

Able Chow

December 10, 2023

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Education

M.S., Entomology

Dec. 2022

Department of Entomology, Louisiana State University

Thesis Title: "Review of Structural Color in the Genus *Chrysochroa* Dejean, 1833 (Coleoptera: Buprestidae)" ([Link](#))

Major Advisor: Dr. Nathan P. Lord

B.S., Entomology

May. 2018

Department of Entomology, University of Florida

Major Advisor: Dr. Rebecca Baldwin.

Research Experience

Graduate Research Assistant

2018–2022

Characterizing the structural color of *Chrysochroa* jewel beetles (NSF Funded Project, #1841704)

Principal Investigator: Dr. Nathan P. Lord, Louisiana State University

Slide Preparator

2017–2018

Developing identification tools for *Anastrepha* fruit fly larva (USDA Funded Project)

Supervisor: Dr. Gary Steck, Florida Department of Agriculture and Consumer Services

Undergraduate Research Assistant

2016–2017

Firefly flash pattern analysis project

Supervisor: Dr. Marc A. Branham, University of Florida

Awards and Grants

Awarded

The Roussel Scholarship Graduate Student Award in Entomology Louisiana State University	\$2000	Sep. 2022
Graduate Student Research Enhancement Award: Improvement Award The Coleopterists Society (Link)	\$2000	Jun. 2021
Graduate Student Association Travel Award Louisiana State University	\$200	Oct. 2019

Submitted

Systematics Evolution, & Biodiversity Research Travel Award Entomological Society of America	\$1500	Mar. 2021
Grants in Aid of Research Sigma Xi	\$2500	Sep. 2021

Publications

- Chow, A.**, Huval, F., Mulcahy, M., & Reagan, T. E., *Necrophila americana*, American Carrion Beetle (Coleoptera: Silphidae), 2021, Bug Biz Series, LSU AgCenter Pub 3787 Louisiana State University. ([Link](#))
- Chow, A.**, Huval, F., Reagan, T. E., & Carlton, C., *Photinus pyralis*, Big Dipper Firefly (Coleoptera: Lampyridae), 2020, Bug Biz Series, LSU AgCenter Pub 3717 Louisiana State University. ([Link](#))
- Chow, A.**, Huval, F., Carlton, C., & Reagan, T. E., *Pyroactomena* spp., Spring Fireflies (Coleoptera: Lampyridae), 2020, Bug Biz Series, LSU AgCenter Pub 3738 Louisiana State University. ([Link](#))

