

**CONSERVATION
AND SCIENCE**
AT CHESTER ZOO

A CONSERVATION TRAINING ACADEMY

FOR CHESTER ZOO

A large crocodile is swimming in a pond, its head and back visible above the water. In the background, a duck is also swimming. The pond is surrounded by lush green plants and a rocky wall.

Education and training is at
the core of our mission of

PREVENTING
EXTINCTION



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Our Mission: PREVENTING EXTINCTION



Welcome to Chester Zoo's Conservation Training Academy

A Conservation Training Academy for 



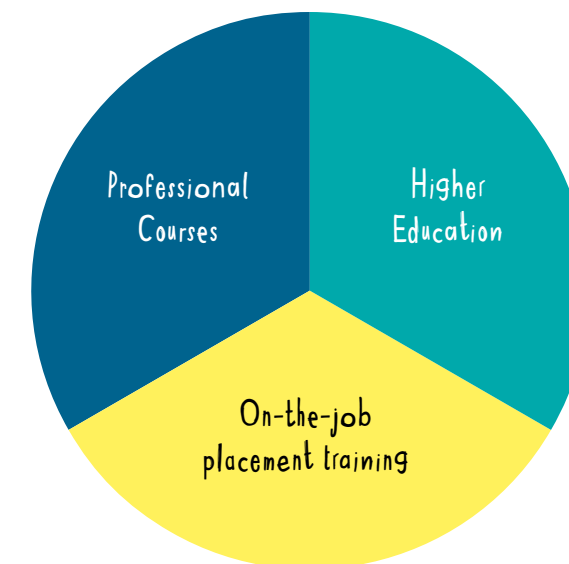
Welcome to the Chester Zoo Conservation Training Academy. As a conservation charity working in partnership with a wide range of organisations we face huge challenges as we tackle unprecedented biodiversity loss and rapid climate change. These require high levels of skill across a wide range of activities combined with ingenuity and adaptability. Timely, effective, real world training is therefore central to achieving our mission of preventing extinction.

In our Conservation Masterplan for 2021-2030, we have set a target committing us to enabling 5,000 conservationists to deliver positive change for wildlife through our training programmes. In turn, our conservation training provides a vehicle to achieving our other targets covering populations, places, people and policy, through building the capacity to multiply our conservation impact. Our Conservation Training Academy is at the heart of achieving this.

Chester Zoo has a long established history of training and capacity building and we are now bringing this together under the umbrella of the Conservation Training Academy. Our conservation work is integrated and utilises the wide ranging skills of our staff across the whole organisation from animal husbandry, veterinary care, population management and animal and plant sciences to conservation education, social sciences, public engagement, marketing, campaigning and sustainability. We aim to reflect this in our training programmes by offering a variety of courses of different lengths to suit the learner, enhancing skills to benefit conservation in both ex situ and in situ settings. In all cases we draw on our highly skilled workforce, offering real life case studies and problem solving delivered by current practitioners.

The Academy is divided into the three main areas shown on the diagram, designed to provide training to suit the needs of different learners.

Simon Dowell
Science Director



PREVENTING EXTINCTION IN A CHANGING WORLD USING OUR INTEGRATED APPROACH TO CONSERVATION BY 2030 WE WILL HAVE:

PRESERVED options for future
conservation for an additional

150 

species through conservation
breeding and propagation

TRAINED 
5000
conservationists

REVERSED
declines of 
200
threatened populations
of species in the wild

IMPROVED 
landscapes for
wildlife totalling
250,000 ha

EMPOWERED 
10million
people to live
more sustainably

INFLUENCED
5 
major policy areas
for wildlife

A Conservation Training Academy for 

In 1930, George Mottershead bought Oakfield House and seven acres of land, by 1931 the zoo opened, and in 1934, the North of England Zoological Society (NEZS) was born.

Today the zoo estate covers about 500 acres. The zoo itself takes up a massive 128 acres – more than ten times the size of that first bit of land George bought in 1930. With the original Oakfield House and stable block both Grade II* listed.

As well as an awarding winning zoo, we have a range of fantastic facilities for scientific research here at Chester Zoo. Scientific activities predominantly take place in the Applied Conservation Science Centre where there is office space for staff and visiting researchers as well as a meeting room for academic supervision meetings and training sessions.

