



**OCEANS, COASTS AND WILDLIFE:
THE SOUTH AFRICA PROJECT**

April 20 – June 3, 2017

April 20 – June 3, 2018

**Meeting Place: George, South Africa
15 quarter credits/10 semester credits**

FULL PROJECT DESCRIPTION

Thank you for your interest in our South African Oceans, Coasts and Wildlife program. In this program, team members will have an unparalleled opportunity to take part in firsthand investigations of the marine and terrestrial wildlife and ecosystems that comprise South Africa's spectacular Southern Cape. Our field activities will be geared towards researching and understanding the fascinating dynamics of the area – from exciting new findings in human origins research and our ancestral links to the coastline, to perplexing questions in wildlife conservation biology and ecological monitoring, and how to reconcile competing social-cultural perspectives on what constitutes wise resource use in a country with ever-present socio-economic challenges. Through field studies, knowledge exchanges with researchers, managers and local communities, and alongside our immersion in areas internationally recognized as "biodiversity hotspots", we will gain a deeper understanding of how our field studies can support ecology, society and our own passions and pursuits.

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I. Background Information

South Africa is home to seven terrestrial biomes, or ecological life zones, each with distinct environmental conditions and unique biodiversity, including a variety of large mammals and an impressive array of bird species and rare endemic plants. In fact, the broader Southern Cape region, where we will be immersed throughout the course, sees the convergence of South Africa's three biodiversity hotspots: the Cape Floral Kingdom, the Succulent Karoo and the Albany Hotspot. This convergence region is home to immense biodiversity with high levels of endemism. In fact, there are few other areas on Earth where one can witness such dramatic landscape contrasts simply by travelling 60 miles inland from the coast.

Similar to its natural diversity, South Africa has a rich diversity of cultures, languages and lifestyles. With 11 official languages, and nearly as many unofficial languages, South Africa is a true "rainbow nation" with its blend of ethnicities and histories. During our program we will meet and interact with South Africans of various

backgrounds, such as Khoisan, Xhosa and European settlers. We will also take part in learning exchanges with diverse groups of reserve managers, implementers, academic and scientific researchers, and local community members who share a passion for conservation. These interactions will broaden our horizons and provide a unique insight into the lives and perspectives of these peoples and how they connect with both their natural surroundings and the transformed society of South Africa, which is still coming to terms with its far-reaching Apartheid legacy and struggling to secure equality and democracy for a prosperous future.

Our program will commence along South Africa's famed "Garden Route", an expansive stretch of Cretaceous coastline encompassing an impressive coastal plain, which lies between the Outeniqua and Tsitsikamma mountains to the north and the Indian Ocean to the south. It is a meeting of remnant Afrotemperate forest, fynbos, sand dunes and steep-sided gorges that slice through the spectacular ranges of the Cape Fold Mountains, formed during the break-up of Gondwanaland. The sweeping stretches of beaches, extensive lakes and estuaries and the picturesque bays add to this area's environmental appeal. But, as we will discover, it is the shoreline's relationship with the power of the ocean which fuels the region's dynamism. Combinations of wave, tide, currents and river mouth action create deposition and erosion patterns that always keep the area in flux – with often unpredictable outcomes. As enchanting as the coastal environment is, the undeniable appeal of the Garden Route is its marine life. From intertidal invertebrate communities to the open pelagic regions, seasonal upwelling boosts productivity and this area supports an array of marine life including whales, dolphins, sharks, fish rays and sea birds. In recognition of this diversity, a number of marine protected areas (MPAs) have been declared in recent decades and the South African Government and partner institutions actively monitor their effectiveness as they plan for further MPA revision or expansion programs. As part of this management, three "Hope Spots" have been launched in the region with the intention of firmly placing the coastline on the international marine conservation map.

