

Jessica Mohlman

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Wildlife Conservation Ecologist & Data Specialist

I am a Wildlife Conservation Ecologist interested in creating innovative interdisciplinary ways to address management and conservation-related concerns in working landscapes with novel insights and tools.

HIGHLIGHTS

9 years fieldwork experience | 7 + years experience with ArcGIS & R Statistical Software | 4 years supervisory experience | 2 first-author peer-reviewed publications | 2 co-author peer-reviewed publications | 2020 Stoddard-Burleigh-Sutton Award recipient for Excellence in Wildlife Conservation

EDUCATION

M.S. Forest & Natural Resources: Wildlife Ecology & Management | University of Georgia | Athens, GA | May 2019
| 128 Semester Hours | 4.0 | Summa Cum Laude

Thesis: "The examination of subacute effects on Northern Bobwhite (*Colinus virginianus*)"

Relevant Courses: Advanced Spatial Analysis for Natural Resources | Estimation of Parameters Fish & Wildlife Populations | Experimental Methods in Forestry & Natural Resources Research | Field Molecular & Wildlife Techniques | Quantitative Conservation Science | Scientific Research | Wildlife Behavior | Wildlife Law | Wildlife Seminar

B.S. Biology, Natural Resources: Wildlife & Fisheries Ecology | Northland College | Ashland, WI | May 2015 |
132 Semester Hours | 3.9 | Summa Cum Laude | Major Merit in Biology

Senior Thesis: "Competition and Evolution of Miocene Rodents" & "Avian Responses to Agriculture"

Relevant Courses: Applied Conservation Biology | Aquatic Invertebrates | Biological Field Methods | Biology of Organisms | Biometry | Consciousness of the Land | Ecology | Environmental Economics | Evolutionary Biology | Field Ornithology | Fisheries & Wildlife Techniques | Fur-Bearer Ecology & Management | Geodatabases | Humans & the Environment | Introduction to GIS | Limnology | Natural History Methodology | Natural Resources Policy | Statistical Concepts & Analysis | Vertebrate Physiology | Wildlife Ecology & Management

PROFESSIONAL EXPERIENCE

Environmental Technician

National Great Rivers Research & Education Center | East Alton, IL | November 2020 – Present

**New position, description to come at a later time.*

Consulting Conservation Research Specialist

Zoological Society of Milwaukee | Milwaukee, WI | May 2019 – Feb 2020

Data Collection & Research: Supported the transition of a core conservation program to another global conservation organization. Researched and reviewed the conservation and wildlife landscape within Wisconsin to determine a new direction for the conservation department. Researched local and regional invasive species, species of concern, and habitats to determine areas of management and research need. Reviewed 100+ conservation and water-related organizations in Wisconsin and the Midwest to determine potential partnerships and identify research gaps. Developed recommendations based on research and presented those recommendations to the organization's senior leadership, including the Society's CEO.

Data Analysis & Management: Assisted with data inventory, organization, and grant reporting for previous conservation program transfer. Generated maps in ArcGIS of professional organizations to aid in identifying potential partnerships and critical habitat maps to determine areas of conservation need. Developed scoring criteria and scales for quantifying work on 100+ conservation and water-related organizations to better determine where possible partnerships could be made. Performed statistical analyses on organizational scores to assess the work being conducted on the landscape and by what mechanisms the work was being done to identify research gaps.

Outreach & Communication: Attended conferences and events on behalf of the Society to network and build relationships with potential partners and review the conservation landscape. Facilitated meetings with potential partners and the Society to aid in building organizational network. Researched and summarized over 90 citizen science programs for education department use. Provided conservation and wildlife expertise to the education department when requested.

Graduate Research Assistant

University of Georgia | Athens, GA | August 2016 – March 2019

Data Collection & Research: Investigated the effects of rabbit hunting on Northern Bobwhite stress and movement behavior on a public wildlife management area (WMA) managed by the Georgia Department of Natural Resources (DNR). Deployed radio-transmitters, gathered morphometrics, and tracked individuals via VHF radio-telemetry independently, often performing fieldwork in adverse and harsh conditions and at all hours of day and night. Collaborated on the planning and execution of the project experimental design. Facilitated and designed a side study to validate the use of Northern Bobwhite fecal samples for stress hormone analysis. Implemented the field deployment of the method for stress sampling on wild populations of Northern Bobwhite. Supported additional graduate projects on site including assisting with Black Rat Snake and Timber Rattlesnake trapping and tracking and acoustic monitoring of Northern Bobwhite covey calls. Published research in peer-reviewed journals.

