Welcome to Ecology Laboratory!
BIOL 2141

.501 F 10:00 am to 12:50 pm
and
.502 F 1:30 pm to 4:20 pm

.501 TA and Lab Supervisor:
Dr. Jaime Baxter-Slye (she/her)
slye@unt.edu
ENV 332

.502 TA:
Brooke Prater
brookeprater@my.unt.edu
ENV 374

iNat handle:
@baxter-slye
@brookeprater

Slye’s office hours: Th 2:00 – 4:00 PM
Prater’s office hours: Th 11:00 - 2:00 PM
or email for appointment

Bald Eagle
(Accipitridae: Haliaeetus leucocephalus)
What are the objectives of BIOL 2141?

- Introduce students to general ecological concepts, methods, instruments, and equipment for applied field-based investigations of the biotic and abiotic components of various ecosystems.
  - Experimental design
  - Field notebook techniques
  - Data collection
  - Data processing
  - Data analysis
  - Individual report writing
  - Group presentation

Canada Geese
(Anatidae: *Branta canadensis*)
d. What are the objectives of this laboratory?

i. Develop observational skills

ii. Learn about habitat types in north central Texas

iii. Learn what environmental and ecological questions are unique to each ecosystem such as ecological services, anthropogenic impacts, conservation, and restoration

iv. Learn assessment, report, and presentation skills, including but not limited to:

   1. Point Quarter Tree Assessment or Tree Database Generation with Forest Ecology and State of the World’s Forests
   3. Terrestrial Invertebrate Sweep Netting Assessment with Trophic Relationships with State of the World’s Invertebrate Populations
   4. Texas Commission on Environmental Quality Modified Aquatic Habitat Assessment with Rapid Bioassessment of Benthic Macroinvertebrates with Water Quality
   5. Modified Christmas Bird Count and State of North American Birds
   6. Develop observational skills
   7. Develop field note taking skills and observation database generation
   8. Learn basic “Good Laboratory Practices (GLP)"
   9. Learn how to create a taxonomic database and generate taxonomic tables
   10. Learn how to research information for introductions and discussions
   11. Be able to calculate basic taxonomic metrics
   12. Discover how to report taxonomic data and taxonomic hierarchy
   13. Be able to generate a high-quality, professional scientific report based on field trip data collection
   14. Give a scientific presentation, either a poster or slideshow that is “conference-style”
The Basics

- BIOL 2141 prerequisites include 1710/1720/1730/1740/1760 - The two freshman semesters of Biology.

- The Ecology Lecture (BIOL2140) may be taken previously or concurrently. The lab and the lecture courses are entirely separate and are not meant to correspond with one another meaning they may not be discussing the same topics.

- This course is in-person for the duration of the semester.

- We will provide materials in CANVAS in modules for each week.

- Here at UNT we have a Student Help Desk that you can contact for help with Canvas or other technology issues.

**UNT IT Help Desk**
**Email:** helpdesk@unt.edu  
**Live Chat:** https://it.unt.edu/helpdesk/chatsupport  
**Phone:** 940-565-2324  
**In Person:** Sage Hall, Room 330  
**Hours and Availability:** Visit https://it.unt.edu/helpdesk for up-to-date hours and availability

For additional support, visit Canvas Technical Help (https://community.canvaslms.com/docs/DOC-10554-4212710328)
c. What materials do I need for this lab?

- Pigma pen or pencil (a writing instrument that will not bleed if water or ethanol gets on the paper)
- Small ruler
- Sunblock
- Boots or sturdy protective closed-toed footwear that can withstand mud and water
- Long pants that can withstand briar and kneeling on the ground
- Hat for sun or cold
- Outer layers for cold
- Antihistamines may be brought if you are susceptible to poison ivy, allergies, or even if you need an epipen. (Note, if you are allergic to bees or fire ants, please bring your epipen; alert the TA that you are allergic and what happens to you should you be stung).
- Field backpack for carrying field gear, the lab manual, and supplies while on a trip
- Insect repellent (we will provide "OFF")
- Water bottle
- Field trip snacks
- Phone with camera, or an actual camera
- Access to the iNaturalist and Discord applications, preferably both on a phone and desktop. (We use Discord for fast communication and ease of posting articles, documents, photos, etc. The Discord link is found on CANVAS.)
- Microsoft Word, Excel, and PowerPoint. Visit https://it.unt.edu/helpdesk if you need this software.
- University of North Texas (UNT) Email and CANVAS
- UNT provided OneDrive (can be accessed via EagleConnect in the top left corner; see TA demonstration). Groups may opt to use GoogleDocs instead of OneDrive if they agree.
- An eagerness, willingness, and desire to learn field methods, report writing, and group participation that is needed for essentially any ecology-related career.
e. How will my grade be calculated – please note changes. These points will be used and differ from the manual.

