

# POSTGRADUATE DIPLOMA IN ENDANGERED SPECIES CONSERVATION MANAGEMENT

28 MARCH TO 12 OCTOBER 2018, MAURITIUS







#### **COURSE OVERVIEW**

The postgraduate Diploma in Endangered Species Conservation Management course, lasting six intensive months, provides you with field experience, theory and human resource management needed to lead conservation projects.

It is a unique opportunity to learn directly from two of the world's leading conservation organisations. It comprises around six weeks intensive taught modules, and approximately 10 weeks practical experience in field projects based in Mauritius and on offshore islands.

The programme is delivered by Durrell Conservation Academy, headquartered in Jersey, and Durrell Conservation Training Ltd a not-for-profit training organisation based in Mauritius (part of Durrell Wildlife Conservation Trust) in association with the Mauritian Wildlife Foundation. The programme is validated and quality assured by Middlesex University, and participants will receive a Middlesex University award upon successful completion.

# DURRELL WILDLIFE CONSERVATION TRUST (DURRELL)

Established by naturalist Gerald Durrell in 1963, Durrell has a proven track record of saving species from extinction, and nearly 40 years' experience of delivering conservation training. Durrell operates around the world, restoring highly threatened species and their habitats, through a range of integrated approaches such as hands-on population management, habitat restoration, research, community conservation, training and capacity building and government partnerships. Durrell has been working in Mauritius since the late 1970's, and works closely with its partner organisation, the Mauritian Wildlife Foundation.

#### MAURITIAN WILDLIFE FOUNDATION (MWF)

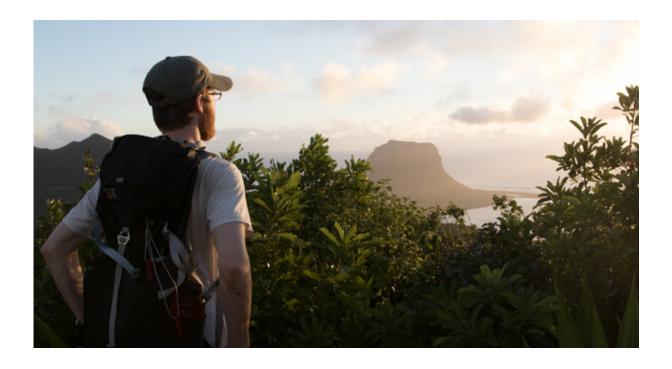
The Mauritian Wildlife Foundation (MWF) is a nongovernmental, non-profit conservation agency working in Mauritius to save threatened endemic local flora and fauna. It was established in 1984 under the initiative of Durrell Wildlife Conservation Trust. The conservation work in Mauritius began as a species orientated programme concentrating on a few critically endangered species, including the Mauritius kestrel and the pink pigeon. In 1996, the organisation expanded its operations to habitat restoration, including the management of native forests and small islands. The Foundation is now perfecting whole ecosystem management and restoration, which includes invasive plant and predator control. It also has captive breeding programmes for animals, and endemic plant nurseries.

#### MIDDLESEX UNIVERSITY

For nearly 140 years Middlesex University London and its predecessor institutions have been home to innovators and change-makers. It boasts one of the most diverse communities of students and staff of any university in the UK, with almost 19,400 students and 1,900 staff from 145 different countries at its modern north London campus in Hendon. In 2010, Middlesex University became the first British university to open a campus in Mauritius.

#### WHO IS IT FOR?

The course is tailored to graduates keen to complement their skill-set and CV and to gain practical experience and applied knowledge needed to be effective conservation professionals and lead their own species recovery projects. It also supports mature participants seeking to move into the wildlife conservation sector and those who have not received postgraduate level training in the field.



# WHAT IS THE COURSE CONTENT?

During the course you cover topics such as:

- Small population biology and applied genetics
- Population monitoring techniques
- Predator control
- Endangered species recovery techniques
- Invasive species management
- GIS skills
- Conservation planning
- Project planning and leadership
- Community-based conservation and education
- Social research skills

Intensive taught modules are interspersed with extended periods in field-teams, workshops and personal study and research.

You have the opportunity to undertake a pilot research project on a topic of relevance to wildlife conservation. Within the field-teams you learn skills such as mist-netting, animal handling, supplementary feeding techniques, tree climbing, rare plant germination techniques and animal morphometrics.