Data Analysis & Management: Performed movement and space use analysis in both Bayesian and frequentist statistical frameworks using R statistical software. Calculated space and habitat use metrics in Google Earth Engine and ArcGIS. Independently performed all steps of fecal stress hormone analysis via radioimmunoassay (RIA), including sample extractions and use of gamma counter.

Outreach & Communication: Created and designed user-friendly visual aids (e.g. maps, posters, brochures, and online announcements) for public use depicting rabbit hunting regulation changes to publicize and inform the community on the research being conducted. Generated research reports to inform stakeholders and the Georgia DNR of research findings. Wrote articles to media outlets, including research updates, to inform the community of research progress. Frequently presented findings via oral presentations and research posters to the public and stakeholders.

Leadership & Facilitation: Supervised, managed, and hired 10+ technicians. Formulated protocols and guides for clear communication and training of technicians. Developed and maintained databases in MAMP and Excel for which thousands of data entries for multiple projects were stored. Ordered and managed all vehicles and equipment for projects on the property, often made purchases valued over \$5,000 and managed the project budget. Facilitated the communication and organization of a side study to investigate Northern Bobwhite stress hormones, which required the integration of several fields of study and collaboration among multiple organizations.

Mammals Research Assistant

The Field Museum | Chicago, IL | June 2015 – 2016

Data Collection & Management: Provided research support to the “Bats of Kenya” project. Gathered morphometric measurements of all Kenyan bat specimens in the museum collection. Managed database in Access containing more than 20,000 specimens entries as well as literature databases in EndNote. Generated range maps of the specimens in ArcGIS and anatomical plates of the specimens using Photoshop. Curated all Kenyan bat specimens in the museum collection.

Aquatic Invertebrates Teaching Assistant

Northland College | Ashland, WI | April 2014 – May 2015

Student Teaching & Advising: Supported and supervised 30 + students with coursework, subject material, and aquatic sampling fieldwork. Organized labs and instructed study sessions. Performed outreach to local schools about the importance of aquatic invertebrates.

Biology Laboratory Technician

Northland College | Ashland, WI | Sep – May 2015

Specimen Collection Management: Organized and maintained aquatic invertebrate collection and biology labs. Created slides of specimens for collection and class use.

Written & Oral Communications: Updated and reviewed aquatic invertebrate and freshwater fish taxonomic keys for in-class use. Conducted educational outreach with local elementary schools about aquatic invertebrates.

First-Year Orientation Coordinator

Northland College | Ashland, WI | April 2014 – May 2015

Student Advising & Communication: Managed 12 + orientation leaders and 100 + incoming freshman students. Organized and promoted events to assist with acclimating incoming students to college. Fostered a safe and open environment for both orientation leaders and students.

Economic Botany Undergraduate Research Intern

The Field Museum | Chicago, IL | June 2014 – July 2014

Data Collection & Management: Identified plant specimens from anthropologic excavation sites in Oaxaca, Mexico with the use of the museum's herbarium. Organized and cataloged specimen collection.

Communication: Created and edited a video in iMovie depicting research and internship for presentation to museum donors, staff, and public.

Science and Action Center Conservation Intern

The Field Museum | Chicago, IL | June 2013 – August 2013

Data Collection & Research: Assisted with migration surveys, bird monitoring, and rare plant monitoring within the Calumet region.

Written Communication: Created webpage content and composed site descriptions of Chicago-land natural areas. Researched invasive plant species in the Chicago-land area and generated accompanying fact sheets and management calendars for species.

Herpetology Collection Intern

The Field Museum | Chicago, IL | June 2013 – August 2013

Specimen Collection Management: Aided in the preservation of organisms and the organization of collections. Georeferenced specimen sample collection locations. Created scientific illustrations of snake specimens for use in a taxonomic key.

Digital Archives: Photographed preserved specimens for digital archives using DSLR and microscope cameras.

First-Year Orientation Leader

Northland College | Ashland, WI | Sep 2012 – Nov 2012

Student Advising & Communication: Supervised and lead 12 + incoming freshman students on their transition to college through scheduled events and workshops.

