

Sang Il Kim

Curriculum Vitae – September 2018

Museum of Comparative Zoology
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EDUCATION

Harvard University

Ph.D. in Organismic and Evolutionary Biology

Advisor: Professor Brian D. Farrell

Cambridge, MA

Expected May 2021

A.B. Honors in Organismic and Evolutionary Biology with highest honors

May 2015

Thesis: Phylogeny, Systematics and Evolution of the Family Lucanidae Latreille (Insecta: Coleoptera)

Advisor: Professor Brian D. Farrell

RESEARCH INTERESTS

Phylogeny and evolution of beetles (expertise in Cerambycidae and Lucanidae); biogeography (esp. Beringian, Caribbean, and Gondwanan); and adaptive radiation; cryptic species; species delimitation; coevolution; insect-plant/fungus interaction.

PROFESSIONAL SOCIETIES

Cambridge Entomological Club (2012 - Present)

Coleopterists Society (2010 - Present)

Connecticut Entomological Society (2007 - 2011)

Entomological Society of America (2013 - Present)

Entomological Society of Korea (2009 - Present)

Society for Systematic Biologists (2016 - Present)

Systematics Association (2015 - Present)

Willi Henning Society (2013 - Present)

PROFESSIONAL EXPERIENCE

2013 - Present

Research Assistant

Museum of Comparative Zoology (MCZ), Harvard University; Advisor: Dr. Brian D. Farrell

2011 - 2012

Visiting Researcher/Intern

National Academy of Agricultural Science (NAAS) (Suwon, Korea); Advisor: Dr. Haechul Park

2009 - 2010

Student Intern

Yale Peabody Museum of Natural History; Advisor: Dr. Raymond J. Pupedis

2009

Visiting Researcher

Natural History Museum (London, UK); Advisor: Dr. Maxwell V.L. Barclay

2008

Visiting Researcher

National Institute of Biological Resources (Incheon, Korea); Advisor: Dr. Joo-Lae Cho

GRANTS AND FELLOWSHIPS

2015 - Present

Harvard Graduate Student Fellowship

2016

David Rockefeller Center for Latin American Studies Summer Research Travel Grant: Field expedition to Puerto Rico and the Dominican Republic

2014

James M. O'Neil Memorial Undergraduate Travel and Research Fund Grant: Travel to the Dominican Republic and participation in the Harvard Summer Study Abroad Program, Biodiversity of Hispaniola

2013

MCZ Ernst Mayr Travel Grants: Visit to the Muséum National d'Histoire Naturelle, Paris, for a systematic review of the *Dorcus velutinus* species group (Coleoptera: Lucanidae) through an integrative taxonomic approach

2013

MCZ Grants-in-Aid of Undergraduate Research (Fall): Phylogeny of world stag beetles may reveal a Gondwanan origin of Darwin's beetle: Testing Jenneal's hypothesis

2013

Harvard College Research Program (Fall): Phylogeny of world stag beetles may reveal a Gondwanan origin of Darwin's beetle: Testing Jeannel's hypothesis

2013

MCZ Grants-in-Aid of Undergraduate Research (Summer): Unveiling cryptic diversity in the stag beetle populations of the *Dorcus velutinus* species group (Coleoptera: Lucanidae)

2013

Harvard College Research Program (Summer): Unveiling cryptic diversity in the stag beetle populations of the *Dorcus velutinus* species group (Coleoptera: Lucanidae)

2012

MCZ Grants-in-Aid of Undergraduate Research (Fall): Systematic review of the *Dorcus velutinus* species group (Coleoptera: Lucanidae) through an integrative taxonomic approach

2008 - 2010

Paul Mellon '25 Scholarship for researches in science and mathematics, Choate Rosemary Hall

AWARDS AND HONORS

- 2010 Youth Incentive Award, The Coleopterists Society
- 2008 Two Special Awards, Connecticut Science Fair awarded by the Yale Peabody Museum of Natural History and Connecticut College, Department of Biological Sciences
- 2008 Second Honors, Connecticut Science Fair

