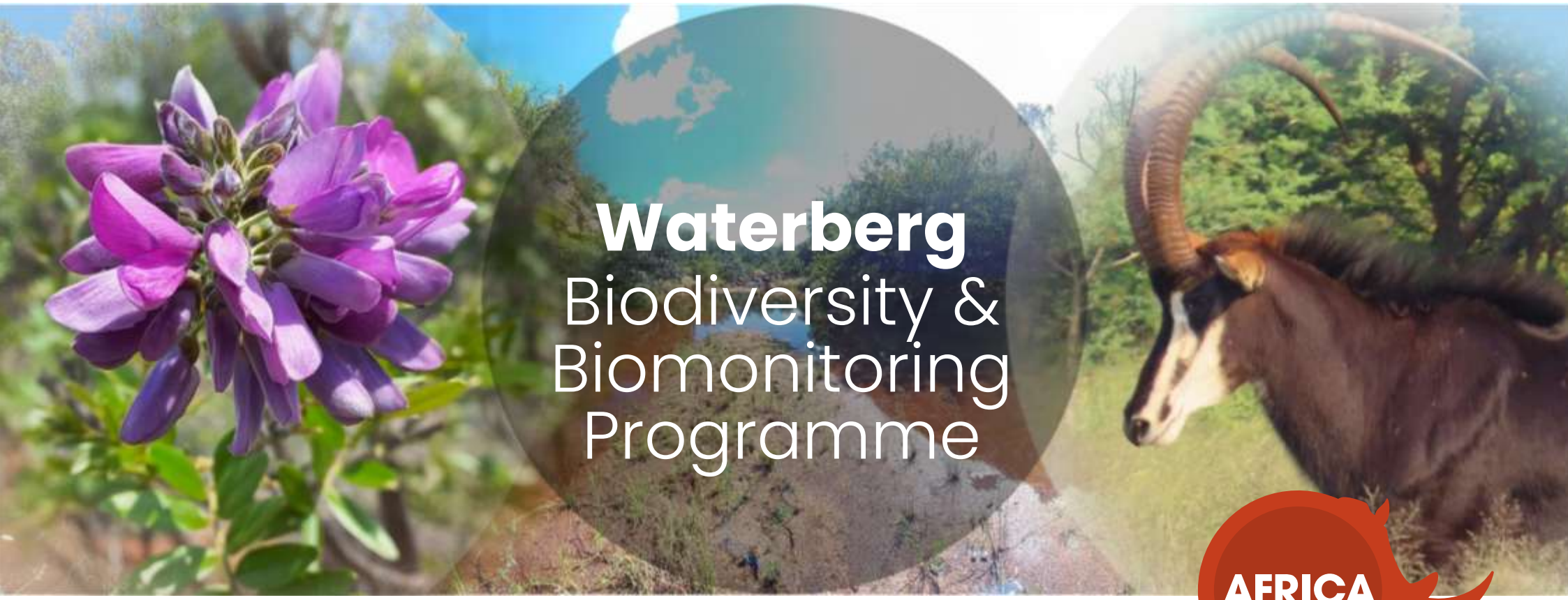
PROJECT INFORMATION PACK



Waterberg
Biodiversity & Biomonitoring Programme

AFRICA

GLOBAL reach. **ADVENTURE** for all. **PROJECTS** to inspire.