The Applied Conservation Science Centre also houses Chester Zoo's Endocrinology Laboratory providing diagnostic services for both Chester Zoo's living collection and other collections across Europe. Chester Zoo's Animal Health Centre provides office space for staff, a laboratory and fully equipped surgery and post mortem room.

The Zoo also has a 170-seater lecture theatre with conferencing facilities for our larger events, conferences and

Today, we are not only the UK's most popular zoo with visitor numbers hitting 2 million in 2019, and one of the top six in the world; we are also a highly respected centre for global conservation, science and research, and passionate campaigners for in situ and ex situ conservation.

The zoo is an active member of BIAZA (British and Irish Association of Zoos and Aquariums), EAZA (European Association of Zoos and Aquaria) and WAZA (World Association of Zoos and Aquaria).

symposia. The majority of staff are based at Cedar House, Chester Zoo's administration building, with a range of meeting and training rooms available for virtual and in person training.

One of our oldest and most important buildings is The Oakfield. The original house bought by George in 1930, today it is an award winning contemporary British pub restaurant with a variety of training rooms upstairs and gorgeous views of the surrounding zoo estate.





Higher Education

A Conservation Training Academy for 

Higher Education

The zoo works with a wide range of partner organisations and educational institutions, currently there are 40 PhD scholars studying with the zoo and numerous MSc, MRes and BSc projects associated with the conservation and science team. These projects form key elements of preventing extinction and are co-developed with zoo staff.

We also develop, design and teach modules as part of HE qualifications taught at neighbouring Universities. Chester Zoo prides itself on working with a range of higher education institutions, as we understand the

importance of training the next generation of scientists, conservationists, keepers and managers, whilst ensuring the zoo industry has a role in formal education.

The veterinary team also supports a range of training, with placement students from a range of veterinary training schools and aiding the delivery of the unique BSc Veterinary Conservation Medicine Intercalated Honours programme which allows students to work with Chester Zoo science staff on a range of conservation science issues. You can find out more about this course [here](#).

MSc Zoo Conservation Biology - Manchester Metropolitan University Partnership

As part of our investment in future conservationists, we deliver a core MSc module, projects and placements at the zoo in conjunction with Manchester Metropolitan University. The core module of zoo conservation is taught at Chester Zoo on site using the zoos facilities, and taught by staff from a range of specialisms within the zoo - using examples in our collection as well as the work conducted in our six key regional programmes. Students are also offered the chance to work

on projects at the zoo which have a real impact on the work at Chester Zoo both in and ex situ. You can find out more about this course [here](#).

If you would like to know more about what higher education courses the Conservation Training Academy can offer, which is specific to your degree students and programmes, please contact the Academy Manager - Liz Webb at l.webb@chesterzoo.org

Bespoke HE course and Guest Lectures

We are happy to work with Higher Education Institutions to develop bespoke courses, deliver programmes, modules, workshops and provide specialist guest lecturers from our teams. These could be virtual courses, multi-day courses or one off training events.

If you would like to discuss how your organisation could work with our new Conservation Training Academy please contact L.Webb@chesterzoo.org



Scholars and Fellows

The zoo has over 40 PhD scholars and post doctorate research assistants. Doctoral training is undertaken in partnership with over 10 different UK Universities. Scholars are mentored and trained by our internationally recognized experts alongside their university supervisor. This expertise ensures that projects linked to Chester Zoo have high quality support, training and access to zoo resources.

With the ultimate aim for the zoo to create a network of outstanding alumni across the world, increasing conservation capacity, enhancing our knowledge of the living world and informing conservation practice through the provision of vital evidence.

Research opportunities are advertised on the zoo website and the respective university pages. [Click here for more information.](#)

Industrial Placements

These placements are with our science or field programmes teams and involve undertaking a main research project during the 12-month placement. We provide mentoring, projects and support for students who are able to work on projects which provide the zoo with evidence to inform zoo practices. We work with a range of higher education institutions, and can accommodate a range of different assessment needs and course requirements.

All placements students receive training bespoke to their placement, currently these are offered in areas such as Conservation Physiology, Endocrinology, Nutrition, Field Conservation, Ecology, Behaviour and Welfare. Many of these placement students then take these projects and develop them further into dissertations and MSc projects in the future. Industrial placements are advertised in September and October annually for students to start with us the next academic year. [Click here for more information.](#)



Scholars and Fellows

We are proud to be working alongside higher education bodies with our conservation scholars and fellow programme helping to train and support MSc and PhD students linked to a range of innovative and globally important projects. The aim is to train and empower future leaders who are successful in understanding how to link science and application.



