

Pioneering Galapagos Trip for Cambridge Geologists

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A team of University of Cambridge Geologists will follow in the footsteps of Charles Darwin on a unique expedition to the Galapagos Islands in July.

The expedition, led by Dr David Norman from the University of Cambridge Earth Sciences Department and the Sedgwick Museum, will go 'back to nature' into areas of Isla Santiago (formerly known as James Island), uninhabited by humans, and largely untouched since Darwin's time.

The party of seven includes Andrew Miles, a 21-year-old Earth Sciences undergraduate from Churchill College, who will be very similar in age to the young Charles Darwin when he visited the Galapagos Islands as part of his epic Beagle voyage that did so much to inspire his later theory of Evolution.

Camping out in rough terrain and sampling from areas rarely explored since Darwin's time, the researchers will attempt to retrace his steps on the island, where he spent about 10 days collecting volcanic rocks and other natural history objects.

The original rocks collected on the islands are in the Sedgwick Museum, and there is some confusion about where exactly he collected his samples.

The geologists will also apply modern scientific methods in a way that

Darwin could not, collecting more rocks from a larger area of the island and bringing to light, using hi-tech analytical equipment, information about the unique volcanic activity displayed on Santiago.

Specimens, collected on the trip, will be used by Andrew for an undergraduate research project before being exhibited at the Sedgwick Museum as part of a new exhibition “Charles Darwin the Geologist,” to be opened in 2009.

Duplicate rocks will also be used to create smaller exhibitions at the Charles Darwin Research Centre (on the island of Santa Cruz) in Quito (Ecuador), Santiago (Chile) and at the Smithsonian Institution (Washington DC).

“The amazing thing about Darwin was that he was only on Santiago for ten days with limited equipment, yet managed to collect a range of specimens broad enough to map out major parts of the island,” said Dr David Norman.

“Charles Darwin was a truly remarkable observer and collector and we hope that this trip will give us a better understanding of his experiences at a time when many of his theories were developing apace.”

Dr Sally Gibson, expedition Volcanologist said, “The Galapagos Islands have formed where hot mantle from deep within the Earth has risen and generated melts that have ascended through the lithosphere and erupted at the surface.”

“The expedition will be a marvellous chance to explore uncharted territory and find out more about the geological history of Santiago, the island from which Darwin first proposed his theory of how volcanic melts evolve by a process of crystal fractionation.”

The Galapagos are a cluster of 13 volcanic islands and associated islets and rocks located just beneath the equator, about 960 km (600 miles) west of Ecuador in South America.

Charles Darwin was the first to make a scientific collection from the islands in 1835. He was a young student having just graduated from Cambridge and was appointed as the naturalist on a round-the-world scientific and geographical voyage on board HMS Beagle.

He had spent the previous four years exploring the geology and wildlife of South America. In later life Darwin maintained that the impressions created by his experiences in South America, and on the Galapagos were the source of many of his most famous ideas.

The geologists must spend time in 'quarantine' on the island of Santa Cruz (at the research station) to avoid contamination risks before being allowed to venture on to Isla Santiago to carry out their research.

They intend to make a video diary during their trip, charting their progress and recording thoughts and feelings on what they discover and this will be added to the University of Cambridge website after they return.

The expedition has been funded by the Department of Earth Sciences; Christ's College, Cambridge; Trinity College, Cambridge and the National Science Foundation.

Source: University of Cambridge

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