<table>
<thead>
<tr>
<th>Item</th>
<th>Times this semester</th>
<th>Points for each time</th>
<th>Total for this semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduce yourself discussion; Dissect sign up; Inaturalist sign up</td>
<td>Once due by the second week of lab</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Lab and field trip attendance with participation</td>
<td>12</td>
<td>20</td>
<td>240</td>
</tr>
<tr>
<td>Field Journal Entry and data upload</td>
<td>Five</td>
<td>Entry 25</td>
<td>175</td>
</tr>
<tr>
<td>Journal Article Discussion</td>
<td>Once</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Taxonomic Scavenger Hunt with Report, including abiotic and biotic</td>
<td>Once</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Group Planning Document</td>
<td>Once</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Group Project: Individual Introduction and Materials and Methods</td>
<td>Once</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Group Project: Results</td>
<td>Once</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Group Project: Final Report</td>
<td>Once</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Group Project Presentation</td>
<td>Once, due the last day of lab</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Group Participation</td>
<td>Once, due the last day of lab</td>
<td>20. With the possibility of receiving a lower grade on the final group report planning, report, and presentation in cases where there is zero, or a considerable lack of group participation.</td>
<td>20</td>
</tr>
<tr>
<td>Totals</td>
<td></td>
<td></td>
<td>985</td>
</tr>
<tr>
<td>Date</td>
<td>What we will be doing?</td>
<td>What is due</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------</td>
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</tbody>
</table>
| 1/19  | - Pre-test, Ch. 1 - Intro, syllabus, safety  
- Ch. 2 – Scientific report and presentation guidelines (introduce chapter, look at previous reports, download iNat, create iNat handle, and make your first observation) | - Buy the manual  
- Obtain supplies  
- Pre-test                                                                                                                                 |
| 1/26  | - More on Ch. 2 – take another in-depth look  
- Ch. 3 – Introduction to taxonomy, taxa scavenger hunt  
- Intro to peer-reviewed journal articles (20PTS PARTICIPATION) | - Introduce yourself on Discord, complete Syllabus Agreement, complete discussion for group info, complete housekeeping survey (20 PTS).  
- Make an iNat account; make your first observation  
- Join UNT SER if you want to                                                                                     |
| 2/2   | - Ch. 3 – Introduction to taxonomy, taxa scavenger hunt.  
- Go outside and make observations (20PTS PARTICIPATION) | - Complete journal article discussion (20 PTS). Answer one of your peers questions and ask two questions.                                |
| 2/9   | - Brief intro to field trip protocols  
- Go outside and make observations (20PTS PARTICIPATION)                                                                                                    | - Nothing due. Keep making iNat observations                                                                                             |
| 2/16  | - Ch. 4 – **Ecosystem services and the tree assessment and surveys:** Field Trip to Blackjack Trail at LLELA (20PTS PARTICIPATION)                                                                                       | - Make sure everything above is complete; nothing new due  
- Keep working on TSH iNat observations; begin writing the report                                                                          |
| 2/23  | - Ch. 7 – **Avian taxa in prairie habitats with a "modified Christmas bird count" assessment and trophic relationships:** Field trip to the UNT Pollinative Prairie. (20PTS PARTICIPATION) | - Taxa Scavenger Hunt due on CANVAS by 11:59 PM (100 PTS)  
- Tree field trip data discussion due by 11:59pm (10 PTS). One group member upload data sheets into the discussion. |
<table>
<thead>
<tr>
<th>Date</th>
<th>What we will be doing</th>
<th>What is due</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3/1</td>
<td>• Ch. 6 – <em>Aquatic assessment with benthic macroinvertebrate community structure</em>: Field trip to dam outfall at LLELA rescheduled (20PTS PARTICIPATION)</td>
<td>• Tree and Avian field journal due by 11:59 pm (25 PTS). Take pictures of field worksheets from the manual and paste them into a single word document. Upload in CANVAS in the 'Field Journal' module.</td>
<td></td>
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</tbody>
</table>
| 3/8   | • Ch. 5 – *Prairie restoration and percent coverage plant assessment*: Field Trip to Barn Owl Ridge at LLELA (20PTS PARTICIPATION) | • Aquatic field trip data discussion due by 11:59pm (10 PTS). One group member upload the data sheets into the discussion.  
• *Aquatic field journal due by 11:59 pm (25 PTS)*. Take pictures of field worksheets from the manual and paste them into a single word document. Upload in CANVAS in the 'Field Journal' module. |   |
| 3/15  | • Spring Break!!                                                                     | • Nothing due and no lab                                                   |   |
| 3/22  | • *Terrestrial invertebrate sweep net assessment*: Field Trip to the Pollinative Prairie. (Note: this lab is not in the manual) (20PTS PARTICIPATION) | • Prairie Plant field trip data discussion due by 11:59pm (10 PTS). One group member upload data sheets into the discussion.  
• *Prairie Plant field journal due by 11:59 pm (25 PTS)*. Take pictures of field worksheets from the manual and paste them into a single word document. Upload in CANVAS in the 'Field Journal' module. |   |