# COURSE LEARNING OBJECTIVES

The programme advances your understanding of and experience in:

- ✓ Principles of small population biology
- Conservation techniques for the recovery of threatened species and their habitats
- ✓ Island biogeography theory and evolution on islands
- Management and leadership of species recovery programmes
- ✓ Invasive species biology, ecology and management
- ✓ Planning conservation programme and stakeholder management processes
- Networking with professionals within conservation

Participants develop their ability to:

- ✓ Critically analyse field projects
- Reflect on and evaluate the application of conservation biology theory in the practice of endangered species recovery
- Critically assess management and leadership styles and their impact on the functioning of endangered species recovery teams
- Marshal ideas and examples into wellorganised oral presentations
- ✓ Conduct themselves confidently in interviews
- ✓ Produce a concise and attractive CV

### **COURSE OUTLINE**

The programme is composed of five modules. In practice the topics for each module are interspersed with one another to maintain a synergy between the theory and practice of conservation biology.



# MODULE 1 THE BIOLOGY AND ECOLOGY OF SMALL POPULATIONS

**FORMAT** Combination of theory; fieldwork and revision/exam

This module is designed to provide participants with a solid understanding of how small populations function, the relevance of these concepts to island populations, and the role in particular that genetics plays in shaping population and sometimes whole species' futures. The emphasis is on developing participants appreciation of small population biology, extinction processes (and how islands have helped to shape our understanding of these processes), and how species biology and ecology can influence extinction risk and our opportunities to act to recover the population. By combining current theory in this area of conservation biology with extended opportunities for field work within field stations located around Mauritius, participants have the opportunity to both develop their conceptual understanding and learn about practical aspects of managing small populations in the wild.

# MODULE 2 ENDANGERED SPECIES RECOVERY TECHNIQUES

**FORMAT** Combination of theory; fieldwork and revision/exam

This second module is designed to develop participants applied understanding of species recovery techniques. Topics covered will include invasive species management, habitat manipulation, captive breeding and release programmes and a range of approaches to whole ecosystem restoration. The theory component will link closely with the field work experience, where participants will deepen their appreciation for the different tools that can be used to counter limiting factors to population recovery in both the short and the mid-term. Drawing from the skillset developed during this module, participants can inform species recovery programmes they are involved in currently or in the future.

## COURSE OUTLINE CONTINUED



# MODULE 3 MANAGING AND LEADING CONSERVATION PROJECTS

**FORMAT** Combination of theory, fieldwork, revision/exam and assessments

Module 3 examines the realities of managing and leading conservation teams. This is an understudied and under-valued area of training for conservation professionals but is critical to the success or failure of a project. Topics covered include the theory and practice of leadership, team development and management, project planning and dealing with change, project evaluation and monitoring and individual performance management. Participants gain insight into different leadership and management approaches and tools available within different contexts and progress into a stronger position to manage and lead their own teams. Given the nature of this module, part of the assessment involves a reflective portfolio submitted after the participants return home from the face-to-face taught component of the programme. The aim is for them to use their normal work environment to inform their thinking of how they could manage and lead their own teams more effectively.

# MODULE 4 PUBLIC ENGAGEMENT IN CONSERVATION ACTION

**FORMAT** Combination of theory, fieldwork, revision/exam and assessments

Module 4 broadens out the content of the programme to consider how participants can better understand, inform and engage local communities and other non-professional conservation groups in conservation action.

Topics covered include how to conduct social research studies, community conservation, conservation education and behavioural change and stakeholder management and facilitation. Participants learn to conduct more informed social research surveys, develop and deliver stakeholder workshops, have a critical understanding of how to attach "value to biodiversity and grasp a clear model for achieving behavioural change.

# COURSE OUTLINE CONTINUED



# MODULE 5 PILOT PROJECT IN ENDANGERED SPECIES RECOVERY

**FORMAT** Combination of planning, fieldwork, project write up and final assessed presentation

Module 5 provides an opportunity for students to develop their research and scientific writing skills around a research topic of their choice, though related broadly to programme content. Participants may develop projects around topics such as small population biology, invasive species management, endangered species recovery or project leadership and management. Each student is assigned a project tutor who provides guidance to their tutees throughout the project proposal writing stage, as required by the individual student. This module also includes a workshop on GIS and fundamentals of statistics, both topics support students in the development of their pilot projects.