PUBLICATIONS AND PRESENTED PAPERS

Publications

1. **Kim, S.I.**, B.A.S. de Medeiros, B. Byun, S. Lee, J. Kang, B. Lee, and B.D. Farrell. 2018. West meets East: How do rainforest beetles become circum-Pacific? Evolutionary origin of *Callipogon relictus* and allied species (Cerambycidae: Prioninae) in the New and Old Worlds. *Molecular Phylogenetics and Evolution* 125: 163–176
2. **Kim, S.I.**, and B.D. Farrell. 2015. Phylogeny of world stag beetles (Coleoptera: Lucanidae) reveals a Gondwanan origin of Darwin's stag beetle. *Molecular Phylogenetics and Evolution* 86: 35–48
3. Kim, J.I., and **S.I. Kim**. 2014. *Insect Fauna of Korea: Lucanidae and Passalidae*. Incheon: National Institute of Biological Resources, Ministry of Environment, Republic of Korea (Two volumes, one in Korean and the other in English).
4. **Kim, S.I.**, and J.I. Kim. 2010. Review of family Lucanidae (Insecta: Coleoptera) in Korea with the description of one new species. *Entomological Research* 40(1): 55–81.

Presentations

1. **Kim, S.I.**, and B.D. Farrell. 2016. West meets East: How do tropical beetles disperse across Beringia? Evolutionary origin of *Callipogon relictus* and allied species (Cerambycidae: Prioninae) in the rainforests of the New and Old Worlds. *Symposium Oral Presentation at the XXV International Congress of Entomology, Orlando, Florida, U.S.A.*
2. **Kim, S.I.**, and B.D. Farrell. 2015. Phylogeny and biogeography of the prionine genus *Callipogon* Audinet-Serville (Coleoptera: Cerambycidae) with special emphasis on the origin and conservation of its Palearctic member, *Callipogon relictus* Semenov. *Ten-Minute Paper Oral Presentation at the 2015 Annual Meeting of the Entomological Society of America, Minneapolis, Minnesota, U.S.A.*
3. **Kim, S.I.**, and B.D. Farrell. 2014. First molecular phylogeny of world stag beetles (Coleoptera: Lucanidae) reveals a Gondwanan origin of Darwin's stag beetle: Testing Jeannel's hypothesis. *Ten-Minute Paper Oral Presentation at the 2014 Annual Meeting of the Entomological Society of America, Portland, Oregon, U.S.A.*
4. **Kim, S.I.**, T. Han, T. Kang, J. Jeong, Y. Lee, N.E. Pierce, P.D. Perkins, and H. Park. 2012. Revision of the *Dorcus velutinus* species group (Coleoptera: Lucanidae) through an integrative taxonomic approach. *Oral presentation at the XXIV International Congress of Entomology, Daegu, Korea.*

RELEVANT SKILLS

Morphological work: Species description and taxonomy (experiences in Lucanidae, Cerambycidae, and Scarabaeidae), insect family identification, generating morphological data for cladistics analysis, computer-based programs using likelihood, parsimony and Bayesian inferences, morphometrics, and principal components analysis and canonical discriminant analysis on quantitative characters.

Molecular work: DNA extraction (spin column-based and Phenol-Chloroform extractions; high-yield extraction from dried museum specimens through non-destructive sampling), PCR, DNA sequencing, computer-based phylogenetic programs using likelihood, parsimony and Bayesian inferences, biogeographic analysis (e.g., *Lagrange*; BioGeoBEAR package in R), sequence-based species delimitation methods (e.g., splits package in R), and media preparation (FigTree; R; Adobe Illustrator).

PROFESSIONAL SERVICE

Reviewer, *Journal of Insect Science*
Reviewer, *Journal of Biogeography*
Reviewer, *PeerJ*

Reviewer, *Molecular Phylogenetics and Evolution*
Reviewer, *Journal of Forestry Research*
Reviewer, *Journal of Asia-Pacific Biodiversity*

PUBLIC OUTREACH AND LEADERSHIP ACTIVITIES

- 2011 - 2013 Project U (**Founder & Young Scientists' Section Leader**): Provided networking opportunities to college students through career fairs, organized study abroad information sessions, and led community services.
- 2011 - 2013 Harvard College Korean International Students Association (**President & Social Chair**)
- 2008 - 2010 Choate Entomology Club (**Founder & President**): Supervised students on conducting various biodiversity surveys and arranged exploratory trips to museums and professional seminars.
- 2008 - 2010 "Insects of the World" Exhibition (**Organizer**): Coordinated annual exhibitions for regional communities in Wallingford, CT, with over 400 pinned and live specimens from my private collections.
- 2009 Green Cup Challenge (**Captain**): Advocated reduction in energy use during the Green Cup Challenge month.
- 2008 Seoul Forest Park (**Volunteer**): Educated high school students, provided informational tours for foreigners, and collected biodiversity data in a regenerated wetland ecosystem.