Yannik Elo Roell

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Education:

2021 (est.)	PhD in Agroecology; Aarhus University, Aarhus, Denmark.
2017	MSc in Biology; University of Idaho, Moscow, ID.
2017	GIS Certificate; University of Idaho, Moscow, ID.
2014	BSc in Biology and Chemistry, Truman State University, Kirksville, MO.

Research Experience:

2017-Present	Graduate Research – Crop suitability and homogeneous soil, climate, and landscape modeling for terroir development in Denmark
2016-2017	GIS Technician – GIS programmer for new biologically relevant topographic index for snail species distribution in the Galapagos.
2016-2017	Graduate Research – Modeling species richness across the Galapagos using GIS data to enhance previous island biogeography models.
2015-2017	Graduate Research – Collection and analysis of metabolic rate for endemic land snails of the Galapagos due to shell morphology and environment.
2015-2016	Field Technician – Collection of *Taricha granulosa* to study tetrodotoxin in a non-toxic population.
2015	Marine Conservation Internship – Conservation and education outreach on the local coral reefs on Caqalai, Fiji Islands. Global Vision International.
2013-2014	Research Technician – *Terrapene ornata* home range, habitat use, and movement rates in northeast Missouri. Truman State University.
2013-2014	Research Technician – Environmental screening and molecular analysis of cellulose degrading fungi. Truman State University.
2013	Research Technician – Development of general microbiology lab using *Trichoderma reesei* and *Fusarium oxysporum*. Truman State University.
2013	Desert Southwest Ecology Course – Reptile body size and habitat variation along a latitudinal gradient. Truman State University.
2012-2014	Research Technician – Development of organic chemistry lab that syntheses and analyzes phenytoin. Truman State University.

Teaching Experience:

Aarhus University

2019	Developer and instructor of Modeling and mapping acid sulfate soil using R.
2019	Teaching assistant for Introduction to GIS using ArcMap for bachelor students.

University of Idaho

2016-2017	GIS assistant for biology graduate students.
2016	Invited speaker for Operation Wallacea: Adaptation in the Galapagos for kids.
2016	Field Work Mentor for Research Experience for Undergraduate (REU) student.
2016	Teaching Assistant for Structure and function across the tree of life.
2015	Teaching Assistant for Herpetology.

Motoriki District School, Fiji

2015	Environmental Topics: 4th and 8th grade classes on conservation and sustainability.

Presentations:

Roell, Y. E. 2020. Comparing a random forest based prediction of winter wheat yield to historical production potential. European Geosciences Union (EGU) General Assembly.

Roell, Y. E. 2019. Development of hierarchical terron workflow based on gridded data – A case study in Denmark. Joint Workshop for Digital Soil Mapping (DSM) and GlobalSoilMap (GSM).

Peng, Y., Roell, Y. 2019. Using Vis-NIR and ancillary data to identify and map terron in Denmark. Joint Workshop for Digital Soil Mapping (DSM) and GlobalSoilMap (GSM).

Roell, Y. E. 2018. Modeling terron units with the addition of climatic variables in Denmark. International Soil Modeling Consortium (ISMC).

Roell, Y. E. 2017. An empirical test of the role of topographic complexity in the general dynamic model of oceanic island biogeography. International Conference of Evolution.

Roell, Y. E. 2016. A complex land from birds to snails: using GIS techniques for biologist. Seminar speaker for Science After Hours at Palouse Clearwater Environmental Institute (PCEI).

Roell, Y. E. 2016. Galapagos land snail's metabolic rate: a relationship of shell morphology and environment. International Conference of Island Biology.

Roell, Y. E. 2016. Variation in metabolic rate due to shell morphology and environment in Galapagos snails. Evolutionary Biology in the Pacific Northwest (EVO-WIBO).

Roell, Y. E. 2016. Relationship of metabolic rate and shell morphology and environment in Galapagos snails. Society for Integrative and Comparative Biology (SICB) annual meeting.

Roell, Y. E. 2015. Variation in metabolic rate due to shell morphology and environment in Galapagos snails. 11th annual Student Research Exposition at University of Idaho.

Roell, Y. E. and Long, D. S. 2014. Environmental screening and molecular analysis of cellulose producing fungi. 27th annual Student Research Conference at Truman State University.

Roell, Y. E. 2014. Synthesis of phenytoin as a new organic lab. 27th annual Student Research Conference at Truman State University.

Peer-Reviewed Publications:

Roell, Y. E., Beucher, A., Møller, P. G., Greve, M. B, Greve, M. H. (2020). Comparing a random forest based prediction of winter wheat yield to historical yield potential. *Agronomy*.

Roell, Y. E., Peng, Y., Beucher, A., Greve, M. B., Greve, M. H. (2019). Development of hierarchical terron workflow based on gridded data – A case study in Denmark. *Computers and Geosciences*.

Peng, Y., Roell, Y. E., Møller, A. B., Adhikari, K., Beucher, A., Greve, M. B., Greve, M. H. (2020). Identifying and mapping terrons in Denmark. *Geoderma*

Awards and Funding:

Best student poster presentation award at Joint workshop for DSM and GSM. 2019.

Esri Student Assistantship to Attend 2017 Esri User Conference. 2017.

Center for the Study of Evolution in Action (BEACON) Travel Grant. $500. 2017.

Graduate and Professional Student Association Travel Award, University of Idaho. $700. 2017.

Graduate Research Assistantship, University of Idaho. 2016-2017.

Conchologists of America Grant for Malacology. $2200. 2016.

Biology Departmental Fellowship, University of Idaho. 2015-2016.

Graduate and Professional Student Association Travel Award, University of Idaho. $590. 2015.

SICB Charlotte Mangum Student Support Program for 2016 annual SICB meeting. 2015.

Magna cum laude, Truman State University. 2014.

Chemistry Department Honors, Truman State University. 2014.

Vice President for Academic Affairs List, Truman State University. 2010-2014.

Grants in Aid of Scholarship and Research, Truman State University $750. 2013.

Valedictorian, Waynesville High School, Waynesville, MO. 2010.

Federal Pell Grant, Truman State University $2400. 2010.

A+ Recognition Scholarship, Truman State University $1500. 2010.