

# William R. Kuhn

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## APPOINTMENTS

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

## EDUCATION

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**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

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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

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

## REFEREED JOURNAL ARTICLES

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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-Carballa, 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.

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#### 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>

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#### SYNERGISTIC ACTIVITIES AND SERVICES

- 2017–pres. Webmaster, Worldwide Dragonfly Association (<https://worldddragonfly.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

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#### PREFESSIONAL SOCIETIES

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

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#### 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-Carballa, 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

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- 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 ode-omatically! 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.