ANDREW K. DAVIS
CURRICULUM VITAE

Assistant Research Scientist,
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EDUCATION

2006-2010 **PhD in Wildlife Ecology and Management**, Warnell School of Forestry and Natural Resources, The University of Georgia
Thesis: Hematological responses of amphibians to stress and its implications for research, management and conservation.

1995-1999 **Master of Science in Biology** Acadia University
Thesis: The stopover ecology of migratory landbirds on Bon Portage Island, Nova Scotia

1990-1994 **Bachelor of Science in Biology** Acadia University (Nova Scotia, Canada)

RESEARCH INTERESTS

Migration biology of birds and insects
Physiological ecology of vertebrates
Conservation physiology
Effects of stress on insects and animals
Morphological indicators of animal fitness
Improving methods of animal measurement

ACADEMIC/PROFESSIONAL POSITIONS

2010-present **Assistant Research Scientist,** Odum School of Ecology, The University of Georgia

2006-2010 **PhD Student,** Wildlife Ecology and Management Program, Warnell School of Forestry and Natural Resources, The University of Georgia, advisor: Dr. John Maerz

2005 **Lab and Research Coordinator,** Institute of Ecology, The University of Georgia, Altizer Lab. Supervised the move from Emory and setup/purchasing of equipment

2001-2005 **Coordinator of Ecological Research,** Department of Environmental Studies, Emory University, Atlanta, GA. Coordinated undergraduate projects, assisted graduate students, maintained laboratory equipment, analyzed data and contributed to manuscripts on multiple projects of parasites of butterflies and birds

2000-2001 **Field Research Coordinator**, Cornell Laboratory of Ornithology, Ithaca, NY. NSF-funded, multi-PI, collaborative project, examining the dynamics of an emerging eye disease in North American house finches.

2000	**Research Technician**, University of British Columbia, Vancouver, B.C. Canada. Coordinated field work and data collection on a long-term population study of reproduction and behavior of Song Sparrows on Mandarte Island.
1998	**Education Coordinator**, Coastal Virginia Wildlife Observatory. Coordinated lectures and demonstrations of all aspects of migration research to school groups, seniors groups, birders groups, and station visitors.
1998	**Research Technician**, Washington State Fish and Wildlife Service. Project examining effects of shrub-steppe fragmentation on eastern WA landbirds.
1997	**Research Assistant**, Dalhousie University, Halifax, N.S. Canada. Worked on a forest bird monitoring project at Kejimkujic National Park, N.S. Canada.
1996	**Manager, Atlantic Bird Observatory**, Acadia University, N.S. Canada. Oversaw the landbird migration monitoring program of the observatory (mist netting, daily surveys during summer and fall).
1995-1997	**Assistant Curator**, Acadia Wildlife Museum. Ornithology specimen inventories; care and maintenance of ornithology and mammal collections
1995	**Research Assistant**, Fundy National Park, N.B. Canada. Project examining effects of forest management on cavity-nesting birds in New Brunswick.
1994	**Field Assistant**, Monitoring Avian Productivity and Survivorship. Set up and operated six mist-netting and survey sites for long-term study of the breeding birds of Kentucky

PROFESSIONAL SERVICE

2014-2023	**Editor-in-Chief** of the journal, Animal Migration - http://www.degruyter.com/view/j/ami Duties included journal promotion, assigning manuscripts, synthesizing reviews, and coordinating press releases
2015-Present	Blogger for www.monarchscience.org – a website specializing in disseminating scientific knowledge around monarch butterflies for laypeople.

TEACHING

Spring 2019-present	**Instructor, Ecology 1000**, Odum School of Ecology, University of Georgia, Athens, GA
Fall 2011-present	**Instructor, Physiological Ecology**, Odum School of Ecology, University of Georgia, Athens, GA
Summer 2024	**Instructor, Ecology 1000**, Odum School of Ecology, University of Georgia, Athens, GA
Summer 2014, 15	Instructor, Ecology 1000**, Odum School of Ecology, University of Georgia, Athens, GA**

Spring 2013-15	Co-Instructor, Animal Migration **(freshman seminar course), Odum School of Ecology, University of Georgia, Athens, GA**
Spring 2010	**Guest Lecturer, Wildlife Physiology and Nutrition,** Warnell School of Forestry and Natural Resources, University of Georgia, Athens, GA
Spring 2009	**Guest Lecturer, Wildlife Physiology and Nutrition,** Warnell School of Forestry and Natural Resources, University of Georgia, Athens, GA
Spring 2008	**Teaching Assistant, Introduction to Wetlands**, Warnell School of Forestry and Natural Resources, University of Georgia, Athens, GA
Spring 2007	**Teaching Assistant, Vertebrate Natural History**, Warnell School of Forestry and Natural Resources, University of Georgia, Athens, GA
Spring 2005	**Co-Instructor, Avian Ecology and Behavior**, Emory University, Atlanta, GA
Spring 2004	**Co-Instructor, Insect Ecology and Conservation**, Emory University, Atlanta, GA
Summer 1997	**Teaching Assistant, Ornithology**, Dalhousie University, Halifax, N.S. Canada

GRADUATE MENTORING

2022-2024	Brenden Herkenhoff (PhD) – External committee member (New Mexico Tech) – Aerodynamics of monarch butterfly flight
2022-2023	Adam McFall (MSc) – Committee member. Head-starting gopher frogs
2022-2023	Taylor Miller (PhD) – Committee member. Maternally-derived corticosterone in bluebirds
2022-2023	Ben Taylor (MSc) – Committee member – learning and cognition in ants
2021-2022	Caroline Aikins (MSc) – Committee member. Navigation in monarch butterflies
2018-2020	Ashley Ballew (MSc) – Committee member. Nutrition in monarch butterflies
2018-2021	Cody Prouty (MSc) – Committee member. Effects of neonicitinoids on monarchs
2013-2017	Ania Majewska (PhD) – Coadvised with Sonia Altizer. Wormsloe Fellow, examining effects of butterfly gardens on pollinator populations in Savannah
2013-2016	Alex Benz (PhD) – Committee member. Maternal antibodies in zebra finches
2013-2015	Caitlin Rumril (MSc) – Committee member. Exotoxicology in amphibians
2011-2013	Emily Cornelius (MSc) – Coadvised with Sonia Altizer. Student was a Wormsloe Fellow, examining stopover ecology of songbirds at Wormsloe Historic Site near Savannah GA
2011-2013	Andrea Ayala (MSc) – Committee member. Infection dynamics in pigeons

UNDERGRADUATE MENTORING

Fall 2024	Ella Blakley (Ecol) – Effects of anthropogenic noise on joro spider stress reactions

Summer 2023	Cecelia Pompelly (REU Student) – Identifying the transmission mode of *Chondronema passali* in horned passalus beetles
Spring 2023	Amitesh Anerao (Biol) – Effects of conspecific sounds on body mass maintenance of passalus beetles
Spring 2022	Christian Deneka (Ecol) – Geographic variation in larval melanism in monarch butterflies ***Paper published**
Spring 2022	Christina Vu (Ecol) – Exploring morphological correlates of aerodynamic performance in monarch butterflies ***Paper published**
Summer 2022	Helen Gloege (REU Student) – Effects of external parasites on stress reactions in daphnia
Spring 2021	Destiny Willard (Ecol) – Effects of urbanization on heart rates of ants
Summer 2021	Anna Shattuck (REU Student) – Effects of parasites on stress reactions in beetles. ***Paper published**
Summer 2021	Farran Smith (Ecol) – Effects of auditory stressors on beetle stress reactions
Fall 2021	Evan Ladd (Biol) – Effects of parasites on stress reactions in beetles
Summer 2020	Christopher Brandon (Ecol) - effects of a naturally-occurring nematode on activity levels of horned passalus beetles ***Paper published**
Spring 2020	Christian Hurd (Ecol) – effects of a naturally-occurring nematode on activity levels of horned passalus beetles ***Paper published**
Spring 2019	Myles Rosenberg (Ecol) – Acute stress reactions in insects and how they predict performance during chronic stress scenarios
Spring 2019	Thomas Brown (Ecol) – Acute stress reactions in insects and how they predict performance during chronic stress scenarios
Summer 2019	Lutchie M Carrasquillo-Chotalal (REU Student) – effects of stress on cardiac output in daphnia ***Paper submitted**
Fall 2018	Hannah Mone (Ecol) – Effects of long-term stress on acute stress reactions in passalus beetles
Summer 2018	Felicia Ebot-Ojong (Biol, REU Program) – Behavioral stress reactions of passalus beetles in relation to parasitism ***Paper published**
Summer 2018	Elizabeth Jurado (Ecol) - Effects of long-term stress on acute stress reactions in passalus beetles
Summer 2017	Jovani Raya (visiting student) – REU Program – Effects of protozoan parasite on heart rates of monarch pupa
Spring 2017	Isaac Johnson - Investigating heart rate responses to acute stress in passalus beetles ***Paper published**
Fall 216	Jana Pearce (Ecol) – Heart rate reactions of monarch butterflies to road noise ***Paper published**