TRIP OVERVIEW

University of Plymouth Student internship – Booking Reference 4709 (Placement 2)

Trip Dates:

16th March-8th June 2026

Project:

Waterberg Biodiversity & Biomonitoring Programme (inc. Welgevondon Game Reserve &Hanover/Swebeswebe Nature Reserve)

Trip Cost:

£5,499 for Placement 2

£300.00 deposit 25/04/25

£2,599.50 Instalment due 24/11/2025

£2,599.50 Balance due 19/01/2026

PROJECT LOCATION

The Waterberg overview

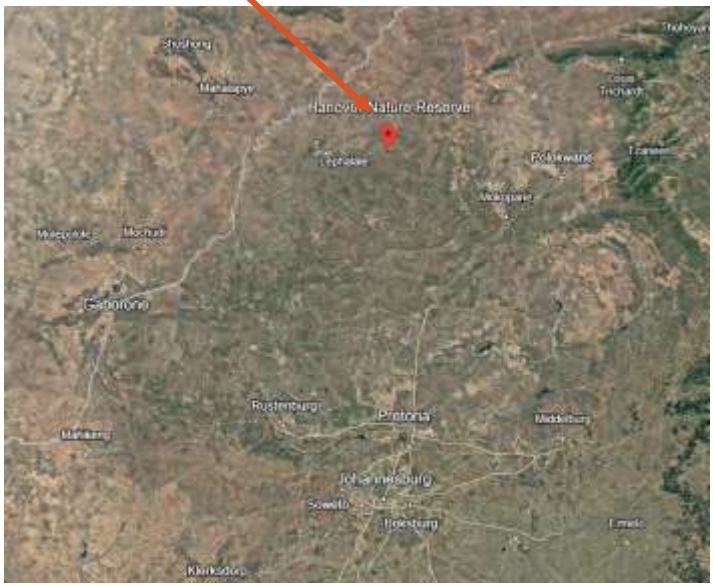
ABOUT THE WATERBERG

AFRICA

Location

The Waterberg conservation research programme is based in the Waterberg region of South Africa, which is a pleasant 4.5-hour drive from Johannesburg makes this project one of the most accessible premier **malaria free** wilderness areas in the country. It borders the Waterberg Biosphere Reserve which was officially declared by UNESCO in 2001 and currently covers an area, in excess of, 4000 km².

The Waterberg region is famed for its mountainous terrain that is dissected by deep valleys and kloofs while flat plateaus characterise most hilltops.



ABOUT WELGEVONDEN

AFRICA

Location

The Waterberg Biomonitoring programme is based at the Welgevonden Wildlife Reserve, (Dutch for *"well found"*), is a 36,000 ha Wildlife reserve in the Waterberg District of the Limpopo Province of South Africa.

A pleasant 3.5-hour drive from Johannesburg makes Welgevonden one of the most accessible premier **malaria free** wilderness reserves in the country. It forms part of the Waterberg Biosphere Reserve which was officially declared by UNESCO in 2001 and currently covers an area in excess of 4000 km².

The reserve comprises of mountainous terrain that is dissected by deep valleys and kloofs while flat plateaus characterise most hilltops. Altitude varies from 1080 m in the north to ±1800 m in the southern section of the reserve.

ABOUT WELGEVONDEN

Welgevonden Wildlife Reserve

Welgevonden is home to over 50 different mammals, including the Big Five. There are rare and unusual species too, such as brown hyena, pangolin, aardwolf and aardvark – all best seen at night.

The grassy plains abound with antelope from the largest eland to the diminutive duiker; cheetah, lion and leopard are always close by. It is the diversity of habitat on the reserve that encourages such a wide range of wildlife as well as over 300 bird species, including rare blue cranes.

At 36,000ha in size, Welgevonden Wildlife Reserve lies in the Waterberg plateau, about 250km north of Johannesburg. Here guests enjoy unlimited traversing through the reserve and experience an environment where biodiversity conservation and wildlife viewing are managed in harmony. Welgevonden protects a unique and special environment and the reserve's management is deeply committed to ongoing conservation research and development.

ABOUT SWEBESWEBE

Hanover & SwebeSwebe Nature Reserve

A Hub for Research, Conservation, and Education

Nestled in the heart of the Waterberg region, the Waterberg conservation research programme is a pioneering conservation initiative dedicated to preserving South Africa's rich biodiversity while fostering ecological research and community engagement. Covering over 2,000 acres of pristine wilderness, this collaborative project works in unison with the neighboring SwebeSwebe Wildlife Reserve. Together, these areas form a unified conservation space of 15,000 acres, removing barriers to wildlife movement and creating an uninterrupted haven for flora and fauna.