Dr Luiza Passos - Lecturer at Liverpool John Moores University

Dr Passos' doctoral research was conducted with the University of Salford alongside herpetology staff at Chester Zoo. The research was titled 'Keeping fit for the ark: are zoo bred reptiles and amphibians ready to go back to the wild?', investigating the behavioural skills of reptiles and amphibians in zoos and the impact on future reintroduction. Dr Passos also created a database from wild and zoo populations so future conservationists can utilise the information. Winner of the BIAZA Golden Award Research 2018.



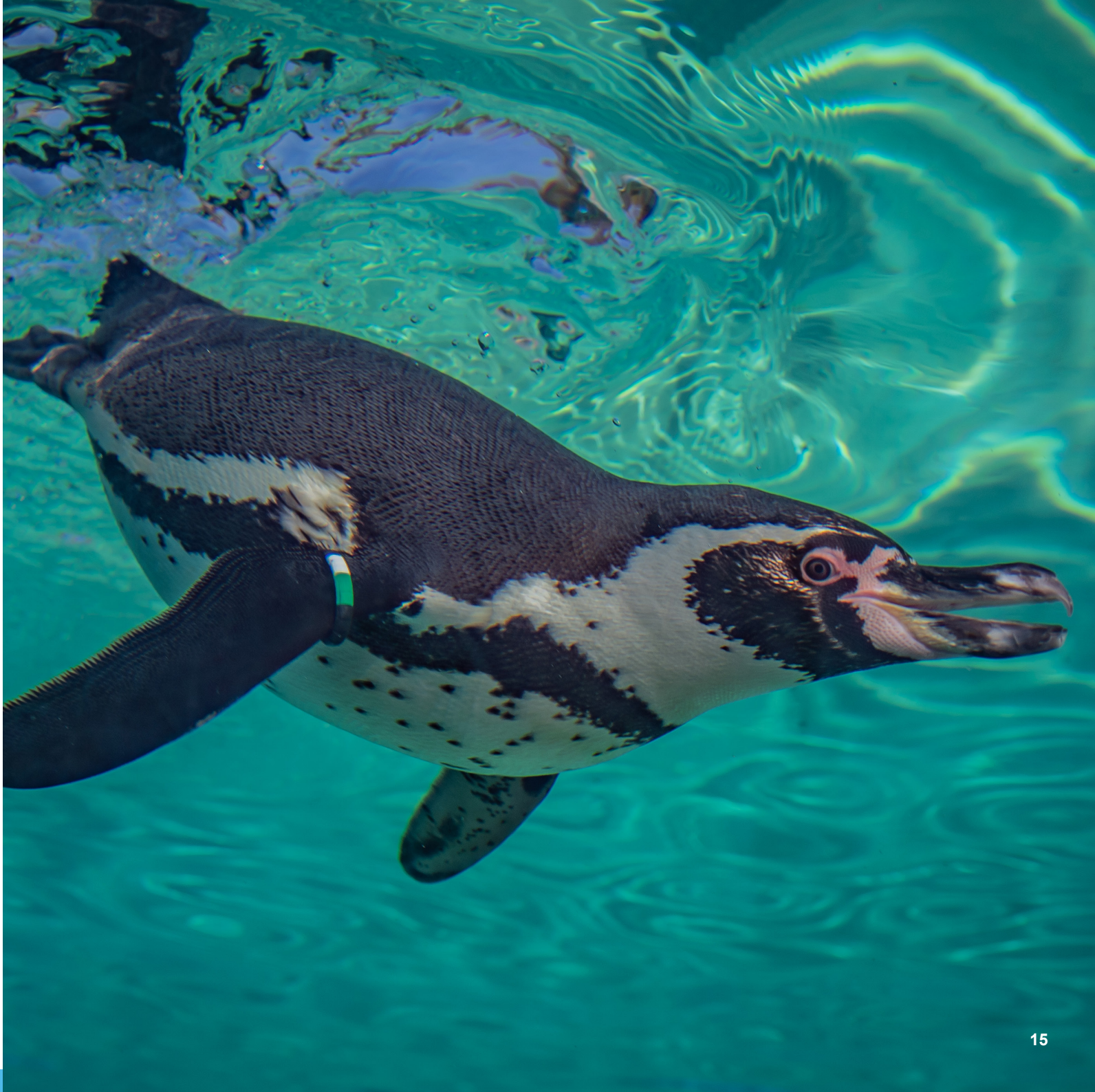
Dr Katie Edwards – Lead Conservation Scientist – Biomarker Research and Development at Chester Zoo

