

Daniel J. Naumenko

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EDUCATION

University of Colorado, Boulder

M.A. in Anthropology 2020

Rutgers, the State University of New Jersey

B.Sc. in Evolutionary Anthropology, cum laude 2017
Minors: Statistics, Biological Sciences

PUBLICATIONS

Refereed Journal Articles

- 2021 **Naumenko DJ**, Dykes J, O'Connor GK, Stanley Z, Affara N, Drammeh S, Dunger DB, Faal A, Ong KK, Sosseh F, Prentice AM, Moore SE, Bernstein RM. A novel method for the identification and quantification of weight faltering. *American Journal of Physical Anthropology* (Early View)
- 2020 Maqsood A, **Naumenko DJ**, Hermanussen M, Scheffler C, Groth D. No correlation between short term weight gain and lower leg length gain in healthy German children. *Anthropologischer Anzeiger* (Early View)
- 2019 **Naumenko DJ**, Watford M, Utami Atmoko SS, Erb WM, Vogel ER. Evaluating ketosis in primate field studies: validation of urine test strips in wild Bornean orangutans, *Pongo pygmaeus wurmbii*. *Folia Primatologica*; 91:159-167

Manuscripts in Submission

- 2021 Vogel ER, Alavi SE, Watford M, Bransford TD, **Naumenko DJ**, Crowley BE, Emery Thompson M, Utami Atmoko SA, Zulfa A, Rothman JM, Raubenheimer D. Wild orangutans exhibit behavioral and metabolic flexibility in response to macronutrient balance. *Proceedings of the National Academy of Sciences*
- 2021 O'Connell CA, DiGiorgio AL, Ugarte AD, Brittain RSA, **Naumenko DJ**, Utami Atmoko SS, Vogel ER. Wild Bornean orangutans experience muscle catabolism during episodes of fruit scarcity.
- 2021 Abdo M, Kanyomse E, Alirigia R, Coffey ER, Piedrahita R, Diaz-Sanchez D, Hagar Y, **Naumenko DJ**, Wiedinmyer C, Hannigan MP, Oduro AR, Dickinson KL. Health

impacts of a randomized biomass cookstove intervention in Northern Ghana. *BMC Public Health*

Conference Proceedings

- 2021 van der Heide G, **Naumenko DJ**, Utami-Atmoko SS, Vogel ER. Phenological periodicity in a tropical peat-swamp rainforest on Borneo, Indonesia. Annual Meeting of the Ecological Society of America. Long Beach, California [in submission]
- 2021 Kimes OL, Doel AM, **Naumenko DJ**, Washabaugh JR, Moore SE, Bernstein RM. Accuracy of anthropometry-based equations versus air-displacement plethysmography for the estimation of fat mass in rural Gambian infants. 46th Annual Meeting of the Human Biology Association. Baltimore, Maryland
- 2020 **Naumenko DJ**, Affara N, Dunger DB, Ong KK, Prentice AM, Moore SE, Bernstein RM. Short-term wasting, linear faltering, and Type X Collagen. 89th Annual Meeting of the American Association of Physical Anthropologists. Los Angeles, California [in-person presentation cancelled due to COVID-19]
- 2020 Leigh SR, **Naumenko DJ**, Affara N, Dunger DB, Ong KK, Prentice AM, Moore SE, Bernstein RM. Allometric correlates of infant mass growth rate variations. 89th Annual Meeting of the American Association of Physical Anthropologists. Los Angeles, California [in-person presentation cancelled due to COVID-19]
- 2020 Vogel ER, **Naumenko DJ**, Ballare E, Prasetyo D. Methods for studying energetics and health in wild primates. 28th Congress of the International Primatological Society. Quito, Ecuador. [in-person presentation postponed due to COVID-19]
- 2019 Vogel ER, **Naumenko DJ**, Utami Atmoko SS, and Bransford TD. The benefits of negative energy balance? Oxidative stress and inflammation in wild Bornean orangutans (*Pongo pygmaeus wurmbii*). 88th Annual Meeting of the American Association of Physical Anthropologists. Cleveland, OH
- 2019 **Naumenko DJ**, Dykes J, O'Connor GK, Stanley Z, Affara N, Dunger DB, Moore SE, Ong KK, Prentice AM, and Bernstein RM. Quantifying growth faltering across the first year of life in rural Gambian infants. 88th Annual Meeting of the American Association of Physical Anthropologists. Cleveland, OH
- 2019 **Naumenko DJ**, Affara N, Dunger DB, Moore SE, Ong KK, Prentice AM, and Bernstein RM. Head circumference growth trajectories from prenatal to postnatal life in rural Gambian infants: influences and implications. 44th Annual Meeting of the Human Biology Association. Cleveland, OH
- 2019 Stanley Z, Dykes J, **Naumenko DJ**, O'Connor GK, Affara N, Dunger DB, Moore SE, Ong KK, Prentice AM, and Bernstein RM. Influence of sex, season of birth, and