Fall 216	Brandon Coogler (Biol) – Investigating heart rate responses to acute stress in passalus beetles ***Paper published**
Summer 2015	Lexi Calderon (visiting student) – REU Program – project examining healing rates in parasitized beetles. ***Paper published**
Spring 2015	Jake LeFeuvre (Oconee County High School) – Young Dawgs Program – project examining rates of wood breakdown in saprolytic beetles
Spring 2015	Stuart Sims – Evaluating respiration rates in bess beetles
Spring 2015	Annie Vizuraga (Warnell) – Effects of stress on sound production in bess beetles ***Paper published**
Spring 2015	Meghan Craft (Biol) – Effects of stress on fighting behavior in bess beetles
Fall 214	Jake LeFeuvre (Oconee County High School) – Young Dawgs Program – project examining effects of parasites on physical strength in beetles ***Paper published**
Fall 2014	Katie Zarada (Biochemistry/Ecology) – Identifying methods for studying activation of white blood cells in amphibians
Summer 2014	David Vasquez (visiting student) – REU Program – conducted project on effects of parasites on fighting behavior in beetles ***Paper published**
Summer 2014	Stuart Sims (Odum) – Effects of butterfly gardens on pollinator populations
Spring 2014	Betsy Kimuro-Beechuk (Warnell) – White blood cell profiles of wood thrushes during winter
Fall 2013	Michael Holden (Odum)* - Measuring intraspecific variation in flight-related morphology of monarch butterflies. ***Paper published**
Fall 2013	Michael Stroup (Biol) - Evaluating levels of erythropoeisis in mercury-contaminated toads
Fall 2013	Jordan Grossman (Biol) - Investigating the prevalence of nuclear abnormalities in eastern hellbenders from Virginia
Spring 2013	Natalie Woodall (Odum)* - Studying the effect of storage time on fur coloration in mammalian museum specimens ***Paper published**
Spring 2013	Matthew Breithaupt (Odum)* - A survey of bird fatalities from window strikes using specimens at the Georgia Museum of Natural History ***Paper published**
Spring 2013	Katherine Sheriff (Odum) - Identifying ways to mitigate stress levels in captured amphibians
Fall 2012	Devin Cox (Biol)* - Effect of the nematode parasite, *Chondronema passali*, on size and strength of horned passalus beetles (*Odontotaenius disjunctus*). ***Paper published**
Summer 2012	Heather Abernathy (Odum) - A preliminary field survey of the trichomonas pathogen in house finches on campus
Spring 2012	Barrett Attarha (Biol)* – Effects of acute stress on physical strength of horned passalid

	beetles. ***Paper published**
Spring 2012	Drew Benz (Biol)* – Prevalence of reptilian malaria in Black-chested Spiny-tailed Iguanas (*Ctenosaura melanosterna*). ***Paper published**
Spring 2012	Taylor Piefke (Odum)* – Investigating sex-based differences in morphology of horned passalid beetles. ***Paper published**
Summer 2011	Sergio Minchey (Biol) – Examination of unusual blood cell morphology in tufted titmice
Summer 2011	Melanie Fratto (Odum)* - Infection with *Mycoplasma gallisepticum* modifies the effect of capture stress on innate immune measures in house finches. ***Paper published**
Spring 2011	Mariana Rivera (Odum)* – Evaluating a novel method of sampling blood from gilled amphibians. ***Paper published**
Spring 2011	Jake Moskowitz (Odum)* – Investigating the effects of specimen age on pelage color of mammalian museum skins. ***Paper published**
Fall 2010	Allie Robilard (Warnell) – Investigating the nature of intraerythrocytic, rickettsial inclusion bodies in *Desmognathus ocoee* salamanders
Fall 2010	Melanie Fratto (Odum)* - Do black-furred animals compensate for high solar absorption with smaller hairs? A test with a polymorphic squirrel species. ***Paper published**

PUBLICATIONS as of Jan, 2026 (160 total) (*indicates corresponding authorship)

Publications on migration biology

Davis, A.K., J. Croy and W. Snyder. 2024. Dramatic recent declines in the size of monarch butterfly roosts during autumn migration. PNAS. 121 (43). 7 pages. https://www.pnas.org/doi/10.1073/pnas.2410410121 **MEDIA COVERAGE

Davis, A.K. 2022. Monarchs reared in winter in California are not large enough to be migrants. Comment on James et al. first population study on winter breeding monarch butterflies, *Danaus plexippus* (Lepidoptera: Nymphalidae) in the urban South Bay of San Francisco, California. Insects. 13(1). https://doi.org/10.3390/insects13010063

Davis, A.K. 2021. Captive-reared migratory monarchs fly in the wrong direction: a critique of Wilcox et al. *Conservation Physiology* 9(1): https://doi.org/10.1093/conphys/coab063.

Davis, A.K.*, F.M. Smith and A.M. Ballew. 2020. A poor substitute for the real thing: captive-reared monarch butterflies are weaker, paler and have less elongated wings than wild migrants. *Biology Letters*. 16: 20190922. **MEDIA COVERAGE

Davis, A.K.* and E. Cornelius Ruhs. 2019. A themed collection of research articles focused on stress physiology of bird migration. *Animal Migration* 6: 1-3.

Davis, A.K. 2018. New insights on the migration of monarch butterflies in North America: a focused collection of studies. *Animal Migration* 5:59-60.

Davis, A.K.* and J. de Roode. 2018. Effects of the parasite, *Ophryocystis elektroscirrha*, on wing characteristics important for migration in the monarch butterfly. *Animal Migration* 5: 84-93.

Altizer, S.M., K.A. Hobson, **A.K. Davis**, J.C. de Roode, and L.I. Wassenaar. 2015. Do healthy monarchs migrate farther? Tracking natal origins of parasitized vs. uninfected monarch butterflies overwintering in Mexico. *PLoS One* 10(11): DOI: 10.1371/journal.pone.0141371.

Badgett, G. and **A.K. Davis***. 2015. Population trends of monarchs at a northern monitoring site: analyses of 19 years of fall migration counts at Peninsula Point, MI. *Annals of the Entomological Society of America* 108(5): 700-706.

Howard, E. and **A.K. Davis***. 2015. Investigating long-term changes in the spring migration of monarch butterflies using 18 years of data from Journey North, a citizen science program. *Annals of the Entomological Society of America*. 108(5): 664-669.

Davis, A.K. 2015. Can a blood-feeding ectoparasitic fly affect songbird migration? Examining body condition and fat reserves of 5 bird species in relation to hippoboscid fly parasitism. *Ecological Parasitology and Immunology*, Volume 4 (2015), Article ID 235907, 7 Pages.

Howard, E. and **A.K. Davis.*** 2015. Tracking the fall migration of eastern monarchs with Journey North roost sightings: new findings about the pace of fall migration. pages 207-214 in Oberhauser, K.S., Nail, K.R. and Altizer, S (eds.). Monarchs in a changing world: Biology and conservation of an iconic insect.Cornell University Press, Ithaca, NY.

Davis, A.K. 2014. Opinion: conservation of monarch butterflies could be enhanced with analyses (and publication) of citizen science tagging data. *Insect Conservation and Diversity* 8: 103-106.

Howard, E. and **A.K. Davis.*** 2012. Mortality of migrating monarch butterflies from a wind storm on the shore of Lake Michigan, USA. *Journal of Research on the Lepidoptera* 45: 49-54.

McCord, J.W. and **A.K. Davis***. 2012. Characteristics of monarch butterflies (*Danaus plexippus*) that stopover at a site in coastal South Carolina during fall migration. *Journal of Research on the Lepidoptera* 45: 1-8.

Davis, A.K. 2012. Are migratory monarchs really declining in eastern North America? Examining evidence from two fall census programs. *Insect Conservation and Diversity* 5: 101-105. **MEDIA COVERAGE

Davis, A.K.*, N.P. Nibbelink and E. Howard. 2012. Identifying large- and small-scale characteristics of migratory stopover sites of monarch butterflies with citizen-science observations. *International Journal of Zoology*, Article ID 149026, 9 pages. (Invited submission for special issue on citizen science).

Howard, E. and **A.K. Davis.*** 2011. A simple numerical index for assessing the spring migration of monarch butterflies using data from Journey North, a citizen-science program. *Journal of the Lepidopterists' Society* 65(4).

