

# The Galapagos QUESTION

Graham Watkins, Executive Director of the Charles Darwin Foundation, discusses the issues pertinent to travelling in the Galapagos



Sealions relaxing on the beach

The Galapagos Islands are globally unique and boast extraordinary ecosystems. This isolated island group, recognised as a World Heritage Site, is among the best conserved of the world's tropical archipelagos, but much like other oceanic island systems, the islands are fragile. To date, Galapagos biodiversity has been remarkably well conserved thanks to concerted efforts to study and protect it, as well as relatively low levels of interaction between the islands and humans, which produce rapid changes in fragile island ecosystems. The work of the Charles Darwin Foundation has also been instrumental, and that

work is becoming increasingly important as threats to the islands' ecosystems increase. Graham Watkins explains why.

**Audley:** What are the key threats to the Galapagos that tourism presents, and what are the resulting challenges for the Charles Darwin Foundation?

**Graham:** Although a trip to the Galapagos offers visitors the privilege of experiencing nature at its most remarkable, tourism is not without costs to the environment. The boats and planes that arrive daily bring with them insects and other invertebrates that threaten Galapagos ecosystems. Once here, alien species are frequently dispersed between islands by human activity or under their own power. Results of a study that we recently undertook revealed that the large number of external and internal lights used by the boats attracts nocturnal insects, especially moths, and that these species follow the ships to other islands. A total of 171 species were collected during the study. Over half of these species are considered a threat to the biodiversity of pristine islands, such as Fernandina. The chances of transporting insects on boats are even higher in the rainy season, which is associated with greater insect activity.

Simple solutions for the local fleet include the introduction of light bulbs with colours that are less

attractive to insects and turning off lights four hours before a ship's departure, both effective methods to avoid insects alighting on the boats. We have identified cost efficient options that the Galapagos tourist sector can employ to reduce the unnatural spread of species. We have also recommended that tour itineraries be reviewed so that pristine islands are not visited immediately after sites with higher numbers of invasive species have been explored.

It makes good business sense for the tourism sector to lead the way in preventing the spread of introduced species. Tourism is one of the most important sources of revenue for Ecuador and for Galapagos. The financial and ecological cost of invasive species spreading throughout the islands' fragile ecosystems is far higher than taking early preventative steps to reduce the movement of insects to and around the islands.

**Audley:** What are the other major threats to the islands' ecological structures?

**Graham:** Population growth, linked to economic growth, is the major threat to the islands' future. Island archipelagos share similarities in the patterns and consequences of human development. The Galapagos Islands of the future could well resemble other Pacific, Caribbean and

Mediterranean islands of the present. Archipelagos that have undergone rapid human population growth face continuing battles (though perhaps lost wars) against invasive species, large hotel developments, ocean-going liners, the inequitable distribution of economic benefits, and the extinction of the majority of its unique native species. Ironically, in the Galapagos it is the unique native species that draws so many to the islands in the first place; their loss would massively impact upon the islands' prosperity.

The present development model for the islands appears unsustainable, both for residents and for the islands' unique natural heritage. The problems lie with humans and so must the answers: Galapagos needs strong and stable local institutions that work together to ensure informed decision making for equitable and sustainable development. In order for local organisations to collaborate

## FACT FILE

Audley have exclusive access to some of the last few cabins available for this year's departures on the sought-after Isabela II. For details, or to enquire about the work of the Charles Darwin Foundation please contact Joanne, Mark, Patrick, Paula or Phil on 01993 838 635.



Mocking bird



Blue-footed boobies

successfully, they have to first reduce and better manage conflicts over resources and development issues. Local residents are the ones who must create a shared vision: a vision that must incorporate the building of an island culture that understands natural resource limitations, conserves energy, water and essential resources, and creates a local constituency for long-term sustainability.

In this context, the Charles Darwin Foundation is conducting its own exercise in institutional strengthening and strategic planning to adapt to this new environment. We are renewing our commitment to supporting Galapagos institutions to develop sustainable societies in the islands and so guarantee their conservation. Our researchers will continue to carry out quality, integrated research and communicate the results to decision makers and Galapagos constituents in a timely, accurate way through a variety of education and communication programs. We will continue to help build institutional and individual capacities and support actions that link local sustainable livelihoods to conservation action. In working with local people, we hope to help reconcile the desires for island development with the need for long-term conservation. Our actions alone will be insufficient to secure the conservation of the

islands. Equally critical will be the will and efforts of our collaborators including Ecuadorian Government institutions, local community partners, other non-governmental organisations, and our network of Friends of Galapagos supporters. If we act swiftly and decisively, we can find solutions to prevent the Galapagos Islands from suffering the same fate as other ocean island archipelagos, and help them remain distinctly different in a not so characteristic way.

**Audley:** So should we stay away from the Galapagos?

**Graham:** No, not at all, but do recognise that these islands are fragile and precious and do what you can to help protect them. If you would like to support our work you can register your interest by visiting our website [www.darwinfoundation.org](http://www.darwinfoundation.org) The support of individuals, and organisations like Audley, will help ensure that this astonishing and extraordinary community of animals, plants, and people will remain the best preserved oceanic archipelago on the planet.

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Suggested itineraries and images from the Galapagos Islands



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Giant tortoise