Our mission extends beyond preservation. We believe in taking direct action to safeguard natural ecosystems, which is why we've invested in integrating cutting-edge conservation technologies, enhancing infrastructure, and building strong partnerships with local and international stakeholders. The reserve is a hub for international academic research and student engagement, offering participants the opportunity to contribute meaningfully to conservation while gaining hands-on experience in a diverse ecological setting.

ABOUT THE PROJECT

Our conservation work in more detail

YOUR PROJECT

Welgevonden Biomonitoring Overview

Welgevonden Game Reserve's conservation management practices are arguably some of the best in the world. This is largely due to management's continued efforts in obtaining robust data on the ecological functioning of the Reserve, ensuring a thorough understanding of ecosystem dynamics within the protected wilderness area. This is where the Biomonitoring Programme comes in. The programme was established in 2015 and has since been responsible for the collection of research data and dedicated monitoring of fauna and flora on the reserve. From monitoring herd dynamics and animal condition, to assessing the state and ongoing changes in the ecosystem, the programme offers participants a truly hands-on experience in the management of a world class, Big Five reserve. All this data is then analysed and processed by the Research Ecologist and used to inform management decisions.

If you are looking to gain some experience in ecological monitoring or are simply looking for a way to get out into the bush in a useful and meaningful way, becoming a participant in the Welgevonden Biomonitoring Programme is the way to go!

YOUR PROJECT

AFRICA

Research and Ecological Biomonitoring

Rhino monitoring – participants identify uniquely marked individual rhinos in the field using an identikit. Data is captured electronically in the field and later automatically downloaded to a secure database. Information recorded includes animal ID, location, social groupings, body condition, etc. The data is analysed by the research ecologists and used to make informed management decisions regarding the rhino population.

Predator monitoring – this includes all the large predators: lion, cheetah, leopard, and spotted and brown hyaena. Individuals are occasionally collared for research and/or management purposes. Participants monitor these collared individuals using telemetry or GPS tracking technology. Camera trap surveys, in conjunction with Panthera, are conducted annually to determine the range and population dynamics of the resident leopard population as part of the larger Waterberg population. These camera traps are tailored for leopards, but capture photographs of the smaller, meso-predator population of the reserve – this is useful as these cryptic species are seldom seen otherwise.

YOUR PROJECT

Research and Ecological Biomonitoring

Game transects – pre-determined routes are driven along which game is counted. Transects are driven monthly during which the team collects data pertaining to animal species, body condition, herd structure and herd location. Analysis of these data provides an in depth understanding of the reserve's prey base and the population dynamics of the more important/common species.

Vegetation surveys – Grass species composition and biomass are determined on an annual basis. This information is used to understand the quality and quantity of available food for grazing species as well as to decide where best to establish fire breaks (an obstacle to the spread of fire). Woody (tree) monitoring occurs every five years and is used to determine: species composition, recruitment and growth rates, and the impact of fire, elephant, browser and invertebrates on the woody plant layer.

YOUR PROJECT

Research and Ecological Biomonitoring

Plains monitoring – Welgevonden Game Reserve was not always a protected wilderness area; its early history was rooted in agriculture. Upon conversion into a game reserve, many old agricultural fields were rehabilitated into grazing lawns. These fields, as well as the animals that make use of them, are monitored on a monthly basis to evaluate the effectiveness of this long-term programme.

Special Interventions – As these interventions occur sporadically, where possible, participants and volunteers will be given the opportunity to join and witness these special veterinary interventions which could include elephant collaring, rhino notching, predator captures and animal releases.