Howard, E., H. Aschen, and **A.K. Davis***. 2010. Citizen science observations of monarch butterfly overwintering in the southern United States. *Psyche* 2010. doi:10.1155/2010/689301.

McCord, J.W. and **A.K. Davis***. 2010. Biological observations of monarch butterfly behavior at a migratory stopover site: results from a long-term tagging study in coastal South Carolina. *Journal of Insect Behavior* 23: 405-418.

Altizer, S. and **A.K. Davis**. 2010. Populations of monarch butterflies with different migratory behaviors show divergence in wing morphology. *Evolution* 64(4): 1018-1028. **MEDIA COVERAGE

Davis, A.K.* and E. Rendon-Salinas. 2010. Are female monarch butterflies declining in eastern North America? Evidence of a 30-year change in sex ratios at Mexican overwintering sites. *Biology Letters* 6: 45-47. **MEDIA COVERAGE

Howard, E. and **A.K. Davis.*** 2009. The fall migration flyways of monarch butterflies in eastern North America revealed by citizen scientists. *Journal of Insect Conservation* 13(3): 279-286.

Brindza, L., L.P. Brower, **A.K. Davis** and T. Van Hook. 2008. Comparative success of monarch butterfly migration to overwintering sites in Mexico from inland and coastal sites in Virginia. *Journal of the Lepidopterists' Society* 62(4): 189-200.

Gibbs, D., D. Walton, L.P. Brower and **A.K. Davis*.** 2006. Monarch butterfly (Lepidoptera, Nymphalidae) migration monitoring at Chincoteague, VA and Cape May, NJ: a comparison of long-term trends. *Journal of the Kansas Entomological Society* 79(2): 156-164.

Walton, D., L.P. Brower and **A.K. Davis***. 2005. Long-term monitoring and fall migration patterns of the monarch butterfly in Cape May, NJ. *Annals of the Entomological Society of America* 98(5): 682-689.

Davis, A.K.* and E. Howard. 2005. Spring recolonization rate of monarch butterflies in eastern North America: new estimates from citizen-science data. *Journal of the Lepidopterists' Society* 59(1): 1-5.

Meitner, C.J., L.P. Brower and **A.K. Davis***. 2004. Migration patterns and environmental effects on stopover of monarch butterflies (Lepidoptera, Nymphalidae) at Peninsula Point, MI. *Environmental Entomology* 33(2): 249-257.

Howard, E. and **A.K. Davis***. 2004. Documenting the spring movements of monarch butterflies with Journey North, a citizen science program. Pages 105-114 in K. Oberhauser and M. Solensky (eds.). The monarch butterfly. Biology and conservation. Cornell University Press. Ithaca, NY.

Davis, A.K.* and M.S. Garland. 2004. Stopover ecology of monarchs in coastal Virginia: using ornithological techniques to study monarch migration. Pages 89-96 in K. Oberhauser and M. Solensky (eds.). The monarch butterfly. Biology and conservation. Cornell University Press. Ithaca, NY.

Garland, M.S. and **A.K. Davis*.** 2002. An examination of monarch butterfly autumn migration in coastal Virgina. *American Midland Naturalist* 147: 170-174.

Davis, A.K.* and M.S. Garland. 2002. An evaluation of three methods of counting migrating monarch butterflies in varying wind conditions. *Southeastern Naturalist* 1(1): 55-68.

Davis, A.K. 2001. Blackpoll Warbler (*Dendroica striata*) fat deposition in southern Nova Scotia. *Northeastern Naturalist* 8(2): 149-162.

Davis, A.K.*, and P. Arcese. 2000. An examination of migration in Song Sparrows using banding recovery data. *North American Bird Bander* 24(4): 122-128.

Publications on stress and stress physiology

Davis, A.K. and C. Vu. 2025. How to give a spider a heart attack: Evaluating cardiac stress reactions of Trichonephila and Argiope spiders. *Physiological Entomology* 50(1): 38-47. **MEDIA COVERAGE

Davis, A.K. 2025. Lonely beetles lose weight: absence of conspecific sounds negatively impacts body mass in larval and adult passalus beetles. *Stresses* 5(1): 11pages.

Davis, A.K.* and C. Vu. 2024. How to give a spider a heart attack: Evaluating cardiac stress reactions in Trichonephila and Argiope spiders. *Physiological Entomology* 2024. DOI: 10.1111/phen.12463. **MEDIA COVERAGE

Davis, A.K.* and H. Gloege. 2024. Ciliated Epibionts Modify the Cardiac Stress Reaction to Perceived Predation in Daphnia. *Microorganisms* 2024. 12 pages. https://www.mdpi.com/2076-2607/12/6/1219.

Davis, A.K.*, and A.V. Anerao. 2023. Startle responses of jorō spiders (*Trichonephila clavata*) to artificial disturbance. *Arthropoda* 2023, 1(2). -67. https://www.mdpi.com/2813-3323/1/2/9 **MEDIA COVERAGE

Davis, A.K.*, R.R.E. Ladd, F. Smith and A. Shattuck. 2023. Sex-specific effects of a parasite on stress-induced freezing behavior in a natural beetle-nematode system. *PLoS One*. Published: March 14, 2023 https://doi.org/10.1371/journal.pone.0281149

Ashley, E.A., **A.K. Davis**, V. K. Terrell, C. Lake, C. Carden, L. Head, R. Choe, and J.C. Maerz. 2021. Effects of salinity on hatchling Diamond-backed terrapin (Malaclemys terrapin) growth, behavior, and stress physiology. *Herpetologica* 77(1): 45-55.

Davis, A.K. 2020. Evaluating cardiac reactions of monarch butterflies to human handling across three life stages. *Journal of the Lepidopterists' Society*. 74(1): 43-50. **MEDIA COVERAGE

Ebot-Ojong, F., E. Jurado and **A.K. Davis***. 2019. Direct measurement of fight or flight behavior in a beetle reveals individual variation and the influence of parasitism. *PLoS One* - https://doi.org/10.1371/journal.pone.0216387

Davis, A.K.*, H. Schroeder, I. Yeager and J. Pearce. 2018. Effects of simulated highway noise on heart rates of larval monarch butterflies, *Danaus plexippus*: implications for roadside habitat suitability. *Biology Letters* 14: DOI: 20180018. **MEDIA COVERAGE

Davis, A.K.* and D.L. Maney. 2018. The use of glucocorticoid hormones or leukocyte profiles to measure stress in vertebrates: what's the difference? *Methods in Ecology & Evolution* 9(6): 1556-1568.

Davis, A.K.*, B. Coogler, and I. Johnson. 2017. The heartrate reaction to acute stress in horned passalus beetles (*Odontotaenius disjunctus*) is negatively affected by a naturally occurring nematode parasite. *Insects* 8(4): 110; doi:10.3390/insects8040110 (Special Issue on Parasite-Insect Interactions).

Davis, A.K.*, D. Vasquez, J. LeFeuvre, S. Sims, M. Craft, and A. Vizurraga. 2016. Parasite manipulation of its host's physiological reaction to acute stress: experimental results from a natural beetle-nematode system. *Physiological and Biochemical Zoology*.

Davis, A.K. 2014. Lifting capacity of horned passalus beetles during passive and stressed states. *Journal of Insect Behavior* 27(4): 496-502. **MEDIA COVERAGE

Fratto, M., V.O. Ezenwa and **A.K. Davis***. 2014. Infection with *Mycoplasma gallisepticum* buffers the effects of acute stress on innate immunity in house finches. *Physiological and Biochemical Zoology* 87(2): 257-264.

Davis, A.K. 2012. Investigating the optimal rearing strategy for Ambystoma salamanders using a hematological stress index. *Herpetological Conservation and Biology* 7(1): 95-100.

Davis, A.K.* and J.C. Maerz. 2011. Assessing stress levels of captive-reared amphibians with hematological data: implications for conservation initiatives. *Journal of Herpetology* 45(1): 40-44.

Davis, A.K.* and J.C. Maerz. 2010. Effects of exogenous corticosterone on circulating leukocytes of a salamander (*Ambystoma talpoideum*) with unusually abundant eosinophils. *International Journal of Zoology* 2010: DOI: 10.1155/2010/735937.

Davis, A.K.* and J.R. Milanovich. 2010. Lead-phase and red-stripe color morphs of red-backed salamanders (*Plethodon cinereus*) differ in hematological stress indices: a consequence of differential predation pressure? *Current Zoology* 56(2): 238-243.

Davis, A.K.* and J.C. Maerz. 2009. Effects of larval density on hematological stress indices in salamanders. *Journal of Experimental Zoology Part A: Ecological Genetics and Physiology* 311A: 697-704.

