**CARLETON COLLEGE COASTAL MARINE ECOLOGY IN AUSTRALIA**

**PROGRAM DATES**
The program will take place during winter term of 2012 and will roughly correspond to the Carleton term.

**DIRECTOR**
Annie Bosacker, Visiting Assistant Professor of Biology

Professor Bosacker studies the behavior of wild baboons in Gombe National Park, Tanzania. She is well-versed in the challenges of field work, having survived near misses with an aggressive chimpanzee as well as a violent political coup. Her research centers on the social lives of female baboons, and she is especially interested in the social coping strategies females use to reduce their exposure to the ravages of stress. Professor Bosacker is also a graduate of this program, and she is extremely excited to have the opportunity to return to Australia with Carleton students. In fact, she credits this program with saving her from a life in the lab, as she had originally intended to pursue a career in cellular biology.

**PREREQUISITES**
Biology 125 and 126, or equivalent. Applicants should have a strong desire to explore new countries, a passion for biology, and a deep respect for other creatures and cultures. The program seeks students with the ability to get along well with classmates while living and working closely together. Outdoor fieldwork poses a host of unusual challenges and discomforts, and successful applicants to this program must possess the fortitude to withstand such challenges. Applicants should also be comfortable in the water, possess basic swimming skills, and be prepared for vigorous hiking.

**INTRODUCTION**
There is still so much to learn about the millions of organisms—many as yet unidentified—that inhabit this planet. On this program, we will spend the majority of our time outside, learning how we, as scientists, can address many of biology’s most exciting questions by gathering data where organisms live and die: in the field. Australia is an ideal place to learn about the challenges and opportunities associated with field research. Australia offers myriad habitats, all teeming with its unique flora and fauna. By studying these organisms in the wild, we can learn about their evolutionary history, their ecological present, and the uncertain future that all organisms face. Twenty-five student participants will explore Australia alongside Professor Bosacker and a team of local university instructors. Academic and logistical support is provided by Global Education Designs, an outstanding company specializing in program design and program support. Global has worked with Carleton programs in Australia since 1987.

**LOCATION**
The 2012 Coastal Marine Ecology seminar will use a variety of sites along the eastern coast of Australia, which will serve to showcase the diverse ecosystems of Australia. We will visit Australia’s famous Great Barrier Reef, where we will live at a research station on Heron Island and learn about the colorful and fragile organisms that inhabit the reef. We will also travel to North Stadbroke Island, a sub-tropical marine site with a range of unique habitats. Our travels will also include a selection of other sites—a tropical rain forest, the museums of Sydney and Brisbane, and the temperate waters of Victoria. Australia offers so many fascinating field sites to choose from.

**COURSE OF STUDY, 18 CREDITS**

**BIOL 212-07: Biology Field Studies and Research (6 Credits)**
Designed to complement Biology 250, this course teaches methods and approaches to the analysis of biological problems with emphasis on an ecological viewpoint. We will be studying animals and plants in both terrestrial and marine habitats, with a particular focus on the behavioral ecology of animals.

_Instructor: Prof. Bosacker_

**BIOL 250-07: Marine Biology (6 Credits)**
We will study the biology of marine ecosystems with an emphasis on population and community ecology and the life histories and evolution of marine organisms. We will explore the diverse marine ecosystems of Australia through extensive field work in habitats including temperate oceans, mangrove forests, and tropical coral reefs.

_Instructor: Prof. Bosacker_

**BIOL 255-07: Culture and Environment in Australia (2 Credits) S/CR/NC**
We will consider both the natural history of the Australian landscape and the cultural history of the people who have settled there. We will use readings, meetings with visiting lecturers, and visits to cultural centers, and students will synthesize what they have learned in reflective essays.

_Instructors: Prof. Bosacker and guest lecturers_

**BIOL 290-07: Directed Reading (4 Credits)**
Participants are asked to read selected works that showcase the natural and cultural history of Australia. Understanding of these readings will be evaluated through discussion and written work.

_Instructor: Prof. Bosacker_

**SNORKELING AND DIVING**
Snorkeling is required for the observation of coastal marine habitats and involves the acquisition of appropriate equipment and necessary skills. Scuba diving will be available to those with proper certification. A training course is regularly taught on campus at an additional cost.

**EXPENSES**
The 2011-12 comprehensive fee will cover the cost of tuition, room, board, and most internal travel within each country. All major scientific equipment and supplies are provided. Students are responsible for the cost of round-trip transportation from the U.S. to Australia. Participants are also responsible for purchase of books, personal items, independent travel during the mid-term break, and some personal field gear, snorkel gear, and clothing.

SCUBA divers will incur the additional expense of training (approximately $300 for class and PADI certification at Carleton). Carleton will provide wet suits and dive booties, but rental of...
all other gear as well as fees for non-academic dives may be the responsibility of students. Please note that because of Australia’s strict regulations and capricious climate, we are unable to guarantee that students will be able to dive.

Student financial aid is applicable as on campus. See the Off-Campus Studies website for further information regarding work-study contracts, loans, and other subjects on financial aid.

INFORMATION MEETINGS
There will be two informational meetings:
- Thursday, October 21, 2010 from 5-6 pm
- Thursday, February 10, 2011 from 5-6 pm
Both meetings will be in Olin 141.

APPLICATIONS
Application forms will be available from the Office of Off-Campus Studies, Leighton 119 as well as on the OCS website. Applications are due to Carol Horan in Hulings 303 by Friday, April 8, 2011.

For more information, please see the Australia off-campus studies website: https://go.carleton.edu/ocs

WINTER 2012
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