A note from previous Ecology Laboratory students: by the end your field trip, you should try to start your introduction and materials and methods
<table>
<thead>
<tr>
<th>Date</th>
<th>What we will be doing?</th>
<th>What is due</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/29</td>
<td>- Inclement weather day - we may go on a field trip if one above was cancelled.</td>
<td>- Terrestrial Invertebrate field trip data discussion due by 11:59pm (10 PTS). One group member upload data sheets.</td>
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<tr>
<td></td>
<td>- Group lab meeting in ENV 243: discuss individual introduction, materials and methods portion of the report. Groups will work on group planning document. Bring laptop. (20PTS PARTICIPATION)</td>
<td>- Terrestrial field journal due by 11:59 pm (25 PTS). Take pictures of field worksheets from the manual and paste them into a single word document. Upload in CANVAS in the 'Field Journal' module.</td>
</tr>
<tr>
<td>4/5</td>
<td>- Group lab meeting in ENV 243; discuss results section. Bring laptop. (20PTS PARTICIPATION)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td><strong>Individual Introductions Materials and Methods due by 11:59pm (100 PTS).</strong></td>
</tr>
<tr>
<td>4/12</td>
<td>- Group lab meeting in ENV 243: discuss feedback from individual intros, groups work on consolidating all members intros into final report. Work on results and slideshow. Bring laptop. (20PTS PARTICIPATION)</td>
<td><strong>Group results due by 11:59 pm (100 PTS).</strong> One member from each group upload the results on CANVAS under 'Group Report' module. Title page, TOC, results, and references only.</td>
</tr>
<tr>
<td>4/19</td>
<td>- Group lab meeting in ENV 243: discuss results feedback, groups work on generating final report. Work on slideshow. Bring laptop. (20PTS PARTICIPATION)</td>
<td><strong>Nothing due. Work on your final report and presentation with your group.</strong></td>
</tr>
<tr>
<td>4/26</td>
<td><strong>14th Semi-annual Ecology Laboratory Symposium</strong></td>
<td>- Final presentation due by 8am prior to symposium (100 PTS).</td>
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<tr>
<td></td>
<td><strong>post test</strong></td>
<td>- Final report is due by 11:59 pm (100 PTS).</td>
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<td></td>
<td></td>
<td>- Peer-review evaluations(20 PTS).</td>
</tr>
</tbody>
</table>
Attendance Policy

- We use ‘active participation’ in lieu of attendance.

- Participation = actively conducting surveys, making documentations, acting in a professional manner, and remaining safe and calm.

- In Ecology Lab, there are 240 points possible for participation.

- If a University excused absence occurs, students should immediately make arrangements with their TA to make up the lab before the end of the week or make other arrangements if that is not possible.

- We ask that if you miss lab, you contact your group and your TA ASAP so that we can work together to get caught back up.

- Your group depends on you. Please don’t skip lab.

American Rubyspot Damselfly
(Calopterygidae: *Hetaerina americana*)
Our Ethics

As members of the **UNT Community**, we have all made a commitment to be part of an institution that respects and values the identities of the students and employees with whom we interact.

**UNT does not tolerate identity-based discrimination, harassment, and retaliation.**

In addition, sometimes in Ecology Laboratory we may not agree on certain issues. However, we must refrain from using insulting, degrading, disrespectful, or offensive terms and language when discussing topics or ideas either in-person, in written assignments, or in group work settings. This includes time outside of lab while working with your group. Failure to do so may result in a point deduction due to lack of effective participation.

Mississippi Kite
(Accipitridae: *Ictinia mississippiensis*)
UNT ‘Rules of Engagement’

Rules of Engagement

- While the freedom to express yourself is a fundamental human right, any communication that utilizes cruel and derogatory language on the basis of race, color, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, veteran status, or any other characteristic protected under applicable federal or state law will not be tolerated.

- Treat your instructor and classmates with respect in any communication online or face-to-face, even when their opinion differs from your own.

- Ask for and use the correct name and pronouns for your instructor and classmates.

- Speak from personal experiences. Use “I” statements to share thoughts and feelings. Try not to speak on behalf of groups or other individual’s experiences.

