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Education

- 2021 **Ph.D.**, Anthropology, University of Oregon, Eugene, OR, USA.
- 2015 **M.S.**, Anthropology, University of Oregon, Eugene, OR, USA.
- 2014 **B.A.**, Anthropology with Departmental Honors, Botany, Environmental Science, Zoology, Miami University, Oxford, OH, USA.



Appointments

- 2021 - Present **Postdoctoral Scholar**, Bakar Computational Health Sciences Institute and Department of Epidemiology & Biostatistics, University of California San Francisco, San Francisco, CA, USA.







Peer-Reviewed Publications

Preprints only listed here until acceptance in a peer-reviewed journal.

Preprints

- 19. Velazquez-Arcelay K, Colbran LL, McArthur E, **Brand CM**, Siemann JK, McMahon DG, Capra JA. 2023. Neanderthal introgression shaped human circadian traits.  DOI: 10.1101/2023.02.03.527061.
- 18. **Brand CM**, White FJ, Ting N, Webster TH. 2021. Soft sweeps predominate recent positive selection in bonobos (*Pan paniscus*) and chimpanzees (*Pan troglodytes*). *bioRxiv*.  DOI: 10.1101/2020.12.14.422788. *bioRxiv*: 2020.12.14.422788.

Journal Articles

- 17. **Brand CM**, Colbran LL, Capra JA. 2023. Resurrecting the alternative splicing landscape of archaic hominins using machine learning. *Nature Ecology & Evolution*.  DOI: 10.1038/s41559-023-02053-5.
- 16. **Brand CM**, Colbran LL, Capra JA. 2022. Predicting archaic hominins phenotypes from genomic data. *Annual Review of Genomics and Human Genetics*. 23: 591–612.  DOI: 10.1146/annurev-genom-111521-121903.
- 15. **Brand CM**, White FJ, Rogers AR, Webster TH. 2022. Estimating bonobo (*Pan paniscus*) and chimpanzee (*Pan troglodytes*) evolutionary history from nucleotide site patterns. *Proceedings of the National Academy of Sciences*. 119: e2200858119.  DOI: 10.1073/pnas.2200858119.
- 14. Hickmott AJ, Boose KJ, Wakefield ML, **Brand CM**, Snodgrass JJ, Ting N, White FJ. 2022. A comparison of faecal glucocorticoid metabolite concentration and gut microbiota diversity in bonobos (*Pan paniscus*). *Microbiology*. 168, 001226.  DOI: 10.1099/mic.0.001226.
- 13. Edes AN, **Brand CM**. 2021. Age, sex, and inflammatory markers predict chronic conditions, cardiac disease, and mortality among captive western lowland gorillas (*Gorilla gorilla gorilla*). *Primates*. 62: 931–943.  DOI: 10.1007/s10329-021-00942-6.
- 12. Hickmott A, Waller M, Wakefield M, Malone N, **Brand CM**, White F. 2021. A test of foraging models using dietary diversity indices for the Lomako Forest bonobos. *Folia Primatologica*. 92: 211–226.  DOI: 10.1159/000519722.