YOUR PROJECT

AFRICA

Rhino Monitoring Focused

Welgevonden Game Reserve is a significant sanctuary for two rhino species. The reserve is home to an important population of southern white rhinoceros (*Ceratotherium simum)* with its conservation status of Near Threatened as well as Critically Endangered black rhinoceros (*Diceros bicornis).*

Welgevonden has a reputation for its strong, high-tech approach to anti-poaching; preventing criminals from entering even near the Reserve.

The Biomonitoring department has the very essential function of closely monitoring the rhino populations and participants have an active role in this. Modern technology is utilised and the team is supported by experienced scientists and managers. A rhino's life expectancy can reach over 40 years so the same college/institution or individual participant that returns regularly can see the same rhino through its life stages over all the years.

An extraordinary opportunity considering the current plight of the species.

YOUR PROJECT

Hanover & SwebeSwebe Overview

The Waterberg conservation research programme serves as a living laboratory for ecological research, offering students and researchers a chance to work alongside experts in the field.

Participants will play an active role in a variety of immersive conservation and research activities. Through activities like wildlife monitoring, vegetation surveys, and data analysis, students gain practical experience using tools such as GPS devices and biomass sampling equipment. Each project offers a unique opportunity to contribute meaningfully to the reserve's ecological goals while developing valuable skills in fieldwork and conservation management.

Beyond research, the programme fosters community empowerment and sustainable conservation practices, inspiring future generations to protect this remarkable landscape while equipping participants with valuable skills for careers in conservation.

Flora: Vegetation Surveys and Ecological Studies

Objective:

To assess, monitor, and enhance the ecological health of flora in the Northern Waterberg region, ensuring sustainable biodiversity conservation and habitat management.

Activity Descriptions:

1. Grasses Survey and Full Collection (Annual):

• Collect and identify grass species using field guides and sample collection techniques.

• Establish baseline data on grass species composition and distribution.

• Use findings to assess food availability for grazers and inform firebreak planning.

2. Plant Plots (Baseline Study):

• Set up and monitor vegetation plots in various ecosystems and floral zones.

• Record species diversity and analyze habitat differences and similarities.

Flora: Vegetation Surveys and Ecological Studies

3. Woody Plant Density Report:

• Conduct surveys to determine tree species density and diversity.

• Identify ecological nodes and assess recruitment, growth, and impacts of fire and herbivores on woody plants.

4. Identification of Ecological Nodes:

• Map and analyze differences and similarities across floral zones, focusing on critical ecological nodes that influence biodiversity.

5. Photo ID of Waterberg Trees:

• Create a photographic database of tree species for educational and research purposes.

6. Herbology of the Northern Waterberg:

• Collect and sample indigenous plants to study their ecological and medicinal properties.

• Investigate herbivory patterns and their role in shaping ecosystems.

Flora: Vegetation Surveys and Ecological Studies

7. Alien Plant Control – Queen-of-the-Night (Ongoing):

• Identify, monitor, and remove invasive Queen-of-the-Night plants to protect native vegetation.

• Implement sustainable methods of controlling alien plant species.

8. Seed Dispersal Study:

• Investigate how baboons, birds, and cattle disperse seeds within the reserve.

• Assess their role in maintaining ecosystem balance and aiding reforestation efforts.

Learning Outcomes:

• Gain expertise in plant identification and ecological survey methods.

• Understand the role of vegetation in supporting diverse ecosystems.

• Learn sustainable practices for alien plant control and seed dispersal monitoring.

YOUR PROJECT

Fauna: Wildlife and Ecological Projects

Objective:

To monitor and protect animal populations and their habitats, contributing to a deeper understanding of species behavior, ecological roles, and conservation needs.

Activity Descriptions:

1. Known Animal Group Counts (Monthly):

• Conduct surveys to monitor population dynamics of key wildlife species.

• Use GPS devices and observation techniques to collect data on herd sizes, locations, and behaviors.

2. Leopard Project (Collaboration with Ingwe Foundation):

• Develop ID kits to monitor individual leopards.