Davis, A.K.*, D.L. Maney, and J.C. Maerz. 2008. The use of leukocyte profiles to measure stress in vertebrates: a review for ecologists. *Functional Ecology* 22: 760-772.

Davis, A.K.*, N.E. Diggs, P.P. Marra, and R.J. Cooper. 2008. Hematological stress indices show no effect of radio-transmitters on wintering hermit thrushes. *Journal of Field Ornithology* 79(3): 293-297.

Davis, A.K.* and J.C. Maerz. 2008. Sex-related differences in hematological stress indices of breeding, paedomorphic mole salamanders. *Journal of Herpetology* 42(1): 197-201.

Davis, A.K.* and J.C. Maerz. 2008. Comparison of hematological stress indicators in recently captured and captive paedomorphic mole salamanders, *Ambystoma talpoideum*. *Copeia* 2008(3): 613-617.

Lindstrom, K.M., D. Hawley, **A.K. Davis**, and M. Wikelsky. 2005. Seasonal variation in corticosterone and mycoplasma infection dynamics in wintering house finches (*Carpodacus mexicanus*). *General and Comparative Endocrinology* 143(3): 231-239.

Publications on animal physiology, parasites and disease

Slack, K.L., J. Groffen, **A.K. Davis**, and W.A. Hopkins. 2025. Parasite infections influence immunological responses but not reproductive success of male hellbender salamanders (*Cryptobranchus alleganiensis*). *Integrative Organismal Biology* 7(1): pages - obaf006.

Bodinof Jachowski, C.M., V. Alaasam, A. Blumenthal, **A.K. Davis**, W.A. Hopkins. 2024. The habitat quality paradox: loss of riparian forest cover leads to decreased risk of parasitism and improved body condition in an imperiled amphibian. *Conservation Physiology*. 12(1). https://doi.org/10.1093/conphys/coad101

Davis, A.K.* and B.L. Frick. 2022. Physiological evaluation of newly invasive joro spiders (*Trichonephila clavata*) in the southeastern USA compared to their naturalized cousin, *Trichonephila clavipes*. *Physiological Entomology*. https://doi.org/10.1111/phen.12385 **MEDIA COVERAGE

Majewska, A. A., **A.K. Davis**, S. Altizer and J.C. de Roode. 2022. Parasite dynamics in North American monarchs predicted by host density and seasonal migratory culling. Journal of Animal Ecology. DOI: 10.1111/1365-2656.13678. **MEDIA COVERAGE

Davis, A.K.*, C. Hurd, C. Brandon, and D. Vasquez. 2021. Walking while parasitized: effects of a naturally-occurring nematode on locomotor activity of horned passalus beetles. *Journal of Insect Behavior* 34: 84-95.

Davis, A.K.*, L. Calderon, J. LeFeuvre, S. Sims, J. Pearce, and C. Prouty. 2019. Healing while parasitized: impact of a naturally-occurring nematode during energy-intensive wound-healing in a beetle. *Physiological Entomology*.

Morffe, J., N. García, **A.K. Davis**, K. Hasegawa and R.A. Carreno. 2019. Morphological and molecular characterization of Xyo pseudohystrix Travassos & Kloss, 1958 (Nematoda: Oxyuridomorpha: Hystrignathidae) from Odontotaenius disjunctus (Illiger, 1800) (Coleoptera: Passalidae) from USA and discussion on its taxonomic status. *Zootaxa*. 4619 (2): 391-400. PDF

Davis, A.K.* and C. Golladay. 2019. A survey of leukocyte profiles of red-backed salamanders from Mountain Lake, Virginia, and associations with host parasite types. *Comparative Clinical Pathology* 28(6): 1743-1750. PDF

Davis, A.K.* and C. Prouty. 2019. The sicker the better: nematode-infected passalus beetles provide enhanced ecosystem services. *Biology Letters* 15: http://dx.doi.org/10.1098/rsbl.2018.0842. **MEDIA COVERAGE

Morffe, J., García, N., Breugelmans, K., Hasegawa, K. and A.K. Davis. 2019. Morphological and molecular characterization of Lepidonema magnum Morffe & García, 2010 (Oxyuridomorpha: Hystrignathidae) from Passalus interstitialis Eschscholtz, 1829 (Coleoptera: Passalidae) from Cuba and new locality records for the species. *Zootaxa* 4551(2): 221-230.

Davis, A.K.*, G. Toledo and R.L. Richards. 2016. Investigating temporal changes and effects of elevation on the prevalence of a rickettsial blood parasite in red-backed salamanders (*Plethodon cinereus*) in Virginia, USA. *Comparative Clinical Pathology*. DOI 10.1007/s00580-016-2299-9.

Calderon, L.I. and **A.K. Davis.*** 2016. Observations of *Steinernema* nematode and tachinid fly parasites in horned passalus beetles, *Odontotaenius disjunctus*, from Georgia, USA. *Comparative Parasitology* 83(2): 265-268.

LeFeuvre, J. and **A.K. Davis***. 2015. Effects of a naturally-occurring nematode parasite on lifting strength and captivity-related body mass patterns in horned passalus beetles, *Odontotaenius disjunctus. The Coleopterists Bulletin.*

Chambouvet, A., D.J. Gower, M. Jirku, M.J. Yabsley, **A.K. Davis**, G. Leonard, F. Maguire, T. Doherty-Bone, G. Bittencourt, M. Wilkinson, and T.A. Richards. 2015. Cryptic infection of a broad taxonomic and geographic diversity of tadpoles by Perkinsea protists. *PNAS*. Online Early - doi: 10.1073/pnas.1500163112.

DuRant, S.E., W.A. Hopkins, **A.K. Davis**, and L.M. Romero. 2015. Evidence of ectoparasite-induced endocrine disruption in an imperiled giant salamander, the eastern hellbender (*Cryptobranchus alleganiensis*). *Journal of Experimental Biology* 218: 2297-2304.

Morffe, J. García, N. and **A.K. Davis**. 2015. Redescription of the females of *Hystrignathus rigidus* Leidy, 1950 (Nematoda: Hystrignathidae), parasites of *Odontotaenius disjunctus* (Coleoptera: Passalidae) from Eastern USA. *Zootaxa* 3941(1): 131-136.

Vasquez, D., A. Willoughby and **A.K. Davis.*** 2015. Fighting while parasitized: can nematode infections affect the outcome of staged combat in beetles? *PLoS One* 10(4): e0121614. doi:10.1371/journal.pone.0121614.

Raffel, T.R., N.T. Halstead, T.A. McMahon, **A.K. Davis**, and J.R. Rohr. 2015. Temperature variability and moisture synergistically interact to exacerbate an epizootic disease. *Proceedings of the Royal Society B.* DOI: 10.1098/rspb.2014.2039. Published 7 January 2015.

Barriga-Vallejo, C., O. Hernández-Gallegos, I. Hunt Von Herbing, A.E. López-Moreno, M. de Lourdes Ruiz-Gómez, G. Granados-Gonzalez, M.V. Garduño-Paz, J.F. Méndez-Sánchez, J. Banda-Leal and **A.K. Davis***. 2015. Assessing population health of the Toluca Axolotl *Ambystoma rivulare* (Taylor, 1940) from Mexico, using leukocyte profiles. *Herpetological Conservation and Biology* 10(2): 592-601.

Davis, A.K.* and E. Cornelius. 2013. Do infections lead to higher feather mite loads in birds? A test with mycoplasmal conjunctivitis in house finches. *The Auk* 130(4): 708-714.

Sander, S.E., S. Altizer, J.C. de Roode, and **A.K. Davis.*** 2013. Genetic factors and host traits predict spore morphology for a butterfly pathogen. *Insects (Special Issue on Insect Pathogens)*. Vol 4: 447-462.

Davis, A.K.*, W. Hood and G. Hill. 2013. Blood parasites in house finches from eastern and western North America: are eastern birds resistant to infection? *EcoHealth* 10: 290-297.

Cox, D. and **A.K. Davis.*** 2013. Effect of a parasitic nematode, *Chondronema passali* Leidy (*Incertae sedis*), on the size and strength of the horned passalus, *Odontotaenius disjunctus* Illiger (Coleoptera: Passalidae). *The Coleopterists Bulletin* 67(2): 1-7.

Davis, A.K.* and T. Floyd. 2013. Evaluating levels of genotoxic stress in eastern hellbenders (*Cryptobranchus a. alleganiensis*) using the erythrocyte micronucleus assay. *Comparative Clinical Pathology*. Online Early - DOI 10.1007/s00580-013-1761-1.

