



BIOS 

The Bermuda Institute of Ocean Sciences (BIOS) is a global leader in ocean science and education. BIOS provides an increasingly important range of educational services to groups both locally and from overseas. Founded in 1903, BIOS has emerged as a cutting-edge marine science research institute in all its disciplines.

Why choose Bermuda?

- Bermuda's location is a convenient short flight from the east coast of the United States, (approximately 700 miles).
- Air and water temperatures are moderate all year-round (55–85°F, 13–29°C, and 62–82°F, 17–28°C, respectively).
- The sub-tropical climate supports a rich diversity of plants and animals, coral reefs, mangroves, and seagrass beds.
- Our reefs, warmed by the Gulf Stream, form the northern-most coral reef ecosystem in the world. They are more vulnerable to outside variables than reefs further south, and are therefore a useful indicator of the effect of stresses on these species.
- The inshore reefs are easily accessible and provide a rich nursery for study. Deep water, which yields a totally different type of research, is accessible by ship in only a couple of hours.
- Bermuda has an interesting geological history; its origins as a volcanic seamount can be observed from the current topography of the Island.
- Bermuda is a small island – 21.5 square miles, 35 km² – so any location can be reached within an hour. This makes it easy to conveniently access different locations efficiently, within one day.



Why choose BIOS?

- BIOS has excellent resources for data collection in a variety of marine environments – seashore, patch reefs and open sea.
- Students have the opportunity to carry out research on a variety of well-equipped research vessels, principally the R/V Stommel, and the 168ft Atlantic Explorer – one of the finest research vessels in the US Scientific and UNOLS Fleet – is available for tours.
- BIOS has a range of teaching rooms, lecture halls and laboratories of different sizes.
- The Institute has state-of-the-art, well-maintained scientific equipment – wet lab, sea tables and laboratories – for students to get an introduction to the practical side of research.
- Students are taught by leading scientists from across the globe, as well as by notable graduate interns who have also benefited from the educational programs at BIOS.
- The Institute is located on the water's edge in 15 acres of well-kept tropical parkland.
- BIOS is situated near the historic town of St. George's on the eastern end of Bermuda, which is within convenient distance of the airport.
- Living arrangements at BIOS are comfortable and reasonably priced. Three hearty meals are provided daily, as well as packed lunches for weekends and when students are out on field visits. Accommodations can be made for different dietary needs.
- BIOS bus is available for student transport around the island and for scientific excursions.
- BIOS has a full time Dive Safety Officer and is a member of the American Academy of Underwater Sciences (AAUS).

Visiting Groups Field and Lab Activities

Coral Identification Lab

Students are given a brief introduction to the reefs of Bermuda, and are encouraged to question, what is the coral animal? How are corals so productive? What are the requirements for coral to grow?

Where are the reefs located in Bermuda? Students are familiarized with local hard coral species

through pictures and skeletons, so that they can identify these in their natural habitat.

Native and Endemic Flora

Restoration Students learn about Bermuda's native and endemic plants that are under threat from invasive species.

Students work to remove invasive flora and re-plant native species.

Students support the long-term biodiversity strategy for Cooper's Island Nature Reserve.

REEF Fish Lecture and

Identification Students receive a lecture on the dominant fish species in Bermuda to familiarize themselves with the local marine life. Defining features of different families are discussed. The lecture can be coupled with fish surveys or snorkel trips.

Plankton Tow and Lab

Students will learn about the importance of plankton in marine ecosystems. They will take part in a plankton tow and learn the process of net collection. Students collect samples at night when plankton migrate to the surface waters. These samples are examined under microscopes and the species are identified, observations can be compared with daytime samples.

For many years groups have visited us here at BIOS. Each group comes to us with its own set of requirements for the course they would like, so that we can develop a tailored program to suit their needs. There are a variety of field and laboratory activities available to student groups of all ages. BIOS Faculty and staff direct and supervise fieldtrips and lab sessions for the student groups to actively participate in, and also deliver lectures on a number of scientific topics.

Field Trip to North Rock

Snorkeling is at its best at North Rock, which is approximately nine miles offshore. These are the northernmost reefs of Bermuda, and a pristine snorkeling sight. Some groups couple this with an inner lagoonal snorkel within North Lagoon to compare the outer and inner reef types.

Field Trip to Walsingham

Nature Reserve Students are able to explore Bermuda's caves and learn about their geological formation, view Bermuda's flora and mangroves.. Some groups choose to do a snorkel in Walsingham pond, which provides a good example of healthy mangroves and the communities that survive on their roots.

Field Trip to Nonsuch Island

Nonsuch island is a wildlife sanctuary, and its preservation has been the lifetime work of Dr. David Wingate. With limited public access, the island is a "living museum of pre-colonial Bermuda". The surrounding waters provide a great site for snorkeling, and many different habitats are represented onshore, such as freshwater marsh, mangrove and woodland. Students are taught about the efforts to conserve and reintroduce the endemic nocturnal seabird, the Cahow.

Other Suggestions

Night Snorkel in Whalebone Bay, Micro-plastics research at Coopers Island, Ferry Reach Park and BIOS campus, snorkeling a shipwreck, explore the geological history of Bermuda, birdwatching in Spittal Pond Nature Reserve.

Other Potential Field Trips

Bermuda Aquarium Museum and Zoo, Bermuda Underwater Exploration Institute, Maritime Museum and Commissioners House and the Botanical Gardens.





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