Dr Edwards completed doctoral research investigating factors associated with reproductive success in Eastern black rhinoceros housed in european zoos with The University of Liverpool. In total, 90% of captive black rhinos were studied using Chester Zoo's wildlife endocrinology laboratory. After this, Dr Edwards completed further research for five years at the Smithsonian Conservation Biology Institute, before returning to Chester Zoo to lead our research on the use of biomarkers.



Dr Arturo Hernandez - Colina - Molecular Entomologist at The University of Liverpool

Dr Hernandez-Colina is a Mexican vet supported by Mexican government with additional support from the University of Liverpool and the Houghton Trust alongside Chester Zoo to investigate the epidemiology of avian malaria in UK zoos. Working with Chester Zoo's vet department, Arturo has been developing recommendations for the control of mosquito population within zoos to prevent avian malaria outbreaks, which is one of the main mortality causes in ex situ penguin populations.





Zoo Conservation Trainees

Zoo Conservation Trainees

At Chester Zoo we have offered keeper training for over 20 years, with some resounding success stories. We offer two options, the Three Month Programme and the One Year Programme. These are all with our animal collection and the training covers a wide range of skills needed to progress in the industry, each trainee completes a training programme and practical competency framework.

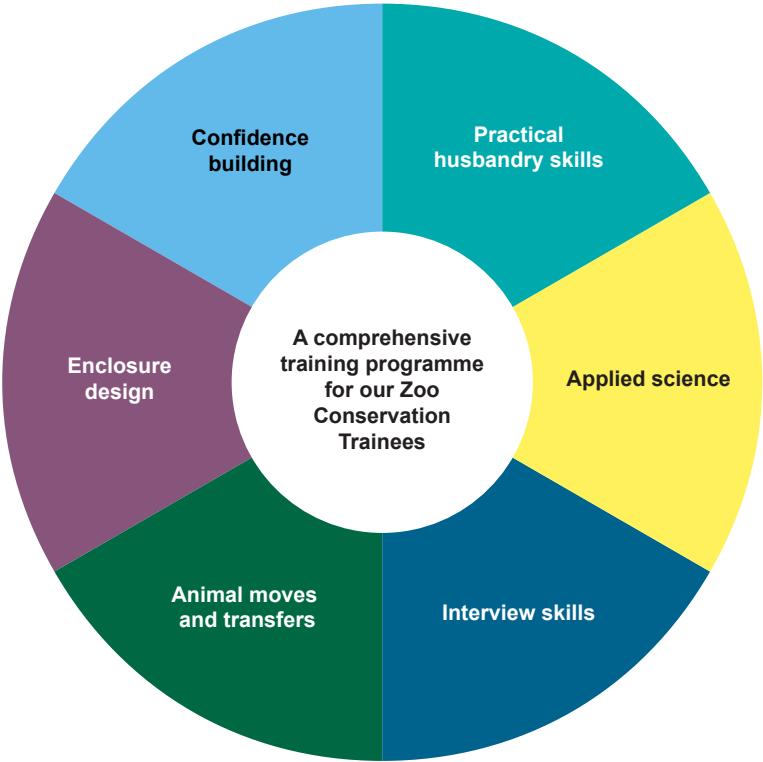
This training programme has an average of 90% of our trainees gaining a paid position in a zoo or returning to full

time education, we see training as the key foundation in learning a wide range of skills for the industry.

Year-long traineeships are advertised in January and February each year with starting dates in September.

We also offer 3-month placements, these can be applied for at any time with regular start dates across the year. Please note these have longer waiting lists so apply in advance.

[Click here for more information.](#)



Placement successes



Amy Humphreys

In September 2013 I began my year placement at Chester Zoo as the curatorial trainee for mammals and birds. My placement was extremely diverse, I was involved with many different tasks from writing husbandry guidelines to planning workshops and assisting with budgets. I received training for zoo specific software such as ZIMS as well as spending time working with the mammal keeping teams gaining practical experience. The skills and knowledge I gained and the connections I made during this year enabled me to get full time employment in the zoo industry. Since completing the placement I have worked as a hoof-stock keeper, a Quarantine Coordinator and Records Assistant and in my current role as Curatorial Assistant for Mammals at Chester Zoo.