- gestational age on growth in rural Gambian infants from birth to one year. 88th Annual Meeting of the American Association of Physical Anthropologists. Cleveland, OH
- 2019 Dykes J, Cummings JA, **Naumenko DJ**, O'Connor GK, Stanley Z, Affara N, Dunger DB, Moore SE, Ong KK, Prentice AM, and Bernstein RM. Quantifying growth pulses across the first year of life in rural Gambian infants. 88th Annual Meeting of the American Association of Physical Anthropologists. Cleveland, OH
- 2019 O'Connor GK, Stanley Z, Dykes J, **Naumenko DJ**, Affara N, Dunger DB, Moore SE, Ong KK, Prentice AM, and Bernstein RM. Growth deviance and the infancy-childhood transition in rural Gambian infants. 88th Annual Meeting of the American Association of Physical Anthropologists. Cleveland, OH
- 2019 Stanley Z, Dykes J, **Naumenko DJ**, O'Connor GK, Affara N, Dunger DB, Moore SE, Ong KK, Prentice AM, and Bernstein RM. Predictive accuracy of short-term measurements for longer-term growth rates in rural Gambian infants. 44th Annual Meeting of the Human Biology Association Conference. Cleveland, OH
- 2018 **Naumenko DJ**, Alavi S, Vogel ER. Nature's diet: caloric restriction and oxidative stress in wild Bornean Orangutans, *Pongo pygmaeus wurmbii*. 87th Annual Meeting of the American Association of Physical Anthropologists. Austin, TX
- 2018 Bransford TD, Emery Thompson M, **Naumenko DJ**, van Noordwijk MA, Utami Atmoko SS, Vogel, ER. Variables influencing cortisol levels during motherhood in wild Bornean orangutans. 87th Annual Meeting of the American Association of Physical Anthropologists. Austin, TX
- 2018 Bernstein RM, **Naumenko DJ**, Washabaugh J, Hinnouho G, Barffour M, Wessels K, Ratsavong K, Kounnavong S, Hess S. Hair cortisol concentrations in infants and children from Lao PDR. 43rd Annual Meeting of the Human Biology Association. Austin, TX
- 2017 Bransford TD, **Naumenko DJ**, Moldawer A, Pritchard A, Vogel ER. Does the energetic status of wild orangutan mothers vary with infant age? 86th Annual Meeting of the American Association of Physical Anthropologists. New Orleans, LA
- 2016 **Naumenko DJ**, Watford M, Erb WM, Vogel ER. Validation of urine test strips to measure relative ketone body levels in wild Bornean orangutans, *Pongo pygmaeus wurmbii*. 85th Annual Meeting of American Association of Physical Anthropologists. Atlanta, GA

Other Publications

- 2019 **Naumenko DJ** – Orangutans in the Rainforest. In: Riley KC. and Paugh AL. Food and Language: Discourses and Foodways across Cultures (Ch. 2. Pp. 22-24). New York, NY: Routledge

AWARDS AND HONORS

- 2019 Haskell-Haughlin Award (\$2667, Dept. of Anthropology; University of Colorado, Boulder)
- 2017 Departmental Honors – Highest (Dept. of Anthropology, Rutgers, the State University of NJ)
- 2017 Certificate of Evolutionary Medicine (Rutgers, the State University of NJ)
- 2017 Henry Rutgers Scholar Award (Rutgers, the State University of NJ)
- 2017 Rutgers Honors Symposium Award (Dept. of Anthropology; Rutgers, the State University of NJ)

GRANTS AND FELLOWSHIPS

- 2020 Global Environmental Change Grant (\$14,991.50; Rutgers Global, Rutgers, the State University of New Jersey; Building on-the-ground conservation infrastructure for long-term monitoring of anthropogenic air pollution and its impact on forest dynamics and wild Bornean orangutans; PI: Erin R. Vogel, Co-PI: Victoria Ramenzoni, Collaborator: Daniel J. Naumenko)
- 2020 Center for Human Evolutionary Studies Senior Research Grant (\$6970; Rutgers, the State University of New Jersey; Long-term monitoring of anthropogenic air pollution and its impact on forest dynamics and wild Bornean orangutans; PI: Erin R. Vogel, Co-PI: Victoria Ramenzoni, Collaborator: Daniel J. Naumenko)
- 2019 Graduate Student Research Award (\$1400; Dept. of Anthropology, University of Colorado, Boulder)
- 2018 Center for Human Evolutionary Studies Senior Research Grant (\$8100; Rutgers, the State University of New Jersey; Oxidative stress and tissue wasting in wild Bornean Orangutans; PI: Erin R. Vogel, Co-PI: Daniel J. Naumenko)
- 2018 Biological Anthropology Graduate Students Conference Travel Award (\$500; University of Colorado, Boulder)
- 2017 New Graduate Funding (\$305; University of Colorado, Boulder)
- 2017 Center for Human Evolutionary Studies Senior Research Grant (\$6786; Rutgers, the State University of NJ; Nutritional immunology, oxidative stress, and energetics in wild Bornean Orangutans; PI: Erin R. Vogel, Co-PI: Daniel J. Naumenko)
- 2017 National Science Foundation Graduate Research Fellowship (\$138,000; NSF)
- 2016 Aresty Center Research Fellowship (\$2000; Rutgers, the State University of NJ)
- 2016 Bigel Endowment Grant (\$1250; Dept of Anthropology, Rutgers, the State University of NJ)
- 2016 Center for Human Evolutionary Studies Barry C. Lembersky Undergraduate Research Grant (\$500; Linking dietary ecology and oxidative stress in wild Bornean Orangutans)
- 2016 Jerome and Lorraine Aresty Center Undergraduate Research Scholarship (\$400; Rutgers, the State University of NJ)
- 2016 Bigel Endowment Grant (\$500; Dept. of Anthropology, Rutgers, the State University of NJ)

