Wildtrax Explorations (Wildtrax) envision a younger generation that is familiar with the challenges and nuances of conserving natural resources and cultures. Their international experiences should generate perspectives that allow them to create interdisciplinary solutions to develop a sustainable society. Wildtrax programs inspire people to take action in making a difference within themselves and their surroundings through learning and experiencing the complex interactions between humans and nature.

Following our vision, we have teamed up with Wildlife Africa Conservation Team (Wildlife ACT), to provide students access to sustainable research and monitoring projects. Their mission is to save our planets’ endangered and threatened wildlife and wildlands from extinction and Wildtrax wants to create opportunities for students to be part of this mission. Both entities identify science and education as key components to the sustainable utilization and management of wildlife resources; thus through collaboration achieves a comprehensive research program in the Okavango Delta Region of Botswana.

**Our Vision** is to provide students with a learning platform to develop through our dynamic research projects focused on biodiversity monitoring, adaptive management and the human-wildlife interface.

Wildlife ACT has two main research initiatives in Botswana, implementing biodiversity monitoring in collaboration with Botswana’s Department of Wildlife & National Parks and conducting human-wildlife conflict studies and implementing mitigation strategies with the University of Botswana’s Okavango Research Institute. Students and Interns play an active role in the research through data collection and implementation and will gain valuable skills and knowledge to equip them for their future. Our comprehensive programs ensures that today’s students are prepared to deliver a better tomorrow for people and wildlife!
The overall objectives are to equip students and interns with adequate knowledge of various wildlife management and conservation issues in Africa and to attain proficiency in field research methodologies. An emphasis will be placed on understanding the patterns and underlying processes of the human-wildlife interface and biodiversity of the Okavango Delta region. The programs’ objectives will be fulfilled through students’ participation in Wildlife ACT’s two main research focuses and thus provide a constructive feedback system for successful conservation efforts in Africa.

The programs’ objectives are to

- Learn valuable wildlife management and conservation principles
- Understand the challenges facing wildlife conservation & community based natural resource management
- Observe the ecological organization and biodiversity of the Okavango Delta and surrounding ecosystems
- Develop advanced field research techniques and associated skills
- Understand the social aspects of conservation science
- Train future conservationists in understanding and applying research in the field through:
  - Research design & methodologies
  - Data collection & analysis
  - Application and implementation of data
  - Long-term sustainable conservation management projects
1. **Student Internship and Experiential Learning** – Students looking for an internship or experiential learning in-between their studies or during their vacation times, are able to join Wildlife ACT in the field. Students have the option of completing a variety of certified courses offered as self-study courses while on the research project to maximizing their field experience. Working in a unique environment with high wildlife densities and dynamic ecosystems provides the perfect classroom for students from any science background. Students joining us will be trained in science and conservation field techniques that they can then add to their CV’s, as well as providing a base with which to develop their careers.

2. **Study Abroad Summer** – Students have the opportunity of completing an 8-week summer module on African Wildlife Ecology & Community Conservation Research Field Training Studies in Botswana to earn credit towards their degree. Overviews of wildlife ecology, behavior, conservation and research theory are included in the first week lecture series, presented by Wildtrax Explorations, Wildlife ACT, and the Okavango Research Institute. Students are placed for two 3-week periods at different research sites where they will be trained on many different research and monitoring methodologies and fully understand their applications, along with completing a mini-research project on the data they collect.

3. **Research Opportunities** - Students that may be interested in developing their own research projects focused on conservation ecology, wildlife monitoring & management and human-wildlife conflict also have the option of joining us. Our field sites and research activities provide the perfect research environment for undergraduates through to Masters and PhD students from international universities. Academic support can be provided through research scholars & supervisors at the Okavango Research Institute along with supervision from Wildtrax Explorations.
Research initiatives are focused on highlighted conservation priorities within Botswana's ecosystems and conservation areas and include Biodiversity monitoring and Human-Wildlife Conflict. In order to address these topics, Wildlife ACT has partnered with the Okavango Research Institute (ORI) of the University of Botswana and Botswana’s Department of Wildlife and National Parks (DWNP). By collaborating with international universities and their students, we are able to work towards fulfilling research and management strategies for both the human-wildlife conflict needs and long-term biodiversity monitoring throughout Botswana.