- Use your critical thinking skills to challenge other people’s ideas, instead of attacking individuals.

- Avoid using all caps while communicating digitally. This may be interpreted as “YELLING!”

- Be cautious when using humor or sarcasm in emails or discussion posts as tone can be difficult to interpret digitally.

- Proofread and fact-check your sources.

- Keep in mind that online posts can be permanent, so think first before you type.

- See these Engagement Guidelines (https://clear.unt.edu/online-communication-tips) for more information.
BIOL 2141 labs have a zero-tolerance policy for scholastic dishonesty including: Students who are found to have committed scholastic dishonesty in any form, including but not limited to:

- copying from another student’s report writing,
- copying field journal entries,
- uploading pictures on iNat that you did not take, or
- allowing another student to copy from your report writing or field journal entries, or any other form of plagiarism
- groups plagiarizing previous semester projects or literature from sources (not citing)

will be given a reduction in points, a zero for the assignment, and/or be reported to the Dean of Students.

The term ‘plagiarism’ includes, but is not limited to:

- the knowing or negligent use by paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgment;
- the knowing or negligent unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials. Examples: copying word for word or even a phrase from a publication, including web pages, without placing quotes around the phrase and citing the source.

If we suspect you of cheating, an email will be sent to you to begin an investigation into the event which will lead to penalties.
How can discuss my grades with my TA?

The Family Educational Rights and Privacy Act (FERPA) (1974), does not permit faculty or staff to report grades by phone or email. In addition, per University policy, grades cannot be posted publicly. Do not request any information from your TA about grades unless it is virtually or in-person.

You can:
- go to office hours
- make an appointment in-person or virtual
- request to speak to your TA before or after class

Black-chinned Hummingbird (Trochilidae: Archilochus alexandri)
ODA Information

The University of North Texas makes reasonable academic accommodations for students with disabilities.

Students seeking reasonable accommodation must first register with the Office of Disability Access (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with a reasonable accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course.

You may request reasonable accommodations at any time, however, ODA notices of reasonable accommodation should be provided as early as possible in the semester to avoid any delay in implementation.

Note that students must obtain a new letter of reasonable accommodation for every semester and must meet with each faculty member prior to implementation in each class.

Students are strongly encouraged to deliver letters of reasonable accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student.

For additional information, refer to the Office of Disability Access website at https://studentaffairs.unt.edu/office-disability-access. You may also contact ODA by phone at (940) 565-4323.

Emerald Flower Scarab
(Scarabaeidae: Trichiotinus lunulatus)
UNT Policy

UNT Policies

Academic Integrity Policy
Academic Integrity Standards and Consequences. According to UNT Policy 06.003, Student Academic Integrity, academic dishonesty occurs when students engage in behaviors including, but not limited to cheating, fabrication, facilitating academic dishonesty, forgery, plagiarism, and sabotage. A finding of academic dishonesty may result in a range of academic penalties or sanctions ranging from admonition to expulsion from the University. [Insert specific sanction or academic penalty for specific academic integrity violation.]

ADA Policy
UNT makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide a student with an accommodation letter to be delivered to faculty to begin a private discussion regarding one’s specific course needs. Students may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information see the ODA website (https://disability.unt.edu/).

Prohibition of Discrimination, Harassment, and Retaliation (Policy 16.004)
The University of North Texas (UNT) prohibits discrimination and harassment because of race, color, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, veteran status, or any other characteristic protected under applicable federal or state law in its application and admission processes; educational programs and activities; employment policies, procedures, and processes; and university facilities. The University takes active measures to prevent such conduct and investigates and takes remedial action when appropriate.

Emergency Notification & Procedures
UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to Canvas for contingency plans for covering course materials.

Retention of Student Records
Student records pertaining to this course are maintained in a secure location by the instructor of record. All records such as exams, answer sheets (with keys), and written papers submitted during the duration of the course are kept for at least one calendar year after course completion. Course work completed via the Canvas online system, including grading information and comments, is also stored in a safe electronic environment for one year. Students have the right to view their individual record; however, information about student’s records will not be divulged to other individuals without proper written consent. Students are encouraged to review the Public Information Policy and the Family Educational Rights and Privacy Act (FERPA) laws and the University’s policy. See UNT Policy 10.10, Records Management and Retention for additional information.
Acceptable Student Behavior
Student behavior that interferes with an instructor’s ability to conduct a class or other students’ opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Dean of Students to consider whether the student’s conduct violated the Code of Student Conduct. The University’s expectations for student conduct apply to all instructional forums, including University and electronic classroom, labs, discussion groups, field trips, etc. Visit UNT’s Code of Student Conduct (https://deanofstudents.unt.edu/conduct) to learn more.

