Tropical Island Ecological Restoration

Program Overview

Kestrel Valley is a private nature reserve of 200 hectares in the South East of Mauritius. In a pocket of remaining Mauritian forest, native fauna and flora continue to exist here.

The team at Kestrel Valley have embarked on an ambitious mission to restore the forest and coastal habitats for the unique wildlife of Mauritius not just to exist, but to thrive.

Mauritius is a paradise because it is so biologically unique, forming part of the Madagascar and Indian Ocean Islands biodiversity hotspot. This is due to the island’s high level of endemism, meaning that many of its plants and animals can only be found there. This exceptional endemism comes as a result of the island’s location, age, isolation and varied landscape, leading to remarkable percentages of endemic species: 39% of plants, 80% of non-marine birds, 80% of reptiles, and 40% of bat species reported as endemic. Forests support 691 species of indigenous flowering plants, 52 native species of vertebrates and 30 species of land birds. Another major ecosystem for Mauritius is the marine environment, comprising 16,840 km2 of territorial sea and 1,700 species, including 786 species of fish, 17 species of marine mammals, and 2 species of marine turtles.

This unique paradise of biodiversity is at risk. The main reason for this this is habitat loss and degradation. This is why our conservation team is now working with partners in Mauritius to address conservation challenges. This will be done through establishing new and contribute to existing conservation projects on the island to support ongoing research efforts.

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| **Day** | **Morning Activities** | **Afternoon Activities** |
| **Day one** | Meet and greet at the airport, transfer by road to Kestrel Valley, check-in and Orientation and tour of property / Botanical transects | Assist in the tree nursery, vegetable garden, herbarium |
| **Day two** | Biodiversity transect (invertebrates, fish, herptiles, birds, mammals) / Restoration of river habitat | Kestrel monitoring / Fruit bat census |
| **Day three** | Marine conservation day – coral reef farming/reef restoration, or turtle monitoring | Beach clean up & documentation (categorisation) of litter/ Eco-brick project. |
| **Day four** | Monitoring of Mauritius Kestrel / Visit to Valley de Ferney. Preparation for community work / Day trip to Ile aux Aigrettes Island (multi-species conservation projects) | Alien vegetation removal on Kestrel Valley / Educational nature hike. Overnight camping (set overnight camera traps at research points) |
| **Day****Five** | Hike back to camp, collect camera traps en route, analyse and enter data digitally | Community work: environmental presentation at one of our local partner schools / learning about Ylang ylang distillation at local shop / community litter clean up |
| **Day****Six & seven** | Weekends at leisure, unless otherwise stated, in which case off-days may be swopped. |  |

**\*Please note that this is an example itinerary of a typical week at Kestrel Valley and pending weather conditions, the daily activities are subject to change.**

**\*\*Training for all activities is provided beforehand**

**Daily Activities may include, but are not limited to:**

* Turtle Monitoring
* Coral farming
* Data collection for conservation research
* Monitoring endangered species such as the Mauritius Kestrel and the Mauritian Fruit Bat
* Biodiversity transects
* Mauritius Fruit Bat conservation
* Learning about endemic species – Pink pigeons, Olive White-eyes, Mauritius Fody, Giant Tortoise
* Litter clean-ups
* Environmental education and awareness workshops
* Community support

**Weekends or at Leisure activities:**

* Beaches, lagoons and reefs for water activities.
* The mountainous interior includes Black River Gorges National Park, with rainforests, waterfalls, hiking trails and wildlife viewings like the flying fox.
* Capital Port Louis has sites such as the Champs de Mars horse track, Eureka plantation house and 18th-century Sir Seewoosagur Ramgoolam Botanical Gardens are a sight to behold.

What’s Included:

Three meals per day

Return Airport Transfers

Accommodation

All activities included in the itinerary

Excluded:

Flights

Travel insurance (compulsory) $3/day

Visas

Drinks – soft drinks & alcohol

Personal and Travel Insurance

Any Extra Activities not mentioned on the itinerary

To be eligible for this project, you must have a keen interest in terrestrial and marine conservation, have a good level of fitness (Hiking and swimming fit) and be 18 years of age or older. Minimum length of stay is 1 week, although we recommend at least two weeks to experience the programme fully.

Please complete our online application form if you have not already done so. On successful application we will notify you, and you will be required to pay your deposit to secure your place.

* A $300.00 deposit is required to confirm placement (Full payment if under 8 weeks prior to departure.)
* Your Placement will then be confirmed to you in writing..
* Full Balance is due 60 days prior to departure.

