

Dr. Rosie Stanbrook

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Assistant Professor,
Field Data Science,
Department of Biology
Bethune Cookman University
Daytona Beach
Florida, 32114



Professional Experience

- Research Associate (2023 – present)
*Archbold Biological Station,
Venus, Florida*
- Post-doc, Quantitative Ecology (2018 – 2023)
*Department of Biology, University of Central Florida
Advisor: Dr. Joshua King*
- Adjunct Professor (2021 – 2022)
*Department of Biology
University of Central Florida*
- Research Affiliate (2018 – present)
*Department of Conservation Ecology and Environmental Biology,
Manchester Metropolitan University, Manchester, UK*

Educational Background

- Ph.D. in Conservation Ecology (2014 – 2018)
*Department of Conservation Ecology and Environmental Biology,
Manchester Metropolitan University, UK*
- M.S Conservation Biology (2012 – 2013)
*Department of Conservation Ecology and Environmental Biology,
Manchester Metropolitan University, UK*
- B.S Wildlife Conservation with Zoo Biology, (2009 – 2012)
*University of Salford, UK
Summa cum laude*

Funding

Pending: (2026 – 2030)

USDA: From Grazing to Services: How Ranching Practices Influence Dung Beetles, Fire Ants, and Pasture Function. \$791,237. PI Hance Ellington (UF-IFAS), Co-PI Khalil Meliane (UF-IFAS), **Co-PI Roisin Stanbrook-Buyer** (B-CU), Co-PI Joshua King (UCF).

USDA: Linking The Impact of Sod Cultivation to Soil Health and Subterranean Arthropods in Subtropical Pastoral Soils \$ 257, 645 **PI Roisin Stanbrook-Buyer** (B-CU), Co-PI Elizabeth Boughton (Archbold Biological Station).

Funded:

Investigating the prevalence and phenotypic plasticity in an invasive dung beetle: *Digitonthophagus gazella*. **PI Rosie Stanbrook** \$ 13,500. RISE: Title III

Bethune-Cookman University

Decomposition process driven by insects on a global scale. \$20,000. ETZ Zurich. (2021 – 2022)

University of Central Florida Postdoctoral Fellowship: *Insect services and disservices: impacts of interactions among fire ants and dung beetles on central Florida ranchlands* \$125,000 (2018 – 2023)

Scholarship and Awards

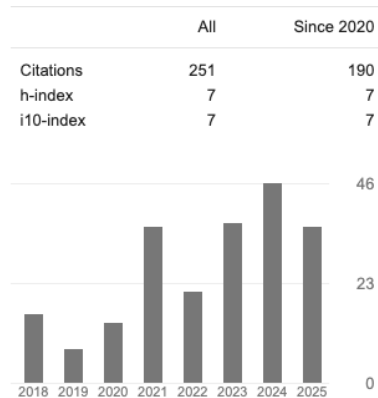
UCF P ³ Program. Awarded to outstanding postdoctoral scholars	(2019)
Manchester Metropolitan University Conference Scholarship	(2017)
Manchester Metropolitan University Graduate Research Skills: 1 st Place	(2015)

