., Libanda-Mubusisi, N.M., Malhi, R.S., Roca, A.L. (2021) Sourcing Elephant Ivory from a Sixteenth-Century Portuguese Shipwreck. Midwest Population Genetics Conference, 21 August 2021

de Flamingh, A. (presenting author), Coutu, A., Sealy, J., Chirikure, S., Bastos, A.D.S., Libanda-Mubusisi, N.M., Malhi, R.S., Roca, A.L. (2021) Sourcing Elephant Ivory from a Sixteenth-Century Portuguese Shipwreck. Society for Molecular Biology and Evolution (Award Winner), 3-8 July 2021

de Flamingh, A. (presenting author), Coutu, A., Sealy, J., Chirikure, S., Bastos, A.D.S., Libanda-Mubusisi, N.M., Malhi, R.S., Roca, A.L. (2021) Sourcing Elephant Ivory from a Sixteenth-Century Portuguese Shipwreck. Evolution, 21 June 2021

Alexander, N. (presenting author), J. Coon, **A. de Flamingh**, E. Golebie, S. Halsey, L. Lynch, T. Perrin-Stowe, and T. Swartz. Diversifying and decolonizing the syllabi in life and environmental sciences. Graduates in Ecology and Evolutionary Biology Ecolunch. Champaign, IL, 16 March 2021.

Coutu, A (presenting author) & **de Flamingh, A:** Live question and answer session for the talk entitled "The shipwreck in a diamond mine: analysing the ivory cargo of a 16th century Portuguese merchant ship", Cambridge African Archeology**, University of Cambridge**, UK. 23 June 2020

de Flamingh, A. (presenting author), Coutu, A., Chirikure, S., Sealy, J., Malhi, R.S. and Roca, A.L. American Association for Physical Anthropologists 2019: Using DNA to determine the species and geographic origins of elephant ivory discovered in a 16th century Portuguese shipwreck. March 28-30, 2019

Zhao K, Ishida Y, Green CE, Davidson AG, Sitam FAT, Donnelly CL, **de Flamingh A,** Perrin-Stowe TIN, Bourgeois S, Brandt AL, Mundis SJ, van Aarde RJ, Greenberg JA, Malhi RS, Georgiadis NJ, McEwing R and AL Roca (presenting author). Loxodonta Localizer: a software tool for inferring the provenance of African elephants and their ivory using mitochondrial DNA. Society for Wildlife Forensic Science Meeting, Denver, June 10-14, 2019.

de Flamingh, A. (presenting author), Coutu, A., Malhi, R.S. and Roca, A.L. Midwest Ecology and Evolution Conference 2018: Using DNA to determine the species and geographic origins of elephant ivory discovered in a 16th century Portuguese shipwreck. April 6-8, 2018

de Flamingh, A., (presenting author), Roca, A.L. and van Aarde, R. Origin and phylogeography of African savannah elephants (*Loxodonta africana*) in Kruger and nearby parks in southern Africa. Poster presentation at the Institute of Genomic Biology Theme Hop as part of the Computation Genomics for Reproductive Health (CGRH) group theme. March 14, 2018

de Flamingh, A. (presenting author), Coutu, A., Malhi, R.S. and Roca, A.L., van Aarde, R.J. Graduates in Ecology and Evolutionary Biology (GEEB) Symposium 2018: Using DNA to determine the species and geographic origins of elephant ivory discovered in a 16th century Portuguese shipwreck. February 10, 2018

de Flamingh, A., (presenting author), Roca, A.L. and van Aarde, R. (2017) Origin and phylogeography of African savannah elephants (*Loxodonta africana*) in Kruger and nearby parks in southern Africa. Poster presentation at the Annual conference for the American Association of Zoos and Aquariums in Indianapolis, Indiana.

de Flamingh, A. (presenting author), Roca, A.L., van Aarde, R.J. Graduates in Ecology and Evolutionary Biology (GEEB) Symposium 2017: Origin and phylogeography of African savannah elephants (Loxodonta africana) in Kruger and nearby parks in southern Africa. February 15, 2017

de Flamingh, A. (presenting author), Sole, C.L., van Aarde, R. South African Wildlife Management Association Symposium: 15-19 September 2013, Skukuza, Kruger National Park, South Africa.) *Genetic support for spatial structuring in elephants: a case study in the Kavango-Zambezi Tranfrontier Conservation Area*

de Flamingh, A., (presenting author) Sole, C.L and van Aarde, R. (Department of Zoology and Entomology, University of Pretoria, Annual General Meeting, 22-23 November 2012, Pretoria, South Africa.) *Genetic structure of the KAZA-TFCA elephant population.*

van Aarde, R.J. (presenting author) and CERU colleagues (International Wildlife Conference: 2012, Durban, South Africa) *Conservation without Borders: setting the table for the management of southern Africa's elephants*.