2015 Bigel Endowment Grant (\$1100; Dept. of Anthropology, Rutgers, the State University of NJ)

CAMPUS AND DEPARTMENTAL TALKS

- 2017 **Naumenko DJ**, Alavi S, Vogel ER. – Linking dietary ecology, immune function, and air quality to oxidative stress in wild Bornean orangutans, *Pongo pygmaeus wurmbii*. 8th Annual Rutgers University Department of Anthropology Honors Symposium, New Brunswick, NJ.
- 2017 **Naumenko DJ**, Alavi S, Vogel ER. Dietary ecology and oxidative stress in wild Bornean Orangutans, *Pongo pygmaeus wurmbii*. Aresty Center Interdisciplinary Colloquium. New Brunswick, NJ.
- 2016 **Naumenko DJ**, Watford M, Erb WM, Vogel ER. – Validation of urine test strips to measure relative ketone body levels in wild Bornean Orangutans, *Pongo pygmaeus wurmbii*. 12th Aresty Center Annual Undergraduate Research Symposium, New Brunswick, NJ.
- 2016 **Naumenko DJ**. Stress in the Red Ape. Center for Human Evolutionary Studies Annual Open House
- 2016 **Naumenko DJ**. Undergraduate Research in the Life Sciences. First-Year Interest Group Seminar Guest Lecture

TEACHING EXPERIENCE

University of Colorado, Boulder

Introduction to Physical Anthropology (Fall 2017)

Rutgers, the State University of New Jersey

Quantitative Methods in Evolutionary Anthropology (Fall 2016)

Molecular Ecology (Spring 2017)

RESEARCH EXPERIENCE

2018 Fierer Lab (PI: N. Fierer)
Extracted and sequenced 16S rRNA and utilized bioinformatics pipelines and multivariate analysis to assess the bacterial communities of commercial beverages in Boulder, Colorado.

2017 – Present Growth and Development Laboratory (PI: R.M. Bernstein)

Engaged in the extraction and analysis of cortisol from infant hair samples, macronutrient composition analysis of human milk, CRP extraction from human dried blood spots, and quantification of total antioxidant capacity in human milk.

2014 –2017 Laboratory for Primate Dietary Ecology and Physiology (PI: E.R. Vogel)
Managed day to day laboratory operations and analyzed orangutan urine samples for a range of analytes (urea, creatinine, cytokines, cortisol, c-peptide of insulin, and nitrogen isotopes) for multiple lab members; trained new undergraduates in laboratory assay techniques and managed a database of laboratory results.

2015 – 2016 Aresty Center Research Assistant (Advised by: E.R. Vogel)
Quantified ketone body concentrations in orangutan urine samples using spectrophotometry in the Watford lab, Dept. of Nutritional Sciences, Rutgers, the State University of NJ.

2010 –2013 Waksman Student Scholars Program
Extracted DNA from field plant samples, and isolated and sequenced novel genes from *Wolffia australiana*

DEPARTMENTAL SERVICE

Anthropology Graduate Student Organization, Vice President. 2020 - Present
Co-Organizer of Biological Anthropology Graduate Student Speaker Series. 2018 - 19
Curriculum Committee, Biological Anthropology Representative. 2017 - 18
Organizer of Primate Nutritional Ecology Symposium. 2017 - 18
Biological Anthropology Graduate Students, Vice President. 2017 - Present

RELATED PROFESSIONAL SKILLS

Computational: R, RMarkdown, Stata, SAS, JMP, Arlequin, ClustalW, BLAST, Structure, Migrate, Microbial bioinformatics
Laboratory: ELISA, RIA, Microbead Multiplex, Hair cortisol extraction, urinary Nitrogen isotope analysis, qPCR, gel electrophoresis, DBS elution, milk macro-nutritional analysis, colorimetry, ambient particulate matter monitoring

PROFESSIONAL MEMBERSHIPS AND AFFILIATIONS

2020 – Present American Association for the Advancement of Science, Student Member
2019 – Present Auxological Society (Deutsche Gessellschaft für Auxologie), Member

2018 – Present Human Biology Association, Student Member
2017 – Present Sigma Xi, Affiliate Member-at-Large
2016 – 2017 Center for Human Evolutionary Studies, Undergraduate Affiliate
2015 – Present American Association of Physical Anthropologists, Student Member
2015 – 2017 Northeast Evolutionary Primatologists, Student Member

REFERENCES

Robin M. Bernstein Associate Professor of Anthropology, Dept. of Anthropology, University of Colorado, Boulder.
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