Davis, A.K.*, A.C. Benz, L. Ruyle, W.M. Kistler, B.C. Shock, and M. Yabsley. 2013. Searching before it's too late: a survey of blood parasites in *Ctenosaura melanosterna*, a critically endangered reptile of Honduras. *ISRN Parasitology*. vol. 2013, Article ID 495304, 6 pages, 2013. doi:10.5402/2013/495304.

Davis, A.K.* and W.A. Hopkins. 2013. Widespread trypanosome infections in a population of eastern hellbenders (*Cryptobranchus alleganiensis alleganiensis*) in Virginia, USA. *Parasitology Research* 112(1): 453-456.

Davis, A.K.*, R.V. Horan, A.M. Grosse, B.B. Harris, B.S. Metts, D.E. Scott and T.D. Tuberville. 2011. Gender differences in haemogregarine infections in American alligators (*Alligator mississippiensis*) at the Savannah River Site, South Carolina. *Journal of Wildlife Diseases* 47(4): 1047-1049.

Davis, A.K.*, L. Ruyle and J.C. Maerz. 2011. Effect of trapping method on leukocyte profiles of Black-chested Spiny-tailed Iguanas (*Ctenosaura melanosterna*): implications for zoologists in the field. *ISRN Zoology* vol. 2011, Article ID 384825, 8 pages.

Davis, A.K.* and S.C. Sterrett. 2011. Prevalence of haemogregarine parasites in three freshwater turtle species in a population in northeast Georgia, USA. *International Journal of Zoological Research* 7(2): 156-163.

Davis, A.K. 2010. Mycoplasmal conjunctivitis in house finches (*Carpodacus mexicanus*) is more severe in left eyes than right. *Avian Biology Research* 3(4): 153-156.

Davis, A.K.* and K. Cecala. 2010. Intraerythrocytic rickettsial inclusions in Ocoee salamanders (*Desmognathus ocoee*): prevalence, morphology and comparisons with inclusions of *Plethodon cinereus*. *Parasitology Research* 107: 363-367.

Keel, M.K., A.M. Ruiz, A.T. Fisk, W.K. Rumbeiha, **A.K. Davis**, and J.C. Maerz. 2010. Soft-tissue mineralization of bullfrog larvae (*Rana catesbeiana*) at a wastewater treatment facility. *Journal of Veterinary Diagnostic Investigation* 22: 655-660.

Ruiz, A.M., J.C. Maerz, **A.K. Davis**, M.K. Keel, A.R. Ferreira, M.J. Conroy, L. Morris, and A.T. Fisk. 2010. Patterns of development and abnormalities among tadpoles in constructed wetland receiving treated wastewater. *Environmental Science and Technology*. 44: 4862-4868.

Davis, A.K.*, M.K. Keel, A. Ferreira and J.C. Maerz. 2010. Effects of chytridiomycosis on circulating white blood cell distributions of bullfrog larvae (*Rana catesbeiana*). *Comparative Clinical Pathology* 19(1): 49-55.

Davis, A.K.*, J.L. DeVore, J.R. Milanovich, K. Cecala, J.C. Maerz and M. Yabsley. 2009. New findings from an old pathogen: intraerythrocytic bacteria (Family Anaplasmatacea) in red-backed salamanders *Plethodon cinereus*. *EcoHealth* 6(2): 219-228.

Davis, A.K.* and A.M. Durso. 2009. White blood cell differentials of northern cricket frogs (*Acris c. crepitans*) with a compilation of published values from other amphibians. *Herpetologica* 65(3): 260-267.

Davis, A.K.*, J.R. Milanovich, J.L. DeVore, and J.C. Maerz. 2009. An investigation of factors influencing erythrocyte dimensions of red-backed salamanders. *Animal Biology* 59: 201-209.

Davis, A.K. 2009. Metamorphosis-related changes in leukocyte profiles of larval bullfrogs (*Rana catesbeiana*). *Comparative Clinical Pathology* 18(2): 181-186.

Hartup, B.K, A. Oberc, B. Stott-Messick, **A.K. Davis**, and E.C.H. Swarthout. 2008. Blood parasites of house finches (*Carpodacus mexicanus*) from Georgia and New York. *Journal of Wildlife Diseases* 44(2): 469-474.

Maney, D.L., **A.K. Davis**, C.T. Goode, A. Reid, and C. Showalter. 2008. Carotenoid-based plumage coloration predicts leukocyte parameters during the breeding season in northern cardinals (*Cardinalis cardinalis*). *Ethology* 114: 369-380.

Davis, A.K.* and K.L. Holcomb. 2008. Intraerythrocytic inclusion bodies in painted turtles (*Chrysemys picta picta*) with measurements of affected cells. *Comparative Clinical Pathology* 17(1): 51-54.

Davis, A.K.*, M. Yabsley, K. Keel, and J.C. Maerz. 2007. Discovery of a novel alveolate pathogen affecting southern leopard frogs in Georgia: description of the disease and host effects. *Ecohealth* 4(3): 310-317. **MEDIA COVERAGE

Hawley, D.M., **Davis, A.K.**, and A.A. Dhondt. 2007. Transmission-relevant behaviours shift with pathogen infection in wild house finches (*Carpodacus mexicanus*). *Canadian Journal of Zoology* 85: 752-757.

Davis, A.K. 2005. Effects of handling time and repeated sampling on avian white blood cell counts. *Journal of Field Ornithology* 76(4): 334-338.

Dhondt, A.A., Altizer, S., Cooch, E.G., **Davis, A.K.**, Dobson, A.P., Driscoll, M.J.L., Hartup, B.K., Hawley, D.M., Hochachka, W.M., Hosseini, P.R., Jennelle, C.S., Kollias, G.V., Ley, D.H., Swarthout, E.C.H., and Sydenstricker, K.V. 2005. Dynamics of a novel pathogen in an avian host: mycoplasmal conjunctivitis in house finches. *Acta Tropica* 94(1): 77-93.

Davis, A.K.*, K. Cook and S. Altizer. 2004. Leukocyte profiles in wild House Finches with and without mycoplasmal conjunctivitis, a recently emerged bacterial disease. *Ecohealth* 1: 362-373.

Altizer, S., **A.K. Davis**, K.C. Cook and J.J. Cherry. 2004. Age, sex, and season affect the risk of mycoplasmal conjunctivitis in a southeastern house finch population. *Canadian Journal of Zoology* 82(5): 755-763.

Faustino, C., C.S. Jennelle, V. Connolly, **A.K. Davis**, E.C. Swarthout, E.G. Cooch, and A.A. Dhondt. 2004. *Mycoplasmal gallisepticum* infection dynamics in a House Finch population: empirical analysis of seasonal variation in survival, encounter and transmission rate. *Journal of Animal Ecology* 73(4): 651-669.

Publications on animal color and morphology

Davis, A.K.*, B. Herkenhoff, C. Vu, P.A. Barriga, M. Hassanalian. 2023. How the monarch got its spots: Long-distance migration selects for larger white spots on monarch butterfly wings. *PLoS One*. Published: June 21, 2023. https://doi.org/10.1371/journal.pone.0286921 **MEDIA COVERAGE

Davis, A.K.*, N. Nibbelink and C.J. Deneka. 2022. Revisiting geographic variation in melanism of monarch butterfly larvae in North America using iNaturalist photos. *Journal of Thermal Biology* 110. **MEDIA COVERAGE

Kiphart, R.J. and **A.K. Davis.*** 2016. Scientific note: observations of queen butterfly (*Danaus gilippus*) larvae with unusual pigmentation in south Texas, USA. *Tropical Lepidoptera Research* 26(2): 93-96.

Davis, A.K.*, and M. Holden. 2015. Measuring intraspecific variation in flight-related morphology of monarch butterflies (*Danaus plexippus*): which sex has the best flying gear? *Journal of Insects.* Article ID 591705, 6 pages. **MEDIA COVERAGE

Johnson, H., M.J. Solensky, D. Satterfield and **A.K. Davis.*** 2014. Does skipping a meal matter to a butterfly's appearance? Effects of larval food stress on wing morphology and color in monarch butterflies. *PLoS One* 9(4): DOI: 10.1371/journal.pone.0093492. **MEDIA COVERAGE

Davis, A.K. 2014. Wing color variation is related to larval energy reserves in monarch butterflies (*Danaus plexippus*). *Physiological Entomology*. Online Early - DOI: 10.1111/phen.12069.

Satterfield, D. and **A.K. Davis.*** 2014. Variation in wing characteristics of monarch butterflies during migration: Earlier migrants have redder and more elongated wings. *Animal Migration* 2:1-7.

Davis, A.K.*, N. Woodall, J. Moskowitz, N. Castleberry and B.J. Freeman. 2013. Temporal change in fur color in museum specimens of mammals: reddish-brown species get redder with storage time. *International Journal of Zoology*. vol. 2013, Article ID 876347, 6 pages, 2013. doi:10.1155/2013/876347.