RELATED EXPERIENCE

Alumni Board Member | Northland College | Ashland, WI | March 2020 – Present

Mentored current and prospective Northland College students. Spear-headed social media initiatives to foster community during the COVID-19 crisis. Provided insight to faculty and staff on how we can better utilize college alumni and board members to support students.

UGA Bird Banding Cooperative | University of Georgia | Athens, GA | Dec 2016 – Dec 2018

Attended local bird banding events in Athens, GA. Assisted with setting up and taking down mist nets, bird extraction from mist nets, banding, and identification.

Field Molecular & Wildlife Techniques Course | Sarvanana River Ecology Lab | Aiken, SC | May 2017

Hands-on experience in live capture, handling and chemical immobilization of wildlife; live capture and non-invasive sampling of carnivores; wild pig capture and management; herpetology collection; DNA extraction from non-invasive samples (hair, feathers, scat), relatedness, paternity, and population genetics techniques; and disease diagnostics using PCR.

Biology Capstone | Northland College | Ashland, WI | Sep 2014 – May 2015

Investigated competition and evolutionary history of rodents *Perognathus* and *Cupidinimus*, which existed during the Miocene era in North America. Gathered morphometric measurements and generated range maps in ArcGIS of specimen locations to determine overlap over the prehistoric eras and evolutionary changes in dental morphology.

Natural Resources Capstone | Northland College | Ashland WI | Sep 2014 – May 2015

Examined avian responses to agriculture through point counts on organic and non-organic farms. Determined local avian diversity and abundance using R and Excel on farms throughout the Chequamegon Bay area in Northern Wisconsin and compared farm structures, characteristics, and practices. Identified local plant communities and habitats surrounding farms. Often performed point counts independently in sub-zero inclement weather.

Field Limnology Course | Northland College | Ashland, WI | Sep 2014 – Dec 2014

Performed limnological studies using techniques gained through field and lab experiences such as water quality testing, aquatic invertebrate surveys, and substrate sampling.

Fisheries and Wildlife Techniques Course | Northland College | Ashland, WI | May 2014

Intensive field course. Fisheries: Conducted electrofishing, fyke netting, gillnetting, trawling, and pit tagging. Wildlife: Small mammal trapping, bird monitoring, track, and scat identification. Tasks were performed often with the aid of the Wisconsin Department of Natural Resources (DNR).

Student Conservation Scientist | Round River Conservation Studies | Namibia, Africa | Sep 2013 – Dec 2013

Performed wildlife population monitoring in the Kunene region of Namibia, Africa, often performing fieldwork in conditions greater than 100°F. Trained in identifying native mammals by sight, sound, scat and track; birds by sight and sound; and plants and their accompanying indigenous uses. Bush-camped for the entirety of the program in harsh conditions with little access to electricity and plumbing. Created and distributed surveys to local communities and performed interviews to aid in a better understanding of conservation efforts and human-wildlife conflict issues. Developed content that was published within the research blog. Presented on experience to numerous local schools in Wisconsin and Illinois after completion of the program.

Field Ornithology Course | Northland College | Ashland, WI | May 2013

Learned to identify birds of Northern Wisconsin by sight and sound. Performed lekking ground surveys of Sharp-tailed Grouse.

Wildlife Ecology and Management Course | Northland College | Ashland, WI | Jan 2013 – April 2013

Field heavy course involving habitat restoration and management training, census techniques, and wildlife identification by tracks, scat, and sight.

Chronic Wasting Disease (CWD) Testing Volunteer | Wisconsin DNR | Spooner, WI | Nov 2012

Gathered information from hunters at the check station and assisted with deer aging and sample collection for CWD testing.

Botany Volunteer | McHenry County Conservation District | McHenry, IL | June 2012 – July 2012

Assisted with rare plant monitoring and pollination in northern Illinois. Created seed mixes to be used within prairie restoration areas of McHenry County.

Field Aquatic Invertebrate Course | Northland College | Ashland, WI | May 2012

Collected freshwater aquatic invertebrates, prepared a specimen collection, and gained proficiency in identifying species by sight and with a key. Performed water quality testing for local agencies via aquatic invertebrate sampling.

