

# Abhilesh Dhawanjewar

PH.D. CANDIDATE · EVOLUTIONARY BIOLOGY

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## Education

### Ph.D. in Evolutionary Biology

UNIVERSITY OF NEBRASKA-LINCOLN, USA

Advisors: Dr. Kristi Montooth & Dr. Colin Meiklejohn

Expected 2021

### Integrated B.S.-M.S. Dual Degree

INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH, PUNE, INDIA

Advisor: Dr. M.S. Madhusudhan

Aug 2010 - May 2015

## Publications

### JOURNAL ARTICLES

**Dhawanjewar A.S.\***, Roy A.A.\*, & Madhusudhan M.S. (2020). A knowledge-based scoring function to assess the stability of quaternary protein assemblies. *Oxford Bioinformatics*, 36(12), 3739-3748.

Roy, A.A.\*, **Dhawanjewar, A.S.\***, Sharma, P., Singh, G., & Madhusudhan, M.S. (2019). Protein Interaction Z Score Assessment (PIZSA): an empirical scoring scheme for evaluation of protein-protein interactions. *Nucleic acids research*, 47(W1), W331-W337.

Montooth, K.L., **Dhawanjewar, A.S.**, & Meiklejohn, C.D. (2019). Temperature-sensitive reproduction and the physiological and evolutionary potential for Mother's Curse. *Integrative and comparative biology*, 59(4), 890-899.

Nelson, T.C., Jones, M.R., Velotta, J.P., **Dhawanjewar, A.S.**, & Schweizer, R.M. (2019). UNVEILING connections between genotype, phenotype, and fitness in natural populations. *Molecular ecology*, 28(8), 1866-1876.

\* Equal contribution

### WEB-SERVERS

Prediction of Stable Quaternary Protein Assemblies -

PIZSA (Protein Interaction Z-score Assessment) - <http://cospi.iiserpune.ac.in/pizsa/>

## Honors & Awards

|  |      |
|--|------|
| Blair Paxton Udale Fund for Life Sciences, <b>The University of Nebraska Foundation (\$500)</b>            | 2020 |
| Milton E. Mohr Fellowship, <b>UNL Center for Biotechnology (\$1000)</b>                                    | 2019 |
| Suzanne O. Prather Memorial Fund, <b>University of Nebraska Foundation (\$1500)</b>                        | 2019 |
| Runner-Up Best Poster Award, <b>School of Biological Sciences, UNL (\$50)</b>                              | 2019 |
| AAAS/Science Program for Excellence in Science, <b>American Association for the Advancement of Science</b> | 2019 |
| Jessie A. Lee Fund, <b>School of Biological Sciences, UNL (\$2000)</b>                                     | 2018 |
| Best Poster Award, <b>School of Biological Sciences, UNL (\$100)</b>                                       | 2018 |
| Conference Registration Award, <b>Society for Molecular Biology and Evolution (\$450)</b>                  | 2018 |
| Travel Grant, <b>Society for Molecular Biology and Evolution (\$250)</b>                                   | 2017 |
| Runner-Up Best Poster Award, <b>School of Biological Sciences, UNL (\$50)</b>                              | 2017 |
| Mary D. Rogick Memorial Fund, <b>School of Biological Sciences, UNL (\$1300)</b>                           | 2017 |
| Travel Grant, <b>Society for the Study of Evolution (\$500)</b>  | 2016 |
| Blair Paxton Udale Fund for Life Sciences, <b>The University of Nebraska Foundation (\$1500)</b>           | 2016 |
| Rosemary Grant Award, <b>Society for the Study of Evolution (\$2500)</b>                                   | 2016 |
| Travel Grant, <b>The Indian Institute of Science Education and Research, Pune (\$1300)</b>                 | 2014 |
| Travel Grant, <b>The American Society of Naturalists (\$250)</b>   | 2014 |
| Working Internship, <b>Max Planck Institute for Evolutionary Biology (\$3500)</b>                          | 2013 |
| INSPIRE Scholarship, <b>Department of Science and Technology, India (\$8000)</b>                           | 2010 |
| National Talent Search Examination (NTSE) Scholar, <b>NCERT, India (\$250)</b>                             | 2006 |