PLEASE NOTE THAT THE ABOVE COURSE OUTLINE MAY BE SUBJECT TO MINOR CHANGES

## **COURSE LEADERS**



#### DAVID DERAND

#### PROGRAMME DIRECTOR AND MANAGING DIRECTOR OF DURRELL CONSERVATION TRAINING LTD

David is responsible for leading the management and strategic development of the training programme in Mauritius and Western Indian Ocean islands, and for supporting field restoration on Mauritius offshore islets. He joined Durrell Conservation Academy in September 2017, having previously worked for 20 years in the environment and conservation sector. David holds an MSc in Marine Environmental Protection from the University of Bangor/UK and in Agrochemistry from ENSAT/France, as well as an Engineering Diploma in Tropical Agronomy from CNEARC/France. He previously established the Reunion Island marine reserve educational programme, spearheaded coral reef restoration in the Seychelles, coordinated Cousin Island science and research programme (endangered endemic land birds and reptiles, seabirds, vegetation, hawksbill turtles), and achieved the first aerial Invasive Alien Species eradication in French Polynesia by successfully removing two rat species, feral cat, rabbit and goat from three atolls and two islets in the Acteon and Gambier archipelago.



#### **AURÉLIE HENSHAW**

#### PROGRAMME CO-ORDINATOR

Aurélie previously worked with the Mauritian Wildlife Foundation (MWF). She has extensive species conservation experience having worked on the passerine project, pink pigeon project, the Round Island restoration project and she was co-ordinator of the echo parakeet project. She completed Durrell's Endangered Species Management Graduate Certificate (DESMAN) in 2013. Aurélie has been involved with the PGDip course since it began in 2013, and joined Durrell Conservation Training Ltd in 2015 as Training Coordinator. Aurélie has helped develop and deliver training designed to build the capacity of course participants as conservation professionals.

## COURSE FACULTY SUBJECT TO CONFIRMATION



#### PROFESSOR CARL JONES, MBE

Carl is Durrell's Chief Scientist as well as Scientific Director of the Mauritian Wildlife Foundation, and an Honorary Professor in Ecology and Conservation Biology at the University of East Anglia. Carl began working in Mauritius in 1979 and his dedication has led to the restoration of many species and habitats, for which he received the prestigious Indianapolis Prize in 2016. Carl leads Durrell's engagement in the Mascarenes and supports various aspects of Durrell's conservation breeding in Jersey.



#### DR VIKASH TATAYAH

Vikash has been closely involved in biodiversity conservation for nearly 20 years. He conducted his doctoral research on the Round Island Petrel. He is currently the Conservation Director and Board Member of the Mauritian Wildlife Foundation (MWF), the sole terrestrial conservation NGO on Mauritius and Rodrigues. He oversees all the conservation programmes of the foundation and has made significant contributions in this sector. He represents MWF on national committees, where he advises on national issues, and is also the MWF link to the International Union for Conservation of Nature (IUCN) and BirdLife International. He is currently the co-chair of the Mascarene Islands Plant Specialist Group.

## COURSE FACULTY CONTINUED



#### DR NIK COLE

Nik has a PhD from the University of Bristol, UK, where he researched the impact of invasive reptiles upon island endemics. Since 2001, he has worked on and led restoration projects and research in remote island archipelagos. His role as the Mauritian Islands Restoration Manager for the Durrell Wildlife Conservation Trust (Durrell) and Mauritian Wildlife Foundation (MWF) and has been to lead the Mauritius Reptile Recovery Programme and manage tortoise rewilding, seabird community restoration and the restoration of Round Island, in partnership with the National Parks and Conservation Service, Government of Mauritius. He has led the establishment of additional island populations of six threatened reptile species, saved one from extinction and has started to rebuild island communities. His work has involved developing research programmes to support island restoration, including research on invasive alien species, their eradication and control within the Indian Ocean and Caribbean. He has extensive knowledge of island ecosystems, and mentored and supervised numerous individuals now in senior conservation positions. Nik as brought national experts, local partners, government agencies, universities and international organisations together to focus on island restoration.



