Pre-Congress Sessions: Workshops, Trainings and Roundtable Discussions

A list of courses, descriptions, dates, time and pricing can be found below.

Pricing (in USD)

4 Hours (Half- Day)
Developed Country Professional $25
Developed Country Student $10
Developing Country Professional $5
Developing Country Student $0

8 Hours (Full Day)
Developed Country Professional: $40
Developed Country Student: $10
Developing Country Professional: $5
Developing Country Student: $0

12 Hours (Full Day + Half Day)
Developed Country Professional: $45
Developed Country Student: $10
Developing Country Professional: $5
Developing Country Student: $0

16 Hours (Two Full Days)
Developed Country Professional: $60
Developed Country Student: $10
Developing Country Professional: $5
Developing Country Student: $0

Three Day Course at the Dian Fossey Gorilla Fund Ellen DeGeneres Campus

Developed country professionals: $120
Developed country students: $40
Developing country professionals: $20
Developing country students: $5

Workshops

4 Hours (Half-Day)

- Re-Introduction Methods for Rare and Endangered Wood-Inhabiting Fungi
- Getting Started With R: an Introduction for Conservation Social Scientists

- Best Practices for Conservation Education
- Workshop for Young Women in Conservation Biology
- Data Basin: Expanding Access to Spatial Data, Mapping Tools, and People

8 Hours (Full Day)

- Behavior Change for Conservation Workshop: Discover How to Apply Human Behavioral Science to Reach your Conservation Goals
- How to Design Sustainable Conservation Projects and Programmes

16 Hours (Two Full Days)

- Training to Identify Globally Significant Sites to Guide Conservation of 30% By 2030: Key Biodiversity Areas
- Maps of Biogeographical Ignorance: A New Framework To Explore Biodiversity Data Quality
- Bridging Sectors for Movement Ecology Innovation
- Innovative Education and Outreach
- Training to Improve Applications of Genetics and Genomics for Biodiversity Conservation
- Introduction to the Use of Camera Trap Distance Sampling for Estimation of Wildlife Density and Abundance

Training Courses

4 Hours (Half Day)

- Introduction to Systematic Conservation Planning with Marxan and Advanced Topics
- Introducing Elinor for Monitoring Governance and Management for Area-Based Conservation
- From Data to Decision-Making: A Crash-Course in Using the BIOPAMA (Biodiversity and Protected Areas Management) Reference Information System Ris 3.0
- Conservation Fundraising 101; Learning the Basics of Raising Income for Small/Medium Sized Projects With Big Impact

8 Hours (Full Day)

- Introduction to Conservation Social Science
- Using Outbreak Software for Modeling Infectious Disease in Wildlife Populations
- Your Research Journey: From Research Design to Paper Publication
- Learn to Assess your Conservation Effectiveness: An Introduction to the Conservation Standards
- Matrix Methods for Ecology and Conservation
- Camera Traps: A Lens Into the Unknown for Biodiversity Monitoring

12 Hours (Full Day + Half Day)

- eDNA Tools for Conservation Biologists: An Introductory Course

- Building Community Conservation Success: Creating a Questionnaire

16 Hours (Two Full Days)

- An Overview and Hands-on Training With Genomic Analyses for Biodiversity Conservation
- An Introduction to Non Violent Communication for Managing Environmental Conflicts

Three Day Course at the Dian Fossey Gorilla Fund Ellen DeGeneres Campus

- Introduction to Passive Acoustic Monitoring as a Tool for Conservation Biologists – Theory and Practice

Roundtables

4 Hours (Half Day)

- Transforming Conservation-Compatible Livelihoods
- Non-targeted/Secondary Poisoning of Vultures
- Diversity4Biodiversity: How to Ensure Diversity of Voices to Conserve our Biodiversity

Workshops

Re-Introduction Methods for Rare and Endangered Wood-Inhabiting Fungi

Length: 4 hours (half day)

Date & Time: Sunday, 23 July from 13:00-17:00

ID: 3

Organizer: Joette Crosier

In this workshop, we will teach the skills used in recent fungal reintroduction research to introduce cultured fungi to dead-wood, which can be done in-situ where there is appropriate natural logs or ex-situ on freshly harvested logs which can be brought to the reintroduction site when they are ready to produce fruit bodies. We will also teach methods for inoculating stumps and living trees. Context will be provided for choosing which method is most appropriate for various fungal species and conservation sites.

After inoculation methods, we will also teach methods for log maintenance (where fungal colonization is done off-site) and various techniques for monitoring the success and growth of fungal mycelium inside the wood. These sections are applicable to rare, threatened and endangered fungi, but also the production of edible mushrooms. Therefore this workshop will provide the skills necessary for local people to cultivate mushrooms as a food and income source, while simultaneously becoming stewards of ecologically important fungi, with minimal extra labor inputs.

While learning about fungi conservation, participants will also gain knowledge about how this work helps improve reforestation efforts by jump-starting the creation of quality deadwood which is often slow to develop in newly protected or generated forest sites.