With such natural wealth, it is of little surprise that this area has sustained human life for hundreds of thousands of years. In fact, evidence suggests that the wider region – known as Eden – supported four hominid species and was the cradle of human culture. It was from here that early humans are thought to have spread out onto Africa's grasslands and savannahs to eventually inhabit the rest of the continent. Alongside artifacts from the Stone Age, archaeological records show that hunter-gatherers were active in the region for at least 100,000 years through evidence of cave paintings and shell middens. About 2000 years ago, African herders began to enter the area which was followed by European settlement in the 17th century. Today, the Southern Cape is a dynamic cultural and ethnic blend. As a response to population growth, tourism and inland migration, coastal and urban development continues bringing with it many challenges for future conservation efforts and environmental management.

South Africa is perhaps best known for its impressive wildlife communities: from the glorified "Big 5" (elephant, black rhino, lion, leopard and buffalo) to its antelopes, small carnivores and dazzling diversity of birds, insects and plants. This is part of the reason why the nation's world-renowned parks and reserves attract visitors from around the globe with interests in wildlife viewing, natural history, photography, and relaxation. Ease of communication (many people in South Africa speak English) and excellent infrastructure give added appeal to the country as a 'must-see' destination. However, as human development continues apace, natural areas have become increasingly fragmented, resulting in isolated islands amidst a sea of a human population and extensive farmlands. Ecotourism, game hunting and agriculture are among South Africa's largest industries, all of which are inextricably linked. Nature-based tourism provides much needed revenue sources and employment opportunities for people, while at the same time improving ecological conditions on lands previously subjected to overgrazing by livestock. Yet, it also creates challenging questions as to how we 'manage' wildlife and wildlands in this context. We will evaluate the various perspectives on

ecotourism and examine how it can provide both opportunities and challenges to maintaining natural ecosystems. The balance between community livelihoods and biodiversity conservation forms a central theme of our team's investigations along the Southern Cape.

II. PROJECT GOALS AND ACTIVITIES

Our South African program provides students the opportunity for hands-on investigations of the ecology and conservation of its unique biomes and the marine and terrestrial species they harbor. We will commence with an initial exploration of the natural history, cultural history and biogeography of South Africa and, specifically, the Southern Cape. We will then draw upon this knowledge as we delve deeper into the fascinating places this area has to offer, investigating and evaluating current coastal and marine research, environmental success stories and the persistent challenges and opportunities facing conservation in this region.

Key goals and activities include:

- 1) *Natural history, ecological dynamics and naturalist skills*: What climatic and geological factors underpin the diverse Southern Cape ecosystems? What are the interactions and processes which underpin and drive the region's ecosystems? Why are these areas so diverse and important to resident and transient species? What key habitats, flora and fauna are present in the area and how would an effective scientific naturalist identify, investigate and document these features? What naturalist skills and competences need to be cultivated in order to become an effective field biologist both in this region and in other contexts? We will engage in a number of single-day and multi-day field hikes through diverse ecosystems to explore these questions for ourselves.
- 2) *Biodiversity conservation and ecological restoration*: What are some of the major conservation pressures and threats to biodiversity? What strategies are being used to tackle these threats? What role can restoration play and how might we improve its uptake and effectiveness? Our team will conduct both terrestrial and marine field surveys, alongside local researchers and organizations, to understand species biology, monitor populations, and/or implement management actions.
- 3) *Wildlife and protected area management*: How has South Africa's approach to conservation through "sustainable utilization" affected the social and ecological landscape? What are the implications of wildlife translocation and reintroductions? What are extralimital species? What are the impacts of wildlife poaching, culling, and commercial hunting? When are these activities justifiable? We will visit national park and game reserves where we will evaluate these questions in real life context. From protecting the beleaguered rhino to managing elephant populations we will examine and discuss these sensitive issues with rangers, researchers and community members.
- 4) *South African society, culture and politics*: *The ancient*: As an area which supported the first *Homo sapiens*, what can we learn from the way in which our common ancestors interacted with the land and sea? What are their legacies and lessons for today? We will visit places of archeological and cultural significance in order to research these questions. *The contemporary*: How would one characterize modern-day South African culture? How has Apartheid affected cultural groups and livelihoods in the country and to what extent has the traumatic Apartheid legacy been reconciled? Are traditional cultural practices being sustained or eroded and how does all this affect biodiversity conservation? *The politics*: Who holds the real balance of power across the mix of ethnicities present? How have Apartheid era policies affected land access, distribution and attitudes toward conservation and how is this being rectified? What are the challenges and opportunities for conservation co-management and