Contributions to Professional Meetings

Presentations

- Chow, A.**, Wilts, B., Lord, N. P., & Xiao, Y., Beetles in Golden Skin: Structural Color in *Chrysochroa* Jewel Beetles, Society for Integrative and Comparative Biology Annual Meeting, Austin, TX, Jan. 3, 2023. ([Link](#))
- Chow, A.**, Wilts, B., Xiao, Y., & Lord, N. P., The Spectacular and Peculiar Structural Color of *Chrysochroa* Jewel Beetles (Coleoptera: Buprestidae), Entomological Society of America (ESA), Entomological Society of Canada (ESC), and Entomological Society of British Columbia (ESBC) Joint Annual Meeting, Vancouver, BC, Canada, Nov. 16, 2022. ([Link](#))
- Chow, A.**, The Structural Diversity of Multilayer Reflectors in the Jewel Beetle genus *Chrysochroa*, Able Chow M.S. Exit Seminar, Department of Entomology, LSU, Baton Rouge, LA, Oct. 7, 2022. ([Link](#))
- Canton, R. C., **Chow, A.**, Moncrieff, A. E., Brumfield, R. T., Lord, N. P., & Faircloth, B. C., Evolution of Super-Black Plumage in *Lepidothrix* (Pipridae, Passeriformes), American Ornithological Society and Birds of the Caribbean 2022, San Juan, Puerto Rico, Jun. 30, 2022. ([Link](#))
- Chow, A.**, & Lord, N. P., Taxonomy in Color: Illuminating the Taxonomy of *Chrysochroa* by Understanding Structural Color, Society for Integrative and Comparative Biology Annual Meeting, Virtual, Jan. 6, 2022. ([Link](#))
- Chow, A.**, & Lord, N. P., Taxonomy in Color, Revision of the Subgenus *Chrooxantha* (Coleoptera: Buprestidae: *Chrysochroa*) Using Morphological and Color Data, Entomological Society of America Annual Meeting, Denver, CO, Nov. 2, 2021. ([Link](#))
- Chow, A.**, & Lord, N. P., Color and Species Delimitation in Jewel Beetles: From Subjective Perception to Objective Definition, 11th Annual LSU Entomology Department Graduate Student Symposium, Baton Rouge, LA, Oct. 22, 2021. ([Link](#))
- Chow, A.**, & Lord, N. P., Taxonomy in Color: Understanding Structural Color Informs Jewel Beetle Taxonomy, Living Light Online Early Career Researcher Conference, Virtual, Sep. 22, 2021. ([Link](#))
- Chow, A.**, & Lord, N. P., Jewels of Iridescence: Mechanisms of Structural Color and its Significance in Insect Systematics, Jan. 3–Feb. 28 2021, Virtual, Society for Integrative and Comparative Biology Annual Meeting. ([Link](#))
- Chow, A.**, & Lord, N. P., Jewels of iridescence: Mechanisms of structural color and implications for taxonomy, Entomological Society of America Annual Meeting, St. Louis, MO, Nov. 19, 2019. ([Link](#))
- Chow, A.**, & Lord, N. P., When Color Science Meets Taxonomy: Revision of Subgenus *Chrooxantha* Holyński, 2009, 10th Annual LSU Entomology Department Graduate Student Symposium, Baton Rouge, LA, Oct. 9, 2019. ([Link](#))
- Chow, A.**, & Lord, N. P., Iridescent Characters: a Taxonomic Revision of Subgenus *Chrooxantha* (Coleoptera: Buprestidae: *Chrysochroa*), LSU Department of Entomology Seminar, Baton Rouge, LA, Sep. 20, 2019. ([Link](#))

Posters

- Chow, A.**, & Lord, N. P., The Physics, Biology, and Evolution of Cuticular Iridescence in Jewel Beetles, 9th Annual LSU Entomology Department Graduate Student Symposium, Baton Rouge, LA, Oct. 18, 2018. ([Link](#))
- Chow, A.**, Keller, O., Ivie, M., & Branham, M. A., Developing a Data Pipeline (workflow) to Digitally Record and Analyze Firefly Flash Patterns, International Firefly Symposium, Taipei, Taiwan, Apr. 25–26, 2017. ([Link](#))
- Chow, A.**, Keller, O., Ivie, M., & Branham, M. A., Developing a Data Pipeline (workflow) to Digitally Record and Analyze Firefly Flash Patterns, Entomological Society of America Southeastern Branch Conference, Memphis, TN, Mar. 14, 2017. ([Link](#))

Exhibitions

- Contributor of Iridescence: Interdisciplinary Inspiration** Capsule exhibition of larger Louisiana Art & Science Museum *Iridescence* exhibition, highlighting art and science collaboration, Mar. 2–16, 2022, Boyce Gallery at the College of Art & Design, Louisiana State University.
- Contributor of Iridescence:** Featured exhibition at the Louisiana Art & Science Museum, Baton Rouge., Jul. 17, 2021–Jul. 31, 2022, This exhibition features the scientific works of Dr. Nathan Lord and his graduate students Able Chow and Sierra Weir, invited works from renowned artists, and a juried competition. ([Link](#))

Training and Skill

Training and Workshop Attended

SEM specimen preparation and scope operation training

LSU Shared Instrument Facilities, Dr. Yang Mu & Dr. Dongmei Cao, Jan. 26–Feb. 1, 2021.

TEM specimen preparation and scope operation training

Georgia Microscopy, University of Georgia, Dr. John Shields & Ms. Mary Ard, Oct. 28–30, 2020.

Student Training Provided

Imaging System Workshop for LSU Entomology Graduate Students, Jan. 13 & Apr. 6, 2022.