Getting Started With R: an Introduction for Conservation Social Scientists

Length: 4 hours (half-day)

Day & Time: Sunday, 23 July from 8:00-12:00

ID: 11

Organizer: Holly Kirk, RMIT University

Our aim is to increase conservation social scientists' familiarity with R and improve their data processing skills by teaching with data formats they are likely familiar with (e.g. social science data derived from a Qualtrics survey). Early career researchers, students and even some more senior conservation social scientists who have in the past favoured statistical or data processing software that are not open source are encouraged to participate. While the workshop does not expect any prior working knowledge of R software the participants will be required to bring their laptop with R Studio installed. During the workshop participants will be exposed to R programming software, will have access to a set of demonstration social science data which they will be able to use to practice reproducible data processing and exploratory analyses. This will include how to load and clean social science data in R, , an introduction to basic Tidyverse operations, initial data exploration methods and data visualisation. By the end of the course the participants will have had the opportunity to become familiar with the types of data analysis methods available in R, how to explore the wide range of relevant R packages available, methods for data processing, and visualization and given an overview of R Markdown. The participants will go home with demonstration code plus a practice data set.

Best Practices for Conservation Education

Length: 4 hours (half day)

Day & Time: Sunday, 23 July from 8:00-12:00

ID: 13

Organizer: Corinne Kendall, North Carolina Zoo

Conservation education is part of the foundation for effective, long-term protection of threatened species and ecosystems. Pulling from expertise built over 20 years, the North Carolina Zoo and UNITE team, Denver Zoo staff, and colleagues from Partners for Red Colobus will lead a workshop that combines presentations, discussion, and small group work to address best practices in four components of conservation education programs: goal setting, audience selection, material/curriculum development, and evaluation. This workshop combines lecture, discussion, and

small group work to allow participants to learn from instructors and peers. Participants should be current conservation education practitioners or those interested in utilizing conservation education and come to the workshop with specific conservation issues they intend to address. Each participant will have the opportunity to work through a results chain exercise, share and receive feedback on current materials and activities they have developed, and identify what evaluation tools might be of greatest use to their program.

Workshop for Young Women in Conservation Biology

Length: 4 hours (half day)

Day & Time: Sunday, 23 July from 13:00-17:00

ID: 30

Organizer: Janette Wallis

This workshop addresses the needs of women in the early stages of their careers in Conservation Biology. The primary audience will be the members of the SCB Africa Region's Young Women in Conservation Biology, but other interested individuals may register. We will provide guidance on several topics most important to early career scientists, such as finding educational opportunities, writing grant proposals, and preparing for job interviews. We will also encourage discussion of the many challenges and barriers women in science face and offer guidance on how to address these issues. Our goal is to help young women in conservation biology to acquire the skills – and opportunities - for advancing their careers.

Data Basin: Expanding Access to Spatial Data, Mapping Tools, and People

Length: 4 hours (half day)

Day & Time: Sunday, 23 July from 8:00-12:00

ID: 34

Organizer: James Strittholt, Conservation Biology Institute

Conservation is often about place and data sharing and collaboration is critical for maximum success. Data Basin is an online conservation data sharing system that was developed to advance science-driven decision making. Data Basin was constructed to lower the technical barriers to computer mapping without losing any of the scientific or technical rigor. Doing so allows for more people to actively participate in addressing a wide range of conservation and sustainability issues. Policy makers, conservation practitioners, and others from anywhere in the world are provided with an open-access system that supports more effective planning, coordinated implementation, and informative, inclusive monitoring. Data Basin provides open access to thousands of spatial datasets, easy-to-use mapping tools, and user-defined collaboration features. Users are provided the means to upload their own data, download public datasets, create and export customized maps, use

popular analytical tools, and create and manage their own working groups. Through the combination of demonstrations and hands-on activities, this workshop introduces participants to the many features and uses of Data Basin. By the end of the workshop, you will be fully equipped to apply Data Basin to your own work. You will need to bring your own laptop to the workshop and complete a short, pre-work package.

Behavior Change for Conservation Workshop: Discover How to Apply Human Behavioral Science to Reach your Conservation Goals

Length: 8 hours (full day)

Day & Time: Saturday, 22 July from 8:30-17:00

ID: 15

Organizer: Lauren Watkins, Impact by Design

Have you ever been frustrated that people do not do more to conserve natural resources or wondered why they do not change their behavior even when they know about environmental problems? If so, this skill-building workshop is for you! Join the Jane Goodall Institute and Impact by Design for hands-on training to discover how to co-create behavior change initiatives with communities that go beyond raising awareness to sustainable change. In this workshop, you will learn behavioral science basics and best practices by exploring how two organizations co-created a data-driven behavior change campaign in Tanzania alongside community members.

You will learn how to identify and prioritize specific behaviors contributing to conservation problems. Then, you will explore ways to map out audiences with influence over problems and discover how to get to know community members and co-create solutions that align with their needs and values. We will explore how to design initiatives that ‘meet people where they are,’ even when resources are minimal. Finally, we will share techniques for monitoring, evaluating, and learning from behavior change initiatives.

During this energizing and interactive workshop, you will receive a workbook to use to explore behavior change initiatives specific to your work.