Kalisha Sandland

The Chester Zoo keeper training allowed me to develop both personally and professionally and it set me apart from the rest when applying for jobs. It allowed me to expand my network, gave me excellent connectivity to the zoo industry and opened up many opportunities. I felt extremely supported by the team and organisation, both during and following my training. The design of the training was both practical and theoretical and without the workshops I wouldn't have been able to achieve the role I have today as a Zoological Registrar at Yorkshire Wildlife Park. I use all the skills I learned on a daily basis.



Dr Stuart Young

As part of my BBSRC-funded Doctoral Training Programme, I had to complete a professional placement for PhD Students (PIPS). For my PIPS, I joined Field Programmes for a three-month placement in early 2017. During this placement, I conducted a review into available camera trap data management software, assessing against the needs of the conservation and science teams. I also worked closely with the IUCN SSC Asian Wild Cattle Specialist Group (AWCSG), as a result of completing this placement, I rejoined the Chester Zoo Field Programmes team in early 2018 when I started as Programme Officer for the AWCSG. Then, earlier this year, I took on the role of Field Programme Coordinator for Southeast Asian Islands.





Professional Development and Capacity Building

Professional Development and Capacity Building

We work with a range of conservation, education and zoo organisations to support, deliver and run professional courses. Our professional development courses and conferences are key for us, aiding the capacity building of individuals and organisations across a range of sectors.

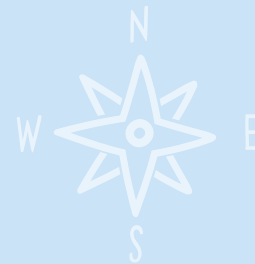
As part of our investment in developing future conservationists we support the DMZAA qualification, The Diploma in Management of Zoo and Aquarium Animals, with the North West Regional Co-ordinator being based at Chester Zoo. The DMZAA is mapped to the European Professorial Zookeeper Qualification Framework (EPZQF) developed with EAZA. For more information on DMZAA contact DMZAA@sparsholt.ac.uk We have run a range of courses and continue to work with professional bodies to develop unique industry relevant

courses run by our specialist staff; previous courses have included BIAZA and ABWAK accredited Bear Husbandry and Great Ape Husbandry Workshops. We are also a key member of the Elephant Welfare Group, and provide elephant husbandry training as part of the “most comprehensive keeper training programme within Europe”.

Chester Zoo also has provided long-term training support for the Orangutan Veterinary Advisory Group (OVAG). This is an interdisciplinary training group, which uses the One Health plan with the orang-utan as a key example of the importance ecosystem health. This is accredited by the Indonesian Veterinary Medical Association and considered a core training programme by law.

