

William R. Kuhn

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APPOINTMENTS

- Sept. 2018–present **Director of Science and Research.** Discover Life in America, Gatlinburg, TN
- Sept. 2016–Aug. 2018 **Postdoctoral Fellow.** National Science Foundation Postdoctoral Research Fellowship in Biology, University of Tennessee, Knoxville, TN
- Aug. 2011–June 2016 **Teaching assistant.** Federated Dept. of Biological Sciences, Rutgers University, Newark, NJ
- Mar. 2011–Aug. 2011 **Laboratory technician.** Urban Entomology Laboratory, Dept. Entomology, Virginia Tech, Blacksburg, VA
- Aug. 2008–Dec. 2010 **Graduate assistant.** Dept. Entomology, Virginia Tech, Blacksburg, VA

EDUCATION

Ph.D. in Biology, Rutgers University (RUN), July 2016. Dissertation title: “Three approaches to automating taxonomy, with emphasis on the Odonata (dragonflies and damselflies).”
Advisor: Jessica L. Ware

M.Sc. in Life Sciences (emphasis: Entomology), Virginia Tech (VA Tech), Dec. 2010.
Thesis title: “Pest management of billbugs in orchardgrass grown in Virginia.” Advisor: Rodger R. Youngman

B.Sc. in Biology (emphasis: Ecology, Evolution, & Behavior), University of Texas, Dec. 2005

GRANTS AND AWARDS

- 2016 NSF PRFB (#1611642): “Leveraging face-detection methods to identify insects from field photos, automatically” (\$138,000)
- 2016 NSF ABI (#1564386): “Odomatic: Automatic species identification, functional morphology, and feature extraction to alleviate the taxonomic impediment and broaden citizen science tools” (senior personnel) (\$432,015)
- 2016 Teaching & Graduate Assistant Professional Development Fund Award, RUN (\$100)
- 2015 Teaching & Graduate Assistant Professional Development Fund Award, RUN (\$1,735)
- 2015 Department Award for Best Oral Presentation, RUN (\$100)
- 2014 Graduate Student Government Association Travel Award, RUN (\$500)
- 2014 Department Award for Best Poster, RUN (\$100)
- 2014 Systematics, Evolution, and Biodiversity Section Travel Award, Entomological Society of America (EntSoc) (\$1,984)
- 2011 Kosztarab Scholarship, Distinguished Achievement in Systematics, VA Tech (\$500)
- 2009 Gladys Hill Travel Scholarship, VA Tech
- 2000 Eagle Scout, Boy Scouts of America, Sam Houston Area Council, TX

REVIEWER

Freshwater Science, International Journal of Odonatology, Scientific Reports, Virginia Journal of Science

REFEREED JOURNAL ARTICLES

6. Kohli, MK, G Sahlén, **WR Kuhn**, E Pilgrim, JL Ware. *In review*. Extremely low genetic diversity in the circumpolar dragonfly species, *Somatochlora sahlbergi* (Insecta: Odonata: Anisoptera). *Scientific Reports*.

5. Sanchez-Herrera, M, **WR Kuhn**, MO Lorenzo-Carballe, KM Harding, N Ankrom, TN Sherratt, J Hoffman, H Van Gossum, JL Ware, A Cordero-Rivera, CD Beatty. 2015. Mixed signals? Morphological and molecular evidence suggest a color polymorphism in the Neotropical *Polythore* damselflies. *PLOS One* 10(4): e125074. doi:10.1371/journal.pone.0125074
4. **Kuhn, WR**, RR Youngman, K Love, T Mize, S Wu, and CA Laub. 2013. Billbugs (Coleoptera: Curculionidae) new to orchardgrass (*Dactylis glomerata*) grown in Virginia. *Entomological News* 123(4): 315–316. doi:10.3157/021.123.0405
3. **Kuhn, WR**, RR Youngman, S Wu, and CA Laub. 2013. Ecology, taxonomy, and pest management of billbugs (Coleoptera: Curculionidae) in orchardgrass of Virginia. *Journal of Integrated Pest Management* 4(3): B1–B5. doi:10.1603/IPM12022
2. **Kuhn, WR**, and JL Ware. 2013. A review of “Dragonflies and Damselflies of the East (Princeton Field Guides)” by Dennis Paulson. *Entomologica Americana* 119(1 & 2): 46. doi:10.1664/12-BR-008.1
1. Biazzo, I, GR Bourne, D Evangelista, J Evangelista, V Funk, M Sanchez-Herrera, C Kelloff, MK Kohli, **W Kuhn**, N Sroczynski, and J Ware. 2012. Guyana days: Collecting in the northern Guyana Shield. *Argia* 24: 12–14.

REFEREED EXTENSION PUBLICATIONS

- Kuhn, WR**, RR Youngman, CA Laub, KP Love, and TA Mize. 2010. Bluegrass billbug pest management in orchardgrass. Virginia Cooperative Extension pub. 444-440. <http://pubs.ext.vt.edu/444/444-040/444-040.html>
- Kuhn, WR**, RR Youngman, CA Laub, KP Love, and TA Mize. 2010. Hunting billbug pest management in orchardgrass. Virginia Cooperative Extension pub. 444-041. <http://pubs.ext.vt.edu/444/444-041/444-041.html>