How to Design Sustainable Conservation Projects and Programmes

Length: 8 hours (full day)

Day & Time: Sunday, 23 July from 8:30-17:00

ID: 32

Organizer: Maaike Manten, BirdLife International

At ICCB 2021, the Conservation Leadership Programme ran an on-line workshop entitled “Beyond funding: Can small projects be sustainable?” This workshop aimed to gain a better understanding from both the donor and grantee perspectives about how to make small grant projects ‘last’. Based on a survey among 12 small grant donors, CLP organised an interactive discussion with 30 conservation practitioners from all-over the world to discuss challenges and solutions. The workshop culminated in a list of success factors and recommendations, which was shared with all donors and workshop participants after the ICCB event. The organisers received positive feedback on this event, and various donors are using the report to help applicants design better proposals. The organisers, with partners, now wish to build on this work. Using the information gathered at ICCB-2021, we designed a training course to help conservationists to become better at effective and sustainable conservation action. We would like to pilot this highly interactive training at ICCB-2023, and will produce (1) a report to be shared with all participants and donors (including those who supported/attended the ICCB workshop in 2021); and (2) a practical step-by-step guide that will be included in a next edition of the widely used Institutional Fundraising for Conservation Projects manual.

Training to Identify Globally Significant Sites to Guide Conservation of 30% By 2030: Key Biodiversity Areas

Length: 16 hours (two full days)

Day & Time: Saturday, 22 July from 8:30-17:00 and Sunday, 23 July from 8:30-17:00

ID: 10

Organizer: Simeon Bezeng, BirdLife South Africa

The signing of the new post-2020 Global Biodiversity Framework by most countries of the world has committed them to conserving 30% of the planet by 2030. This will only be achieved if we conserve this 30% in the right places. The Global Standard for the identification of Key Biodiversity Areas (KBA) provides a set of criteria that identifies sites of outstanding ecological integrity and of global irreplaceability. This Standard harmonises existing approaches, such as Important Bird and Biodiversity Areas, Alliance for Zero Extinction, etc., to identify sites of global importance for the persistence of biodiversity. This approach is informed by five overarching criteria designed to capture different ways in which a site can be important for the long-term persistence of global biodiversity. Additionally, the KBA identification process takes place through national processes, via the National Coordination Groups, and so ensuring national technical capacity is fundamentally important albeit still limited in Africa. Over the past 3 years the KBA Secretariat has been developing and piloting a training program to develop and improve capacity and skills of conservationists to identify KBAs for biodiversity prioritisation and safeguarding. This workshop will build the technical capacity of conservationists on using biodiversity data to identify and safeguard globally significant sites for biodiversity.

Maps of Biogeographical Ignorance: A New Framework To Explore Biodiversity Data Quality

Length: 16 hours (two full days)

Day & Time: Saturday, 22 July from 8:30-17:00 and Sunday, 23 July from 8:30-17:00

ID: 22

Organizer: Fernanda Alves-Martins, Research Center for Biodiversity and Genetic Resources

Assessing biological diversity is essential for either advancing ecological and biogeographical studies and for designing robust conservation strategies. However, biodiversity data are often incomplete, out-of-date and subject to spatial biases leading to distorted/misleading representations of biodiversity patterns. The most common issues associated with these data are a lack of exhaustive sampling for particular places, huge variations in survey effort, the decay of biodiversity information over time due to environmental change, and the increasingly dynamic nature of taxonomy. These issues drive a progressive loss of biodiversity data quality, hampering our ability to accurately model biodiversity trends and to support large-scale conservation prioritization and planning. Accepting that biases and gaps in biodiversity data cannot be avoided or quickly remedied, especially in the very unevenly sampled countries of the Global South, it becomes important to quantify and understand the limits of biodiversity knowledge. In this workshop, we will introduce the Maps of Biogeographical Ignorance (MoBIs) framework for easily quantifying and visualising gaps and biases in biodiversity data. The workshop is aimed at all users of primary biodiversity data and those with an interest in conservation planning and prioritization.

Bridging Sectors for Movement Ecology Innovation

Length: 16 hours (two full days)

Day & Time: Saturday, 22 July from 8:30-17:00 and Sunday, 23 July from 8:30-17:00

ID: 23

Organizer: Talia Speaker, WILDLABS

Movement ecology presents a frontier in which fundamental science, conservation, and cutting-edge technology development are coalescing around major breakthroughs that could revolutionize our understanding of animal movement and the natural world. Building on the findings of a recent global horizon scan of movement ecology, this workshop will convene cross-sector stakeholders to connect, discuss identified priorities, and take concrete next steps to address funding needs and collaboration opportunities to advance the field. To facilitate this, workshop activities will include a combination of high-level discussions on sector-wide trends and developments, in-depth roundtables on emerging technical, analytical, and infrastructure needs, and group ideation sessions to kickstart collaborative projects. By joining this two-day, innovation-focused event, participants will have the opportunity to not only learn insights from the horizon scan and connect with other thought leaders in the space, but to form partnerships and take meaningful steps toward turning ambitious ideas into reality in an open and collaborative environment. This workshop and broader horizon scan project is supported by Gordon and Betty Moore Foundation and led by WILDLABS—a global community and

convener dedicated to open, accessible development and scaling of technology solutions for conservation impact (www.wildlabs.net).