• Cast and identify leopard spoor to map territorial boundaries.

• Collect and analyze prey base data and faecal samples to study diet and ecological impacts.

Fauna: Wildlife and Ecological Projects

3. Small Mammal Project (Collaboration with Prof. Mark Keith):

• Humanely capture, photograph, and identify small mammals.

• Assess ecological niches and predator-prey relationships.

4. Fish Project (Collaboration with Prof. Darragh Woodford):

• Capture and photograph fish species to establish a database.

• Study ecological roles and predator-prey dynamics of aquatic systems.

5. Fence Immigration and Emigration Project:

• Monitor animal movement across fences to evaluate the impact of barriers on wildlife connectivity.

• Use this data to inform decisions about fence removal or modifications.

Fauna: Wildlife and Ecological Projects

6. Reptile Pitfall Trap Study

• Install and monitor pitfall traps in predefined locations to safely capture small reptiles.

• Identify species using field guides and photographic records.

• Record environmental conditions to assess habitat preferences and seasonal activity.

7. Bird Ringing and Ornithology:

• Set up mist nets in various habitats to capture birds for ringing and data collection.

• Record physical measurements, health indicators, and unique identification details before safely releasing birds.

8. Camera Trap Study and Surveys:

• Deploy camera traps in strategic locations to capture images and videos of wildlife.

• Analyse data to identify species, document behaviors, and estimate population densities.

Fauna: Wildlife and Ecological Projects

9. Wild Dog Project (Collaboration with WWDI):

• Track wild dogs using GPS and VHS technology.

• Collect faecal samples to study diet and ecological roles.

• Develop strategies for predator-human conflict mitigation.

10. Dung Beetle and Butterfly Collections:

• Collect, identify, and catalog dung beetles and butterflies to assess their roles in nutrient cycling and pollination.

• Focus on species unique to the Northern Waterberg region.

Learning Outcomes:

• Develop skills in animal identification, data collection, and ecological analysis.

• Understand the complexities of predator-prey relationships and species-specific conservation needs.

• Participate in community-focused conflict mitigation strategies for wildlife conservation.

Eco System: Practical Management

Objective:

To develop essential skills for reserve management, focusing on infrastructure maintenance and sustainable living practices.

Activity Descriptions:

1. Road Building:

• Construct and maintain roads to improve accessibility within the reserve.

• Use environmentally friendly materials and methods to minimize habitat disruption.

2. Fence Maintenance:

• Repair and maintain fences to ensure effective wildlife management.

• Identify and address issues related to animal immigration and emigration.

Eco System: Practical Management

3. Water System Maintenance:

• Inspect and repair water systems, ensuring a reliable supply for wildlife and reserve operations.

• Develop strategies to reduce water waste and optimize usage.

4. Gardening (Vegetable Garden and Orchard):

• Cultivate and maintain vegetable gardens and orchards to support sustainable food production.

• Learn organic farming techniques and composting practices.

Learning Outcomes:

• Acquire practical skills in infrastructure and resource management.

• Learn sustainable agricultural practices and their ecological benefits.

• Contribute to maintaining essential reserve operations.

YOUR PROJECT

Eco System: Regen Cattle Project

Objective:

To establish sustainable herding practices that promote ecological balance, improve grazing efficiency, and empower communities through education and capacity building.

Activity Descriptions:

1. Plant Plots and Feeding Densities (Ongoing):

• Monitor vegetation in grazing areas to determine feeding densities.

• Assess the ecological impact of rotational grazing practices.

2. Establishment of the Regen Herding Academy:

• Provide theoretical training in African herding techniques.

• Conduct hands-on training in herding practices for unschooled individuals.

• Develop sustainable patterns for walking, feeding, and resting cattle.

Eco System: Regen Cattle Project

3. Water Usage Impact Analysis:

• Evaluate how water consumption by cattle affects surrounding ecosystems.

• Develop water management plans to minimize ecological disruption.