11. **Brand CM**, Johnson MB, Parker LD, Maldonado JE, Korte L, Vanthomme H, Alonso A, Ruiz-Lopez MJ, Wells CP, Ting N. 2020. Abundance, density, and social structure of African forest elephants (*Loxodonta cyclotis*) in a human-modified landscape in southwestern Gabon. *PLOS ONE*. 15: e0231832. [DOI: 10.1371/journal.pone.0231832](https://doi.org/10.1371/journal.pone.0231832).
10. Gartland KN, **Brand CM**, Ulibarri LR, White FJ. 2020. Variation in adult male-juvenile affiliative behavior in Japanese Macaques (*Macaca fuscata*). *Folia Primatologica*. 91: 610–621. [DOI: 10.1159/000508761](https://doi.org/10.1159/000508761).
9. White FJ, **Brand CM**, Hickmott AJ, Minton IR. 2020. Sex differences in bonobo (*Pan paniscus*) terrestriality: Implications for human evolution. *Journal of Anthropological Sciences*. 98: 5–14.
8. **Brand CM**, Marchant LF. 2019. Social hair plucking is a grooming convention in a group of captive bonobos (*Pan paniscus*). *Primates*. 60: 487–491. [DOI: 10.1007/s10329-019-00764-7](https://doi.org/10.1007/s10329-019-00764-7).
7. Wakefield M, Hickmott A, **Brand CM**, Takaoka I, Meador L, Waller M, White F. 2019. New observations of meat eating and sharing in wild bonobos (*Pan paniscus*) at Iyema, Lomako Forest Reserve, Democratic Republic of the Congo. *Folia Primatologica*. 90: 179–189. [DOI: 10.1159/000496026](https://doi.org/10.1159/000496026).
6. Boose K, White F, **Brand CM**, Meinelt A, Snodgrass J. 2018. Infant handling in bonobos (*Pan paniscus*): Exploring functional hypotheses and the relationship to oxytocin. *Physiology and Behavior*. 193: 154–166. [DOI: 10.1016/j.physbeh.2018.04.012](https://doi.org/10.1016/j.physbeh.2018.04.012).
5. **Brand CM**, Marchant LF. 2018. Prevalence and characteristics of hair plucking in captive bonobos (*Pan paniscus*) in North American zoos. *American Journal of Primatology*. 80: e22751. [DOI: 10.1002/ajp.22751](https://doi.org/10.1002/ajp.22751). (Visited on 08/13/2022).
4. **Brand CM**, Marchant L, Boose K, White F, Rood T, Meinelt A. 2017. Laterality of grooming and tool use in a group of captive bonobos (*Pan paniscus*). *Folia Primatologica*. 88: 210–222. [DOI: 10.1159/000477804](https://doi.org/10.1159/000477804).
3. **Brand CM**, Boose KJ, Squires EC, Marchant LF, White FJ, Meinelt A, Snodgrass JJ. 2016a. Hair plucking, stress, and urinary cortisol among captive bonobos (*Pan paniscus*). *Zoo Biology*. 35: 415–422. [DOI: 10.1002/zoo.21320](https://doi.org/10.1002/zoo.21320). (Visited on 08/14/2022).
2. **Brand CM**, White FJ, Wakefield ML, Waller MT, Ruiz-Lopez MJ, Ting N. 2016b. Initiation of genetic demographic monitoring of bonobos (*Pan paniscus*) at Iyema, Lomako Forest, DRC. *Primate Conservation*. 30: 103–111.
1. **Brand CM**, Marchant LF. 2015. Hair plucking in captive bonobos (*Pan paniscus*). *Applied Animal Behaviour Science*. 171: 192–196. [DOI: 10.1016/j.applanim.2015.08.002](https://doi.org/10.1016/j.applanim.2015.08.002).

Invited Talks

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| 2023 | Mechanism-Aware machine learning approaches for revealing hominoid gene regulation. Kansas University Center for Genomics Symposium. Keynote. |
| 2022 | The alternative splicing landscape of archaic hominins. Buffalo Evolutionary and Anthropological Genomics Laboratory. Virtual. |