Innovative Education and Outreach

Length: 16 hours (two full days)

Day & Time: Saturday, 22 July from 8:30-17:00 and Sunday, 23 July from 8:30-17:00

ID: 24

Organizers: Cedric Kai Wei Tan and Nurul Asna Hidayah

Innovative approaches towards conservation outreach, such as game-based learning, gamification and story-telling, have gained popularity as they have resulted in tremendous engagement with their respective audience. Aimed at people passionate about education and outreach in conservation, this workshop summarises the evidence for robust pedagogy and showcases innovative approaches of serious games, blended learning, multi-media, interactive theatre, and gamification. These innovative educational approaches have increased engagement from learners through storytelling and narratives, continuous rapid feedback, and monitoring of learners' progression, in turn achieving the intended learning outcomes. Participants will also learn how to assess the impacts of their educational activities by collecting data on learning, perception and behavioral intentions. We promote active engagement so participants can improve and innovate their own teaching and communication approaches.

Training to Improve Applications of Genetics and Genomics for Biodiversity Conservation

Length: 16 hours (two full days)

Day & Time: Saturday, 22 July from 8:30-17:00 and Sunday, 23 July from 8:30-17:00

ID: 33

Organizer: Jared Grummer, University of Montana

Conservation and wildlife management programs worldwide are increasingly integrating genetic and genomic data into their monitoring and management efforts, in part due to the falling prices of DNA sequencing technologies. The accessibility of genetic data can lead to better-informed decision making in wild populations, but also presents challenges for management teams with limited resources, including little experience analyzing genomic-scale datasets. In this workshop, we will work with published genomic datasets and perform a variety of analyses relevant to the genetic monitoring and management of populations. We will explore how to 1) align sequence data to a reference genome, 2) identify and genotype sequence variants (SNPs), 3) identify population units and assign individuals to populations, 4) identify parents, relatives, and reconstruct pedigrees, and 5) estimate effective population size and statistics such as inbreeding coefficients and the fixation index (FST), heterozygosity, and Hardy-Weinberg proportions. Participants will receive ample

bioinformatic experience while working at the command line with languages such as BASH, R, and Python. Participants will need access to a computer and will perform analyses themselves after receiving instruction from genomics experts. The skills gained through genomic analyses in this workshop will provide a strong foundation for researchers seeking to apply genomic tools to conservation problems.

Introduction to the Use of Camera Trap Distance Sampling for Estimation of Wildlife Density and Abundance

Length: 16 hours (two full days)

Day & Time: Friday, 28 July from 8:30-17:00 and Saturday, 29 July from 8:30-17:00

ID: 39

Organizer: Samantha Strindberg, Wildlife Conservation Society

Distance sampling is a well-established, widely applicable, and powerful wildlife assessment method that does not require the identification of individual animals. This method is now being used with camera traps for the assessment of terrestrial populations (including for animals that are semi-arboreal or semi-fossorial) making it applicable across a large variety of species. The introductory workshop on Camera Trap Distance Sampling (CTDS) for field practitioners focuses on the design and analysis of CTDS surveys and is aimed at conservation wildlife monitoring professionals who will be using camera traps to estimate the density and size of animal populations. The workshop will include a combination of lectures and practical computer sessions using the Distance for Windows software. It is essential that participants are familiar with the basic concepts underlying distance sampling and have at a minimum completed the distance sampling online course.

Training Courses

Introduction to Systematic Conservation Planning with Marxan and Advanced Topics

Length: 4 hours (half day)

Day & Time: Sunday, 23 July from 13:00-17:00

ID: 14

Organizers: Fernanda Brum, The Nature Conservancy; Jorge Alvarez-Romero,The Nature Conservancy

In a constantly changing world, planning for biodiversity persistence while also considering threats, other natural values, and socio-political goals, may pose a difficult task to stakeholders. In this sense, the systematic conservation planning discipline is concerned with the optimization of resources for biodiversity conservation and is frequently used in the design or assessment of terrestrial and marine protected area networks. Marxan is the world's leading conservation decision-support tool, assisting governments and nongovernmental organizations (NGOs) in land and seascape planning. In this training course, we introduce Marxan Planning Platform to users, a free, easy to use version of Marxan that overcomes the technical barriers of previous Marxan versions. Our training course uses a case study to detail core spatial planning concepts, and guides users through a Marxan Planning Platform workflow from start to finish. We will introduce attendees to the Marxan Planning Platform, and all online and curated datasets, including a special made Rwanda case-study, that are available at a user's fingertips. Attendees will be able to learn how to use Marxan Planning Platform to achieve their spatial conservation planning and be introduced to advanced concepts in planning such as connectivity and zoning.