Other Skills

Programming Languages:	R, BASH, L ^A T _E X
Integrated Development Environment:	Vim, Neovim, R Studio

Teaching Assistantship

General Entomology (ENTM 7001), Department of Entomology, Louisiana State University, Fall 2021.
2 lectures given: Insect Behavior and Insect Morphology.

Collections Research

Texas A&M University Insect Collection College Station, Texas	Sep. 17–18, 2020
Museum National d’Histoire Naturelle Paris, France	Oct. 13–20, 2019
National Museum Prague, Czech Republic	Oct. 3–12, 2019
California State Arthropod Collection Sacramento, California	Jul. 28–Aug. 3, 2019
California Academy of Sciences San Francisco, California	Jul. 24–27, 2019

Conference Participation

Society for Integrative and Comparative Biology Annual Meeting, Austin, TX, Jan. 3–6, 2023.
ESA, ESC, and ESBC Joint Annual Meeting, Vancouver, BC, Canada, Nov. 13–16, 2022.
Society for Integrative and Comparative Biology Annual Meeting, Virtual, Jan. 14–Mar. 31, 2022.
Entomological Society of America Annual Meeting, Denver, CO, Oct. 31–Nov. 3, 2021.
11th Annual LSU Entomology Department Graduate Student Symposium, Baton Rouge, LA, Oct. 22, 2021.
Living Light Online Early Career Researcher Conference, Virtual, Sep. 22–23, 2021.
Society for Integrative and Comparative Biology Annual Meeting, Virtual, Jan. 3–Feb. 28, 2021.
Entomological Society of America Annual Meeting, St. Louis, MO, Nov. 17–20, 2019.
10th Annual LSU Entomology Department Graduate Student Symposium, Baton Rouge, LA, Oct. 25, 2019.
ESA, ESC, and ESBC Joint Annual Meeting, Vancouver, BC, Canada, Nov. 13–16, 2018.
9th Annual LSU Entomology Department Graduate Student Symposium, Baton Rouge, LA, Oct. 15, 2018.
Entomological Society of America Annual Meeting, Denver, CO, Nov. 5–8, 2017.
International Firefly Symposium, Taipei, Taiwan, Apr. 24–26, 2017.
Entomological Society of America Southeastern Branch Conference, Memphis, TN, Mar. 12–15, 2017.

Outreach and Services

Volunteer for Bioblitz 2022 at the BREC Forest Community Park, Baton Rouge, Louisiana, Apr. 2022.
Volunteer for AgMagic, at the Parker Coliseum in LSU, Baton Rouge, LA, Apr. 2019, Mar. 2022.
Guest educator for BREC Zoo Children’s Summer Camp, Baton Rouge, LA, Jul. 2021.
Volunteer for BREC Bluebonnet Children’s Summer Camp, Baton Rouge, LA, Jun. 2021.
Assisted in producing the online format of 4-H University Insect Identification Contest, Baton Rouge, LA, Jun. 2020.
Volunteer for Night at the Museum, at the Louisiana State Arthropod Museum, Baton Rouge, LA, Sep. 2019.
Volunteer for UF Department of Entomology outreach booth at Florida State Fair, Tampa, FL, Feb. 2015, 2017.

References

Dr. Christopher Carlton	Entomology Diagnostician, Louisiana State University, Director Emeritus, Louisiana State Arthropod Museum, Email: ccarlt@lsu.edu
Dr. Ilgoo Kang	Assistant Professor, Kyungpook National University, Email: ikang@knu.ac.kr
Ms. Victoria Bayless	Curator, Louisiana State Arthropod Museum, Email: vbayless@agcenter.lsu.edu
Dr. Gary Steck	Taxonomic Entomologist and Curator of Diptera (Retired), Florida Department of Agriculture and Consumer Services, Email: G.Steck@fdacs.gov
Dr. Eric Rodriguez	Taxonomic Entomologist and Curator of Diptera, Florida Department of Agriculture and Consumer Services, Email: Erick.Rodriguez@fdacs.gov
Dr. Marc Branham	Associate Professor, University of Florida, Email: marcbran@ufl.edu