Davis, A.K.*, J. Chi, C. Bradley, and S. Altizer. 2012. The redder the better: wing color predicts flight performance in monarch butterflies. *PLoS One* 7(7): e41323. doi:10.1371/journal.pone.0041323.

Fratto, M.A. and **A.K. Davis.*** 2011. Do black-furred animals compensate for high solar absorption with smaller hairs? A test with a polymorphic squirrel species. *Current Zoology* 57(6): 731-736.

Davis, A.K.*, S.P. Brummer, and J. Shivik. 2010. Sexual differences in hair morphology of coyote and white-tailed deer: males have thicker hair. *Annales Zoologici Fennici* 47: 411-416.

Davis, A.K.* and S.B. Castleberry. 2010. Pelage color of red bats (*Lasiurus borealis*) varies with body size: an image analysis of museum specimens. *Current Zoology* 56(4): 401-405.

Davis, A.K. 2009. Gender and size-based variation in wing color in large milkweed bugs (*Oncopeltus fasciatus*) in Georgia. *Southeastern Naturalist* 8(4): 723-732.

Davis, A.K. 2009. Wing color of monarch butterflies (*Danaus plexippus*) in eastern North America across life stages: migrants are 'redder' than breeding and overwintering stages. *Psyche* 2009: doi:10.1155/2009/705780.

Davis, A.K.* and A. Grosse. 2008. Measuring fluctuating asymmetry in plastron scutes of yellow-bellied sliders: the importance of gender, size and body location. *American Midland Naturalist* 159: 340-348.

Davis, A.K.* and K.L. Grayson. 2008. Spots of adult male red-spotted newts are redder and brighter than females: evidence for a role in mate selection? *The Herpetological Journal* 18: 83-89.

Davis, A.K.* and J.C. Maerz. 2007. Spot symmetry predicts body condition in spotted salamanders, *Ambystoma maculatum*. *Applied Herpetology* 4: 195-205.

Davis, A.K.*, N. Cope, A. Smith and M.J. Solensky. 2007. Wing color predicts future mating success in male monarch butterflies. *Annals of the Entomological Society of America* 100(2): 339-344.

Todd, B.D. and **A.K. Davis**. 2007. Sexual dichromatism in the marbled salamander, *Ambystoma opacum*. *Canadian Journal of Zoology* 85: 1008-1013.

Davis, A.K.*, B. Farrey and S. Altizer. 2005. Variation in thermally induced melanism in monarch butterflies (Lepidoptera: Nymphalidae) from three North American populations. *Journal of Thermal Biology* 30(5): 410-421.

Publications on research techniques

Davis, A.K.* and J.C. Maerz. 2023. Assessing leukocyte profiles of salamanders and other amphibians: a herpetologists' guide. Book chapter in: Salamanders: Methods and Protocols, edited by J.D. Currie and A.W. Seifert. Springer Press.

Davis, A.K.*, K.M. Clancy and T. Sasaki. 2021. How to take an ant's pulse: a procedure for non-destructively monitoring baseline and stimulated heart rate in Formicidae. *Entomologica Experimentalis et Applicata* 169(9): 807-812.

Davis, A.K.* and S. Orakzai. 2016. A simple method for observing and measuring heart rates in live monarchs (*Danaus plexippus*) and other large butterflies. *Journal of the Lepidopterists' Society* 70(2): 96-98

Davis, A.K.*, B. Attarha and T.J. Piefke. 2013. Measuring the strength of horned passalus beetles (*Odontotaenius disjunctus*): Revisiting an old topic with modern technology. *Journal of Insect Science* vol 13. no. 107.

Rivera, M. and **A.K. Davis***. 2013. Evaluating a method for non-destructively obtaining small volumes of blood from gilled amphibians. *Herpetological Review* 44(3): 428-430.

Davis, A.K. 2010. A technique for rapidly quantifying mammal hair morphology for zoological research. *Folia Zoologica* 59(2): 87-92.

Davis, A.K.*, L.L. Connell, A. Grosse and J.C. Maerz. 2008. A fast, non-invasive method of measuring growth in tadpoles using image analysis. *Herpetological Review* 39: 56-58.

Davis, A.K. 2008. Ontogenetic changes in erythrocyte morphology in larval mole salamanders, *Ambystoma talpoideum*, measured with image analysis. *Comparative Clinical Pathology* 17(1): 23-28.

Davis, A.K. 2007. A simple, computer-assisted method for obtaining and counting hemocytes in milkweed bugs. *Entomologia Experimentalis et Applicata* 123: 203-206.

Davis, A.K.* and K.L. Grayson. 2007. Improving natural history research with image analysis: the relationship between skin color, sex, size and stage in adult red-spotted newts (*Notophthalmus viridescens viridescens*). *Herpetological Conservation and Biology* 2(1): 67-72.

Davis, A.K. 2005. A comparison of age, size and health of House Finches captured with two trapping methods. *Journal of Field Ornithology* 76(4): 339-344.

Davis, A.K.*, B. Farrey and S.M. Altizer. 2004. Quantifying monarch butterfly larval pigmentation using digital image analysis. *Entomologia Experimentalis et Applicata* 113: 145-147.

Davis, A.K.*, S. M. Altizer and E. Friedle. 2004. A non-destructive, automated method of counting spores of *Ophryocystis elektroscirrha* in infected monarch butterflies (Lepidoptera: Nymphalidae). *Florida Entomologist* 87(2): 231-234.

Milligan, J., **A.K. Davis***, and S. Altizer. 2003. Errors associated with using colored leg bands to identify wild birds. *Journal of Field Ornithology* 74 (2):111-118.

Publications on natural history of vertebrates and insects

Davis, A.K., A Leo, K. Stewart, C. Phelan, and A. Schultz. 2025. It's a Spider-Eat-Spider World: Observations of Nonsexual Cannibalism in the Invasive Jorō Spider *Trichonephila clavata*. *Arthropoda* 3(3): 11pages. **MEDIA COVERAGE

Davis, A.K.*, K. Stewart, C. Phelan and A. Schultz. 2024. How Urban-Tolerant Are They? Testing Prey–Capture Behavior of Introduced Jorō Spiders (*Trichonephila clavata*) Next to Busy Roads. *Arthropoda*. 2024 2: 55-65. https://doi.org/10.3390/arthropoda2010004. **MEDIA COVERAGE

Davis, A.K.*, W. T. Morris, E. Hobbs and E. Blakely. 2024. Do Invasive Jorō Spiders (*Trichonephila clavata*) from Asia Avoid Eating Unpalatable Monarch Butterflies (*Danaus plexippus*) in North America? *Insects*. 2024, 15(5). https://doi.org/10.3390/insects15050309. **MEDIA COVERAGE

Schronce, A. and **A.K. Davis.*** 2022. Novel observation: northern cardinal (*Cardinalis cardinalis*) perches on an invasive jorō spider (*Trichonephila clavata*) web and steals food. *Insects* 13. 1049.

Shattuck, A., C. Martinez-Mejia, C., F. Smith and **A.K. Davis***. 2022. Observations and pictures of eggs of the horned passalus beetle, *Odontotaenius disjunctus* (Illiger) (Passalidae). *The Coleopterists' Bulletin* 76(3): 350-353.

Davis, A.K. 2019. Possible case of mycoplasmal conjunctivitis in a northern cardinal in Georgia. *The Oriole*. vol 83: 15-19.

Davis, A.K.*, H. Leaf and D. Edenfield. 2019. Observations of a brood site of triceratops beetles (Coleoptera: Scarabaeidae) at the Wormsloe Historic Site in Savannah, Georgia, USA. *Journal of Entomological Science* 54(2): 193-194.

Breithaupt, M., R. Hall and **A.K. Davis.*** 2013. A preliminary survey of birds killed by window collisions in Georgia based on museum specimens. *The Oriole* 77(1-2): 9-17.

Davis, A.K.*, E. Cornelius and D. Cox. 2013. Tachinid parasitism in adult horned passalus beetles (*Odontotaenius disjunctus*) at the Wormsloe Historic Site, Savannah, GA. *Journal of Entomological Science* 48(3): 1-3.

Davis, A.K. 2010. *Ambystoma talpoideum* (mole salamander). Polymelia. *Herpetological Review* 41(3): 327-328.

Davis, A.K. 2008. Nesting female house finch spontaneously develops mycoplasmal conjunctivitis. *The Oriole* 73(1-4): 12-17.

Davis, A.K. 2008. Factors influencing fidelity of house finches to a feeding station. *Wilson Journal of Ornithology* 120(2): 371-377.

