Case Study: Charles Darwin Research Station

A Skye DataHog logger system is currently in use at the Charles Darwin Research Station facilities in the Galapagos, Ecuador. One of the Station's principal projects is to develop methods of control and removal of invasive species including plants, insects, and vertebrates.

The problem of invasive species is a worldwide issue, second only to habitat destruction as a threat to biodiversity. The Galapagos Islands stand as an example to the world community of an archipelago that is still largely intact. But it will require intensive research and management efforts to defeat the invasive species and enable the native flora and fauna to survive and flourish.

Almost nothing is known about the biology of endemic species and the parameters that determine natural regeneration of the populations. The Station conducts studies on the ecology of threatened species for a better understanding of the factors involved in their survival, and plan appropriate action for their conservation. Introduced plants, whether intentionally or accidental, are a serious danger for the native flora since aggressive species compete for light, water and nutrients. In 1999 more than 10 new species were recorded, bringing the total to around 475 species of introduced plants in the Archipelago.

Dr Scott Henderson of Oxford University is recording microclimatic variables under the canopy of an invasive tree species that may be responsible for plant community composition differences. He is using the DataHog with Skye sensors to monitor RH, air and soil temperature, rainfall and PAR radiation simultaneously both under the tree canopy and about 10m away in an open area of native vegetation outside the tree's influence.

He comments: "As a research NGO in a developing country the magnitude of the Charles Darwin Research Station's conservation responsibilities is far greater than our budget to undertake them. As such, we have to ensure that our equipment investments are made wisely, and it was in pursuit of this end that I arrived to Skye as a provider for our climate sensor needs. In terms of high quality, precision instrumentation, durability, portability, user-friendliness and cost, Skye came out on top. At first we were concerned that Skye being a small company might hinder their ability to meet some of our needs. On the contrary, whether in need of a last minute-shipment, urgent advice or additional documentation we have found Skye's personnel to be prompt, friendly and competent. Whether I'm on top of a wind-swept volcano, enshrouded in fog in highland cloud-forests or baking under the cactuses with the giant tortoises of the lowlands, I know I can count on my equipment and the company that stands behind it".

Acknowledgements and Contacts

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