Conference Presentations

- 2023 **Brand CM**, Kuang S, Gilbertson EN, McArthur E, Pollard KS, Webster TH, Capra JA. Individual and population-level variation in 3D genome folding among bonobos (*Pan paniscus*) and chimpanzees (*Pan troglodytes*). American Association of Biological Anthropologists Annual Meeting. Reno, NV, USA. Talk.
- 2022 Gilbertson EN, McArthur E, **Brand CM**, Rinker DC, Capra JA. Using machine learning to predict 3D genome organization across thousands of diverse individuals reveals population differentiation. American Society of Human Genetics Annual Meeting. Los Angeles, CA, USA. Poster.
- Brand CM**, Colbran LC, Capra JA. Resurrecting the alternative splicing landscape of archaic hominins using machine learning. American Society of Human Genetics Annual Meeting. Los Angeles, CA, USA. Poster.
- Hickmott AJ, Boose KJ, Wakefield ML, **Brand CM**, White FJ, Snodgrass JJ. Two measures of fecal glucocorticoids and their relationship to social group size and composition in bonobos. American Association of Biological Anthropologists Annual Meeting. Virtual.
- Brand CM**, White FJ, Rogers AR, Webster TW. Estimating *Pan* evolutionary history from nucleotide site patterns. American Association of Biological Anthropologists Annual Meeting. Virtual.
- 2021 **Brand CM**, White FJ, Ting N, Webster TH. Ancient positive selection in bonobos (*Pan paniscus*) and chimpanzees (*Pan troglodytes*). American Association of Biological Anthropologists Annual Meeting. Virtual.
- 2020 Hickmott AJ, Loudon JE, Christie DM, **Brand CM**, Wakefield ML, Waller MT, White FJ, Ting N. Gut microbiota and fecal stable isotopic values for bonobos (*Pan paniscus*) of the Lomako Forest, Democratic Republic of Congo. Association of Physical Anthropologists Annual Meeting. Virtual.
- Gartland KN, Hickmott AJ, **Brand CM**, Ulibarri LR, Coleman K, White FJ. Adult male-juvenile relationships in semi free-ranging Japanese macaques (*Macaca fuscata*). American Society of Primatologists Annual Meeting.
- Brand CM**, Webster TH, White FJ, Ting N. Recent selective sweeps in bonobos (*Pan paniscus*): A machine learning approach. American Association of Physical Anthropologists Annual Meeting. Virtual.
- 2019 Hickmott AJ, Wakefield ML, Waller MT, **Brand CM**, White FJ. Bonobo (*Pan paniscus*) dietary diversity: testing fallback food models. American Association of Physical Anthropologists Annual Meeting. Cleveland, OH, USA. Talk.
- Hickmott AJ, Christie DM, **Brand CM**, Wakefield ML, Waller MT, White FJ, Ting N. Gut microbial diversity of bonobos (*Pan paniscus*) from Lomako Forst, Democratic Republic of Congo (DRC). American Society of Primatologists Annual Meeting. Madison, WI, USA. Poster.
- Brand CM**, Marchant LF. Social hair plucking in captive bonobos (*Pan paniscus*) is unrelated to dominance and kinship. American Society of Primatologists Annual Meeting. Madison, WI, USA. Poster.
- 2018 White FJ, Waller MT, **Brand CM**, Hickmott AJ, Wakefield ML. Ranging and social structure in the Lomako bonobos (*Pan paniscus*). International Society of Primatologists Congress. Nairobi, Kenya. Talk.
- Hickmott AJ, Waller MT, Wakefield ML, **Brand CM**, Boose KJ, White FJ. Temporal and geographic variation in bonobo dietary diversity using different methods. International Society of Primatologists Congress. Nairobi, Kenya. Poster.
- Brand CM**, Hickmott AJ, Boose KJ, White FJ. Ecological correlates of social behavior in bonobos (*Pan paniscus*). American Society of Primatologists Annual Meeting. Washington DC, USA. Talk.

Conference Presentations (continued)

- Wakefield ML, Hickmott AJ, Takaoka IY, **Brand CM**, Waller MT, White FJ. New observations of meat eating and sharing in wild bonobos (*Pan paniscus*) at Iyema, Lomako Forest Reserve, DRC. American Association of Physical Anthropologists Annual Meeting. Austin, TX, USA. Poster.
- Brand CM**, White FJ, Thompson Handler N, Hickmott AJ, Boose KJ. Adaptive functions of GG rubbing among female bonobos (*Pan paniscus*) at Lomako, DRC. American Association of Physical Anthropologists Annual Meeting. Austin, TX, USA. Talk.
- Bloom MF, **Brand CM**, Oliver CM, Keith-Lucas T, White FJ. Linearity and stability in Ring-Tailed Lemur (*Lemur catta*) dominance hierarchies. American Association of Physical Anthropologists Annual Meeting. Austin, TX, USA. Poster.
- 2017 Marchant LF, **Brand CM**. Nearly naked apes: A survey of hair plucking among captive bonobos (*Pan paniscus*). American Association of Physical Anthropologists Annual Meeting. New Orleans, LA, USA. Poster.
- Hickmott AJ, **Brand CM**, Boose KJ, White FJ. Spatial organization in female bonobos (*Pan paniscus*) reflects social cohesion. American Association of Physical Anthropologists Annual Meeting. New Orleans, LA, USA. Poster.
- Gotuaco LE, Brock IJ, **Brand CM**, Streicher US, Ulibarri LR. A survey of crossing structures among captive primates. American Association of Physical Anthropologists Annual Meeting. New Orleans, LA, USA. Poster.
- Brock IJ, Gotuaco LE, **Brand CM**, Streicher US, Ulibarri LR. Crossing structure design and effectiveness for primate conservation. American Association of Physical Anthropologists Annual Meeting. New Orleans, LA, USA. Poster.
- Brand CM**, Hickmott AJ, Boose KJ, White FJ. Rank differences in male bonobo (*Pan paniscus*) reproductive strategies. American Association of Physical Anthropologists Annual Meeting. New Orleans, LA, USA. Talk.
- 2016 **Brand CM**, White FJ, Waller MT, Wakefield ML, Ruiz-Lopez MJ, Ting N. Genetic estimation of bonobo (*Pan paniscus*) community size at Iyema, DRC. Joint Congress of the International Primatological Society and the American Society of Primatologists. Chicago, IL, USA. Poster.
- Gotuaco LE, **Brand CM**, Oliveira CG, Ortiz K, Keith-Lucas T, White FJ. Intersexual affiliation in a troop of Ring-Tailed Lemurs (*Lemur catta*). American Association of Physical Anthropologists Annual Meeting. Atlanta, GA, USA. Poster.
- Brand CM**, White FJ, Ruiz-Lopez MJ, Waller MT, Wakefield ML, Ting N. A genetic survey of the bonobos (*Pan paniscus*) at the Iyema field site, DRC. American Association of Physical Anthropologists Annual Meeting. Atlanta, GA, USA. Poster.
- 2015 Gotuaco LE, **Brand CM**, Oliveira CG, Ortiz K, Keith-Lucas T, White FJ. Comparison of measures of inter-individual affiliation among Ring-Tailed Lemurs (*Lemur catta*). American Society of Primatologists Annual Meeting. Bend, OR, USA. Talk.
- Brand CM**, White FJ, Waller MT, Ruiz-Lopez MJ, Wakefield ML, Ting N. Development of non-invasive genetic studies of the bonobos (*Pan paniscus*) at the Iyema field site of the Lomako Forest, DRC. American Society of Primatologists Annual Meeting. Bend, OR, USA. Poster.
- Brand CM**, Marchant LF, Boose KJ, Rood TM, White FJ, Meinelt A. Laterality of grooming and tool use in a group of captive bonobos (*Pan paniscus*). American Society of Primatologists Annual Meeting. Bend, OR, USA. Talk.
- Findley MK, Marchant LF, **Brand CM**. Hair plucking and grooming behavior in two groups of captive bonobos (*Pan paniscus*). American Association of Physical Anthropologists Annual Meeting. St. Louis, MO, USA. Poster.