PUBLICATIONS

* Student Co-author

- | | |
|-------------|--|
| 2025 | Stanbrook-Buyer , and Allen, J.* Examining phenotypic variations in an introduced population of the invasive dung beetle <i>Digitonthophagus gazella</i> (Coleoptera: Scarabaeidae). <i>Florida Entomologist</i> . |
| 2024 | Stanbrook-Buyer , R., Bhat, M., and King, J. Economic value of dung removal by dung beetles in US sub-tropical pastures. <i>Basic and Applied Ecology</i>
https://doi.org/10.1016/j.baae.2024.07.001 |
| 2022 | Stanbrook , R., and King, J.R. Dung beetle community composition affects dung turnover in subtropical US grasslands. <i>Ecology and Evolution</i>
https://doi.org/10.1002/ece3.8660 |
| 2021 | Stanbrook , R., Norrey, J., Kisingo, A., and Jones, M. Dung beetle diversity and community composition along a land use gradient in a savannah ecosystem of North Western Tanzania <i>Tropical Conservation Science</i>
http://doi.org/10.1177/19400829211008756 |
| 2021 | Stanbrook , R., Harris E., Wheeler, C.P., and Jones, M. Evidence of phenotypic plasticity along an altitudinal gradient in the dung beetle <i>Onthophagus proteus</i> . <i>PeerJ</i> https://doi.org/10.7717/peerj.10798 |
| 2021 | Stanbrook , R., Harris E., Wheeler, C.P., and Jones, M. Experimental Estimate of Soil Nutrient Exchange in an Afrotropical Forest: The Role of Dung Beetle Community Complexity <i>Insects</i> 12(2):141. https://doi.org/10.3390/insects12020141 |
| 2021 | Stanbrook , R., Wheeler, C.P., Harris E., and Jones, M. Habitat type and altitude work in tandem to drive the community structure of dung beetles in Afrotropical forest. <i>Journal of Insect Conservation</i> https://doi.org/10.1007/s10841-020-00289-1 |
| 2020 | Stanbrook , R. Dung relocation behavior in three sympatric African <i>Heliocopris</i> dung beetles (Coleoptera: Scarabaeidae: Scarabaeinae) <i>The Coleopterists Bulletin</i> 74 (1) 656-658 https://doi.org/10.1649/0010-065X-74.4.656 |
| 2020 | Stanbrook , R. Monitoring Dung Beetle Richness in East Africa'. Wheeler, C.P., Bell, J.R. and Cook, P.A. (Eds) In: <i>Practical Field Ecology: A Project Guide</i> , pp. 1-416 Hoboken, NJ: Wiley-Blackwell. |
| 2018 | Stanbrook , R. Assessing the nutrient status of forest elephant dung in the Aberdare National Park, Kenya. <i>Pachyderm</i> 59, 86-90
https://pachydermjournal.org/index.php/pachyderm/article/view/84 |
| 2017 | Stanbrook , R., Raisin, C., Vulinec, K. Observations on the Tunneling Behavior and Seed Dispersal Efficacy of <i>Copris nubilosus</i> (Kohlmann) (Coleoptera: Scarabaeinae: Coprini). <i>The Coleopterists Bulletin</i> , 71 (4), 1-4.
https://doi.org/10.1649/0010-065X-71.4.777 |

- 2017** Roggero, A., **Stanbrook, R.**, Josso, J-F., Barbero, E., Palestini C Phylogenetic relationships of *Epidrepanus* within the subtribe Drepanocerina (Coleoptera: Scarabaeidae: Scarabaeinae: Oniticellini), with the description of two new species. *Zootaxa*, 4320 (1), 1-24 <https://doi.org/10.11646/zootaxa.4320.1.1>
- In Review** **Stanbrook, R.**, and King, J.R. Characteristics of dung beetle populations in fragmented sub-tropical agroecosystems. For submission to *Landscape Ecology* February 2025



INVITED TALKS

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| 2025 | Archbold Biological Station. Environmental Stewardship Day. Dung beetles and your bottom line. |
| 2024 | University of North Texas. Dung beetle Ecosystem Services. Biology Seminar Series |
| 2022 | Archbold Distinguished Speaker Series. Causes and consequences: counting the cost of dung beetle abundance losses in US working lands. |
| 2022 | LTAR network AGM. Online. Dung beetle management in US Pastures |
| 2020 | Florida Atlantic University. Dung beetles or Diamonds? The value of dung beetle mediated ecosystem services in US Ranchlands. Online. |
| 2020 | SOLA. "The economic cost of dung beetle decline on Florida ranches" Online November 15th |
| 2019 | Florida Cattleman's Association. "How insects are important in agricultural ecosystems." November 9 th . Venus, Florida, US |

CONFERENCE ACTIVITY/PARTICIPATION

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| 2023 | Entomological Society of America. Valuing what matters: dollars and decomposition. Washington DC, US. |
| 2022 | ACES. Impact and Value of Dung Beetles in Central Florida Rangelands. Washington DC, US. |
| 2018 | Entomological Society of America. Insect mediated nutrient transfer in sub-tropical pasturelands. Vancouver, Canada. |

- 2017** AfroMont. Interspecific variability in dung beetle mediated nutrient transfer in African soils. Moshi, Tanzania. February 22-26.
- 2015** Northern Coleopterists Society. Spatial turnover of Afromontane dung beetles along an altitudinal cline. March 19th.

EDITORIAL ROLES

2020 – present Associate Editor, Tropical Conservation Science. IF 2.23

JOURNAL REFEREE

Ecological Entomology, Oecologia, Biological Journal of the Linnean Society, The Canadian Entomologist, Basic and Applied Ecology, Ecological Indicators.

