Wildlife Conservation, Economics and Care:

VETS-IN-THE-WILD PROGRAM
(6 credit course)

During 1999 EcoLife Expeditions was initiated as an extension program of the Centre for Wildlife Management, University of Pretoria. From January 2015 this program is presented by the North West University in South Africa as a 6-credit course. The aim was to conduct short-term field study programs for international and local students. The programs embody travels through different parts of South Africa, exploring the unique wildlife management principles applied towards a sustainable future for both humans and wildlife. Concerned institutions, individuals and the diverse local tribes form an integral part in conservation to ensure the survival of the species diversity on the African continent.

EcoLife Expeditions currently conduct a 22 day study program, Vets-in-the-Wild. This program is structured around lectures by leading wildlife veterinarians and the personal experiences of renowned experts in their respective related fields of this discipline. Facilities and institutions visited include national and provincial parks, private other nature reserves, wildlife rehabilitation facilities, academic institutions and relevant Non-Governmental Organizations. Wildlife Ecology forms the basis of understanding the spread and management of wildlife diseases.

COURSE OVERVIEW

The expeditions travel through the northern and eastern regions of South Africa. Specific institutions visited include the world famous two million hectare Kruger National Park which will also provide insight into two of Africa’s major wildlife challenges: how to control the increasing numbers of the African elephant, and what would be the most effective ways to address the increasing total onslaught on rhinos. With the African bush as their classroom, students enjoy a practical and hands-on educational experience. They also focus on wildlife diseases and their symptoms and the prevention and treatment of such diseases by participating in post-mortem investigations.

The expeditions commence with introductory and topical lectures followed by three days in the bush to learn the basics of identification, navigation and tracking. The expeditions continue through different biomes and climates exposing students to the great variety of South Africa’s wildlife heritage.
A 5-day game-capture program in wilderness areas culminates the course. Students are familiarized with the latest wildlife capture technology to enable them to make informed decisions when wildlife management requires capture and relocation or care of wild animals. They will experience the mock darting of a moving target from a helicopter. At no time will students handle dangerous treatment and capture drugs. This course accomplishes its goal through the exploration of a range of different environments, aiming to understand the intricate ways in which ecosystems function. Subjects covered in the programs present a thorough understanding of conservation and sustainable development in Africa with its unique challenges.

It is important to know that in conservation there is no precisely repeatable pattern in nature. Animal behavior is studied, while water utilization and game condition is reviewed. The distance identification of the symptoms of some common wildlife diseases, and the regulations on wildlife movements, form part of the course. Feed selection, parasites, nutrition and the principals of sustainable use of wildlife will also be studied.

**COURSE OBJECTIVES**

Upon completion of the three week program, students will:

1. Understand the unique concepts of wildlife management in Southern Africa through application of ecological and economical sustainable principles.
2. Understand the role which humans play in conservation, as a result of reaping the benefits of their input and protection of nature and tapping in on the tourism industry.
3. Become knowledgeable of the huge pressures on the natural environment by both humans and wildlife through population dynamics and industry.
4. Acquire awareness of the reality of modern day issues threatening the survival of species on the African continent and the human emotion which often and readily move emphasis away from scientifically sound principles applied with great success in the past.
5. Acquire hands-on knowledge of the natural surroundings, animal behavior, signs of the wild and survival skills in Southern Africa.
6. Understand that there are wildlife diseases that affect domestic animals of rural communities because of the proximity of wildlife.
7. Understand the effects of diseases in free roaming wildlife and how to monitor these and prevent the spread by using ecological principles and barriers.
8. Be able to assist in the capture of wildlife by understanding the pharmacological functioning of a variety of capture drugs and tranquilizers.
9. Know how to handle and care for a variety of wild animals in a captive, quarantine and or rehabilitation facility.

**SPECIAL ACCOMMODATIONS**

Any student with a disability, requiring specific accommodation or other assistance during the course, will be accommodated subject to the program office being notified at least 4 weeks before prior to the commencement of the program. However, EcoLife Expeditions cannot guarantee that all such needs can be accommodated. Some activities involve moderate exercise like hiking and the recovery and movement of sedated animals. Such participation is always voluntary.
STUDY MATERIAL

A comprehensive Information Dossier will be e-mailed to all participants upon their registration for the course. A Study Guide will be supplied upon arrival in South Africa. They are encouraged to expand on this with their own notes taken during lectures, meetings and interactions with wildlife professionals in the field.

COURSE ASSIGNMENTS

1. Written essay (80%)  
Grading is done on an individual basis. This assesses the degree to which students are able to comprehend, integrate and apply key concepts such as disease control, captive animal husbandry, wildlife rehabilitation and wildlife capture, transport and vaccination. This may also include aspects of wildlife management, biodiversity conservation, and ecosystem function and community resource management issues.