Conference Presentations (continued)

- 2014 **Brand CM**, Boose KJ, Midttveit EC, Marchant LF, White FJ. Hair plucking and cortisol levels in a captive group of bonobos (*Pan paniscus*): Evidence of a female-biased stress induced behavior. American Association of Physical Anthropologists Annual Meeting. Calgary, Canada. Talk.
- 2013 **Brand CM**, Marchant LF. Hair plucking in captive bonobos (*Pan paniscus*). American Association of Physical Anthropologists Annual Meeting. Knoxville, TN, USA. Poster.
Brand CM, Marchant LF. Hair plucking in captive bonobos (*Pan paniscus*). Primate Society of Great Britain Annual Meeting. Lincoln, UK. Talk.
- 2012 **Brand CM**, Marchant LF. Hair plucking in captive bonobos (*Pan paniscus*). Midwest Primate Interest Group. DeKalb, IL, USA. Talk.

Teaching

University of Oregon (Instructor)

Evolution of Human Sexuality (ANTH 173)	2016
Human Biological Variation (ANTH 362)	2021
Human Growth and Development (ANTH 366)	2021
Introduction to Nutritional Anthropology (ANTH 220)	2020
Primate Behavior (ANTH 463/563)	2017
Statistics for Biological Anthropologists (ANTH 470/570)	2021

University of Oregon (Graduate Teaching Fellow)

Evolution of Human Sexuality (ANTH 173)	2019
Introduction to Evolutionary Medicine (ANTH 173)	2015-2020
Introduction to Human Origins (ANTH 170)	2015
Introduction to Monkeys and Apes (ANTH 171)	2014-2015
Principles of Archaeology (ANTH 145)	2018

Research Grants

- 2017 **Young Explorer's Grant, National Geographic Society**, \$5000, "Adult male-infant interactions among wild bonobos."
- 2015 **International Research Award, University of Oregon Global Studies Institute**, \$1000, "Adult male-infant interactions among wild bonobos."
- 2013 **Dean's Scholar Award, Miami University College of Arts and Science**, \$750, "Grooming in captive bonobos (*Pan paniscus*)."
Rebecca Jeanne Andrew Memorial Award, Miami University Department of Anthropology, \$500, "Hair plucking in captive bonobos (*Pan paniscus*)."
- 2012 **Rebecca Jeanne Andrew Memorial Award, Miami University Department of Anthropology**, \$750, "Hair plucking in captive bonobos (*Pan paniscus*)."

Workshops

- 2022 Simulation with msprime. AGAR Workshop on Computational Genetics. Virtual.
- 2019 Ways to assess: Links between behavior, welfare, and physiological measures. Pre-ASP Workshop: Identifying and treating abnormal behaviors in non-human primates. Madison, WI, USA.
An introduction to information theory and multimodel inference. Smithsonian Conservation Biology Institute. Front Royal, VA, USA.

