

**.Lepidoptera Course 2023 Syllabus
4—14th August**

Friday, August 4th (Arrival and Orientation)

2:00 PM – onwards: Students arrive at the SWRS after 2pm
(if you're earlier the rooms may not be available, but you're welcome!)
(as needed): Introductions and brief orientations.
5:00 PM: Welcome, announcements, and introductions (all)
5:30 PM: Brief intro. to and importance of the Lepidoptera (Walsh)
6:00 PM – 7:00 PM: Dinner
7:00 PM – 7:30 PM: Introduction to Lepidoptera Literature (all)
8:00 PM: Set blacklight traps
8:30 PM: First night of casual collecting at the classrooms

Saturday, August 5th (Introduction to the Lepidoptera & Caterpillars)

7:30 AM – 8:30 AM: Breakfast
8:30 AM – 10:00 AM: Trap sorting (all instructors)
10:00 AM – 10:30 AM: Techniques for Collecting and Observing Lepidoptera (Grinter)
10:30 AM – 11:00 AM:
11:00 AM – 12:00 PM: Overview and biology of leaf-mining Lepidoptera (Eiseman)
12:00 PM – 1:00 PM: Lunch
1:00 PM – 1:30 PM: Identification of Leaf Mines (Eiseman)
1:30 PM – 5:30 PM: Caterpillar Field Trip (Eiseman)
6:00 PM – 7:00 PM: Dinner
7:30 PM: Place blacklight traps & collecting around classrooms

Sunday, August 6th (Macrolepidoptera) -Charley departs + Ron + Dave arrives

6:45 AM: Remote traps retrieved
7:30 AM – 8:30 AM: Breakfast
8:00 AM – 10:00 AM: Trap sorting
10:00 AM – 10:45 AM: Spreading Lepidoptera (Grinter)
10:45 AM – 11:30 AM: Review of Macrolepidoptera (J. Brown)
11:30 AM: break
12:00 PM – 1:00 PM: Lunch
1:00 PM – 1:30 PM: Arctiinae of Arizona (Nagle)
1:30 PM – 2:00 PM: Caterpillar Biology and Morphology (Julie Elliott)
2:00 PM – 2:45 PM: Introduction to Lepidoptera Histology (Nagle)
2:45 PM – 3:00 PM: break
3:00 PM – 3:45 PM: Butterfly Classification and Identification (J. Brown)
3:45 PM – 4:45 PM: Diversity of coloration in Lepidoptera: proximate and evolutionary causes (Rutowski)
4:45 PM – 6:00 PM: Collecting around station/open lab
6:00 PM – 7:00 PM: Dinner at station
7:15 PM: Collecting at Herb Martyr campground

Monday, August 7th (Microlepidoptera)

7:30 AM – 8:30 AM: Breakfast
8:00 AM – 10:00 AM: Trap sorting
10:00 AM – 10:45 AM: Review of the Microlepidoptera (J. Brown)
10:45 AM – 12:00 PM: Microlep lab pt. 1
12:00 PM – 1:00 PM: Lunch
1:00 PM – 2:30 PM: open lab
2:30 PM – 3:00 PM: Gelechioidea (R. Brown)
3:00 PM – 3:20 PM: Tortricidae (J. Brown)
3:20 PM – 3:45 PM: Zygaenoidea (Grinter)
3:45 PM: coffee break
4:00 PM – 4:30 PM: Pyraloidea (Grinter)
4:30 PM – 5:45 PM: Microlep & Pyraloidea lab pt. 2
6:00 PM – 7:00 PM: Dinner
7:00 PM: Remote traps placed
7:30 PM: Collecting around station & Music Night! (bringing instruments is encouraged)

Tuesday, August 8th (Ecology & Behavior)

7:30 AM – 8:30 AM: Breakfast
8:00 AM – 9:30 AM: Trap sorting
9:30 AM – 11:30 AM: Study of Lepidopteran Behavior: Conceptual and Technical Issues w/lab (Rutowski)
11:30 AM: pack for afternoon trip
12:00 PM – 1:00 PM: Lunch
1:30 PM – 5:00 PM: Field trip for Lep Behavior
6:00 PM – 7:00 PM: Dinner
7:15 PM: Collecting around station