SKILLS

Software: Access | ArcGIS | Excel | Google Earth Engine | iMovie | MAMP | Photoshop | QGIS | R Markdown | R Statistical Software | SmartSheet

Digital: Database Management | Digital Camera | DSLR Camera | Microscope Cameras | Photography | Photo Editing | Social Media | Statistical Analysis | Video Camera & Editing

Field: 4WD/ATV/UTV Operation | Bird Monitoring/Handling/ Trapping | Camera Trapping | GPS | Mist-netting | Plant Monitoring | Point Counts | Primitive Camping | Snake Handling & Tracking | VHF Telemetry

Lab: Compound & Dissecting Microscopes | Experimental Design | Hormone Extractions | Radioimmunoassay

Communication & Management: Detail Orientated | Highly Organized | Project Management & Budgeting | Public Outreach | Public Speaking | Scientific Reports & Writing | Team Management & Supervision

HONORS AND AWARDS

The University of Georgia

- Stoddard-Burleigh-Sutton Award for Excellence in Wildlife Conservation | April 2020
- Young Alumni for Leadership Training | March 2018
- Young Alumni for Leadership Training | March 2017
- Conservation Leaders for Tomorrow (CLfT) Scholarship | January 2017

Northland College

- Major Merit Award: Distinction in Biology | May 2015
- World Changer to Watch | May 2015
- Summa Cum Laude | May 2015
- Scholarship Recognition Dinner Speaker | April 2015
- Environmental Science & Natural Resources Faculty Award | April 2015
- Student Life Indelible Mark Award | April 2015
- Parsonage Fund Grant | November 2014
- Parsonage Fund Grant | September 2014
- Alpha Chi Honor Society | April 2014
- McLean Travel Grant | March 2013
- Veritas Honor Society | April 2013
- Dean's List | 2011-2015

Other

- Featured in USA Today Green Living, Sustainable Careers | April 2016
- Photographer's Forum Magazine Finalist | May 2015

PROFESSIONAL AFFILIATIONS & LEADERSHIP ACTIVITIES

The University of Georgia

- Graduate Mentor Program | 2017-2018
- Georgia State Science & Engineering Fair (GSEF) Judge | March 2017 & 2018

Northland College

- Alumni Board Member | 2020-Present
- Northland College Student Association (NCSA) Sigurd Olson Environmental Institute Representative | 2012-2013
- Northland College Student Association (NCSA) Student-Living Hall Senator | 2011-2012

PROFESSIONAL DEVELOPMENT

- Spatial Capture Recapture oSCR R Package Workshop | August 2020
- First Aid & CPR | January 2020
- Implicit Bias Training | January 2020
- Sensory Inclusive Training | October 2019
- IACUC 101 & Training | October 2017
- Conservation Leaders for Tomorrow Workshop | January 2017
- Georgia Hunter Safety and Education | January 2017
- Wisconsin Cooperative Trapper Education Program | January 2015
- Bystander in Action Training | May 2014
- Leadership in Action & Conflict Resolution Workshop | January 2012
- Wildlife Tracking Workshop | January 2012

PUBLICATIONS

Peer-Reviewed Publications

- Howell, P. E., N. G. Wilhite, R. R. Gardner, J. L. Mohlman, R. B. Chandler, I. B. Parnell, J. A. Martin. 2021. Applying Spatial Capture-Recapture Methods to Estimate Northern Bobwhite Density. *In Review*.
- Rossoni, D. M., T. C. Demos, S. M. Goodman, R. K. Yego, J. L. Mohlman, P. W. Webala, B. D. Patterson. 2020. Genetic, morphological and acoustic differentiation of African trident bats (*Triaenops*, Rhinonycteridae). *Zoological Journal of the Linnean Society*, zlaa098. <https://doi.org/10.1093/zoolinnean/zlaa098>.

- Mohlman, J. L., K. J. Navara, M. J. Sheriff, T. M. Terhune, J. A. Martin. 2020. Validation of a noninvasive technique to quantify stress in Northern Bobwhite (*Colinus virginianus*). *Conservation Physiology*, 8 (1), 1-10. <https://doi.org/10.1093/conphys/coaa026>.
- Mohlman, J. L., R. R. Gardner, I. B. Parnell, N. G. Wilhite, J. A. Martin. 2019. Nonconsumptive effects of hunting on a nontarget game bird. *Ecology and Evolution*, 9, 9324-9333. <https://doi.org/10.1002/ece3.5479>.