community-based stewardship? We will seek answers to these questions as we visit areas and peoples who are best placed to help inform our perspectives.

- 5) *Champions for sustainability, resilience and action*: What prospects are there for sustainable and resilient futures in a southern African context? Which “champions” are leading the way and how? What does it take to play the role of a “champion” in modern-day South Africa? What motivates these people and what are their defining qualities? What can we learn from them and how might society support them? Our search will take us to a number of fascinating locations to interact and engage with some inspiring people doing their bit to ensure a brighter future for South Africa.

Overall, our goal is to develop your skills as a field ecologist and scientific naturalist who can interface between diverse marine and terrestrial environments. We will spend extensive time sharpening our observational, sensory, interrogative and analytical skills by becoming intimate with our surrounds. Aided by the use of field guide keys, we will learn to identify resident wildlife species through various techniques: from physical traits to track and sign, to calls and nuances in behavior. We will then learn and participate in on-going efforts to monitor these wildlife communities, focusing on techniques that form an important part of the conservation ecologist’s skill set. With these tools in hand, we can begin to address research questions about the functioning of these African ecosystems, and the dynamics of the entangled interface between human and wildlife communities. **Please note that prior field research experience is not required. All necessary skills of data acquisition will be taught on-site in South Africa.** Ultimately, you will be exposed to an integral approach to ecology: one that instills a deep appreciation for how to identify, address and unite the multiple perspectives available for understanding the natural world. Our primary requirement is that you are enthusiastic, adaptable, open-minded and ready to learn. We look forward to you joining us and sharing this once-a-lifetime experience together.

III. Academic Credit

Students will receive 15 quarter credits/10 semester credits from Western Washington University. Our staff will be happy to explain the program in further detail to the applicant’s advisor, if necessary. This field studies program gives credit in three courses:

ESCI 497T, Environmental Wildlands Studies (5 quarter credits/3.35 semester credits)

ESCI 497U, Environmental Field Survey (5 quarter credits/3.35 semester credits)

ESCI 497V, Wildlands Environment and Culture (5 quarter credits/3.35 semester credits)

Students will be evaluated on the basis of: 1) active participation in all scheduled class and field activities; 2) examinations and quizzes; 3) field naturalist and cultural learning journals; 4) independent or paired research papers; and 5) the design, implementation, completion, and presentation of a mini-group project.

Team members are expected to conduct themselves in a mature and responsible manner. Wildlands Studies reserves the right to require any student to withdraw from the program if their conduct is detrimental to or incompatible with the interests, safety, or welfare of any course participants. We ask all students to read the Student Program Manual before joining the project on-site.

IV. Team Logistics

Participants will fly into George, South Africa and meet at the George Airport (Western Cape). If you are traveling in advance of the program, you can arrange to join the group in George when the recommended flight arrives at the airport. At the end of the program, we plan to depart from the Port Elizabeth Airport (Eastern Cape). You can decide whether you want to fly home on the scheduled date or remain in South Africa to do some exploring of your own before using the return portion of your ticket.

All reasonable efforts will be made to follow the activities outlined above. However, please understand that on our project, travel arrangements can remain tentative until the traveling actually takes place. Weather conditions, stakeholder/guest speaker availability, track and road closures, as well as bureaucratic or cultural considerations may affect our plans. Wildlands Studies has put together an innovative, unique program for South Africa but team members need to be flexible, patient, and prepared to adapt to unexpected situations. Doing so also allows us to take advantage of unexpected yet welcome opportunities that inadvertently arise during our journeys, often producing some of the program's most memorable moments.