Introducing Elinor for Monitoring Governance and Management for Area-Based Conservation

Length: 4 hours (half day)

Day & Time: Saturday, 22 July from 13:00 - 17:00

ID: 15

Organizer: Shauna Mahajan, World Wildlife Fund

In this course, we will introduce Elinor (www.elinordata.org), a free and open-source monitoring tool and data system that facilitates the gathering, storing, sharing, visualization, and use of data on environmental governance and management across spatial scales and for areas under different governance types. Elinor can be used by different stakeholders including site-level managers, NGO or government staff, or academics interested in monitoring governance and management over time. Elinor aims to complement existing approaches to monitoring governance and management by (1) addressing both governance and management in a single assessment for different types of protected and conserved areas, (2) introducing flexible options for data collection, and (3) integrating a user-centered data system that can support data use and sharing. In this interactive course, participants will learn about the concepts of governance and management, why measuring them is important for the success of area-based conservation, and how to implement the assessment tool under diverse contexts and circumstances. Participants will leave the course with knowledge of how to utilize Elinor to assess governance and management to improve area-based conservation. We ask participants to bring a laptop and knowledge about a case study (e.g. a protected or conserved area) that can be used in a mock assessment during the course.

From Data to Decision-Making: A Crash-Course in Using the BIOPAMA (Biodiversity and Protected Areas Management) Reference Information System Ris 3.0

Length: 4 hours (half day)

Day & Time: Sunday, 23 July from 13:00-17:00

ID: 16

Organizer: Claudia Capitani, JRC

BIOPAMA (Biodiversity and Protected Areas Management) is a partnership implemented by the IUCN and the European Commission to support the effective protection and conservation of biodiversity in Africa, the Caribbean, and the Pacific. One of the pillars of BIOPAMA is managing and delivering scientific information to stakeholders across 79 countries. The Reference Information System (RIS) was developed for this purpose. Currently in its third version, RIS 3.0 provides free access to open-source information system on protected areas through an online website (https://rris.biopama.org/). During this training workshop, attendees will be introduced to the set of modules that make up RIS 3.0, which cover various aspects of protected area monitoring, management, and governance. For each module instructors will begin by explaining its theoretical justification, followed by a live demonstration that encourages active participation along the way. The workshop is aimed at participants at all levels of experience – from complete novices to experts in geospatial analyses – and the level of technical detail will be tailored to the audience during the live demonstration. By the end of the workshop, attendees will be ready to start their own journeys using RIS 3.0 to support conservation in Africa, the Caribbean, and the Pacific.

Conservation Fundraising 101; Learning the Basics of Raising Income for Small/Medium Sized Projects With Big Impact

Length: 4 hours (half day)

Day & Time: Saturday 22 July, from 8:00-12:00

ID: 19

Organizer: Mariam Weston Flores, The Rufford Foundation

The biodiversity crisis could result in the extinction of a million species and the erosion of environmental services that people depend upon for survival and well-being. The UN Convention on Biological Diversity highlights the ambitious targets required to improve the state of the planet, including the need for strengthened capacity and increased conservation funding levels. Raising funds and achieving financial sustainability for implementing conservation projects is an ongoing challenge, especially for early-career conservationists. This training aims to support early-career to mid-career conservationists in raising income for small/medium sized projects with big impact. We shall consider how to align projects with donor priorities, identify and approach suitable donors and pursue opportunities to raise funds from the corporate sector. Using the experience of all participants and trainers, we will work to enhance the participant´s fundraising mindset and toolkit through interactive activities, discussions and case studies. At the end of the session, trainees will have increased their fundraising skills and improved their knowledge of the requirements of different funding sources, e.g. foundations and private companies. Boosting their confidence to make funding requests and, ultimately, increasing funding opportunities for their projects. Consequently,

early-career conservationists will be able to undertake projects addressing the threats to species and habitats.

Introduction to Conservation Social Science

Length: 8 hours (full day)

Day & Time: Sunday, 23 July from 8:30-17:00

ID: 10

Organizer: Rebecca Jefferson, Human Nature

This training will build your knowledge and confidence of conservation social science – allowing you to better understand what it is, how it is delivered and how you can integrate it into your projects. Who is this training for? The training is for those unfamiliar with, or just starting out in social science. Perhaps you have a background in natural sciences or conservation practice, and now find yourself wanting to understand the people and communities. Perhaps you need to use social science evidence, commission social science projects or integrate social science into your research and practice. What will the training include? This workshop based training will provide a foundation in the breadth of social science disciplines, why social science is essential to conservation, the strengths of qualitative and quantitative methods, and the challenges and opportunities for integrating social science in conservation. It will provide you with a springboard to advance your understanding and application of conservation social sciences. By the end of the course, the attendees will: Have an appreciation for the breadth of social science disciplines and their place as a core component of conservation and understand the range of methods applied in conservation social sciences and the types of data collected.

