

Birds and tourists as research topics

Ecotourism is booming, especially in distant corners of the globe where animal species are as attractive to tourists as they are ecologically vulnerable.



Brown booby (*Sula leucogaster*), Entrecasteaux reef, New Caledonia.



Pair of great frigatebirds (*Fregata minor*) mating on Surprise Island, New Caledonia.

More and more of us dream of exploring far-flung lands, observing first-hand their rare wildlife and pristine ecosystems. And those dreams can be converted into cold hard cash, providing a lucrative revenue stream for tourism agencies, as well as the organisations responsible for the natural resources in question. By way of an example, the industry that has grown up around yellow-eyed penguin watching in New Zealand is estimated to be worth \$100 million annually, equivalent to around \$60,000 per mating couple. The wildlife tourism sector is also a major driver of economic development, particularly for small island nations in the tropics whose biodiversity is as stunningly rich as it is fragile.

The tension between protecting biodiversity and capitalising on its economic potential requires us to look more closely at the ecological impact of tourism, particularly in isolated areas. For example, in the case of the most spectacular – and thus highly-prized – colonies of seabirds, such unwelcome intrusions can lead to stress, perturbed behaviour, abandoned nests and even increased mortality.

In New Caledonia, this issue is at the heart of a multi-disciplinary research project which aims to better understand both the behaviour of the perturbed animals and the behaviour of the humans involved (visitors and environmental resource managers). In order to get to grips with the stakes and consequences of tourism, ethno-ecologists are seeking to ascertain how tourists, cruise passengers, fishermen and tourist agencies comprehend these endangered species, and how they assess their own impact.

Meanwhile, eco-biologists are working to measure and quantify the impact of the presence of visitors on the population numbers of sea-birds nesting on islands at different distances from areas inhabited by humans. They will then attempt to estimate respectful interaction

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Tourists on the island of Lifou, New Caledonia.

distances for each species, while also assessing their capacity to adjust to the presence of humans. The researchers are also working to scientifically describe the behaviour exhibited by tourists (travel routes, types of disturbance, number and duration of visits etc.).

Their goal? To compile data for use in a practical, effective management tool which can be deployed by local environmental agencies. The idea is to give them a clearer idea of potential safe approaches and at-risk situations depending on the season, the species in question and the frequency of visits. A manner of assessing and testing the sustainability of ecotourist projects which, on paper at least, promise that they represent no threat to the long-term economic, social, cultural and environmental integrity of the regions that host them.

... Researchers are looking at the ways in which tourism impacts wildlife, and weighing up whether or not it is truly possible to reconcile the protection of biodiversity with its economic exploitation, particularly in parts of the world where biodiversity is a major resource ...

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The Nagoya protocol, reconciling ambition with effective action

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Listening to the environment

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Protecting biodiversity

Converting waste water into fertiliser for leafier cities

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Nature's abundance protects us against pandemics

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Trees, the backbone of agriculture

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