Accommodation:

**Access**

Kestrel valley is located a mere 12km from the Sir Seewoosagur Ramgoolam International Airport, accessed by a 20-minute road transfer

**Accommodation**

7 Bungalow Rooms

Each room sleeps two volunteers. Bungalows are en-suite.

**Facilities**

Kitchen

Lounge

Dinning area

Cash bar

Swimming pool

Presentation area

Activity Information:

**Visit to Ile aux Aigrettes**

Ile aux Aigrettes is a small island managed on behalf of the government by the MWF exclusively for conservation purposes, volunteers will learn about themselves assisting with supplemental feeding of free-living birds, provision of nest-boxes, enhancement of natural nest-sites, control and exclusion of invasive alien mammals around feeding and nesting sites, and monitoring of bird populations, behavior and movements. Volunteers will learn about endemic bird conservation and research projects of species such as the Pink Pigeon, Mauritius Fody and Olive White-eye.

Currently there are no tortoises at Kestrel Valley, and we plan to (re)introduce them in time. The Mauritian Giant Tortoise that once roamed the island went extinct due to overharvesting by humans. Since then, the Aldabra Giant Tortoise has been introduced to fulfil the important ecological role their extinct cousins used to carry out. This important role includes seed dispersal of native plants and nutrient cycling, as they eat fallen leaves, among other food items. Volunteers will get to meet the giant tortoises of Ile aux Aigrettes islet with our partners, the Mauritian Wildlife Foundation. In time, we hope to introduce this tortoise to Kestrel Valley Nature Reserve.

**Coral Farming Project**

This project aims to rehabilitate the coral reef ecosystem of the Grand Port Lagoon by increasing the percentage of live corals. A traditional coral farm is very much like an underwater garden, with row after row of corals growing in aquatic nurseries, under sunlight and with a constant flow of seawater. Resembling the way you line your crops in a field, underwater coral farms are built in rows using “tables” made from rope or solid material and strategically placing coral reef fragments on these structures. Once the coral fragments reach a certain size after months of care, they are transplanted to degraded sites in order to restore the ecosystem. Depending on the stage of the coral farm at the time you volunteer, you may find yourself assisting with:

* Construction of coral farming structures – these are what the coral fragments are attached to, so that they can grow in the ideal conditions of the selected site in the lagoon.
* Cleaning of coral farming structures – it is important that the structures are cleaned of any algae, debris and other growth so that the corals can grow. Cleaning is usually done while snorkeling, brushing the structures between the corals with a hard brush to get them clean.
* Collecting coral fragments from the ocean to “plant” on the coral farming structures
* Attaching the coral fragments to the structures.
* Relocating corals of the right size to natural coral reefs, as part of the natural reef rehabilitation efforts.

**Turtle Monitoring**

This activity takes place in the Blue Bay Marine Park, a Marine Protected Area (MPA) covering approximately 300 hectares. The park is home to the Hawksbill Turtle that is critically endangered, as well as the Green Turtle. Today, all green turtle populations are listed as either endangered or threatened under the Endangered Species Act, however, they are abundant in Mauritian waters, with their abundance considered an indicator of the health and resilience of seagrass and reef ecosystems. We employ a photo-identification method which uses the unique patterns of scales on each turtle's facial profile to recognize them. We snorkel in the Blue Bay Marine Park, spending about 1.5 hours in the water, taking pictures of the facial profile of the turtles as we go along. Depending on the time of year, we sight an average of four turtles per outing. The turtles here are quite habituated to human presence and don't shy away easily, allowing us to collect some behavioural data at the same time. We've been able to determine the presence of permanent resident turtles in the MPA as well as recruitment of young juveniles. So the data is collected through an underwater camera, and slates for observational data. This monitoring project aims to determine the actual population of turtles in the Blue Bay MPA, the degree of residence of turtles in the area, the period spent outside the area, the importance of MPA as a site for diet and stressors on the population. This information is considered essential for future conservation, management and restoration.

Tip (marine conservation activities): It is helpful for you to practice snorkelling before arrival (even if in a swimming pool). Please remember to pack in your snorkel, mask and flippers. The consultants at your local outfitter will be able to ensure you buy the correct size and type of mask, snorkel and flippers. Flippers are important to help you swim against the current, and on windy days. Bear in mind that you will be in the water most of the day, and can get tired. It’s a good idea to invest in a good quality water-resistant sunblock, and it is important to reapply each time to exit the water (It’s easy to forget, and it’s likely that you’ll feel cold after spending so much time in the water). If you are prone to getting cold easily, we recommend that you bring a wetsuit with – even seasoned divers become cold when spending most of the day in the water. A good indicator of how to prepare is to look at what your guides and instructors are wearing and packing!