Awards

- 2021 Outstanding Student Employee, University of Oregon
- 2018 Risa Palm Graduate Fellowship, University of Oregon
- 2016 Malcom McFee Award, Anthropology, University of Oregon
- 2014 Best Paper in Archaeology Award, Anthropology, Miami University
Employee Service Leadership Award, Miami University
President's Distinguished Service Award, Miami University
Senior Service Award, Anthropology, Miami University
Senior Service Leadership Award, Miami University
- 2013 Provost's Student Academic Achievement Award, Miami University
- 2012 Employee Service Leadership Award, Miami University

Mentees

* *Student presented research at ≥ 1 national conference(s)*

- 2020 - 2021 Liam Stone*, Social costs of reproduction in ring-tailed lemurs
Riley Male*, Social costs of reproduction in ring-tailed lemurs
- 2018 - 2019 Sarah Brown, Accuracy and precision of primate manual 2D:4D measurements, *Received the Museum of Natural and Cultural History's Best Poster Award at the 2019 UO Undergraduate Research Symposium*
Kendall Soriano, Accuracy and precision of primate manual 2D:4D measurements, *Received the Museum of Natural and Cultural History's Best Poster Award at the 2019 UO Undergraduate Research Symposium*
Erick Wonderly, Niche differentiation in three sympatric lemur species.
- 2017 - 2019 Mariah Bloom*, Cost alleviation associated with dating apps, Linearity and stability of dominance hierarchies in ring-tailed lemurs
Troi Feinberg, Abundance, diet, and habitat use of duikers at Lomako, DRC
- 2017 - 2018 Nora Sawyer, Linearity and stability of dominance hierarchies in ruffed lemurs
- 2016 - 2018 India Brock*, Linearity and stability of dominance hierarchies in ruffed lemurs, Review of artificial crossing structure among wild primates
- 2014 - 2016 Leslie Gotuaco*, Affiliative behavior in ring-tailed lemurs, Survey of captive primate artificial crossing structures

Travel Awards

- 2021 William S. Pollitzer Student Travel Award, American Association of Physical Anthropologists
- 2020 Health Education Award, \$250, Anthropology, University of Oregon
- 2017 Pauline Wollenberg Juda Memorial Endowment Fund Award, \$250, Anthropology, University of Oregon
- 2014 Undergraduate Presentation Award, \$200, Office for the Advancement of Scholarship and Research, Miami University
- 2013 Cambridge Junior Visiting Fellows Fund, \$500, College of Arts and Science, Miami University
- 2012 Undergraduate Presentation Award, \$200, Office for the Advancement of Scholarship and Research, Miami University

Service

Department of Anthropology, University of Oregon

2018 - 2020 Association of Anthropology Graduate Students, Co-Director

University of Oregon

2017 - 2019 Graduate School Student Advisory Board, Ex-Officio Member

2016 - 2019 Graduate Student Association, President
Senate Committee on Courses, Graduate Student Representative

External

2018 - 2019 National Association of Graduate-Professional Students, Western Regional Conference Chair

2017 - 2019 American Society of Primatologists Student Committee, Co-Chair

2017 American Association of Physical Anthropologists Annual Meeting, Primate Cognition and Ecology Poster Session Chair

2016 - 2017 American Society of Primatologists Student Committee, Member

2016 - 2019 American Association of Physical Anthropologists Undergraduate Research Symposium, Undergraduate Mentor

2015 American Association of Physical Anthropologists Undergraduate Research Symposium Abstract Reviewer

Grant Reviewer

National Geographic Society (15)

Manuscript Reviewer

American Journal of Primatology (2), Biology Letters, Ecological Modelling, Folia Primatologica, Nature Ecology and Evolution, Royal Society Open Society, Zoo Biology (3)

Science Outreach

2021 Science Streams
2020 - 2021 Letters to a Pre-Scientist
Skype a Scientist
2018 - 2019 UO Science Open House, University of Oregon
2016 - 2019 Meet a Scientist Day, Eugene Science Factory Children's Museum
2016 - 2021 SPICE Camp Forensics in the Forest Activity, University of Oregon
2016 Introduction to Biological Anthropology, Cottage Grove High School, OR
2015-2018 Primate Osteology and Behavioral Ecology Lab Tour, University of Oregon

Memberships

American Association of Biological Anthropologists
Society for Molecular Biology and Evolution

Date: May 5, 2023