4. Herd Recording System Development:

• Design low-cost, user-friendly software for herd tracking and management.

• Train participants to use this system, ensuring accessibility for unschooled laborers.

5. Veterinary Training:

• Train herders in recognizing and treating common diseases.

Learning Outcomes:

• Understand the principles of sustainable herding and its ecological benefits.

• Learn to use technology and data to enhance herd management.

YOUR PROJECT

Community: Rural Development and Support

Objective:

To explore the intersection of conservation, culture, and community, fostering social awareness and empowering local populations.

Activity Descriptions:

1. Herbology in Local Communities:

• Study the use of local plants for medicinal and cultural purposes.

• Assess community preferences and practices related to herbology.

2. Rural Youth and Education:

• Investigate the social status and aspirations of rural youth in local villages.

• Examine the impact of social media on perceptions of manual labor and rural lifestyles.

Community: Rural Development and Support

3. Education and "Back to Nature" Initiatives:

• Design and implement programs to reconnect local communities with nature.

• Provide experiential learning opportunities that emphasise sustainable living.

4. Natural Resource Exploitation Studies:

• Assess the social and environmental implications of natural resource exploitation.

• Develop strategies to promote responsible resource use within communities.

Learning Outcomes:

• Gain insights into the cultural dimensions of conservation.

• Develop strategies for community engagement and education.

• Understand the social challenges and opportunities in rural development.

Other Possible Activities: Non-Research

Beyond research, students will have the opportunity to immerse themselves in unique and enriching experiences :

San Rock Art Talk and Trail:

Learn about the fascinating history and cultural significance of ancient San rock art, followed by a guided trail to a rock painting site for an up-close exploration.

Stargazing:

Experience the breathtaking clarity of the southern hemisphere's night sky, free from light pollution, and discover the stories and science behind its constellations.

Fresh Water Swimming:

Enjoy the serenity of our 20 km stretch of pristine riverine habitat, with scenic swimming spots perfect for relaxation and connection with nature.

Potjie Cooking Competition:

Embrace South African tradition with a lively potjie (cast-iron pot stew) cooking competition. Students will team up to prepare their own creations over open fires.

YOUR PROJECT

AFRICA

Possible Lectures

Conservation Ecology and Ecosystem Dynamics
- Overview of ecosystem structures and functions.
- How species interactions (predator-prey dynamics, competition) shape ecosystems.
- The role of keystone species in maintaining biodiversity.

Vegetation Ecology and Fire Management
- Grass and tree identification techniques.
- The impact of fire on savanna ecosystems and its role in vegetation dynamics.
- Strategies for firebreak design and implementation.

Sustainable Grazing and Herd Management
- Rotational grazing practices and their ecological benefits.
- Water usage efficiency in grazing systems.
- The socio-economic implications of sustainable livestock management.

Wildlife Population Monitoring Techniques
- Methods for conducting game transects, spoor tracking, and population surveys.
- Use of GPS and remote sensing tools in wildlife studies.
- Data collection, entry, and visualization for informed decision-making.

Biodiversity and Invasive Species Management
- Understanding the ecological impact of invasive species (e.g., *Queen-of-the-Night*).
- Strategies for control and eradication.
- Importance of maintaining native biodiversity.

Human-Wildlife Conflict Mitigation
- Understanding the causes and consequences of human-wildlife conflicts.
- Techniques for conflict resolution (e.g., predator tracking and prey management).
- Conservation tools like fencing and compensation schemes.

Animal Behavior and Ecological Niches
- Study of animal behavior to determine ecological roles.
- Special focus on species like leopards, wild dogs, and small mammals.
- Understanding territoriality, prey selection, and habitat use.

Water Systems and Aquatic Ecology
- The role of freshwater ecosystems in biodiversity conservation.
- Methods for fish identification and sampling.