Biodiversity Monitoring
Both adaptive management and consistent standardized monitoring of the ecosystem is currently a prioritized management, conservation and research focus in Botswana. The Okavango Delta Management Plan highlighted this need already in 2008 and monitoring for adaptive management was prioritized within the Wildlife Conservation Research Strategic Plan in 2014. Consistent monitoring provides an essential tool to adaptive management that enables perturbations to be measured in space and time. Wildlife ACT has formulated a plan to meet these needs using effective remote camera trapping surveys to capture standardized wildlife population monitoring data.

Goal
To monitor and record biodiversity dynamics within Ecoregions of Botswana in order to inform adaptive management cycles and develop new policy.

Objectives
• Monitor the broader mammal, bird and invertebrate populations and vegetation to improve our understanding of the system.
• Record and quantify potential drivers of change in the Ecoregions; wildlife, human or climate induced.
• Develop adaptive management strategies while continually monitoring system responses to existing management actions.

Students on the Study Abroad course will be trained on research methodologies used in fulfilling the above objectives and play an active role in collecting and constructing the data. The monitoring is implemented continuously with some survey work conducted bi-annually.
Human Wildlife Conflict Project
Wildlife ACT are exploring aspects of human-wildlife conflict (HWC), specifically crop-raiding and water resource competition by elephants and depredation of livestock by lions, hyena and wild dog, which is a complex management and conservation issue in Botswana. Information on spatial patterns, environmental predictors and socio-economic aspects of HWC are required in order to devise effective mitigation and adaptation strategies.

The project Wildlife ACT works on, concentrates investigations in HWC ‘hotspot’ areas of northern Botswana, namely the greater region in and around the Okavango Delta in Ngamiland District. A country-wide assessment of status and trends of HWC has been started by exploring data compiled by the DWNP over the past three decades and additional data will be collected to validate it. Data from this project will contribute crucial information to the Government of Botswana about the processes and underlying patterns of HWC in hotspot areas. Such information will be useful in designing effective HWC mitigation strategies and suggesting alternative land use plans to reduce HWC, which is essential for the success of national and regional conservation strategies, such as the Kavango Zambezi (KAZA) Transfrontier Conservation Area, which now includes the the area West of the Okavango Delta (NG 1 - 4). Wildlife ACT sits on a Human Wildlife Conflict focus group, where much of this information, data and understanding feeds into.

Goal
To assist with collecting and collating information to inform mitigation and policy development to alleviate HWC at the wildlife and human interface within northern Botswana.

Wildlife ACT actively assists in the following HWC objectives:
1. Determine the current status and trends in incidents of HWC and map the spatio-temporal distribution of HWC.
2. Monitoring livestock depredation from predators.
3. Explore the effectiveness of current mitigation techniques for predation on livestock, to then develop and test innovative techniques.
Wildlife ACT is providing a unique opportunity for students who are interested in furthering their education and acquiring skills in the field of community and wildlife conservation research to join their team in Botswana throughout the year. The student’s time in the field will include training on multiple research and wildlife monitoring methodologies, while fulfilling the objectives of the two main research focuses of Wildlife ACT on biodiversity monitoring studies or human-wildlife conflict studies.

Students will have the option of completing a variety of certified self-study courses while on the research project. The courses are completed at any time of the year out in the field, maximizing field experience for students. If an applicant is a registered student, the coursework is not compulsorily. However, if the applicant is not a registered student, they will have to complete one of the certified courses while conducting research. These courses are specifically designed to better prepare the students for their experience in Botswana, thus courses are highly recommended to students while working with us.