Access to Information - Eagle Connect
Students’ access point for business and academic services at UNT is located at: my.unt.edu. All official communication from the University will be delivered to a student’s Eagle Connect account. For more information, please visit the website that explains Eagle Connect and how to forward e-mail Eagle Connect (https://it.unt.edu/eagleconnect).

Student Evaluation Administration Dates
Student feedback is important and an essential part of participation in this course. The student evaluation of instruction is a requirement for all organized classes at UNT. The survey will be made available during weeks 13, 14 and 15 of the long semesters to provide students with an opportunity to evaluate how this course is taught. Students will receive an email from "UNT SPOT Course Evaluations via IASystem Notification" (no-reply@iasystem.org) with the survey link. Students should look for the email in their UNT email inbox. Simply click on the link and complete the survey. Once students complete the survey they will receive a confirmation email that the survey has been submitted. For additional information, please visit the SPOT website (http://spot.unt.edu/) or email spot@unt.edu.

Survivor Advocacy
UNT is committed to providing a safe learning environment free of all forms of sexual misconduct. Federal laws and UNT policies prohibit discrimination on the basis of sex as well as sexual misconduct. If you or someone you know is experiencing sexual harassment, relationship violence, stalking and/or sexual assault, there are campus resources available to provide support and assistance. The Survivor Advocates can be reached at SurvivorAdvocate@unt.edu or by calling the Dean of Students Office at 940-5652648.
Additional UNT Services

Academic Support & Student Services

Student Support Services

Mental Health

UNT provides mental health resources to students to help ensure there are numerous outlets to turn to that wholeheartedly care for and are there for students in need, regardless of the nature of an issue or its severity. Listed below are several resources on campus that can support your academic success and mental well-being:
- Student Health and Wellness Center (https://studentaffairs.unt.edu/student-health-and-wellness-center)
- Counseling and Testing Services (https://studentaffairs.unt.edu/counseling-and-testing-services)
- UNT Care Team (https://studentaffairs.unt.edu/care)
- Individual Counseling (https://studentaffairs.unt.edu/counseling-and-testing-services/services/individual-counseling)

Chosen Names
A chosen name is a name that a person goes by that may or may not match their legal name. If you have a chosen name that is different from your legal name and would like that to be used in class, please let the instructor know. Below is a list of resources for updating your chosen name at UNT.
- UNT Records
- UNT ID Card
- UNT Email Address
- Legal Name

*UNT eulDs cannot be changed at this time. The collaborating offices are working on a process to make this option accessible to UNT community members.*
Additional UNT Resources

**Pronouns**

- Pronouns (she/her, they/them, he/him, etc.) are a public way for people to address you, much like your name, and can be shared with a name when making an introduction, both virtually and in-person. Just as we ask and don’t assume someone’s name, we should also ask and not assume someone’s pronouns.

- You can [add your pronouns to your Canvas account](#) so that they follow your name when posting to discussion boards, submitting assignments, etc.

- Below is a list of additional resources regarding pronouns and their usage:
  - What are pronouns and why are they important?
  - How do I use pronouns?
  - How do I share my pronouns?
  - How do I ask for another person’s pronouns?
  - How do I correct myself or others when the wrong pronoun is used?
Lab Hazards?

- Field work
- Glassware—can break and cause injury
- Microbes
- NO carcinogens, radiation, or heavy metals.
Outdoor hazards: Ticks

- Lyme Disease, Rocky Mountain Spotted Fever, Ehrlichiosis and Relapsing Fever can be transmitted by the bite of an infected tick. If caught early, these diseases can almost always be cured. If left untreated, they can be serious or even fatal.

- Use repellent that contains 20% or more DEET, picaridin, or IR3535 on exposed skin for protection that lasts several hours.

- Conduct a full body tick check and bathe and shower as soon as possible after coming indoors.

- Examine your gear. Tumble dry clothes in dryer on high heat for 10 minutes to kill ticks.
Center for Disease Control (CDC) on tick removal

Use fine-tipped tweezers to grasp the tick as close to the skin's surface as possible. Pull upward with steady, even pressure. Don’t twist or jerk the tick; this can cause the mouth-parts to break off and remain in the skin. If this happens, remove the mouth-parts with tweezers. If you are unable to remove the mouth easily with clean tweezers, leave it alone and let the skin heal.

After removing the tick, thoroughly clean the bite area and your hands with rubbing alcohol, an iodine scrub, or soap and water.

Dispose of a live tick by submerging it in alcohol, placing it in a sealed bag/container, wrapping it tightly in tape, or flushing it down the toilet. Never crush a tick with your fingers.