Davis, A.K. 2007. Incidence and effect of hippoboscid flies in relation to mycoplasmal conjunctivitis in House Finches in Georgia. *North American Bird Bander* 32(3): 109-113.

Davis, A.K. 2007. Walking trails in a nature preserve alter terrestrial salamander distributions. *Natural Areas Journal* 27(4): 385-389.

Hotchkiss, E.R., **A.K. Davis*,** J.J. Cherry and S. Altizer. 2005. Mycoplasmal conjunctivitis and the behavior of wild house finches (*Carpodacus mexicanus*) at bird feeders. *Bird Behavior* 17(1): 1-8.

Farrey, B. and **A.K. Davis***. 2004. Monarch butterfly larvae (Lepidoptera: Nymphalidae) with 3 tubercle pairs in South Florida. *Florida Entomologist* 87(3): 408-411.

Davis, A.K. 1998. The incidence of Hippoboscid flies on Nova Scotia landbirds. *Northeastern Naturalist* 5(1): 83-88.

Projects in Other Research Areas

Crossley, M.S., T.D. Meehan, M.D. Moran, J. Glassberg, W.E. Snyder, and **A.K. Davis**. 2022. Opposing global change drivers counterbalance trends in breeding North American monarch butterflies. *Global Change Biology*. https://doi.org/10.1111/gcb.16282. **MEDIA COVERAGE

Prouty, C., P. Barriga, **A.K.Davis**, V. Krischik and S. Altizer. 2021. Host plant species mediates impact of neonicitinoid exposure to monarch butterflies. *Insects* 2021, 12. https://doi.org/10.3390/insects12110999

Majewska, A.A., Sims, S., Wenger, S.J., **A.K. Davis** and S. Altizer. 2018. Do characteristics of pollinator-friendly gardens predict the diversity, abundance, and reproduction of butterflies? *Insect Conservation and Diversity* 11: 370-382.

Davis, A.K.* and L. A. Dyer. 2015. Long-term trends in eastern North American monarch butterflies: a collection of studies focusing on spring, summer and fall dynamics. *Annals of the Entomological Society* 108(5): 661-663. **MEDIA COVERAGE

Government reports

Davis, A.K., S. Altizer, K. Oberhauser and L. Ries. 2009. Recommendations for integrating monarch butterfly monitoring data in North America to address conservation and management needs. Report to the Commission for Environmental Cooperation.

MEDIA COVERAGE OF RESEARCH

2025 Coverage of joro spider cardiac stress paper (in Physiol. Entomol.)
- Lab experiment shows Joro spider heart rates fluctuate less under stress – *Phys.org*
- Are Jorō spiders well poised to spread even more into human areas? A new study offers clues – *CNN*
- Giant "flying" Joro spiders love big cities. A new study found their ability to chill out in stressful situations may be why – *CBS News*
- Invasive Joro Spiders Keep Their Cool Even when Stressed – *Scientific American*

Coverage of joro spider cannibalism paper (in Arthropoda)
- Female invasive joro spiders may dabble in cannibalism – *National Geographic*
- Once thought 'shy,' UGA research finds aggression and even cannibalism in female Joro spiders – *11Alive News*
- Joro spiders sometimes demonstrate cannibalistic behavior, per UGA study – *Georgia Public Broadcasting*
- UGA research shows invasive species of spiders in Georgia may also be cannibals – *WSB TV*

2024 Selected coverage of joro spider urban-tolerance paper (in Arthropoda) – too many to list
- 125 news outlets
- All About the Venomous Flying Spiders Invading This Summer, and When They're Coming to Your Area – *People Magazine*

- Invasive Jorō spider is surprisingly tolerant of busy urban settings, according to new study — *CNN*
- Joro spiders, spreading in the southeast, can survive surprisingly well in cities — *Smithsonian Magazine*

Selected coverage of monarch butterfly roost paper (in PNAS)
- Monarch butterfly migration in crisis – *Sierra Club*
- The monarch butterfly may not be endangered, but its migration is, researchers find - *ScienceDaily*
- Monarch butterflies are losing their migration – *The Wildlife Society Bulletin*

2023 Selected coverage of joro spider shyness paper (in Arthropoda) – too many to list
- Joro Spiders Look Frightening, but They May Be Scaredy-Cats – *New York Times*
- Big, mysterious, harmless Joro spiders have made themselves at home in Georgia – *NPR*
- Black and yellow Joro spiders harmless, UGA researchers say – *11Alive News*
- The giant invasive Joro spiders, which may spread up the East Coast, aren't scary - *Boston Herald*

Selected coverage of monarch butterfly spots paper (in PLoS One) – too many to list
- The Secret in the Spots on Monarch Butterflies' Wings – *New York Times*
- The monarch butterfly's spots may be its superpower – *National Geographic*
- Monarch Butterflies' Signature White Spots May Help Them Fly – *Smithsonian Magazine*
- Monarch butterflies' white spots may help them fly farther, scientists say – *NPR*

2023 Selected coverage of joro spider kleptoparasitism paper (in Insects) – too many to list
- How Giant Joro Spiders Can Spin Webs Strong Enough to Catch Birds – *Newsweek*
- This spider web is strong enough for a bird to sit on, a scientific first – *National Geographic*
- These Badass Spiders Weave Such Sturdy Webs That Even Birds Can Sit on Them – *Popular Mechanics*

2022 Coverage of monarch caterpillar melanism paper (in J. Thermal Melanism)
- UGA scientists use internet photos to research Monarch butterflies – *Online Athens*

2022 Selected coverage of joro spider geographic spread paper (in Physiological Entomology) – way too many to list
- Joro spiders from Asia could spread to much of U.S. East Coast, scientists say – *CBS News*
- Big, colorful joro spiders are coming! But there's no need to be afraid – *Washington Post*
- Georgia's invasive Joro spiders could spread along the East Coast, expert says – *11Alive News*
- These large invasive spiders could spread throughout the U.S. – *National Geographic*
- Giant demon spiders infesting America! – *The Globe* (personal favorite!)

2022 Selected coverage of paper showing no decline in monarchs (in Global Change Biology)
- Monarch Butterfly Populations Remain Stable Despite Scientists' Warnings of Extinction, Study Finds – *Forbes*
- Monarch butterfly populations are thriving in North America – *Eurekalert*
- Monarch butterfly populations may be more stable than previously thought – *NBC News*
- Is There Good News for Monarch Butterflies? Scientists Disagree – *Wired Magazine*

- Some Monarch Butterfly Populations Are Rising. Is It Enough to Save Them? – *New York Times*

2020 Coverage of monarch butterfly captivity paper (in Biology Letters)
- What's wrong with butterflies raised in captivity? – *New York Times*
- Is Hand-Rearing Butterflies Actually Helpful to Monarch Populations? – *Discover Magazine*

2020 Coverage of paper on handling stress in monarch butterflies
- Human handling stresses young monarch butterflies – *UGA Today*

2020 - What Is Really Killing Monarch Butterflies? (article not specific to any one paper, but featuring Davis) – *Scientific American*

2019 Coverage of paper showing parasites improve beetle ecosystem services (in Biology Letters)
- Parasites infect these beetles. It might be a good thing – *New York Times*
- Parasites help beetle hosts function more effectively – *UGA Today*
- A belly full of worms makes wood beetles better recyclers – *Science News*

2018 Coverage of study of road noise stressing monarchs (in Biology Letters)
- Traffic Noise Makes Caterpillars' Hearts Beat Faster – *Scientific American*
- Caterpillar 'road rage' could affect migration – *UGA Today*

2015 Coverage of publication of special collection of studies on monarchs (spearheaded by Davis)
- Biologists aflutter over just where monarchs are declining – *ScienceNews*
- Monarch butterfly studies tell a perplexing tale – *Science.org*
- New Monarch Butterfly Studies May Provide Reasons for Optimism – *Entomology Today*
- Scientists Are Still Baffled by Monarch Migration – *Smithsonian Magazine*
- Are monarch butterflies really being massacred? – *Washington Post*

2015 Coverage of paper describing wing morphology of monarchs (in Journal of Insects)
- Wing structure helps female monarch butterflies outperform males in flight – *Phys.org*

2014 Coverage of monarch skipping meals paper (in PLoS One)
- A Hungry Butterfly Is a Hurting Butterfly – *New York Times*
- Skipping meals may affect butterfly wing size, coloration – *Phys.org*

2010 Coverage of study examining wing morphology of migrant monarchs (in Evolution)
- 'Supersized' monarch butterflies evolved to fly far – *BBC Earth News*

PRESENTATIONS AND POSTERS

2025 Why the monarch butterfly should not be listed as endangered **(Invited Presentation)**. Environment and Climate Change Canada (Pacific Region) Tuesday Seminar series.