Using Outbreak Software for Modeling Infectious Disease in Wildlife Populations

Length: 8 hours (full day)

Day & Time: Sunday, 23 July from 8:30-17:00

ID: 11

Organizer: Sara Sullivan, Species Conservation Toolkit Initiative

In this course, participants will be introduced to Outbreak, an individual-based simulation of infectious disease in wildlife populations, and learn how infectious disease modeling can be used as an integral tool in protected area and species management. Outbreak, which is freely available for download at https://scti.tools/, has been used to model the spread of various wildlife diseases, including plague in prairie dogs, tuberculosis in cape buffalo and lions, mange in bush dogs, and most recently Ebola in mountain gorillas. The model is highly flexible, allowing modeling of direct transmission via contact, distance-based probabilities of transmission, maternal transmission, and infection from environmental sources as well as management intervention through vaccination and

culling. This course will introduce the concepts behind the Outbreak epidemiological model, step through how to use the software, and provide opportunities for exploration of some sample cases. By the end of the course, participants will have a general understanding of how individual-based disease simulation models can inform management strategies and basic technical competency in using Outbreak to assess disease risk and impact on susceptible populations. Prior expertise in epidemiological modeling is not required, but some familiarity with wildlife diseases, risk assessment, and population biology is expected.

Your Research Journey: From Research Design to Paper Publication

Length: 8 hours (full day)

Day & Time: Saturday, 22 July from 8:30-17:00

ID: 13

Organizer: Israel Borokini, University of California Berkeley. Jointly organized by the SCB Africa Region Education Program and the Tropical Biology Association.

Scientific publications are pivotal to advancing empirical knowledge on the world around us and how to effectively manage it. Moreover, publications are necessary for professional career development of researchers and to attract research funding and potential collaborators. However, formal training on scientific writing is lacking in many universities in the Global South. Africa, in particular, contributes only 2% of global scientific productivity, despite comprising 17% of the world's human population. This training will cover the importance of good research design as a prerequisite to a good scientific paper. We will then focus on the paper structure, writing skills, and presenting results, and the publishing process from submission to responding to reviewers. Instruction delivery will include participant interactions, practical exercises on writing, and peer and tutor support. This training workshop is organized for graduate students and early career scientists to provide knowledge and skills in writing and publishing a scientific paper. The workshop will include interactive sessions and hands-on activities covering all stages of research, ranging from project conceptualization and designs to writing a paper and managing the review process.

Learn to Assess your Conservation Effectiveness: An Introduction to the Conservation Standards

Length: 8 hours (full day)

Day & Time: Sunday, 23 July from 8:30-17:00

ID: 17

Organizer: Jaclyn Lucas, Foundations of Success

This training will introduce participants to accessible and practical tools to support them in project planning, management, monitoring, and adaptation. We will use the Open Standards for the Practice

of Conservation (Conservation Standards) - a widely adopted set of practices and principles - to guide participants through an adaptive management framework. The training will use a practical example and focus on two key Conservation Standards tools: situation models (which lay out the current context of a project) and theories of change (which map assumptions about how priority strategies are expected to lead to conservation success). Through this training, participants will gain an understanding of how to support teams to develop a shared understanding of their conservation context, identify potential strategies, and clarify indicators to measure strategy effectiveness and conservation impact. This is a hands-on, interactive training hosted by the Conservation Measures Partnership (CMP) that aims to connect participants to the wider conservation planning and adaptive management community and share a library of tools to support real-world conservation work.

Matrix Methods for Ecology and Conservation

Length: 8 hours (full day)

Day & Time: Saturday, 22 July from 8:30-17:00

ID: 18

Organizer: Harman Jaggi, Stanford University

Matrix methods provide powerful tools for understanding and managing ecological systems and are frequently used for analysis of population dynamics. These methods are important because they allow researchers to identify drivers of population change (decline in vital rates, competition), make predictions about population growth rates and develop management strategies to conserve endangered species and protect ecosystems. The four-day workshop will emphasize the use valuable matrix tools such as transfer function analysis, transient dynamic techniques, solutions to systems of ordinary differential equations, and discrete time models. We will start with a review of Principal Component Analysis that is being increasingly used to identify important environmental variables, and then move on to other tools. The focus will be on developing an intuitive understanding (using examples) to illustrate how and why these tools work. We will analyze and visualize data and discuss common patterns and pitfalls. This course is designed to equip students and practitioners with tools that help to extract insights and make decisions, using simple matrix models. The focus will be on general concepts, intuition, and implementation, rather than theory and math. Coding will be in R.

Camera Traps: A Lens Into the Unknown for Biodiversity Monitoring

Length: 8 hours (full day)

Day & Time: Saturday, 22 July from 8:30-17:00

ID: 23

Organizer: Nyeema Harris

Camera traps remain a primary survey technique to monitor vertebrate biodiversity, animal behavior, and population characteristics. However, implementing a survey is fraught with challenges and requires very careful planning. Researchers must not only consider the equipment used but also ensure their study design will yield high-quality data particular to their environment to answer the targeted question. They must determine the appropriate sampling effort, sampling period and camera settings as well as minimize camera theft all before even processing the massive amounts of resultant data. In this course, participants will: 1) learn how to design a camera survey; 2) gain hands-on experience setting camera traps; and 3) build skills on data management. Moreover, leveraging datasets from camera surveys in tropical rainforest, agricultural matrices, woodland savanna and urban environments, participants to learn context-specific best practices. Participants will also gain exposure to existing open-access sources of camera survey data and review the plethora of socio-ecological questions that can be explored with such data. Lastly, participants will learn of new technological advances involving camera surveys including the use of thermal imaging, canopy and underwater surveys, machine-learning for classifying images, and coupling with audio and food experiments.

eDNA Tools for Conservation Biologists: An Introductory Course

Length: 12 hours (full day + half day)

Day & Time: Saturday, 22 July from 8:30-17:00 and Sunday, 23 July from 8:00-12:00

ID: 8

Organizer: Manuel Lima, CIBIO/InBIO - Research Center in Biodiversity and Genetic Resources

This course provides the basic concepts and techniques for the application of eDNA tools in conservation biology, with a particular focus on freshwater eDNA metabarcoding, and its use in the assessment of aquatic and terrestrial biodiversity.