At various locations (e.g., public and private campsites, research stations), we will set up a base in order to conduct our course activities, field studies, and interactions with local organizations. Our April-June field studies will take place in the North American summer, South Africa's autumn and early winter. It begins to cool at this time of the year so don't be fooled by your prior perceptions of Africa: *it can get very cold*. But at this time of year we can expect warm to hot 'champagne' days with cool to cold evenings. The oceans are likely to be quite active with migratory marine life, following runs of schooling fish prevalent at this time of year, and inland wildlife will be active ahead of the onset of a cold winter.

"Is South Africa as unsafe as the media (or my parents) say it is?" This is a common and understandable question. There is no hiding the crime levels and unsavory events that can occur in South Africa. However, generally speaking, publicized violence mostly happens in the inner or impoverished parts of the major cities. We will not be visiting these areas and our explorations will be mostly removed from any major urban area where such problems occur more frequently. While incidences of theft can occur anywhere, there are a number of fundamental and easy-to-follow guidelines which substantially minimize risk or loss. Furthermore, we will spend a significant portion of the program in safe remote areas. Our track record in leading Wildlands Studies (and other programs) in South Africa is excellent and we will take every measure to ensure it stays that way.

V. Accommodations

Primarily camping with stays in hiking huts/cabins, research stations/housing and the occasional dormitory.

VI. Official Documents/Visa

You will need a current passport that does not expire for thirty days after your departure from South Africa. Tourist visas (valid for 90 days of travel within South Africa) are issued upon your arrival.

VII. Language

This program is taught in English. Words and phrases from South African languages will be introduced throughout the course.

VIII. Pre-Program Mailings

Detailed information regarding travel and visa information, equipment requirements, food costs, meeting plans, group expenses payment, medical and vaccination recommendations, and academic preparations will be sent to all team members in a logistics letter emailed approximately 8-10 weeks before the project initiates. Emails concerning preparatory readings and assignments will be sent about 4-6 weeks in advance.

IX. Project Leader

MATTHEW ZYLSTRA: Ph.D. in Conservation Ecology/Transdisciplinary Doctoral Program in Sustainability, Stellenbosch University, 2014. Matt is a conservation ecologist with experience in facilitating action research approaches for collaborative landscape restoration and stewardship in South Africa and Australia. His research interests lie in coastal-marine ecosystems, naturalist mentoring and community-focused outreach. Matt's Ph.D. research drew on integral ecology, psychology and education to explore how meaningful nature experience supports transformative learning for sustainability. Matt has been teaching with Wildlands Studies since 2009 and has taught in Australia, South Africa and Tasmania. Matt currently leads our South Africa and Tasmania Projects.

X. Project Costs

Program Fee: Spring 2017: \$4000 plus \$150 Application Fee. Program fee due February 1, 2017.

Spring 2018: \$4150 plus \$150 Application Fee. Program fee due February 1, 2018.

Enrollment on a space-available basis after the fee due date until the program is full.

Estimated In-country Expenses: Spring 2017: \$2650 per person

Spring 2018: \$2750 per person

Includes in-country accommodations, travel in-country, camping costs/permits, logistical support, group supplies and materials/research costs. A proportion of food costs will also be covered.

Food Money: \$400 (varies according to taste, dietary preferences and exchange rate)

Personal Spending Money: \$300 (varies, but don't get caught short)

Estimated Airfare: \$1450

Students should inquire at the financial aid office of their home campus regarding the use of their loans or grants for this course. Wildlands Studies is not responsible for non-refundable airline or other tickets or payments or any similar penalties that may be incurred as a result of any course cancellation or changes.

XI. Contact Information

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