## Conference Presentations

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### INVITED TALKS

#### The Ethics of Using Genetic Tools for Conservation

UNVEIL SYMPOSIUM 2018

Jun 2018

Missoula, Montana, USA

#### Population Genomics of the Range-Expanding Populations of *Argiope bruennichi*

20<sup>TH</sup> INTERNATIONAL CONGRESS OF ARACHNOLOGY

Jul 2016

Golden, Colorado, USA

### ORAL PRESENTATIONS

#### Compensatory Evolution of Disease Associated Residues in the Oxidative Phosphorylation (OXPHOS) pathway \*

SOCIETY FOR MOLECULAR BIOLOGY AND EVOLUTION MEETING

Jun 2020

Québec City, Canada

#### Environmental Modification of Mitochondrial-Nuclear Epistasis in Shaping Thermal Male Sterility in *Drosophila*

UNVEIL SYMPOSIUM 2018

Jun 2018

Missoula, Montana, USA

#### Mitochondrial-Nuclear Interactions and the Thermal Sensitivity of Male Reproduction

MITOCHONDRIAL GENOMICS AND EVOLUTION, AN SMBE SATELLITE MEETING

Sep 2017

Ein Gedi, Israel

### POSTER PRESENTATIONS

#### Compensatory Evolution of Disease Associated Residues in the Mitochondrial Genome

2<sup>ND</sup> UNVEIL SYMPOSIUM 2019

Oct 2019

Lincoln, Nebraska, USA

#### Structural Compensation of Disease Associated Residues in the Mitochondrial Genome

EUROPEAN SOCIETY FOR EVOLUTIONARY BIOLOGY MEETING

Aug 2019

Turku, Finland

#### Mitochondrial Diseases and Compensated Pathogenic Deviations

SOCIETY FOR INTEGRATIVE AND COMPARATIVE BIOLOGY MEETING

Jan 2019

Tampa, Florida, USA

#### Genetic and Environmental Factors Underlying the Thermal Sensitivity of Male Reproduction

SOCIETY FOR MOLECULAR BIOLOGY AND EVOLUTION MEETING

Jul 2018

Yokohama, Japan

#### Mitochondrial-Nuclear Interactions and the Thermal Sensitivity of Male Reproduction

UNIVERSITY OF NEBRASKA-LINCOLN SPRING RESEARCH FAIR

Apr 2017

Lincoln, Nebraska, USA

#### Mitochondrial-Nuclear Interactions and the Thermal Sensitivity of Male Reproduction

58<sup>TH</sup> ANNUAL DROSOPHILA RESEARCH CONFERENCE

Mar 2017

San Diego, California, USA

#### Prediction of Protein-Protein Interactions through the use of Statistical Potentials

BIOPHYSICS PASCHIM MEETING

Mar 2015

Mumbai, India

#### Comparative Mitogenomic Analysis in the Range-Expanding Populations of *Argiope bruennichi*

QEVOLUTION2014, WORKSHOP ON QUANTITATIVE EVOLUTIONARY BIOLOGY

Sep 2014

Şirince, Turkey

\* Conference cancelled due to COVID-19 concerns

## Outreach

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|  |           |
|--|-----------|
| Organiser & Lightning Talks and Film Festival Master of Ceremonies, <b>SciComm 2020</b>    | 2020      |
| My Captain Discover Mentor, <b>The Climber</b>   | 2018      |
| Scientists in Cars Getting Coffee, <b>Film Festival, SciComm 2018</b>                      | 2018      |
| Master of Ceremonies, Lighting Talks and Film Festival, <b>SciComm 2018</b>                | 2018      |
| Boys and Girls Science Club, Park Middle School, <b>Lincoln Community Learning Centers</b> | 2016-2017 |
| Junior Sunday with a Scientist, <b>Nebraska State Museum</b>                               | 2017      |
| Sunday with a Scientist: Diversity of Life in Nebraska, <b>Nebraska State Museum</b>       | 2017      |
| Sunday with a Scientist: Darwin Day, <b>Nebraska State Museum</b>                          | 2017      |
| Science Night Live Moderator, <b>SciComm 2016</b>  | 2016      |
| Sunday with a Scientist: Evolution on the Wing, <b>Nebraska State Museum</b>               | 2016      |
| Junior Sunday with a Scientist, <b>Nebraska State Museum</b>                               | 2016      |
| Investigate: Show-and-tell Amblypygi, <b>Nebraska State Museum</b>                         | 2016      |
| Science Tutoring for less-privileged high school students, <b>Pune, India</b>              | 2013-2015 |

## Teaching

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|--|-------------------------|
| Guest Lecture, <b>BIOS 897- Communicating Science Through Outreach</b> | Spring 2017, 2018       |
| Teaching Assistant, <b>LIFE 121L - Fundamental Biology Lab II</b>      | Spring 2019             |
| Teaching Assistant, <b>LIFE 120L - Fundamental Biology Lab I</b>       | Spring 2019             |
| Teaching Assistant, <b>LIFE 120L - Fundamental Biology Lab I</b>       | Fall 2016 - Fall 2017   |
| Teaching Assistant, <b>BIOS 101L - General Biology Lab</b>             | Fall 2015 - Spring 2016 |

## Professional Service

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|---|-------------------|
| Organizing Committee, <b>SciComm 2020: A Conference on Effective Science Communication</b>                        | 2020              |
| Graduate Student Representative, <b>UNL oSTEM Conference 2020</b>   | 2020              |
| Workshop co-organizer: Ethics of Biotechnology Applications to Conservation Biology, <b>UNVEIL Symposium 2018</b> | 2018              |
| Grad Student Volunteer, Strategic Vision Committee, <b>School of Biological Sciences, UNL</b>                     | 2018              |
| Vice President, <b>Biology Graduate Students Association, UNL</b>   | 2017-2019         |
| Undergraduate Poster Judge, <b>UNL Spring Research Fair</b>   | Spring 2018, 2019 |

## Memberships

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|--|-----------|
| European Society for Evolutionary Biology (ESEB)           | 2019-2020 |
| The Society for Integrative and Comparative Biology (SICB) | 2019-2020 |
| American Association for the Advancement of Science (AAAS) | 2019-2020 |
| Genetics Society of America (GSA)                          | 2017-2019 |
| Society for the Study of Evolution (SSE)                   | 2016-2019 |
| Society for Molecular Biology and Evolution (SMBE)         | 2018-2020 |
| International Society of Arachnologists (ISA)              | 2016-2017 |
| American Society of Naturalists (ASN)                      | 2014-2015 |