Avoid folklore remedies such as "painting" the tick with nail polish or petroleum jelly, or using heat to make the tick detach from the skin. Your goal is to remove the tick as quickly as possible—not waiting for it to detach.
If you develop a rash or fever within several weeks of removing a tick, see your doctor.

Be sure to tell the doctor about your recent tick bite, when the bite occurred, and where you most likely acquired the tick.
Outdoor hazards: chiggers

- Use insect repellent containing DEET on skin and clothing
- Wear long pants with sneaker or hiking boots, tuck pant legs into socks, keep your shirt tucked in
- Choose tightly woven fabrics for walking in chigger prone areas
- Take a shower ASAP
- Wash clothing ASAP
“Don’t be afraid of snakes, be aware! They are signs of a healthy environment.” – Texas Parks and Wildlife

What kind of snake is this? North Texas
Snakes are great!

Snakes play an important role in the Texas ecosystem! Important for rodent control.

SNAKES DON’T HUNT HUMANS!!! Bites happen when snakes are surprised, cornered, or handled.

Be careful where you put your hands and feet - don’t reach or step until you can see the bottom. Never step over a log without first seeing what is on the other side. If you must move a log - use a long stick or garden tool first, to ensure snakes are neither under, on or around these favored habitats.

Animal burrows make excellent habitat for snakes - don't reach in without first checking.

Wear protective clothing if working in areas where you suspect snakes nearby. Heavy footwear, snake proof trousers and/or leggings will help reduce your risk.

Freeze still when snakes are known to be nearby until you know where they are. Allow the snake to retreat. If you must move, back slowly and carefully away from the snake.

First Aid for snake bites can prevent disability, disfigurement or death if it is applied effectively. Assume envenomation has occurred even before symptoms appear.

Identify the species of venomous snake with care. This could help with the medical treatment but do not endanger yourself and become another victim.

- Keep the victim as calm as possible. Keep yourself calm as well.
- Know and treat for any symptoms of shock.
- Wash the bite area with a disinfectant soap.
- Remove restrictive clothing or jewelry in the area of the bite.
- Prevent movement of the bitten extremity.
- Get medical attention as soon as possible.
- Under no circumstances should you cut between the punctures, or suck the venom out or apply electric shock.
Observations

DFW Metroplex

18,508
OBSERVATIONS

39
SPECIES

1,841
IDENTIFIERS

4,621
OBSERVERS

Nerodia erythrogaster
(Plain-bellied Watersnake)

Pantherophis obsoletus
(Western Ratsnake)

Haldea striatula
(Rough Earthsnake)

Opheodrys aestivus
(Rough Greensnake)

Nerodia rhombifer
(Diamondback Watersnake)

Agkistrodon latincinctus
(Broad-banded Copperhead)

Thamnophis proximus
(Western Ribbon Snake)

Storeria dekayi
(DeKay's Brownsnake)

Agkistrodon piscivorus
(Northern Cottonmouth)

Agkistrodon contortrix
(Eastern Copperhead)
*Coluber constrictor*  
(North American Racer)

*Nerodia fasciata*  
(Banded Watersnake)

*Crotalus atrox*  
(Western Diamond-backed Rattlesnake)

*Thamnophis sirtalis*  
(Common Garter Snake)

*Tropidoclonion lineatum*  
(Lined Snake)

*Pantherophis emoryi*  
(Great Plains Ratsnake)

*Lampropeltis holbrooki*  
(Speckled Kingsnake)

*Masticophis flagellum*  
(Coachwhip)

*Pituophis catenifer*  
(Gopher Snake)

*Rena dulcis*  
(Texas Blind Snake)
Routes of exposure to poison ivy

Poison ivy, poison oak, and poison sumac release an oil, urushiol, when the leaf or other plant parts are bruised, damaged, or burned.

You may be exposed to urushiol through:

- Direct contact with the plant
- Indirect contact, such as touching tools, people, or clothing that have urushiol on them
- Inhalation of particles containing urushiol from burning plants (YES, you CAN get poison ivy in your throat!).

- Look for clusters of 3 leaves “Leaves of three, let them be!”
  - Typically the center leaf has a small stem, the other two grow directly on the vine
  - Poison ivy berries are white or cream-colored and remain on the plant through winter and spring
  - Poison ivy variations
Observations

DFW Metroplex

7,014 observations

3 species

Toxicodendron radicans
(Eastern Poison Ivy)

6,540 observations
CC

Toxicodendron pubescens
(Atlantic Poison Oak)

181 observations
CC

Toxicodendron rydbergii
(Western Poison Ivy)

6 observations
CC
Virginia Creeper had 5 clustered leaves while poison ivy has 3.
How to treat poison ivy

1. Wash the area with cold, running water. Do this within minutes of coming into contact with the plant to prevent the oil from absorbing into the skin. Also, avoid vigorously scrubbing the area or using hot water since this may further open pores or cause more irritation to the skin.