Wednesday, August 9th (Ecology & Behavior) -Ray & Dave departs

7:30 AM – 8:30 AM: Breakfast
8:00 AM – 10:00 AM: Trap sorting
10:00 AM – 10:30 AM: coffee break
10:30 AM – 11:30 AM: Sexual Selection and Mating Systems in the Lepidoptera (Rutowski)
11:30 AM – 12:00 PM: Sex scales (R. Brown)
12:00 PM – 1:00 PM: Lunch
1:00 PM – 2:00 PM: Lepidoptera Population Monitoring and Conservation (Rutowski)
2:30 PM – 3:15 PM: coffee break
3:15 PM – 4:00 PM: Basics of Collection Management (Grinter)
4:00 PM – 6:00 PM: open lab
6:00 PM – 7:00 PM: Dinner
7:15 PM: Collecting trip to Paradise Road

Thursday, August 10th (Dissection/Genitalia) - Ron departs

7:30 AM – 8:30 AM: Breakfast (pack lunch)
8:00 AM – 10:00 AM: Trap sorting
10:00 AM – 10:45 AM: Adult Morphology (R. Brown)
10:45 AM – 12:00 PM: Adult Morphology Lab (R. Brown/Grinter)
12:00 PM – 1:00 PM: Lunch
1:00 PM – 2:00 PM: Larval Morphology w/lab (R. Brown)
2:30 PM – 3:15 PM: Analysis of Wing Patterns & Wing Venation (R. Brown)
3:15 PM – 4:00 PM:
4:00 PM – 5:30 PM: Open lab/label specimens
6:00 PM – 7:00 PM: Dinner

Friday, August 11th (Field Work & Early Stages)

7:30 AM – 8:30 AM: Breakfast
8:00 AM – 10:00 AM: Trap sorting
10:00 AM – 10:15 AM: Students prepare male dissections
10:15 AM – 10:30 AM: Male genital morphology (R. Brown)
10:30 AM – 11:45 AM: Male genital lab focusing on *Matigramma* (all instructors)
11:45 AM – 12:00 PM: Students prepare female dissections
12:00 PM – 1:00 PM: Lunch
1:00 PM – 1:15 PM: Female genital morphology (R. Brown)
1:15 PM – 2:30 PM: Female genital lab focusing on *Matigramma* (all instructors)
2:30 PM – 3:30 PM: dissection practice & lab cleanup
3:30 PM – 6:00 PM break/collect around station
6:00 PM – 7:00 PM: Dinner
7:30 PM – 12:00 AM: Field trip to Long Park (weather dependant)

Saturday, August 12th (Miscellaneous Topics)

7:30 AM – 8:30 AM: Breakfast
8:00 AM – 10:30 AM: Trap sorting
11:30 AM – 12:00 PM: coffee break
11:00 AM – 12:00 PM: Pupa Morphology w/Lab (R. Brown)
12:00 PM – 1:00 PM: Lunch
1:00 PM: – 1:30 PM: History of Insect Taxonomy (R. Brown)
1:30 PM – 2:00 PM: Open for talks (anyone)
2:00 PM - 4:00 PM: Open lab/label specimens
6:00 PM – 7:00 PM: Dinner

Sunday, August 13th (Cleanup & Departure) - Richard departs

7:30 AM – 8:30 AM: Breakfast
8:00 AM – 10:30 AM: Trap sorting
10:30 AM – 11:00 AM:
11:00 AM – 12:00 AM:
12:00 PM – 1:00 PM: Lunch

1:00 PM: – 1:30 PM:

1:30 PM - 4:00 PM: Collecting around SWRS

4:00 PM: evaluations/labeling

6:00 PM – 7:00 PM: Dinner

7:00 PM: Celebratory drinks around the station/Movie & Music Night

Monday, August 14th (Cleanup & Departure)

7:30 AM– 8:30 AM: Breakfast

8:30 AM – 12:00 PM: Classroom cleanup (everyone help please), students depart by afternoon

General Notes

Sharing a ride from Tucson with other students or instructors is usually the best way to get to the SWRS.

Room assignments can be picked up at the main office located at the end of the road through the station.

Alcohol is allowed in moderation and students are encouraged to bring beverages of their choice (instructor rooms have fridges, small fridge in classroom). Soda, beer, candy, etc. can be purchased at the store on the station. There is a small convenience store in Portal for more assorted items, and a market on the way to Rodeo, NM. Closest large supermarket is Tucson. Cafeteria food is delicious and plentiful!

Don't forget some sunscreen, a hat, water bottle, and flashlight (with a spare if you have it). In spite of hot daytime temps the station can get chilly at night, so bring a few layers.

Instructor contact information

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