

# Able Chow

October 20, 2023

✉: [ablechow29@gmail.com](mailto:ablechow29@gmail.com)

📄: [github.com/ablechow29](https://github.com/ablechow29)

## 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

Committee: Dr. Bodo Wilts (University of Salzburg, Austria), Dr. Michael Stout (LSU), and Dr. Brant Faircloth (LSU)

### 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

### The Roussel Scholarship Graduate Student Award in Entomology

\$2000

Sep. 2022

Louisiana State University

### Graduate Student Research Enhancement Award: Improvement Award

\$2000

Jun. 2021

The Coleopterists Society

### Graduate Student Association Travel Award

\$200

Oct. 2019

Louisiana State University

## 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., *Pyrractomena* 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, 11<sup>th</sup> 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, 10<sup>th</sup> 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

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- Chow, A.**, & Lord, N. P., The Physics, Biology, and Evolution of Cuticular Iridescence in Jewel Beetles, 9<sup>th</sup> 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

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- 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

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### Training and Workshop Attended

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#### 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

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

### Other Skills

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Programming Languages:

L<sup>A</sup>T<sub>E</sub>X, R, BASH

Integrated Development Environment:

Vim, Neovim, R Studio

## Teaching Assistantship

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**General Entomology (ENTM 7001)**, Department of Entomology, Louisiana State University, Fall 2021.

2 lectures given: Insect Behavior and Insect Morphology.

## Collections Research

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

## Conference Participation

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**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.  
**11<sup>th</sup> 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.  
**10<sup>th</sup> 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.  
**9<sup>th</sup> 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

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**Volunteer** for Bioblitz 2022 at the BREC Forest Community Park, Baton Rouge, Louisiana, Apr. 2022.  
**Volunteer** for AgMagic 2022, at the Parker Coliseum in LSU, Baton Rouge, LA, 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 AgMagic at the Parker Coliseum in LSU, Baton Rouge, LA, Apr. 2019.  
**Volunteer** for UF Department of Entomology outreach booth at Florida State Fair, Tampa, FL, Feb. 2017.  
**Volunteer** for UF Department of Entomology outreach booth at Florida State Fair, Tampa, FL, 2015.

## References

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|--------------------------------|---|
| <b>Dr. Christopher Carlton</b> | Entomology Diagnostician, Louisiana State University, Director Emeritus, Louisiana State Arthropod Museum, Email: ccarlt@lsu.edu              |
| <b>Ms. Victoria Bayless</b>    | Curator, Louisiana State Arthropod Museum, Email: vbayless@agcenter.lsu.edu   |
| <b>Dr. Ilgoo Kang</b>          | Assistant Professor, Kyungpook National University, Email: ikang@knu.ac.kr  |
| <b>Dr. Gary Steck</b>          | Taxonomic Entomologist and Curator (Diptera), Florida Department of Agriculture and Consumer Services, Email: Gary.Steck@freshfromflorida.com |
| <b>Dr. Marc Branham</b>        | Associate Professor, University of Florida, Email: marchbran@ufl.edu  |