MEDIA

- 2024 <https://www.economist.com/science-and-technology/2024/09/02/the-noisome-economics-of-dung-beetles>
- 2022 https://www.midfloridanewspapers.com/highlands_news-sun/news/stanbrook-discusses-dung-beetles-in-virtual-seminar/article_039946f4-d86b-11ec-a1d1-aff780e409de.html
- 2021 <https://www.ucf.edu/news/from-pet-store-employee-to-international-conservation-biology-research-pioneer/>
- 2019 https://www.yoursun.com/arcadia/agriculture/poopy-job-researchers-study-dung-beetles-in-desoto-county/article_60b8288a-669c-11e9-b752-53643c950923.html
- 2019 https://www.yoursun.com/charlotte/news/bugging-out-why-some-insects-are-disappearing/article_3ad241a2-8215-11e9-afb7-f7e8d4f7074d.html

MENTORSHIP

- 2024 -** **Sophia Davis** Microbial dynamics in dung and surrounding soils. University of North Texas. Ph.D. Thesis
- 2024 -** **Lakean McGregor** Determine how Syngnathidae vary in relative abundance in periods of repeated algal blooms and SAV loss. Bethune-Cookman University. MSc Thesis
- 2023 -** **Imani Ford** The Halifax River Watershed. Bethune Cookman University MSc Thesis
- 2022 - 2024** **Fern Barker**
Lepidoptera diversity in overseeded sub-tropical pastures. Intern Project Archbold Biological Station.
- 2019-2020** **Kelsey Marrat**
Predicting extinction risks and threat levels in African dung beetles (Scarabaeinae, Scarabaeidae) using the IUCN classification framework and species distribution modelling.
MSc Thesis, Manchester Metropolitan University.
- 2015-2017** **Elizabeth Harkinson**
Dung beetle diversity on sheep grazed uplands in northern England.
MSc Thesis, Manchester Metropolitan University

TEACHING EXPERIENCE

2024	Instructor record ES 631 Experimental Design	Bethune-Cookman University
2024	Instructor of record ES603 Environmental Data Analyses	Bethune-Cookman University
2023	Instructor of record BI 410 Methods in Biological Research	Bethune-Cookman University
2023	Instructor of record ES 635 Advanced GIS (graduate course)	Bethune-Cookman University
2023	Instructor of record ES 130 Introduction to Environmental Science	Bethune-Cookman University
2022	Instructor of record EVR1001 Introduction to Environmental Science	University of Central Florida
2021	Instructor of record EVR1001 Introduction to Environmental Science	University of Central Florida
2018	Instructor of record 6F4Z3004 Spatial Methods	Manchester Metropolitan University
2018	Instructor of record 6F5Z1005 Techniques in Wildlife Conservation	Manchester Metropolitan University
2017	Instructor of record 6F5Z1107 Conservation Biology	Manchester Metropolitan University
2016	Lecturer: Field Skills 6F5Z1004	Manchester Metropolitan University
2015	Lecturer: Field Skills 6F5Z1004	Manchester Metropolitan University

QUANTITATIVE SKILLS

Statistics Asymptotic theory; Bootstrapping (parametric & non-parametric); Divergence measures; Errors in variables regression; Estimation theory; Hierarchical models; Kernel density estimation; Maximum likelihood; Meta-analysis; Model selection; Residual maximum likelihood; Robust multivariate statistics; Robust regression; Spatial statistics; Spectral analysis; Time-frequency analysis; Time-series analysis

Spatial Analysis Spatial regression (GWR), remote sensing, Photogrammetry, Data Extraction, Interpolation.

FIELD RESEARCH SKILLS

I have always enjoyed being out in nature and am a highly experienced field researcher, having planned and undertaken hundreds of collecting expeditions, and having lived on three continents. I have sampled in the following areas: Afri-montane Forest, African savanna, Honduran cloud forest, Central America, North America, tropical and southern Africa, the British Isles, the Mediterranean Basin, and across southern Europe.

Terrestrial sampling techniques:

Invertebrate sampling (multiple gear types: pitfalls, malaise, Lingren funnel.)

Hand-held Global Positioning System (GPS) equipment

Habitat monitoring (tree height, canopy cover, ground cover)

Soil Nutrient sampling, hand-held YSI

Small ATV trailering, 4x4 off-road driving, UTV

CURRENT PROFESSIONAL MEMBERSHIPS

Association for Tropical Biology and Conservation

Entomological Society of America
British Ecological Society
Catharsius Society
Florida Climate Institute