SYNERGISTIC ACTIVITIES AND SERVICES

- 2017–pres. Webmaster, Worldwide Dragonfly Association (<https://worlddragonfly.org>)
- 2016–pres. Section Rep., Early Career Professionals Committee, EntSoc
- 2016–2018 Board Member, Science Comm. Chair, Discover Life in America (DLIA), Gatlinburg, TN
- 2012–2016 Co-organizer, Campus BioBlitz, RUN and NJIT
- 2012–2016 Member of RUN Entomology Club
- 2013–2015 Co-organizer & instructor of Aim High Academy summer earth ecology program for under-privileged high school students, RUN
- 2012–2014 Panel member, Kappa III (middle school) Career Summit, Bronx, NY
- 2012–2013 Co-organizer/moderator, symposia at EntSoc annual meetings, Knoxville, TN & Austin, TX
- 2010 Member, Dean’s Comm. for Dedication & Preservation of WB Alwood Burr Oak Tree, VA Tech
- 2009–2010 WB Alwood Entomological Society, VA Tech
- 2005 Natural Sciences Entomology Club of Texas (NSECT), Univ. Texas, Austin

PROFESSIONAL SOCIETIES

American Association for the Advancement of Science, Dragonfly Society of the Americas, Entomological Society of America, Worldwide Dragonfly Association

INVITED PRESENTATIONS

- Kuhn, WR** (2018) Bioluminescence in the Smokies. Science at Sugarlands speaker series, Great Smoky Mountains National Park (GSMNP), Gatlinburg, TN.

- Kuhn, WR** (2018) Fireflies of the Smokies. DLIA firefly event, Gatlinburg, TN.
- Kuhn, WR** (2017) What I've been up to since I left VT: from dragonflies to machine learning and beyond. Entomology Dept. Seminar, VA Tech.
- Kuhn, WR** (2017) 10 things you might not know about dragonflies. Science at Sugarlands speaker series, GSMNP.
- Kuhn, WR**, JL Ware, JC Abbott, M Sanchez-Herrera, D Gassmann (2017) Automatic dragonfly identification with Odomatic and the Targeted Odonata Wing Digitization (TOWD) project. Int. Congress Odonatology, Cambridge, UK.
- Kuhn, WR**, M Sanchez, MO Lorenzo-Carballe, K Harding, N Ankrom, T Sherratt, J Hoffmann, H Van Gossum, J Ware, A Cordero-Rivera, C Beatty (2015) Untangling highly polymorphic *Polythore* damselflies using computer vision. Int. Congress Odonatology, La Plata, Argentina.
- Kuhn, WR**, JL Ware (2014) Ich bin geflogen, um zu sehen wie Flügel fliegen (I flew to see how wings fly): My summer visit to Germany. EntSoc, Portland.
- Kuhn, WR** (2014) Automating feature extraction from wings of Odonata. Christian-Albrechts-Univ. Kiel & Johannes Gutenberg-Univ. Mainz, Germany.
- Kuhn, WR**, N Dharithreesan, and G Russell (2013) An automated system for identifying dragonflies from wings. Int'l Congress Odonatology, Freising, Germany.
- Kuhn, WR**, D Evangelista (2012) Explorations of evolution and biodiversity in the Odonata and Blattodea, Centre for the Study of Biol Diver, Univ Guyana, Georgetown, Guyana.
- Kuhn, WR**, RR Youngman, CA Laub, KP Love, TA Mize (2010) Billbugs in orchardgrass: ID, scouting & current research. Pest Manag. in Orchardgrass Workshop, Upperville, VA.

OTHER PRESENTATIONS

- Kuhn, WR**, JC Abbott (2017) Progressing toward Odomatic: Automatic species identification of Odonata from *in situ* photographs. EntSoc, Denver, CO.
- Kuhn, WR**, G Russell, J Ware (2016) Ode-omatic ID: A system for automatically identifying dragonflies and damselflies from wings. XXV Int'l Congress Entomology, Orlando, FL.
- Sanchez-Herrera, M, C Beatty, **WR Kuhn**, E Realpe, C Salazar, AC Encalada, J Ware (2016) The story of "Many Thunders": Species delimitation of the highly polymorphic Neotropical damselfly genus *Polythore*. XXV Int'l Congress Entomology, Orlando, FL.
- Kuhn, WR** (2016) Three approaches to automating taxonomy, with emphasis on the Odonata (dragonflies and damselflies). Dissertation defense, RUN.
- Kuhn, WR**, G Russell, JL Ware (2015) Identifying the world's dragonflies and damselflies odomatically! Dragonfly Soc. Amer. Annual Meeting, State College, PA.
- Kuhn, WR**, JL Ware (2015) Auto-taxonomy and Odonata. Colloquium, RUN Biology Dept.
- Kuhn, WR**, M Jocque, JL Ware (2014) The relationship between body size, distribution range and species richness in American odonates. EntSoc, Portland, OR.
- Kuhn, WR**, N Dharithreesan, G Russell (2013) An automated system for identifying dragonflies (Odonata: Anisoptera) from wings. EntSoc, Austin, TX.
- Kuhn, WR**, JL Ware (2012) An Assessment of the dichotomous flight strategies of corduliid dragonflies. Entomol Soc Amer, Knoxville, TN.
- Wu, S, RR Youngman, LT Kok, **WR Kuhn**, CA Laub (2010) Evaluation of entomopathogenic nematodes against masked chafer white grubs, EntSoc Eastern Branch Mtg, Annapolis.
- Kuhn, WR**, RR Youngman (2009) The evolutionary history and diversity of weevils. EntSoc, Indianapolis, IN.
- Kuhn, WR**, RR Youngman (2009) Management of the hunting billbug (*Sphenophorus venatus vestitus*) and bluegrass billbug (*S. parvulus*) in orchardgrass (*Dactylis glomerata*). VA Tech Dept. Entomology.