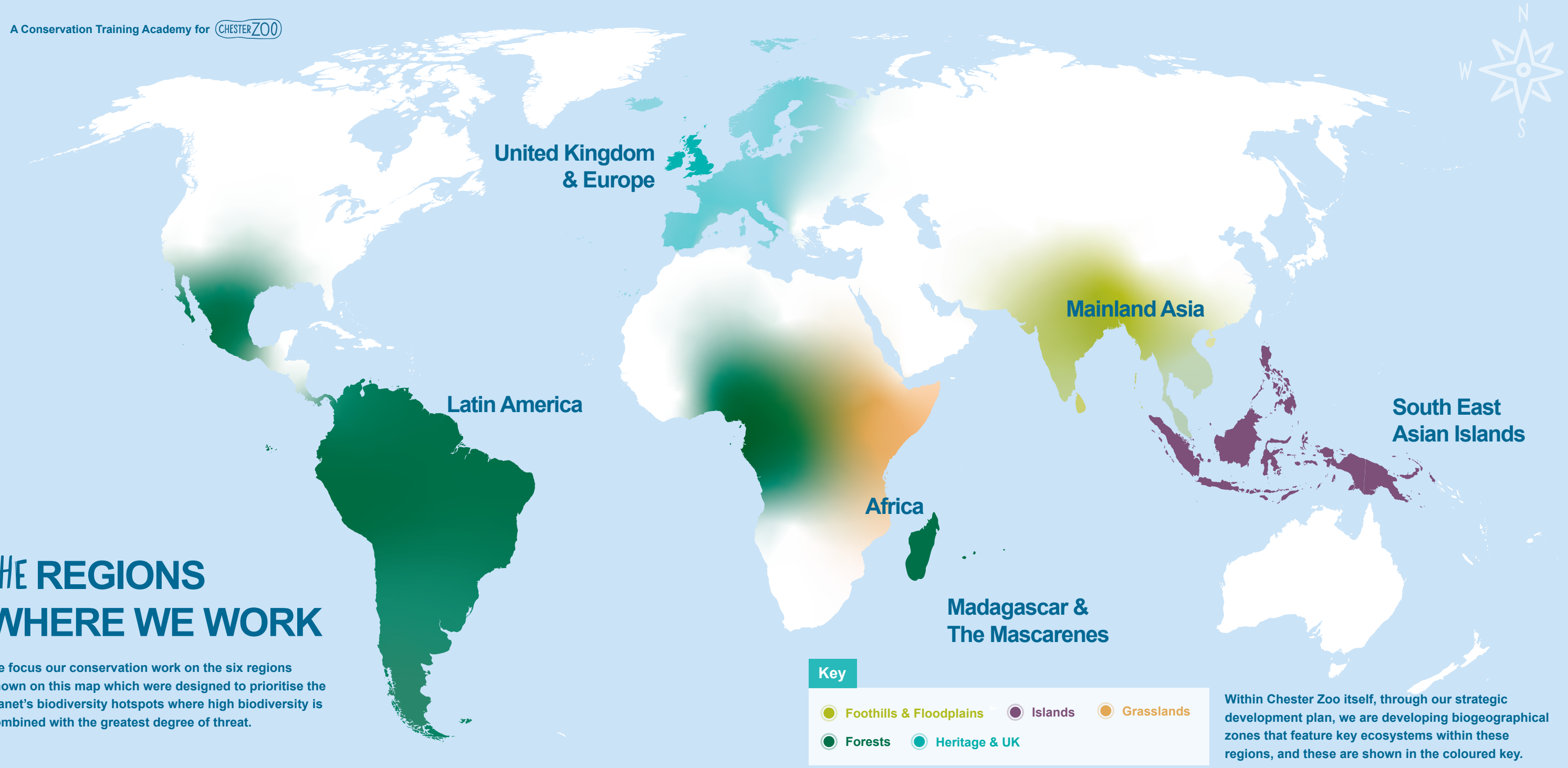
Previous Conservation and Science Events

- 2016 – International Conservation and Commercial Breeding Symposium: Innovation, Challenges and Future Directions
- 2016 – Join the Dots – Connecting Wildlife, Habitats and People Conference
- 2017 – Future Directions in Conservation Science Symposium
- 2017 – Trade Off - Together We Can Wipe Out Illegal Wildlife Trade Conference
- 2018 – Reaching Out – Putting Communities at the Heart of Conservation
- 2019 – Navigating the Palm Oil Story Conference
- 2020 – BIAZA Field Conservation Committee and BIAZA Native Species Working Group Conference



THE REGIONS WHERE WE WORK

We focus our conservation work on the six regions shown on this map which were designed to prioritise the planet's biodiversity hotspots where high biodiversity is combined with the greatest degree of threat.



Key

 Foothills & Floodplains

 Islands

 Grasslands

 Forests

 Heritage & UK

Within Chester Zoo itself, through our strategic development plan, we are developing biogeographical zones that feature key ecosystems within these regions, and these are shown in the coloured key.



Conservation Education and Engagement Training

Our conservation education department has developed a range of innovative training schemes for education professionals, volunteers and field partners.

Chester Zoo partnered with Ignite Teaching School Alliance to develop the Ignite at the Zoo curriculum design project, this which has been running for three years. The aim of the project was to advocate for conservation to become a core part of the

primary curriculum so more children and teachers can become part of creating a better future for our planet. The Ignite project has trained and empowered more than 80 schools with approximately 20,000 students now receiving conservation linked teaching. Through teacher training in this project, we have more than tripled our impact on children in the North-West, showing that our training can act as a Conservation Multiplier!

Lasting impressions

IgniteZoo Project - 90% of teachers said they felt they could take action to protect endangered species themselves, compared to 59% at the start!

“There was a much wider impact for them long term. You know. For looking at what we want our children to be in the future.” Teacher on the IgniteZoo project

Volunteer Training

Volunteer training is key to having a great volunteer programme! All of our Chester Zoo volunteers receive a whole programme of training by our specialists at the zoo. Our volunteers work with our visitors to provide great engagement.