Popular Press & Blog Articles

- Mohlman, J. L. 2020. The Scoop on Using Poop in Wildlife Management. Bolded Science Blog. <https://www.boldedscience.com/blog/the-scoop-on-using-poop-in-wildlife-management>. June 1, 2020.
- Mohlman, J. L., J. A. Martin. 2019. The effects of hunting on a non-target prey. *Ecology and Evolution Blog*. ecologyandevolution.blog/2019/08/02/the-effect-of-hunting-on-non-target-prey. August 2, 2019.
- Mohlman, J. L., R. R. Gardner, N. G. Wilhite, I. B. Parnell, D. P. Grimes, J. A. Martin. 2017. Bobwhite Research on Di-Lane. Georgia Outdoor News. <https://www.gon.com/news/bobwhite-research-on-di-lane>. December 7, 2017.
- Mohlman, J. L. 2013. The Hill – Namibia, News. Round River Conservation Studies Blog. <https://www.roundriver-blog.org/the-hill/>. September 2013.
- Mohlman, J. L. 2013. Thanksgiving in Namibia – Namibia, News. Round River Conservation Studies Blog. <https://www.roundriver-blog.org/thanksgiving-in-namibia/>. November 30, 2013.

PRESENTATIONS

Professional Presentations

- Mohlman, J. L., R. R. Gardner, N. G. Wilhite, I. B. Parnell, K. J. Navara, M. J. Sheriff, J. A. Martin. 2018. Northern Bobwhite Anti-Predator Behavior in Response to Rabbit Hunting Disturbance. National Wildlife Society Conference. Cleveland, OH. October 8, 2018.
- Wilhite, N. G., J. L. Mohlman, P. E. Howell, R. B. Chandler, R. R. Gardner, T. M. Terhune, J. A. Martin. 2018. Spatial Capture-Recapture: Novel Methods and Analyses for Estimating Northern Bobwhite Abundances. The Wildlife Society 25th Annual Meeting, Cleveland, Ohio. October 9, 2018.
- Mohlman, J. L., R. R. Gardner, N. G. Wilhite, I. B. Parnell, J. A. Martin. 2018. Effects of Rabbit Hunting Disturbance on Northern Bobwhite Anti-Predator Behavior. Georgia Department of Natural Resources Wildlife Research Meeting. Mansfield, GA. August 14, 2018.
- Wilhite, N. G., J. L. Mohlman, R. R. Gardner, J. A. Martin. 2018. Spatial Capture-Recapture: Novel Methods and Analyses for Estimating Northern Bobwhite Abundances. Joint Warnell-Georgia Department of Natural Resources Meeting, Mansfield, GA. August 14, 2018.
- Gardner R. R., J. L. Mohlman, N. G. Wilhite, I. B. Parnell, J. A. Martin. 2018. Consequences of Supplemental Feeding on Snake-Quail Interactions. Georgia Department of Natural Resources Wildlife Research Meeting. Mansfield, GA. August 14, 2018.
- Mohlman, J. L., R. R. Gardner, N. G. Wilhite, I. B. Parnell, J. A. Martin. 2018. Effects of Rabbit Hunting on Northern Bobwhite Anti-Predator Behavior. Northern Bobwhite Technical Committee Meeting. Albany, GA. August 7, 2018.
- Mohlman, J. L., R. R. Gardner, N. G. Wilhite, I. B. Parnell, J. A. Martin. 2018. Indirect Effects of Rabbit Hunting on Northern Bobwhite

Behavior. Warnell Graduate Student Symposium. Athens, GA. February 2, 2018.