ACCOMMODATION & LIFESTYLE

Life in the African Bush

ACCOMMODATION & LIFESTYLE

Welgevonden Research Camp

The student centre and camp is based on the reserve and boasts ten tents that sleep up to four people per tent in single beds, each tent also has lighting and electricity supply. There are communal hot and cold showers and regular flushing toilets. There are communal facilities including a lecture room, canteen, lounge, entertainment area and storage fridge. The centre also has access to Wi-Fi. The camp is fenced off inside the boundaries of the reserve, check out the aerial shot of camp! You can wake up and find an elephant 10 meters from your door!

ACCOMMODATION & LIFESTYLE

Welgevonden

All meals are provided in the communal dining room, there is an outside area for dining as well.

Three meals are provided daily on a self-cook basis, prepared communally by the group. Students will take part in communal cooking and keeping the kitchen tidy.

Meals will either be served at the facility or as a pre-packed serving, this depends on activities either planned or unscheduled.

The research team often work 6 days a week so time off is often limited to Sundays only.

Most evenings are spent at leisure around the camp.

ACCOMMODATION & LIFESTYLE

Hanover Nature Reserve Accommodation

Students and academic groups will be accommodated at our purpose-built camp on Hanover Nature Reserve, designed to provide comfort and foster community living. The camp features shared twin and triple rooms with communal ablution facilities. At the heart of the camp is a spacious communal area, equipped with a shared kitchen and dining space, which also serves as a hub for relaxation, lectures, and group activities.

For evening gatherings, there's a cozy firepit/boma area where students can unwind and cook meals over the fire under the stars. On weekends, groups are welcome to enjoy the main farmhouse and pool area for some well-deserved relaxation. Ingredients for meals are provided, and students cook together, creating a vibrant and social camp atmosphere.

ACCOMMODATION & LIFESTYLE

Weekends – Sunday only

Vaalwater Town and Township Tour

10h00 – 13h00: Visit local art gallery, curio shop, craft market,

13h00: Traditional lunch (at own cost)

14h00 – 16h30: Traditional beer brewery and visit to Lapa for traditional dancing and music.

Horse Riding Excursion

2 hour bush ride from 08h30 – 10h30
Lunch included

(Above varies depending on provider)

Weekend Activities can be booked and paid for locally. Or pre-booked with GAP Africa and paid locally.

USEFUL INFORMATION

Inclusions/Exclusions &
Recommended Kit List

WHAT'S INCLUDED

What is included?

- Transfers to/from project
- Accommodation
- Three meals per day
- All activities as part of the project
- ATOL protection
- Airport meet/greet
- 24/7 In country support

NOT included

- Flights
- Personal travel insurance*
- Meals on travel days – before arriving & after departing from project
- Any activities not specified as part of the project
- Visa's/travel documents
- Tips

** We recommend that you take out personal travel insurance as soon as your booking is confirmed.*

USEFUL INFORMATION

Suggested kit list

- Short sleeve shirts
- Long work trousers and shorts (Or work trousers with zip-off longs)
- T shirts
- Hiking boots/comfortable walking shoes to work in every day
- Rain jacket (especially during summer months)
- Sweatshirt/fleece (Winter months pack plenty)
- Buff/neck warmer useful all year round
- Padded parka jacket/windbreaker - (it can get very cold on an open vehicle - even on a summer evening)
- Daypack rucksack
- Microfibre sleeping bag liner (for extra warmth in winter)
- Socks
- Hat for sun protection/warm hat (winter only)
- Gloves for warmth (winter only)
- Work Gloves
- Changes of casual clothes for evenings
- Underwear
- Sunscreen & sunglasses
- Sandals / comfy shoes to wear after work hours
- Toiletries
- Tick / insect repellent
- Personal medical items & First Aid Kit
- Binoculars
- Torch/headlamp
- Water bottle

Other useful items:

- Camera
- Spare batteries
- Cards/music
- Mammal/bird book
- Notebook/diary and pen
- Mosquito net in summer

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