#### DR CLAIRE RAISIN

After completing an undergraduate degree in Ecology and Environmental Management at Cardiff University, Claire went on to study the endangered echo parakeet of Mauritius for her Masters and PhD at the Durrell Institute of Conservation and Ecology (DICE). Her research focused on the impacts of management on species recovery and how infectious disease can influence management decisions and vice versa. More recently Claire was Director of the climate change charity, Size of Wales, which works with partners across Africa and South America to protect tropical forests, reduce deforestation and mitigate the effects of climate change. Their work focussed on empowering local communities and supporting in-country NGOs as well as awareness raising work in the UK. She joined Chester Zoo as Field Programme Coordinator for Madagascar and the Mascarenes in May 2017, where she looks forward to combining her experiences of partnership working with her conservation training to develop a strong network of field programmes across the region.



#### DR SIMON BLACK

Simon enjoys a career involving both conservation science and management development. He holds an MSc in Conservation Biology and a PhD in Management whilst his experience as a senior manager working in Europe and the USA stretches back over twenty years. Over the past decade he has become more closely involved in wildlife conservation. He works in the University of Kent Human Resources Department running the University's leadership and management development programmes but is also active in developing external training programmes for the global conservation community. As a conservation biologist, Simon delivers undergraduate and postgraduate teaching in the University of Kent's Durrell Institute for Conservation and Ecology (DICE). His research primarily focuses on species recovery and conservation management including previous work in Mauritius, on-going long-term research on the conservation of endangered big cats in Arabia, North Africa and Asia (population genetics, human/ wildlife conflict, studbook development, captive population management) and current work on the effectiveness of species conservation programmes.

## COURSE FACULTY CONTINUED



#### DR JOHN EWEN

John is a Research Fellow at the Institute of Zoology, Zoological Society of London. His research focuses on reintroduction biology and threatened species recovery. He is co-chair of New Zealand's Hihi (Stitchbird) Recovery Group and has been involved in hihi management since the early 1990s. John is involved with a growing number of conservation projects including birds and mammals spanning New Zealand, Australia, and Mauritius. He is also helping develop a training course for the IUCN/SSC Reintroduction Specialist Group around effective application of the 2013 Guidelines for Reintroduction and Other Conservation Translocations.



#### DR CHARLIE GARDNER

Charlie is an interdisciplinary conservationist and conservation scientist. He was based in Madagascar from 2005 to 2015 where he worked with WWF, Blue Ventures and other NGOs on the country's ambitious 'Durban Vision' to triple the extent of the protected area network. He has also worked in conservation in the UK, Mauritius and Kenya. His book 'Life Amongst the Thorns –Biodiversity and Conservation of Madagascar's Spiny Forest' (co-authored with his wife, the photographer Louise Jasper), was published in 2015 by John Beaufoy. Having completed a BSc Zoology at the University of Leeds, Charlie studied for an MSc in Conservation Biology at the Durrell Institute of Conservation and Ecology (DICE), University of Kent, in 2002. He returned to DICE to carry out his doctoral research in 2009, submitting a thesis entitled 'Reconciling conservation and development in Madagascar's rapidly expanding protected area system' in 2014.



#### DR SUGOTO ROY

Sugoto recently took up a post with the IUCN managing a programme which aims to secure significant wild tiger populations through combatting poaching, securing habitats and prey and developing sustainable livelihoods for communities living in and around tiger conservation areas across Asia. Prior to this he was employed as a government biologist in the UK where developed and managed a project portfolio in invasive species management and human-wildlife conflict mitigation, in the UK, Overseas Territories and further afield.



#### DR MARTIN FISHER

Martin has worked for the conservation charity Fauna & Flora International (FFI) since 2001, and he is the editor of Oryx - The International Journal of Conservation. He previously carried out research and lectured in ecology and conservation at universities in Nigeria, Oman and Fiji. He studied at the Universities of London and East Anglia, and has a particular interest in the conservation and natural history of environments at the extremes of the rainfall spectrum deserts and rainforests in improving the contribution of scientific journals to conservation science, and in capacity building for conservation. In 2011 he was awarded the Silver Medal of the Zoological Society of London for contributions to scientific publishing and related outreach and training activities.