Environmental DNA (eDNA) metabarcoding is an innovative method increasingly used to describe biodiversity patterns and food webs across multiple habitats and ecosystems. It allows the identification of multiple organisms through the amplification of taxonomically informative genomic regions from distinct environmental samples such as air, faeces, or soil, being especially effective in water.

Given the wide range of possible applications for eDNA combined with the vast diversity of sampling, laboratory work, bioinformatics, and analytical approaches, it can be intimidating to initiate an eDNA-based project. Therefore, we propose an introductory course on eDNA tools specifically targeted at conservation biologists with limited training in molecular biology, on the design, implementation, and analysis of biodiversity assessments using metabarcoding and high throughput sequencing.

The course is divided into six modules: (i) introduction to the topic, (ii) field sampling design and eDNA capture methods, (iii) molecular laboratory work, (iv) bioinformatics, (v) results interpretation.

We conclude (vi) by showing the potential of eDNA applications in conservation and discussing with participants the use of these tools on their particular conservation problems.

Building Community Conservation Success: Creating a Questionnaire

Length: 12 hours (full day + half day)

Day & Time: Saturday, 22 July from 8:30-17:00 and Sunday, 23 July from 8:00-12:00

ID: 22

Organizer: James Danoff-Burg, The Living Desert

Conservation is behavior. We are most successful as conservationists when we successfully engage the communities living in and around the areas in which we work in our conservation projects. Communities who are involved in and are consulted on projects are more likely to support them, often becoming vital participants. For conservationists to better engage with nearby communities, we need to be able to understand their perceptions of our work, of our species, of our conservation areas, and most importantly understand how to ensure that our conservation benefits those communities. These factors are essential for a well-designed set of interventions that can also address the Human Dimensions of Conservation. Increasingly, conservations recognize that local communities determine our conservation successes, but conservationists have historically been trained as biologists, without the opportunity to learn how to conduct community perception or evaluation studies. The goal of this workshop is to help participants to create a community perception and evaluation questionnaire in a rigorous, scientifically valid manner. Participants will be led through the diversity of tools that can be used in a questionnaire, starting with creating a testable question virtually before the congress, and culminating with a fully designed survey that could potentially be implemented at the workshop's end.

An Overview and Hands-on Training With Genomic Analyses for Biodiversity Conservation

Length: 16 hours (two full days)

Day & Time: Saturday, 22 July from 8:30-17:00 and Sunday, 23 July from 8:30-17:00

ID: 9

Organizers: Isaac Overcast - University of Maine
Laura Bertola - University of Copenhagen
Josiah Kuja - University of Copenhagen
Anubhab Khan - University of Glasgow

Recent developments in sequencing techniques and analyses have produced a wealth of genomic resources for a wide range of organisms, including many species of conservation concern. Although the applicability of these data for informing management plans and policy is evident, integration of genetic considerations is still scarce. This is particularly the case in the most biodiverse countries in

the global south, as financial resources and capacity to execute this type of work is lacking in many places. We therefore propose to host a three-day hands-on training course, which will cover the use of genetic data for informing conservation management and policy, various data types (e.g. metabarcoding, RADseq, SNP panel data), and guide participants from filtering raw data to exploring meaningful population parameters (e.g. diversity, structure, connectivity) and to producing publication-ready figures. This training course is specifically targeted towards African researchers/conservationists, with the aim to improve accessibility of the field of conservation genetics and to encourage participants to connect to colleagues who do similar work. Capacity-building in countries which have no easy access to training on emerging techniques within the field of conservation genetics is urgently needed, and we hope to make a first step through this proposed training course.

An Introduction to Non Violent Communication for Managing Environmental Conflicts

Length: 16 hours (two full days)

Day & Time: Saturday, 22 July from 8:30-17:00 and Sunday, 23 July from 8:30-17:00

ID: 20

Organizer: Ruth Kansky, University of Stellenbosch

Non Violent Communication (NVC) is a globally applied communication tool to promote compassion and empathy in communication and dialogues that may be challenging. It has been applied in many sectors including as a conflict resolution tool in schools, businesses, health care centres, prisons, community groups, and families but has not been applied in the conservation sector. The aim of this course will be to provide an introduction to NVC and its potential for use in the conservation sector. One trainer is a certified trainer with the Center for Non Violent Communication and has extensive experience with NVC in Africa while the second trainer has been applying NVC to address wildlife governance issues in Namibia. Although most certified trainers are from the global north, NVC is an ideal tool to promote to the conservation sector in the global south, because there are many trainers globally who are willing to provide training on the basis of the gift economy, there is an increasing number of trainers in the global south, there are many resources available freely on the web, there are many books and training materials available for practice groups to use and learn NVC without the need for professional trainers. This introduction course is a stepping-stone to start your NVC journey.