2. Cool off. Applying ice or cold water usually offers some relief. Allowing it to air dry will reduce itching and oozing of blisters.

3. Use oral or topical antihistamines.

4. Wash clothing and shoes. Be sure to wash the items you were wearing when you came into contact with the poison ivy. Use soap and hot water to remove any oil that may still be on these items.

5. Stop the rash from spreading to others. The fluid from the sores caused by poison ivy is not contagious. The rash caused by poison ivy will only spread to other areas of the body or other people if the oil from the plant is still on your skin.

6. If the reaction is severe, seek medical attention. Most cases of poison ivy can be handled at home. In rare cases, however, poison ivy can be extremely serious or even fatal.
Wader safety

- Be aware of where you are stepping in the water. It may seem uniformly shallow, but could contain deeper sections.

- Walk carefully in the river. Rocks may be slippery from algal growth, it's easy to lose your balance.

- Never enter the water alone, always have a partner.

- If you fall into a deep spot and water begins filling up your waders, don’t panic. Remove the waders and return to shallow waters.
iNaturalist
Click here for the Spring 2024 Ecology Lab and SER iNaturalist project

- Create an iNat account.

- Be sure to post your iNat handle on the Group Formation Discussion on CANVAS.

- If you click on the 'members' or 'join': will make the project pop up in your projects.

- Dr. Slye will manually add you to the list of observers the project captures, which is different than joining. Anyone can join, but only the added observers that Dr. Slye adds will be included.

- Start familiarizing yourself with iNat. Next week, we will be using iNat for the Taxa Scavenger Hunt.
We use iNaturalist to document flora and fauna.

1. download phone app (available on desktop, too).
2. Create a professional handle.
3. Make sure your time, date, and location settings are accurate on your phone.
4. Take an overview picture of an organism, and add more pics to show all the parts.
5. Click ‘what do you see’.
6. If you see a ‘we are pretty sure’, select that taxa.
7. If you don’t see a ‘we are pretty sure’, type in one of the following:
   a. plant
   b. fungi
   c. lichen
   d. insect
   e. spider
   f. bird
   g. mammal
   h. snake
   i. ray-finned fish
   j. turtle
   k. amphibia
   l. earthworm
8. upload
9. check back for corrections
Hi Everyone! I'm Dr. Jaime Baxter-Slys, I'm the Student Liaison board member for Texas Society for Ecological Restoration and advisor for University of North Texas student SER chapter. My research project is called the UNT Pecan Creek Pollinative Prairie and Diamond Eagles Community Learning Area, a 20-acre native Texas prairie and remnant pond located on the UNT campus. I use the prairie to coordinate and teach undergraduate labs: Environmental Science for non-majors, and my beloved Ecology Laboratory for Ecology majors. I wear many other hats including: UNT Advanced Environmental Research Institute (AERI) Scholar, UNT Bird Campus, Bee Campus USA and Tree Campus USA committee member, help out at LLUSA when I can, and ENY SDI greenhouse rep. The students and I have wildlife camera project (nest box and mammal path monitoring), UNT bird strike project, Tree Canopy Restoration project, and of course prairie reconstruction. I learn about all taxa using Naturalist and scientific literature, and highly encourage others to do the same. Don't know what Naturalist is? Let me introduce you to "Pokemons Go for Nature Lovers"! Here are my observations: https://www.inaturalist.org/observations?place=2485693_2724484_1147768. I love my job and our students! I enjoy watching all the students grow during their undergraduate time at UNT, and then seeing where they end up. My "door" is always open to you. DM me, or email me at Sly@unt.edu. 😊
# Foundation Course Requirements

Students in the BS-Ecology must complete the following courses with a C or better and at least a 2.5 overall GPA in these courses in order to take advance coursework for the degree.

## Biology Courses:

<table>
<thead>
<tr>
<th>UNT Course #</th>
<th>Course Name</th>
<th>Hrs.</th>
<th>TCCN #</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1710</td>
<td>Biology for Science Majors I</td>
<td>3</td>
<td>BIOL 1306 or 1406</td>
</tr>
<tr>
<td>BIOL 1720</td>
<td>Biology for Science Majors II</td>
<td>3</td>
<td>BIOL 1307 or 1407</td>
</tr>
<tr>
<td>BIOL 1760</td>
<td>Biology for Science Majors Lab</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*Student can take BIOL 1750</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Introductory Biology Research Laboratory I) in place of BIOL 1760</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 2140</td>
<td>Principles of Ecology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIOL 2141</td>
<td>Principles of Ecology Lab</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>BIOL 2251</td>
<td>Biodiversity &amp; Conservation of Animals</td>
<td>3</td>
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## Advanced Biology Courses:

