

# Ecology, Behavior & Conservation of Marine Mammals

A Unique Field Course in the Drowned Cayes, Belize

## Course Syllabus

- DATES:** May 30 - June 12, 2009 (inclusive of travel)
- Instructors:** **Caryn Self-Sullivan**, Ph.D.<sup>1, 2</sup> and **Bruce A. Schulte**, Ph.D.<sup>1</sup>  
<sup>1</sup>*Department of Biology, Georgia Southern University*  
<sup>2</sup>*President & Co-founder, Sirenian International*
- LOCATION:** Hugh Parkey's Belize Adventure Lodge, <http://belizeadventurelodge.com>
- COSTS:** \$2595 includes, housing, meals, field trips, ground & water transfer fees, research & materials fees, books; DOES NOT include airfare, tips, travel insurance, or credit hours
- DEADLINES:** Registration & non-refundable deposit of \$500 due April 1st; balance due May 1st  
**REGISTER EARLY! SAVE \$50 WHEN YOU REGISTER BY APRIL 1ST!**

**MINIMUM/MAXIMUM CLASS SIZE:** 8-24 students

**REGISTRATION:** <http://sirenian.org/RegistrationForm2009.pdf>

### **So you think you want to be a Marine Mammal Biologist? Or a Behavioral Ecologist?**

Here's your chance to join our research team for two intense weeks of total immersion into the world of Animal Behavior, Antillean manatees, bottlenose dolphins in Belize!

View photos and videos from previous classes on our [Facebook](#) page!

You will become totally immersed into island living, the study of ethology (animal behavior) and the biology of manatees and dolphins through lectures and learning activities, literature review, debate, projects, and field research. This unique field course combines an overview of the ecology, behavior, and conservation of sirenians and cetaceans with hands-on manatee & dolphin research in the Drowned Cayes, Belize. You'll spend 3-4 hours on the water each day learning about the environment as we explore a labyrinth of mangrove islands, seagrass beds, and coral patches searching for elusive manatees and charismatic dolphins. You'll collect behavioral and environmental data and learn about photo-id techniques; you'll develop a **Fact Sheet** or **Activity Booklet** about a related topic to be published by the Hugh Parkey Foundation for Marine Awareness & Education and/or Sirenian International. Extra-curricular activities include diving or snorkeling at Turneffe Atoll, and exploring an ancient Maya City.

This unique course has a work load equivalent to 4 university credit hours and is divided into 4 major components: lectures and learning activities (~1 hour per day), independent reading and assignments (~2 hour per day), data collection in the field (~4 hours per day), project development (~1 hours per day) and debate/group discussion of reading materials (~1 hours per day).

Want credit towards your degree? No problem! Sign up for independent study with an advisor at your school and pay the appropriate fees. The course has 70 contact hours and is comparable to a 4 credit university course. Just have you advisor contact Dr. Self-Sullivan ([cselfsullivan@georgiasouthern.edu](mailto:cselfsullivan@georgiasouthern.edu)) to discuss the requirements for credit. **Remember**, if you are interested in getting independent study credit for this course at your school, you must make arrangements IN ADVANCE with BOTH your advising faculty and the course instructor. Credit hour fees must be paid directly to your school and you must fulfill any Study Abroad requirements at your school.

### **COURSE CONTENT** (Lectures & Learning Activities)

- The Order Sirenia: Manatees and Dugongs of the World
- The Order Cetacea: Whales and Dolphins of the World
- The Local Research Project: Manatee & Dolphins of the Drowned Cayes
- An Overview of Long-term Marine Mammal Research projects around the World
- Animal Behavior: Ethology and Behavioral Ecology - The Scientific Perspectives

- Marine Mammals under Human Care in Zoos and Oceanariums
- Marine Mammal Science: Research Design, Data Collection Methods, Analysis of Data, and Interpretation of Results
- Marine Mammal Conservation and Advocacy: The Status of Extant Marine Mammal Species

### LEARNING OBJECTIVES

Upon completion of this course, students should be able to:

- Distinguish between the Orders Sirenian, Cetacea and other marine mammals; describe the evolutionary history of sirenians and cetaceans
- List and describe all the known species within each Order
- Describe the manatee & dolphin research projects in Belize; compare and contrast research objectives in the USA, Belize, and other areas of the world
- Comprehend the four scientific perspectives of Animal Behavior and explain why Folk Psychology perspectives are also important
- Describe the issues surrounding marine mammals under human care in zoos and oceanariums; debate the pros and cons of keeping marine mammals and other animals in captivity
- Describe the major methods used to study marine mammals around the world
- Describe the current conservation status of sirenian and cetacean populations around the world
- Identify the major sources of scientific literature on sirenians and cetaceans; read and critique peer reviewed journal articles
- Use critical thinking skills to evaluate information from diverse sources (e.g. scientific studies, books, personal experience, zoos & oceanariums, advocacy groups, TV documentaries, movies, other TV shows, You Tube videos, the Internet)

### RESOURCES

Two books are included in your course fee and will be shipped to you upon receipt of your \$500 non-refundable deposit:

*The Florida Manatee: Biology and Conservation*, by Roger L. Reep and Robert K. Bonde, University Press of Florida

*The Bottlenose Dolphin: Biology and Conservation*, by John E. Reynolds, Samantha D. Eide, and Randall S. Wells, University Press of Florida

A selection of primary literature will be sent to you in electronic format in advance of the course. Students are required to print out these articles and bring them with them to Belize.

There is also a library of books and archived journals, including Society of Marine Mammalogy, Animal Behavior, and Conservation Biology journals, in our library onsite in Belize.

### COURSE FEE & ADDITIONAL INFORMATION

The course fee of \$2595 includes all transportation, course, field trip, and living expenses from your arrival at the PWG airport in Belize on May 30th to your departure on June 12th. **You are responsible** for tips, travel insurance, and round-trip airfare to Belize (BZE).

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To register for course, please visit <http://sirenian.org/RegistrationForm2009.pdf>

For more information on the course, please email [caryns@sirenian.org](mailto:caryns@sirenian.org) or [cselfsullivan@georgiasouthern.edu](mailto:cselfsullivan@georgiasouthern.edu)

For more information on the instructors, please visit <http://sirenian.org/caryn.html> and <http://www.bio.georgiasouthern.edu/bio-home/schulte/schulte-home.html>

For more information on the facilities, please visit <http://belizeadventurelodge.com>

Download a Course Flyer at <http://sirenian.org/CourseFlyer2009.pdf>