2024 Monarch butterflies in Canada – are they really in trouble? No, but also, yes **(Invited Presentation).** Western University Biology Dept. Weekly Seminar Series.

2023 Monarch butterfly conservation: The good, the bad, and what SC gardeners need to know (**Invited Presentation**). 2023 Keynote address to Annual SC Master Gardeners' Association. Clemson, SC, Oct.

2013 Monarchs in a changing world: new findings pertaining to migration and health **(Invited Presentation)**. International Symposium on the Conservation of Monarch Butterflies, Morelia, Mexico

2012 Infection modifies the effects of stress on immune function in birds (Poster) - 2012 Odum School Grad Student Symposium

2011 Do black-furred animals compensate for high solar absorption with smaller hairs? A test with a polymorphic squirrel species (Poster) - 2011 Odum School Grad Student Symposium.

2010 Measuring stress in birds using counts of white blood cells: An outline with an emphasis on effects of handling time **(Invited Presentation)**. Association of Field Ornithologists annual meeting, Ogden, UT.

2010 Recent advances in fall migration stopover ecology of monarch butterflies **(Invited Presentation)**. International Conference on the Biology of Butterflies, Edmonton, Alberta, Canada.

2009 Phallic fish – morphological correlates of male genitalia size in mosquitofish. Graduate Student Symposium, Warnell School of Forest Resources, Athens, GA.

2008 Tracking the amazing migration of monarch butterflies to and from Mexico with the help of volunteers and citizen-scientists **(Invited Presentation)**. Ohio State Entomology Dept. Seminar Series, Wooster, OH.

2008 Alveolate infections and anuran mass mortality **(Invited Presentation)**. Southeastern Partners in Amphibian and Reptile Conservation Annual Meeting, Athens, GA.

2008 The use of hematology in wildlife research: an overview of selected examples (Presentation). Graduate Student Symposium, Warnell School of Forest Resources, Athens, GA.

2007 Monarch Migration Monitoring Programs: Overview and Results **(Invited Presentation)**.Trinational Meeting of Monarch Butterfly Scientists, sponsored by the Center for Environmental Cooperation, held in Morelia, MX.

2007 Ventral melanization and levels of mercury are related in diamondback terrapins (poster). National Symposium on the Ecology, Status, and Conservation of the Diamondback Terrapin, Millersville MD.

2007 Larval density affects metamorphic immune function in spotted salamanders (poster). SE Partners in Amphibian and Reptile Conservation annual meeting, Chattanooga, TN.

2006 Why are spotted salamanders spotted? Understanding the links between spot morphology and individual health using digital image analysis (Presentation). Graduate Student Symposium, Warnell School of Forest Resources, Athens, GA.

2005 10 years of monarch monitoring in eastern N. America: Spring, summer, fall and winter comparisons **(Invited Presentation)**. International Monarch Conservation Meeting. San Louis Obispo, CA.

2005 New perspectives on migration in monarch butterflies: Insights from long-term monitoring and citizen science (Presentation). Entomological Society of America, Pacific Branch Meeting, monarch butterfly symposium, Pacific Grove, CA.

2004 Mycoplasmal conjunctivitis and the feeding behavior of house finches in Atlanta, GA (Poster). Southeastern Ecology and Evolution Conference. Atlanta, GA.

2003 Morphological adaptations of the monarch butterfly to long-distance migration (poster). Annual Meeting of the Ecological Society of America. Savannah, GA.

2001 Monarch migration on the Eastern Shore of Virginia: monitoring methods and stopover ecology of fall migrants (Presentation). Intl Monarch Population Dynamics Meeting. Lawrence, KS.

GRANTS AND AWARDS

2023 Inaugural UGA Research Communications Award – for excellence in promoting science (**$2000**)

2022 UGA Excellence in Teaching Award – for excellence in teaching

2011 Nominated by Warnell School for UGA's 'Excellence in Graduate Research Award'

2010 Integration, Analysis and Dissemination of Monarch Monitoring Data in North America **($23,000)**: award from Monarch Joint Venture. Was one of 2 PIs on the project.

2009 Stoddard-Burleigh-Sutton Award for Wildlife Conservation **($1,000)** Awarded to a student in the University of Georgia annually for outstanding work in wildlife conservation.

2009 Supporting collaborative online approaches to sharing and integrating monarch monitoring data within North America **($ 25,000)** Award from Center for Environmental Cooperation to fund an international meeting of monarch butterfly scientists to be held at UGA in summer 2009 (was one of four PIs on the grant).

2008 Examining the effects of captive-rearing on general and acute stress in amphibians **($ 53,000)** Morris Animal Foundation: Fellowship Training Award, supports 2 years of graduate stipend.

2008 Gerald B. & Charlotte Alexander Saunders Scholarship **($ 2,000)**: Awarded to a Warnell Graduate Student.

2008 1st Place for Presentation **($ 250)**, Warnell Graduate Student Symposium, Feb, 2008.

2007 James L. Carmon Honorarium **($ 2,000)**: awarded to graduate student at UGA whose thesis/dissertation research reflects state-of-the-art utilization of computer technology in the sciences.

2006 2nd Place for Presentation: Warnell Graduate Student Symposium Feb 2006.

2004 Course Development Award **($ 3,000)**: Faculty Science Council and Center for Science Education, Emory University, awarded for the development of Insect Ecology and Conservation (one of 2 PIs).

1996 Robie Tufts Research Scholarship in Biology **($ 2,910)**: awarded on the recommendation of the Department of Biology (Acadia University, Nova Scotia, Canada) to a MSc. Student

specializing in Ornithology. (Robie Tufts was a prominent ornithologist in NS, Canada).

OTHER EXPERIENCE/QUALIFICATIONS

2022-2023 Lead an official, year-long, challenge to the **International Union for the Conservation of Nature (IUCN)**, to refute the 2022 decision to list monarch butterflies as endangered

2019-2020 **Scientific advisor to USFWS** during their assessment of the status of monarch butterflies in the United States, and whether they merit protection by the Endangered Species Act.

1989-1996 **Member of Canadian Armed Forces Reserve (Infantry Division), West Nova Scotia Regiment:** Attained rank of corporal (NCO), trained in use of light weapons, driving armored-personnel carriers and 2-ton trucks, and learned essentials of leadership along the way. In 1992, was awarded the West Nova Scotia Regiment Soldier-of-the-Year, for outstanding leadership, quality of service, and for contributing the most to the regiment over the year.

2003-2005 **President, Friends of Friendship Forest, Clarkston, GA**: Personally established this organization to restore a 4 acre, abandoned piece of city property to a natural state, complete with walking trails, and eventually into the Friendship Forest Wildlife Sanctuary. Organized monthly work sessions, which included pulling privet, trail-blazing, painting over graffiti and picking up trash in the forest. Also responsible for reporting progress to city Mayor and speaking at city council meetings. Held ribbon-cutting ceremony in Fall 2005.

2007-2008 **Scientific advisor to a Trinational Government Panel (Canada, US, Mexico) on monarch butterflies:**This panel was formed to establish a conservation plan for monarch butterflies, and was sponsored by the Center for Environmental Cooperation. The plan was completed in June 2008.

2008-2010 **President, Hidden Lake Homeowners' Association, Hull, GA:** Duties include organizing biannual meetings and neighborhood cleanups, maintaining website, administering covenants.

2002-2010 **Web developer for numerous websites**, including the Wildlife Leukocytes Webpage (www.wildlifehematology.uga.edu), the Monarch Migration Association of North America (www.mmana.org), the Global Mammal Parasite Database (www.mammalparasites.org), the Monarch Parasites Webpage (www.monarchparasites.org), and multiple faculty lab pages at UGA.

2001-Present **Holder of Master Bird Banding Permit, USGS**. Federal permit that allows for capture and marking of passerine birds in the United States.

JOURNALS REFEREED FOR (non-exhaustive listing)

Ecological Applications
Conservation Biology
EcoHealth
Journal of the Lepidopterists' Society
Ibis (an ornithological journal)
Journal of Insect Science

Journal of Wildlife Diseases
Conservation Biology
Global Change Biology
Comparative Biochemistry and Physiology
Applied Herpetology
Journal of Comparative Physiology B
Journal of Mammology
J. World Aquaculture Society
Journal of Experimental Zoology Part A
Herpetological Journal
Nature
PLoS One
Basic and Applied Herpetology
Zoologischer Anzeiger
Journal of Herpetology
Ecological Entomology
Wilson Journal of Ornithology
Journal of Ornithology
Functional Ecology
Oecologia
Methods in Ecology and Evolution
Russian Journal of Herpetology
Journal of the World Aquaculture Society
Annales Zoologici Fennici
Naturwissenschaften
South American Journal of Herpetology
Ethology