Training is developed to combine practical experiences with classroom learning to meet the needs of a diverse volunteer cohort. Young volunteers develop their confidence to engage with visitors, creating campaign materials through masterclasses. Enabling them to achieve a bronze Duke Of Edinburgh volunteering award or an ASDAN award in Youth Volunteering!

Chester Zoo volunteers support visitors with orientation and educational information at key exhibits. Volunteer training is designed to support volunteers to have a better understanding of species, habitats and ecosystems. Developing their skills to EMPOWER visitors to think about ways they can Act for Wildlife.

To look for our next recruitment dates and apply to be a volunteer click [here](#).

Facts and Figures

247
volunteers gave
27,857
hours of
volunteering

“I enjoy the role very much. I think that the volunteers are extremely well looked after by Chester Zoo and the training and resources invested in the role reflect the value placed on the volunteers. This is very much welcomed. The team supporting the volunteers do a fantastic job.”

Chester Zoo Volunteer

Training Alumni



Raphali Rodlis Andriantsimanarilafy - Species & Conservation Programme Manager - Madagasikara Voakajy

“I was happy to participate on the facilitating species conservation planning course held in Chester Zoo. It was an interesting course that helped me to better understand the process on conservation planning. We plan to produce conservation planning of some of our target species that I will lead. Chester zoo is one of our partners on conservation in Madagascar. Working with them is always exciting and helpful. I hope that our collaboration will continue for a long time for the benefit of conservation in Madagascar.”



Tommy Sandri - Conservation Scholar

“My experience as one of Chester Zoo’s Conservation Scholars allowed me to put my work on a critically endangered species in the context of zoo conservation. Chester Zoo also provided multiple opportunities for networking with both peers, as other PhD students, and professionals from both Industry and Academia. For instance, thanks to Chester Zoo I participated at an EAZA Taxonomic Advisory Group, where I had the opportunity to meet the main European players in the ex-situ conservation of my target species and discuss my research. Therefore, I can easily say that being a Conservation Scholar not only allowed me to conduct my research in the first place, but also to grow and contextualise my work, and my career, within the zoo community.”



Evangelos Achilleos - Team Leader and HE Programme Manager Capel Manor College

“Chester Zoo alongside CPSG have provided an outstanding course on Workshop Facilitation for Conservation which introduced me to strategies and principles of successfully coordinating conservation workshops. Thanks to this course, I have networked with active members in the industry and also have been supported by Chester Zoo staff on my PhD. The staff at the zoo are extremely well organised, friendly and produced great resources for the course. Thanks to this course, I am now developing my own conservation workshops as part of my PhD. I look forward to new courses that Chester Zoo will be providing.”





Chester Zoo Training Academy Courses Spring/Summer 2022

A Conservation Training Academy for 

Train the Conservation Trainer

Date: 26 January

Duration: 1 day

Level of course: Introductory

Location: Virtual

Staff: Liz Webb and Hannah Brooks

Prior knowledge: No prior knowledge of the course content needed, however it would be beneficial for participants to either be in a training role or wanting to move into training people in the future.



Working with the education and conservation training specialists at the zoo you will learn about what we use to plan our training sessions, how we design our delivery and how we implement our training at home and abroad. There will time for group work, interactive e-learning tools, some of our own Chester Zoo case studies and Q&A sessions.

Key content:

- Introduction to training models used across the zoo and with our capacity building projects globally
- How to plan training which meets the needs of different groups
- Develop yourself as a reflective practitioner
- Barriers to learning in different conservation related contexts
- Questioning techniques
- Virtual tools to aid delivery

Introduction to Applied Zoo Animal Behaviour and Welfare Science

Date: 15 February

Duration: 1 day

Level of course: Introductory

Location: Chester Zoo

Staff: Dr Lisa Holmes, Kat Finch and

Dr James Waterman

Prior knowledge: Participants should have some awareness of behaviour science; however, no in depth knowledge is expected.



Behaviour and welfare science is an important tool and intrinsic to our mission. Working with our scientists you will learn about the core behavioural theories which underpin our work at Chester Zoo. We will look at the range of sampling techniques which can be applied in different scenarios and how these are used in zoo research to assist our keepers and curators. You'll get time out in the zoo to collect real data on our key species.