A sample essay question could be: Participants are given a fictitious natural area with certain conditions and factors, similar to those encountered during the course. Their task is to formulate a development guideline for the area that would encompass the following:

1) Conservation and preservation
2) Sustainable development and utilization
3) Rural development and upliftment
4) Disease control and management
5) Wildlife capture
6) Quarantine and vaccination
7) Basic disease diagnostics
8) Captive wildlife management
9) Population control techniques

Their submission must be motivated in terms of: *What you would do, Why you would do it and Where in the area you would do it*. Grading is based on the following key aspects: factual accuracy, integration (linking ideas and subjects, “big picture” implications), creativity (originality, lateral thinking) and presentation style (logical flow of discussion, use of language). The essay will be completed at the end of the expedition.

2. Campfire discussions (10%)  
These discussions will be informal and will center round given topics. The program leader or an alternating member of the group will head the topics for discussion each evening. These discussions will center round current issues in wildlife management, conservation and tourism fields.

Suggested topics:
1. Sustainable development in developing countries, is it possible?
2. Trans frontier Parks
3. The Ivory Debate
4. The increasing threat of rhino poaching: what to do about it?
5. Ethical wildlife capture and relocation practices.
6. Culling of overpopulations of elephants
7. Bovine TB management in wilderness areas
8. Rural community disease control awareness

Campfire discussions will be held at different times during the expedition.

3. Written quizzes (10%)
Short quizzes will be given on a regular basis, centering on the activities of the relevant experience. The program leader or an alternating member of the group will be assigned to head the questions for each of these quizzes.

GRADE ASSESSMENT

Grading is designed to facilitate the learning experience, encourage teamwork, synthesis and integration of key concepts. The requirements for university accreditation are essential. Deliberate attempts are made to move away from the often competitive and stressful grading approach that dominates many tertiary education systems. It is understood that much of the learning on this expedition is “experiential” and may be difficult to quantify. An expansive grading method is opted for where interaction, discussion and practical projects are integral parts of the system. It is important that students realize that they will be graded according to the standard grading schedule for tertiary institutions in South Africa. Please note that this differs from the standard schedule used in the USA as South African universities grade in a percentage basis.

A final percentage is then translated into a symbol, as follows:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
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<tbody>
<tr>
<td>90% and above</td>
<td>A+</td>
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<td>80 – 89%</td>
<td>A</td>
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<td>75 – 79%</td>
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<td>65 – 74%</td>
<td>B+</td>
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<td>55 – 64%</td>
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<td>50 – 54%</td>
<td>B-</td>
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<td>49% and below</td>
<td>FAIL</td>
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ACADEMIC PRESENTERS:

1. Prof Wouter van Hoven (DSc)
   - Wildlife ecology,
   - Elephant management,
   - Wildlife economics,
   - Sustainable use of Wildlife
   - African Rhinoceros Protection

2. Prof Peet van der Merwe (Ph.D.)
   North West University
   - Game ranch economics

3. Prof Melville Saayman (Ph.D.)
   North West University
   - Ecotourism

4. Dr John van Zyl (BVSc) *
5. Dr James Roxburgh (MSc BVSc) *
6. Dr Justin Benade (BVSc) *
8. Johann Kriek (BA (Hons) MBA)  *Socio-historic and political overview of SA
9. Ralf Kalwa (MSc Wildlife Management)
   Wildlife Management Consultant  *Ecological management of Kruger National Park
10. Pierre Blignaut  *Wildlife tracking, bush survival and ecology
11. Sean Hensman  *Elephant management and training
12. Willie Jacobs  *Breeding of Wildlife and genetic research
13. Lourens van Essen MSc  *Wildlife Ecologist

*Veterinarians that are wildlife specialists providing lectures and practical participation in wildlife physiology, diseases and game capture