### SUPPORT STAFF



#### **DR NICOLAS ZUEL**

Nicolas has worked for the Mauritian Wildlife Foundation since June 2003; he first worked on the Round Island restoration project and by January 2004 he was made Round Island Head warden. His role included management of volunteers and maintenance of field station, monitoring of seabird and reptile populations, plant restoration work: propagating and planting, and invasive species management. In September 2005, he started a PhD on the Ecology and conservation of an endangered reptile community on Round Island. The thesis focused on the food web ecology, population biology and plant-reptile interactions of the reptile assemblage. In July 2009, he re-joined the Mauritian Wildlife Foundation as Fauna Manager where he manages over 35 field staff working on fauna conservation projects including the Mauritius pink pigeon, Mauritius kestrel, Echo parakeet, Mauritius Fody and Olive white-eye, involving bird reintroductions, species recovery and invasive species management.

### VENUE AND ACCOMMODATION

#### **ACCOMMODATION**

During their stay students live in shared accommodation in La Preneuse, Riviere Noire close to a variety of restaurants and within walking distance from supermarkets and the beach.

#### **VENUE**

Classroom-based learning takes place at Middlesex University at Cascavelle, Coastal Road, Unicity, Flic-en-Flac, Mauritius. A brand new campus opened in September 2017.



#### THE FIELD STATIONS

Participants' practical skills are developed through work within established field stations around Mauritius.

#### **ROUND ISLAND**

Participants have the privilege of spending a week on Round Island, a remote and restricted access island over 20Km from the North coast of Mauritius. This island holds a rich array of unique reptiles and plants and healthy populations of seabirds. However, the island has suffered heavy degradation and soil erosion due to introduced herbivores. Conservation work is aimed at controlling weed species, restoring the habitat, using the island as a sanctuary for rare plants and monitoring reptile and seabird populations. Analogue tortoises have been introduced on the island.



#### **PLAINE LIEVRE**

This was the first camp to be established and is found in the upland native forest within the National Park. A tin-roofed cooking area was built in 1993 and the wooden house with three rooms and an office was completed in July 1996 by the NPCS. In peak season a team of 8-10 field staff working on the Pink Pigeons, Echo Parakeet and Cuckoo Shrike projects are based at this field station. The forest of Brise Fer holds some of the best remaining native forest in Mauritius.

#### **ILE AUX AIGRETTES**

The Ile aux Aigrettes field station is an old lime store dating back to the early 1900s. It has undergone several renovations since then. Today it has two bedrooms, an office, a well fitted kitchen and a bathroom. An additional bunk house provides more sleeping accommodation. Pink Pigeon, Mauritius Fody, Olive White-eye and Island Restoration field staff live here all the year round. The Flora staff working on the island also use the house daily. The island also boasts an endemic plant nursery, a Visitor's Centre, bird management aviaries and baby tortoise head-starting/display aviaries.

#### **PIGEON WOOD**

This field station was completed in 1996 and is located at the top of the Pigeon Wood on the south-facing scarp slope within the National Parks. Two to three staff usually live here working on the Pink Pigeon and Flora projects. A Rare plant nursery has also been built here. It receives the greatest amount of rainfall of any field station making it a camp in the mist. It was the last remaining area where wild Pink Pigeons could be found and is now one of the few places that Mauritian Fodies can still be seen on the mainland.

#### **FERNEY VALLEY**

This field station has been built by the Ferney Valley Trust to sleep 8, situated on private land in the Bambous mountain range. It is supplied with electricity and running water. Re-introductions have been carried out by MWF in the past few years to the Valley. Three to four field staff work here, on the Kestrel, Pink Pigeon, Echo Parakeet and Passerine projects. MWF Flora staff advise on the restoration which is ongoing in the conservation management area of 175h.

# COST AND BOOKING INFORMATION

The course fee is £7,100 (including accommodation and all utility bills)

CLOSING DATE FOR APPLICATIONS 31 January 2018

FOR FURTHER INFORMATION OR TO BOOK A PLACE, PLEASE CONTACT +44 (0)1534 860037 OR EMAIL ACADEMY@DURRELL.ORG

#### **DURRELL WILDLIFE CONSERVATION TRUST**

Durrell Conservation Academy, Les Augrès Manor, La Profonde Rue, Trinity, Jersey, JE3 5BP

T +44 (0)1534 860037E academy@durrell.orgW www.durrell.org/training