de Flamingh, A., (presenting author). Sole, C.L. and van Aarde, R.J (Megaparks for Metapopulations Colloquium with IFAW and Kenya Wildlife Services, 14-15 May 2012, Pretoria, South Africa.) *Genetic support for spatial structuring in elephants*

de Flamingh, A. (presenting author). (Megaparks for Metapopulations Colloquium with IFAW and Kenya Wildlife Services, 14-15 May 2012, Pretoria, South Africa.) *Humans and elephants in the landscape: a case study in the Caprivi Region, Namibia.*

de Flamingh, A Genetics Journal Club (Department of Zoology and Entomology, University of Pretoria, 2012) *Wildlife Forensics - RhODIS, the Illegal Ivory Trade and other South African case studies.*

de Flamingh, A Genetics Journal Club (Department of Zoology and Entomology, University of Pretoria, 2011) *Species division and taxonomy in the Elephantidae.*

de Flamingh, A., Sole, C.L and van Aarde, R. (Department of Zoology and Entomology, University of Pretoria, Annual General Meeting, 24-25 November 2011, Pretoria, South Africa.) *Are southern Africa's elephant populations structured: inferences from mitochondrial DNA*

de Flamingh, A., Sole, C.L and van Aarde, R. (Department of Zoology and Entomology, University of Pretoria, Annual General Meeting, 23-24 November 2010, Pretoria, South Africa.) *Are southern Africa's elephant populations structured?*

de Flamingh, A. (presenting author), Trimble, M., and van Aarde R. (South African Wildlife Management Association Symposium: 13-16 September 2009, Thaba 'Nchu, Free State, South Africa.) *Elephants and people in the landscape: a case study in the Caprivi region.*

LEADERSHIP POSITIONS

- IGB Postdoc Association, co-chair, Carl R. Woese Institute for Genomic Biology, UIUC (2023-2024)
- UIUC Postdoc Alliance, co-chair, UIUC campus-wide postdoctoral association, UIUC (2023)
- GSA Early Career Leadership Program: Communications and Outreach committee – Genetics Society of America (2021-2023) https://genetics-gsa.org/committee/early-career-scientist-communication-and-outreach-subcommittee/
- Champaign County Audubon Society, Urbana-Champaign, IL: Program Chair (2021-2022)
- Graduates in Ecology and Evolutionary Biology (GEEB) President, Registered Student Organization at the University of Illinois, Urbana-Champaign (2018-2019)
- Graduates in Ecology and Evolutionary Biology (GEEB) Symposium co-coordinator, Registered Student Organization at the University of Illinois, Urbana-Champaign (2017-2018)
- Acting Executive Committee member and Treasurer for GreenUP, University of Pretoria's Environmental Group (2009-2010)
- Class representative for all final year undergraduate classes in Zoology and Entomology (2008), and the BSc (hons) Zoology class, University of Pretoria (2009)

OTHER RESEARCH AND PROFESSIONAL EXPERIENCE

- **Research Assistant (2018-2020):** Epigenomic Effects of Colonization on Indigenous Populations. This project is in collaboration with the Kenaitze Indian Tribe, Sealaska Heritage Institute, and Hoonah Indian Association, AK. As part of this project I conduct quantitative interviews with participants and also extract RNA and DNA for epigenomic analysis.
- **Visiting Researcher (2014-06/2015)**, Conservation Ecology Research Unit, University of Pretoria, Department of Zoology and Entomology: My work as a Visiting Researcher focused on using a landscape genetic approach to investigate the genetic structure of, and gene flow between, elephant populations occurring in a landscape corridor between Chobe National Park (in Botswana) and Kruger National Park (in South Africa). I specifically focused on mapping gene flow (based on one mtDNA marker, 9 nDNA microsatellite markers, and Sex-Linked markers for gender identification) to determine if there are any active or historical movement and migration corridors that may be of conservation concern. My sampling regime also allows for the in-depth analysis of each of these populations' genetic makeup. Sample collection and analysis (including all laboratory work) was included in my appointment as visiting researcher.
- **Ad hoc research assistant** (06/2005-2013) My work as a research assistant included writing project proposals, doing GIS mapping and carrying out research projects (e.g. meta-analysis of the influence of the printed media on people's perceptions of elephants, in prep.), and assisting students with field work (e.g. restoration ecology monitoring of rehabilitated dune forests)
- **Kleinmuntz Center's Young Innovator** Program (Summer 2021) – hosted through the Carl R. Woese Institute for Genomic Biology. A 10-week summer program designed to teach trainees the skills necessary to become innovative leaders in their fields and to support IGB scientists in considering creative ways to bring science to society.
- **Alan Alda Science Communication workshop** (5 April 2019) by the Alan Alda Center for Communicating Science, Stony Brook University