Key content:

- An introduction to behaviour science at the zoo
 - Behaviour project design
 - Ethogram design
 - Different methodologies used in behaviour observations
 - Instantaneous sampling methods
 - Data analysis for behavioural observations
 - Application of data to provide evidence for management decisions
-



An Introduction to Zoo & Wildlife Endocrinology: How we use science to help us save endangered species

Date: 21 April

Duration: 1 day

Level of course: Introductory

Location: Virtual

Staff: Katie Edwards and Ronnie Cowl

Prior knowledge: Aimed at students, keepers and those interested in moving into a career or further study with endocrinology links. Students need to have an understanding of the overall endocrinology system with an awareness of hormones and actions.



Wildlife endocrinology is a useful tool to help animal managers understand factors affecting the reproduction, health, and well-being of captive and wild populations. Working with two of our scientists, you will learn about the history of endocrinology at Chester zoo, what methods we use to collect biological data and how this data is used to make management decisions for our endangered species. With discussions on the use endocrine techniques with wild and captive animals, how this benefits conservation and challenges that you may encounter.

Key content:

- Introduction to the history of endocrinology
- The development of endocrinology and lab services at Chester Zoo
- Sampling Techniques
- The Use of endocrinology monitoring on wild and captive animals
- Benefits to conservation, case studies and challenges
- Hormone profiles
- The role of contraception and population management
- Analysis of data and reproductive management

FE & HE Educators - Zoo CPD

Date: 9 - 10 May

Duration: 2 days

Level of course: Introductory

Location: Chester Zoo

Staff: Liz Webb, Sean Dick & Nicola Buckley

Prior knowledge: All participants to be working in Further or Higher Education institutions teaching either City and Guilds or Edexcel Animal Management courses at Level 2 or Level 3 or related degree courses. This course is not for students. You must book with your institutional email address.



This two day in zoo course is designed to meet the needs of those educators involved in the delivery of Further and Higher Education courses. Topics have been carefully chosen so that we meet awarding body requirements and ensure that teaching staff have the most up to date information in regards to all aspects of working in a zoological collection. This course will involve meeting a range of staff and having guided tours around key areas of the zoo to aid in the continuing personal development (CPD) of education staff.

This course is only for staff involved with the delivery or support of related courses and not suitable for students. Any queries in regards to attendance please contact us at academy@chesterzoo.org

Staff interested in having us deliver workshops for students please contact learning@chesterzoo.org to discuss your requirements.

Key content:

- History of Chester Zoo
- Volunteer Management
- Law and Zoos
- Collection Planning
- Science at the Zoo
- Interpretation Planning and Design
- Business and Marketing
- Tours of key areas

Exhibitions and Interpretation Design: How to engage audiences in the UK's most visited zoo

Date: 8 and 9 June (virtually) with 10 June on site

Duration: 2 days (virtual) extra day optional on site

Level of course: Introductory

Location: Virtual and optional on site day

Staff: Fred Howat, Zoe Batchelor & Dr Andy Moss

Prior knowledge: No prior knowledge of the course content needed, however it would be beneficial for participants to have an awareness of zoo interpretation.

Participants working in the zoo sector are free to bring real world examples to discuss.



Engaging and empowering audiences is our speciality, in 2019 we welcomed over 2 million visitors. This 2-day course will take you through how research informs our design; how we ensure our exhibit meet the needs of a range of demographics and the importance of a visitor journey around the spaces we create. The course will take you through key design stages using our Chester Zoo case studies and ensure you are able to then apply these concepts to your own projects or designs.

Key content:

- Introduction to interpretation and exhibition
- The use of research to inform design
- Visitor types and demographics – who interventions are designed for
- Awareness of Special Educational Needs and Disabilities in design
- Space, psychology design layouts and circulation and visitor journeys
- Creating holistic interpretation – collaboration and participation
- Steps in the exhibition process with Chester Zoo case studies



Future Courses at Conservation Training Academy:

Statistics for Conservation Educators (introductory and advanced)

Natures Safe and Reproduction course

Conservation Physiology Practical Lab Skills

Fundamentals of Zoo Science

Plant Conservation

All courses open for booking will be found here:
chesterzoo.org/events



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AND SCIENCE UPDATES



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Chester Zoo Conservation & Science

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Education enquiries: **Learning@chesterzoo.org**

chesterzoo.org/what-we-do