WILDLIFE CAMPUS COURSE WORK

Course work has been specifically designed to prepare and educate students on the ecology, biology and conservation of Africa in order to prepare them for their experience. All courses are offered through the reputable and accredited international distance-learning provider, Wildlife Campus. They offer a wide variety of wildlife-related, natural science and ecotourism courses covering the spectacular diversity of life found on our planet and specifically on African savannas. Wildlife ACT has selected a number of specific courses that are suited to the wildlife research they do in Botswana. By completing the courses, students will receive a variety of industry recognized, endorsed and accredited qualifications or simply enjoy a deeper understanding of the African bush.

ELECTIVE COURSES

- Human Wildlife Conflict Course for Students in the Chobe Enclave
- Animal Behaviour of Iconic African Wildlife

ADVANCED COURSES

- Animal Behaviour of all Southern African Wildlife Species
- African Wildlife Tracks & Signs
Wildlife Ecology & Community Conservation Research Field Training Studies

The course objectives are to equip students with an ability to decipher and adapt applicable research techniques to field studies. Overviews of conservation strategies, research theory, hypothesis construction, methods, field sampling techniques, data management and analysis techniques are included in a 1-week lecture series presented by Wildtrax Explorations, Wildlife ACT, and Okavango Research Institution (ORI). The course includes both scientific and social aspects to data collection in an attempt to prepare students for their interactions with communities and different cultures. Students are then placed at different research sites where they apply their new skills, completing mini-research projects on the data they collect. The programs’ objectives will be fulfilled through students’ participation in Wildlife ACT’s two main research focuses and thus provide a constructive feedback system for successful conservation efforts in Africa.

SUMMER COURSE

- 8-week course and internship
- Includes a week lecture series
- Two 3-week periods at different research sites
- Recreational activities throughout

LECTURE SERIES

- Introduction to Botswana & the Okavango Delta
- African wildlife conservation - Current status & issues bridging the gap between management & research
- Herbivore & Carnivore Ecology, Conservation & research techniques
- Ecosystem Monitoring field methodologies
- Introduction to GIS & its applications
- Human - Wildlife conflict & community conservation
- Behavior Ecology
- Standardized natural resource monitoring in Botswana
Students will learn, understand and practice each of these survey methodologies:

1. Herbivore Survey Methods: Strip transects and counts
2. Predator Survey Methods: Spoor transects and camera trapping
3. Bird Surveys: Terrestrial point counts and wetland continuous counts, vulture nest monitoring
4. Camera Trapping: Grid survey and predator identification
5. Invertebrate Sampling Methods: Night-light, net sampling and pitfall traps
6. Wildlife Corridors: Activity and use monitoring
7. Community: Wildlife co-existence monitoring
Skills Gained

Students will learn and be competent in the following skills before they leave:

- Create a predator identikit (Identify species, sex and age of predators)
- Conduct a predator spoor (animal tracks) transect
- Set up a camera trap, collect photos, review & enter data, analyze data
- Complete large herbivore transects & enter data
- Identify habitat types within the study areas, by identifying different types of grass, shrub and tree species
- Conduct a bird survey, learning to identify different species of birds
- Conduct an invertebrate survey
- Determine coordinates with GPS
- Identify and determine ungulate herd demographics
- Determine species richness and large herbivore and predator occupancy of an area using camera trap and transect data
- Assist with human-wildlife co-existence data collection and when possible, mitigation strategies
- Identify and report poaching incidences
- Identify and report predator attacks on domestic animals
- Work and interact with a research team, learning about logistics, data input and management
- Create a scientific poster from your research

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Research opportunities

Research initiatives are focused on highlighted conservation priorities within Botswana's ecosystems and conservation areas. In order to address these topics, Wildlife ACT has partnered with Okavango Research Institute of the University of Botswana and Botswana’s (DWNP). Highlighted conservation priorities in Botswana include Human-Wildlife Conflict and Biodiversity monitoring in different Ecoregions. By collaborating with international universities and their students, we are able to fulfill research and management objectives for both the human-wildlife conflict study, as well as the implementation of the long-term biodiversity monitoring system throughout Botswana. Undergraduate and graduate students are able to work on Wildlife ACT’s two main long-term research projects to gain valuable field research experience, collect data for their own research and contribute to ongoing applied research.