**SCHEDULE OF PLANNED PROGRAM ACTIVITIES**
(Subject to revision)

<table>
<thead>
<tr>
<th>Day</th>
<th>Activity</th>
<th>Location</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Day 1</td>
<td>Pick-up students from airport, transfer to Pretoria Guest House</td>
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<td>Guest House Pretoria</td>
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| Day 2 | Meet Prof Wouter van Hoven  
1. Introductory lecture  
2. Lecture on Wildlife Management  
3. Lecture on Elephant ecology and population control  
4. Lecture on Rhino management  
Visit Lion breeding and research program and lecture on this activity | 4L                        | Guest House Pretoria |
<p>| Day 3 | Assist in Community Veterinary Services in a rural area of Cullinan | 1L 5F 1T                  | Guest House Madidaba Nature reserve |</p>
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<th>Day</th>
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<tbody>
<tr>
<td>Day 4</td>
<td>Assist in Community Veterinary Services in a rural area of Cullinan</td>
<td>1L</td>
<td>Guest House Madidaba Nature Reserve</td>
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<td>Day 5</td>
<td>Depart for North West University, Potchefstroom Registration and Lectures on Game Ranch Economics, Ecotourism and Wildlife Diseases</td>
<td>2F</td>
<td>Guest House Potchefstroom</td>
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<td>Day 6</td>
<td>North West University, Potchefstroom Demonstrations and visits and Lectures on Game Ranch Economics, Ecotourism and Wildlife Diseases</td>
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<td>Guest House Potchefstroom</td>
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<td>Day 7</td>
<td>Lecture, demonstration and participate in rhinoceros tracking, security, management and breeding</td>
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<td>MatlaMamba wildlife research reserve</td>
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<td>Day 8</td>
<td>Field work on security anti-poaching and fence patrols</td>
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<td>MatlaMamba wildlife research reserve</td>
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<td>Day 9</td>
<td>Eco-course: Sensory deprivation Observation and identification techniques Plant and Tree identification Animal Behavior Survival Skills</td>
<td>3L</td>
<td>MatlaMamba wildlife research reserve</td>
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<td>Day 10</td>
<td>Depart for Swadini and set up camp</td>
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<td>Swadini</td>
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<td>Day 11</td>
<td>09h30 – 13h00 Study of wildlife care in a rehabilitation center. Lectures and demonstrations plus handling. 14h00 – 17h00 Lectures on snakes and other reptiles. Dissections by students and study of diseases and venoms</td>
<td>4F</td>
<td>Swadini</td>
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<td>Day 12</td>
<td>Depart from Swadini and set up camp in Kruger Park</td>
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<td>Kruger Park</td>
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Day | Activity | Contact Hours | Location
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13 | Full day of game viewing in Kruger National Park. The ecology of Kruger Park | 3F 1L 1I 2T | Kruger Park
14 | Drive to Bela-Bela Town. Check in at Mabalingwe Game Reserve close to the town. | 5T | Mabalingwe Nature Reserve
15 | Field walk and game drive Mabalingwe ecology. | F2 L1 I2 | Mabalingwe Nature Reserve
16 | Elephant Project: Lecture on Elephant interaction. Elephant course and hands-on experience. Depart for Beestekraal. | 2L 4F 2I 2T | Beestekraal/ Zion
17 | Game Capture Program | 4F 2L 2I | Beestekraal/ Zion
18 | Game Capture Program | 4F 2L 2I | Beestekraal/ Zion
19 | Game Capture Program | 4F 2L 2I | Beestekraal/ Zion
20 | Game Capture Program | 4F 2L 2I | Beestekraal/ Zion
21 | Write final essay and attend graduation ceremony and farewell dinner. | 4F 4I 6L | Beestekraal/ Zion
22 | Depart for Johannesburg International Airport after breakfast | 4T | Beestekraal/ Zion

**Contact Hours**

L = Lecture hours : 37 hours (= 3 credits)
I = Interactive demonstrations : 33 hours (= 1 credits)
F = Field modules : 57 hours (= 2 credits)
T = Travel time* : 31 hours

**Total academic contact hours = 145 hours (6 credit course)**

*Because long distance traveling between venues is necessary students are always accompanied by an academic or registered tour guide and the safari bus actually becomes a mobile class room where discussions are encouraged.
MAIN FIELD DESTINATIONS

MatlaMamba Nature Reserve
The reserve is situated in the Limpopo Province. Many wildlife species occur here, including the threatened white rhinoceros, leopards, spotted and brown hyenas, jackals and a wide variety of antelopes. This reserve breeds wildlife extensively and harvests wildlife sustainably. Research is being conducted on rhino security measures.

Mabalingwe Nature Reserve
Mabalingwe Nature Reserve is situated approximately 30 km west of Bela-Bela, along the R516 towards Thabazimbi in the Limpopo province. The reserve falls between the longitudes of 27° 45’ E and 28° 15’ E, and the latitudes of 24° 30’ S and 25° 00’ S. The total study area can be found on the 2427 DB, 2427 DD, 2428 CA and 2428 CC 1: 50 000 topographical maps.

The entire study area covers an area of approximately 8275 ha. For the purpose of this study, Itaga Private Game Reserve and Mabalingwe Nature Reserve were considered collectively as a single entity. This is a big 5 reserve and with the exception of lions, all wildlife roam the entire reserve including elephants.

Kruger National Park
The world-renowned Kruger National Park offers a wildlife experience that ranks with the best in Africa. Established in 1898 to protect the wildlife of the South African Lowveld, this national park of nearly 2 million hectares is unrivalled in the diversity of its life forms and a world leader in advanced environmental management techniques and policies. Truly the flagship of the South African national parks, Kruger is home to an impressive number of species: 336 trees, 49 fish, 34 amphibians, 114 reptiles, 507 birds and 147 mammals. Man's interaction with the Lowveld environment over many centuries - from bushman rock paintings to majestic archaeological sites like Masorini and Thulamela - is very evident in the Kruger National Park. These treasures represent the cultures, persons and events that played a role in the history of the Kruger National Park and are conserved along with the park's natural assets.

CONTACT DETAILS DURING THE EXPEDITION

EcoLife Expeditions makes use of a number of different faculty and professionals. However, EcoLife’s Office is in daily contact with the guides (depending on cellular signal reception). We recommend that the EcoLife Office be contacted for any enquiries.

GENERAL CONTACT INFORMATION WHILE IN SOUTH AFRICA

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