<table>
<thead>
<tr>
<th>UNT Course #</th>
<th>Course Name</th>
<th>Hrs.</th>
<th>TCCN #</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 3451/3452</td>
<td>Genetics with Laboratory</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>BIOL 4051/4052</td>
<td>Community Ecology with Laboratory</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>BIOL 4260</td>
<td>Principles of Evolution</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

One of the following:

<table>
<thead>
<tr>
<th>UNT Course #</th>
<th>Course Name</th>
<th>Hrs.</th>
<th>TCCN #</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 4503/4504</td>
<td>Plant Physiology with Laboratory</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>BIOL 4505/4510</td>
<td>Comparative Animal Phys with Lab</td>
<td>4</td>
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</tr>
</tbody>
</table>

## Advanced Biology Electives:

Students must complete 12 hours of advanced biology electives. Please see the undergraduate catalog or an advisor to ensure the selected course counts in the B.S. Ecology degree. The 12 hours must include 2 lectures with associated labs and another.
WHAT ARE THE CURRENT OPPORTUNITIES FOR SUCCESS?
AN EXCELLENT ARRAY OF COURSES

Choose 12 hrs, with two courses having labs (denoted as 4)

**Fall 2023**
- Conservation Biology (3) (waitlist)
- Physiological Ecology (4) (waitlist)
- Behavioral Ecology (3)
- Introduction to Subantarctic Biocultural Conservation (3)
- Mammalian Ecology and Evolution 4 (waitlist)
- Insect Biology (4) (second lab section opened)
- Fish Diversity and Ecology (4)
- Parasitology (4)
- Marine Biology (3) (waitlist)
- Bacterial Diversity and Physiology (4)
- Molecular Toxicology (3)
- Biology of Extreme Environments (3)
- Molecular Biology and Biotech Lab (4)
- Seminar (1)
- Special Problems (1-3)

**Spring 2024**
- Ornithology (4)
- General Toxicology (3)
- Fundamentals of Aquatic Toxicology (4)
- Aquatic Insects of North America (4)* even years
- Stream Ecology (4)* odd years
- Molecular Biology and Biotech Lab (4)
- Seminar (1)
- Special Problems (1-3)

Note: Special Problems and Cooperative Education courses require permission

White-winged Dove
(Columbidae: Zenaida asiatica)
CURRENT UNT NETWORK FOR OUR MAJORS

UNT AMERICAN FISHERIES SOCIETY
UNT THE WILDLIFE SOCIETY
UNT SOCIETY FOR ECOLOGICAL RESTORATION
UNT BIRD CAMPUS COMMITTEE
UNT POLLINATIVE PRAIRIE COMMITTEE
UNT BEE CAMPUS
UNT TREE CAMPUS
SILVEY SOCIETY
CURRENT UNT VOLUNTEER OR PAID POSITIONS

VOLUNTEER AND PAID RESEARCH IN PROFESSOR’S LABS

VOLUNTEER AND PAID FIELD WORK AT LLELA

BIRD BANDING AND OTHER BIRD WORK WITH DR. BEDNARZ

BIRD CAMPUS COMMITTEE

TREE CAMPUS COMMITTEE

COMMUNITY GARDEN

DIAMOND EAGLES COMMUNITY LEARNING AREA

UNT INTERNSHIPS AND UNDERGRAD RESEARCH AWARDS
Social Media and Discords

UNT SER
- Ask for a 7-day invite link to the Discord to join UNT SER
- UNT SER Instagram for events and meetings
- UNT SER Facebook

UNT Pollinative Prairie
- Ask to be a member of the Pollinative Prairie Committee channel in UNT SER Discord
- Pollinative Prairie information
- Pollinative Prairie Instagram for events and info
- Pollinative Prairie Facebook for events and info

UNT Bee Campus
- Ask for a 7-day invite link to the Discord to join

UNT Bird Campus Committee
- Ask for a 7-day invite link to the Discord to join
- Bird Campus Instagram for events and meetings

UNT The Wildlife Society
- Ask for a 7-day invite link to the Discord to join

UNT American Fisheries Society
- UNT American Fisheries Society Instagram

UNT Ecology
- UNT Ecology info website
- UNT Ecology Facebook

Lewisville Lake Environmental Learning Area
- Email Richard.Freiheit@unt.edu your availability
- Join Richard’s Volunteer Workgroup on Facebook
- Typical workdays are M and W 9am to noon

Great Blue Heron
(Ardeidae: Ardea herodias)