Our field sites and research activities provide the perfect research environment for undergraduate through to Masters and PhD students from international universities.

The biodiversity monitoring program provides a wealth of long-term data on a wide variety of ecological processes over large areas, from predator dynamics through to baseline eco-geographical variables that can be used for future conservation ecology research topics. The human-wildlife conflict research is in wildlife-dominated agro-ecosystems in northern Botswana, which provides many opportunities for students and faculty to design pragmatic research questions. Wildlife ACT is able to generate long-term data from a number of regions due to their monitoring projects operating continuously with permanent staff members in the field. These data will be made available to researchers for use on their project focus. This will include a variety of ecological base-line data that can be developed into meaningful and applicable research topics.
MAUN

On arrival into Maun, Botswana, student’s will stay at a gated campsite in twin dome tents. There are male and female communal bathrooms with basins, showers and toilets. Hot water is provided via solar geysers. Communal laundry facilities are available to students with detergent for washing clothes provided.
A communal kitchen and dining area are situated within the campsite. Meals will be prepared together with other Wildlife ACT students. Food for three basic meals each day will be provided along with drinking water.

RESEARCH CAMPS

Wildlife ACT coordinates and runs mobile research camps in and around the Okavango Delta area to implement biodiversity monitoring and perform human wildlife coexistence research. The region is rich in diversity and home to important populations of endangered predators and threatened wildlife species. Wildlife ACT focuses their monitoring and research where population baseline monitoring data is most needed and where human-wildlife conflict is the greatest.

Student’s stay in twin dome tents on cots and have male/female long drop toilets and bucket shower facilities. Meals are prepared by an in-house chef in an open communal tent dining area. The fire is burning every night under the magnificent African skies full of bright stars, the Milky Way, and listening to the sounds of the bush!

*Locations of the field sites and amenities might change depending on the location of research projects
Course dates:

June 4 – 29 July 2017

Internship Arrival and Departure Dates (4-week minimum stay):

Our arrival and departure dates are as follows. Please be sure to stick to these dates – if you are not able please be sure to discuss it with us.

2017

• 9 or 23 January
• 6 or 20 February
• 6 or 20 March
• 3 or 17 April
• 1 May
• 31 July
• 14 or 28 August
• 11 or 25 September
• 9 or 23 October
• 6 or 20 November
Fees cover all your accommodation, food and transport between projects, as well as park entry fees for any activities or fieldwork and a contribution towards fuel and running costs for Wildlife ACT projects. Please note when in town that we accommodate our students at the local backpackers where they will be camping. Students will be responsible for their own food and drinks during this time unless it is an unscheduled trip where we will cover their food costs. Students should expect to have 1 night every 2 weeks in town.

**Wildlife ACT Internship participation fees**

- First 4-weeks: USD 2,550
- Subsequent 2-weeks: USD 1,100
- Once off transport to/from airport: USD 150

**Optional: Wildlife Campus Course Fees**

- **African Biology & Ecology**: USD 425 (8-week minimum)

**Electives:**

- **Human Wildlife Conflict**: USD 125 (2-week minimum)
- **Animal Behaviour of Iconic African Wildlife**: USD 150 (2-week minimum)

**Advanced electives:**

- **African Wildlife Behaviour – all species**: USD 415 (8-week minimum)

**Wildlife ACT 8-week Course (June 4 - July 29, 2017)**: USD 6,900

**The following additional activities are included:**

- Three night/four day excursion to Victoria Falls (Food and beverages will be at the cost of the students estimated to be around $25.00 per day if eating out.
- Game Drive into Chobe National Park
- Boat trip on the Chobe River into the Chobe National Park
- Traditional dug-out canoe (mokoro) trip in the Okavango Delta
Journey with Purpose...

Jordana Meyer
Skype: jordana.meyer
Email: info@wildtraxexplorations.com
www.wildtraxexploations.com