- **Landscape Genetics online course** (2018) hosted by Helene Wagner, Melanie Murphy, and Lisette Waits (2018) https://sites.google.com/site/dgs2018landscapegenetics/)
- Esri ArcGIS online course: Do-it-yourself Geo Apps (January 2017) Learn to create data driven apps for iOS or Android store.
- Illinois GIS day 2016 (November 2016), one-day conference on geospatial technology.
- **Art History** (KGK101): History of Art (Semester Course), University of Pretoria, 2007
- **Philosophy** (FILL155): Science and World Views (Semester Course), University of Pretoria, 2005

OTHER SKILLS

FIELD SKILLS

Expedition planning
Field work in Botswana, Namibia, Zambia, Mozambique, South Africa, Alaska (Anchorage, Juneau, Hoonah)
GPS and Cartography Navigation
All terrain driving skills
Project coordination
Small mammal trapping
Invertebrate pit-fall trapping
Invertebrate Biodiversity Assessment

OPERATING SYSTEMS AND PROGRAMMING LANGUAGES

Windows, Mac OS, Linux
Python & R & bash

STATISTICAL TRAINING

Introductory course for the program R – by Dr. Mark Robinson (University of Pretoria, South Africa)

Regression Course – Using the software program SAS 9.1.3. Presented by Dr. Gregory Lee (University of the Witwatersrand, Johannesburg, South Africa)

Statistical Bootstrapping - Basic principles, applications and a SAS demonstration. Presented by Dr. Gregory Lee (University of the Witwatersrand, Johannesburg, South Africa)

Multivariate Analysis of Ecological Data - SA statistical Association (2010) North-West University, Potchefstroom, South Africa. Presented by Prof. Michael Greenactre form Universitat Pompeu Fabra and Prof. Raul Primicerio from the University of Tromsø

Programming for Genomics – Advanced genomic and bioinformatic toolkits for the analysis and statistical interpretation of genomic sequencing data (including e.g., ddRAD, gene ontology etc) by Dr. Julian Catchen (2017) University of Illinois at Urbana-Champaign

Data Carpentry Genomics Workshop – topics included data organization and management, the command line and cluster usage, R for data analysis and visualization, and particularly the Bioconductor package library. Presented by HPCBio at the University of Illinois at Urbana-Champaign

SELECTED MEDIA APPEARANCES AND NEWS ARTICLES

Tsavo 'man-eater' lions

2024 Famed lions' full diet revealed by DNA — and humans were among their prey – **Nature**
https://www.nature.com/articles/d41586-024-03278-5

2024 Things get hairy inside the mouths of man-eating lions – **Science & AAAS**
https://www.science.org/content/article/things-get-hairy-inside-mouths-man-eating-lions

2024 Hairballs Shed Light on Tsavo Man-Eating Lions' Menu - **The New York Times**
https://www.nytimes.com/2024/10/11/science/tsavo-lions-man-eating-dna.html

2024 DNA from old hair helps confirm the macabre diet of two 19th century lions - **Science News**
https://www.sciencenews.org/article/dna-hair-teeth-diet-lions

2024 Individual hairs reveal prey of 19th century 'Tsavo man-eater' lions – **CNN**
https://www.cnn.com/2024/10/11/science/tsavo-man-eater-lions-hair-dna

Indigenous partnerships publicity:

2024 Ancient DNA reveals Indigenous dog lineages found at Jamestown, Virginia, **UIUC news** By Ananya Sen

2023 Black seaweed concerns promt Native groups, Scientists to meet, map out action plan, **Sealaska Heritige Institute**, (https://www.sealaskaheritage.org/node/1827)

2020 Genetic sex determination research featured in ***UCDavis News*** (July 17), "Archaeologists Use Tooth Enamel Protein to Show Sex of Human Remains" by Andy Fell, (https://www.ucdavis.edu/news/archaeologists-use-tooth-enamel-protein-show-sex-human-remains)

2019 Alaska Native epigenomics research featured in ***Alaska Native News*** (Sep 25), "Second Phase of Epigenetics Study to Commence in Hoonah" by Amy Fletcher, (https://alaska-native-news.com/second-phase-of-epigenetics-study-to-commence-in-hoonah/44814/)

Genomic research and advances publicity:

2024 Cape lions were genetically diverse prior to extinction, researchers find. ***UIUC news,*** by Shelby Lawsin (https://www.igb.illinois.edu/article/cape-lion-was-genetically-diverse-prior-extinction-researchers-find)

2023 Team streamlines DNA collection, analysis for elephant conservation. ***Illinois News Bureau***, Diana Yates: (https://news.illinois.edu/view/6367/934099707) & (https://www.labmanager.com/team-streamlines-dna-collection-analysis-for-wildlife-conservation-29580)

2023 New DNA-collection method is harmless to wildlife. ***earth.com: nature, science, life***, Andrei Lonescu: (https://www.earth.com/news/new-dna-collection-method-is-harmless-to-wildlife/)

2023 Innovation in elephant dung analysis offers endless benefits for conservation, ***The Daily Maverick***, Shaun Smillie: (https://www.dailymaverick.co.za/article/2023-01-12-innovation-in-elephant-dung-analysis-offers-endless-benefits-for-conservation/)

Shipwreck ivory publicity (complete list available upon request)**:**

2020 Ancient shipwreck ivory research featured in ***The New York Times*** (Dec 17), "Ivory From Shipwreck Reveals Elephant Slaughter During Spice Trade" by Rachel Nuwer, (http://nyti.ms/3axLtHZ)

2020 Ancient shipwreck ivory research featured in ***BBC News*** (Dec 17), "Ivory: Elephant decline revealed by shipwreck cargo" by Victoria Gill, (https://www.bbc.co.uk/news/science-environment-55340975)

2020 Ancient shipwreck ivory research featured in ***UIUC News*** (Dec 17), "Study tracks elephant tusks from 16th century shipwreck" by Dianna Yates, (https://news.illinois.edu/view/6367/329887546)

2020 Ancient shipwreck ivory research featured in ***AAAS Cell Press*** (Dec 17), "Shipwrecked ivory a treasure trove for understanding elephants and 16th century trading" by Cell Press, (https://www.eurekalert.org/pub_releases/2020-12/cp-si120920.php)

2020 Ancient shipwreck ivory research featured in ***Science News*** (Dec 17), "Ivory from a 16th century shipwreck reveals new details about African elephants" by Maria Temming, (https://www.sciencenews.org/article/ivory-shipwreck-african-elephants-tusk-dna-bom-jesus?fbclid=IwAR3e5xIJyDz1W-OEXhcxHO17youaRq_z3FGA24XV6OhO7nVY7D3vG3XSs5I)

Wildlife conservation publicity:

2019 Loxodonta localizer research featured in ***UIUC News*** (Nov 1), "Online tool speeds response to elephant poaching by tracing ivory to source" by Diana Yates, (https://news.illinois.edu/view/6367/804074)

2019 Loxodonta localizer research featured in ***IFLS*** **(ND),** "Origin Of Poached Ivory Traced Faster And Cheaper With New Software Tool" by IFLS, (https://www.iflscience.com/plants-and-animals/origin-of-poached-ivory-traced-faster-and-cheaper-with-new-software-tool/)

Radio and Television:

2024 DNA reveals the past of man-eating African lions https://www.thenakedscientists.com/articles/interviews/dna-reveals-past-man-eating-african-lions

2020 Ancient ivory research featured during a radio interview with BBC World Service programme Newshour 17Dec (feature segment ~38:50) https://www.bbc.co.uk/programmes/w172x2z33qb6rvk

2018 WILL-TV and PBS broadcast featuring the PBS show "Nature" Pangolins: (Nov)

1) https://www.youtube.com/watch?v=5OizwBlStiY&feature=youtu.be
2) https://www.youtube.com/watch?v=t_KJAO5OADk&feature=youtu.be
3) https://www.youtube.com/watch?v=H0yGycRfVaE&feature=youtu.be

References:

Dr. Alfred Roca, Department of Animal Sciences, University of Illinois at Urbana-Champaign (UIUC), roca@illinois.edu, +1 217 244 8853 (PhD Advisor)

Dr. Ripan Malhi, Department of Anthropology, malhi@illinois.edu, 217-265-0721 (Postdoc Advisor)

Dr. Ashley Coutu, Pitt Rivers Museum, University of Oxford, ashley.coutu@prm.ox.ac.uk, +44 (0)1865 288040 (Relationship: Active collaborator and co-author). Research Curator (African Archaeology) and Deputy Head of Research

Dr. Kelsey Witt Dillon, Genetics and Biochemistry, Clemson University, kwittdi@clemson.edu, 864-656-0214, (Relationship: colleague and expert - Computational Genomics)