- Mohlman, J. L., N. G. Wilhite, R. R. Gardner, I. B. Parnell, D. P. Grimes, J. A. Martin. 2017. Indirect Effects of Rabbit Hunting on Bobwhite Demographics and Behavior. Georgia State Chapter of the Wildlife Society Meeting. Covington, GA. September 7-8, 2017.
- Mohlman, J. L., N. G. Wilhite, R. R. Gardner, I. B. Parnell, D. P. Grimes, J. A. Martin. 2017. Indirect Effects of Rabbit Hunting on Bobwhite Demographics and Behavior. Georgia Department of Natural Resources Wildlife Research Meeting. Mansfield, GA. August 8, 2017.
- Wilhite, N. G., J. L. Mohlman, R. R. Gardner, D. J. McGrath, J. A. Martin. 2017. Di-Lane Plantation WMA Research Update. Joint Warnell-Georgia Department of Natural Resources Meeting, Mansfield, GA. August 8, 2017.
- Mohlman, J. L., N. G. Wilhite, I. B. Parnell, D. P. Grimes, J. A. Martin. 2017. Indirect Effects of Rabbit Hunting on Bobwhite Demographics and Behavior. Warnell Graduate Student Symposium. Athens, GA. February 8-10, 2017.
- Mohlman, J. L., N. G. Wilhite, D. J. McGrath, I.B. Parnell, D. P. Grimes, J. A. Martin. 2016. Upcoming research efforts for understanding Northern Bobwhite populations on WMAs to optimize management. Georgia Chapter of the Wildlife Society Meeting Poster Session. Tifton, GA. September, 2016.
- Mohlman, J. L., P. S. Anich. 2015. Competition and Evolution of Miocene Rodents. Honors Day Poster Session. Northland College. Ashland, WI. April 1, 2015.
- Mohlman, J. L., K. J. Stumpf. 2015. Avian Responses to Agriculture. Honors Day Poster Session. Northland College. Ashland, WI. April 1, 2015.
- Mohlman, J. L., G. M. Fienman. 2014. Southern Mexican Economic Botany. Women in Science Undergraduate Research Internship Symposium. The Field Museum. Chicago, IL. July 31, 2014.

Outreach Presentations

- Mohlman, J. L. 2020. Using ggplot in Wildlife Management. MTH 250 – Communicating Ideas with Graphics in R. Northland College Ashland, WI. May 20, 2020.
- Mohlman, J. L., N. G. Wilhite, R. R. Gardner, I. B. Parnell, D. P. Grimes, J. A. Martin. 2017. Di-Lane WMA Ongoing Research & Telemetry Demonstration. Haywood Community College Wildlife Management Class Presentation. Di-Lane Wildlife Management Area. Waynesboro, GA. May 2017.
- Patterson, B. D., J. L. Mohlman. 2016. The Importance of Bats & The Bats of Kenya. Staff Tabling Presenter. Member's Nights. The Field Museum. Chicago, IL. May 22 & 23, 2016.
- Patterson, B. D., J. L. Mohlman. 2016. The Bats of Kenya. Staff Tabling Presenter. Women in Science Annual Luncheon Fundraiser. The Field Museum. Chicago, IL. May 12, 2016.
- Goyke, A., J. L. Mohlman. 2015. The Importance of Aquatic Invertebrates Field Presentation. First Grade Science Class. Lake Superior Elementary School. Ashland, WI. May 2015.
- Mohlman, J. L. 2015. What Can a Wildlife Biologist Do? Tales of a Namibia, Africa Adventure. *Invited Talk*. 7th Grade Science Classes. McHenry Middle School. McHenry, IL. April 17, 2015.
- Mohlman, J. L. 2015. Northland College Helped Me Achieve My Dreams. *Invited Talk*. First-Year Experience (Orientation) Class. Northland College. Ashland, WI. October 28, 2014.
- Mohlman, J. L. 2014. An African Adventure: A Northland College Student's Experience with Round River Conservation Studies. *Invited Talk*. Sigurd Olson Environmental Institute, Northland College. Ashland, WI. December 4, 2014.

- Mohlman, J. L. 2014. Northland College Helped Me Achieve My Dreams. *Invited Talk*. College Possible Visit. Northland College. Ashland, WI. October 28, 2014.
- Mohlman, J. L. 2014. Mad Scientist: Dry Ice Experiment. K -12 Fright Night! Northland College. Ashland, WI. October 30, 2014.
- Goyke, A., J. L. Mohlman. 2014. Aquatic Invertebrate Teaching Lesson. Science Monday's. Northland College. Ashland, WI. September 2014.
- Mohlman, J. L. 2014. The Animals and People of Namibia, Africa. *Invited Talk*. 4-7th Grade Summer School Classes. McHenry District 15 Schools. Riverwood Elementary School. McHenry, IL. June 19, 2014.

**For more information please see jessicamohlman.com*