Introduction to Passive Acoustic Monitoring as a Tool for Conservation Biologists – Theory and Practice

A Hands-on Acoustic Monitoring Course in Beautiful Musanze at the new Dian Fossey Gorilla Fund Ellen DeGeneres Campus!

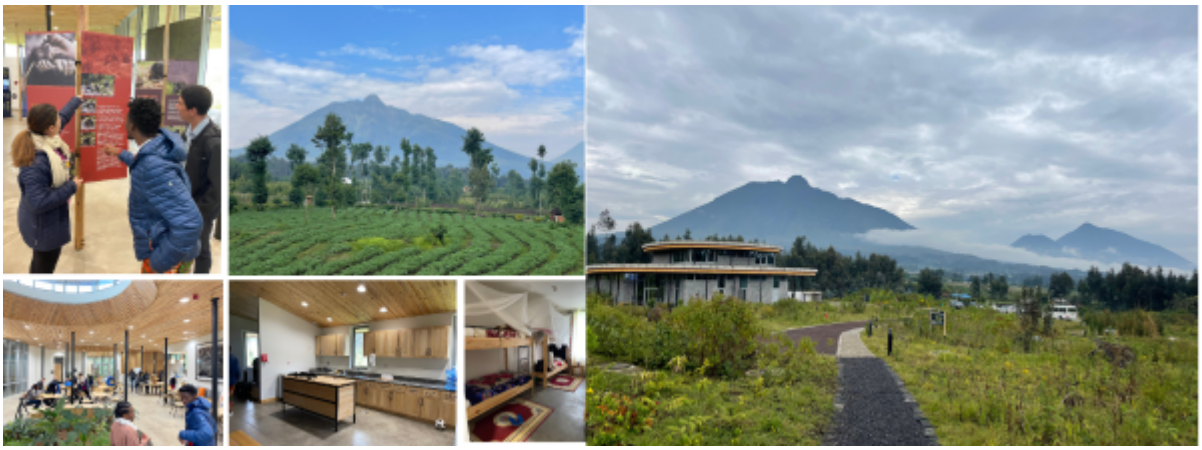
Length: 3 days

Day & Time: Depart Kigali on Thursday afternoon 20 July and return on Sunday 23 July in time for the ICCB Opening Ceremony.

ID: 12

Attendance: This course seeks a balance of delegate types and is capped at five professionals and three students from developed countries with the remainder of the delegates from the Africa region and developing country attendees (students and professionals)
Details: Delegates will share a ride from Kigali to Musanze and back via a coaster bus. Transportation, food and accommodation (shared mens and womens dorms) are inclusive with your registration fees. Additional details will be provided to course participants after course registration closes.

Passive acoustic monitoring (PAM) is a tool that has gained broad recognition in recent years as an efficient and effective method for estimating anthropogenic activities within protected areas (e.g. hunting, logging), wildlife surveys of rare but vocal species (e.g. birds, amphibians), and rapid biodiversity surveys via the assessment of soundscape (acoustic indices). This training course is designed for students, researchers, and managers with no or limited prior PAM experience wishing to better understand the strengths and limitations of PAM as well as learning basic acoustic data collection and analysis techniques. Specifically, via a mixture of lectures and hands-on and computer lab practicals, participants will learn about common PAM uses in wildlife conservation, selecting sensors suitable for your project's needs, how to design, deploy and maintain acoustic grids, and basic acoustic data analysis techniques using popular software for gunshot/wildlife detection and soundscape analysis (Raven Pro/Kaleidoscope Pro). By the end of the course, you should be able to decide how PAM can be incorporated in your work, as well as feel confident to do so. Participants should have at a minimum basic computer skills (e.g. WinOS navigation), a laptop, and a pair of headphones.



Training Course 12 will take place at the Ellen DeGeneres Campus at the Dian Fossey Gorilla Fund

in Musanze, approximately 2.5 hours from Kigali. Attendees will spend three nights at the campus in shared dorm rooms (men and women separate). You'll explore the beautiful campus in the foothills of the Volcanoes National Park and the Virunga Mountain Chain. Attendees will have access to the cafeteria where food is provided (inclusive with your registration).

Roundtables

Transforming Conservation-Compatible Livelihoods

Length: 4 hours (half day)

Day & Time: Saturday, 22 July from 13:00-17:00

ID: 7

Organizer: Typhenn Brichieri-Colombi, Centre for Conservation Research, Calgary Zoo

Livelihood interventions to support conservation require tangible impacts that are both economically and ecologically sustainable. The stark economic downturn since 2020 has highlighted the urgency of diversifying income and livelihoods for community conservation. Currently, many livelihood interventions focus on non-essential wares and/or eco-tourism, which have proven highly volatile amid economic swings, epidemics, and COVID-19. Renewed calls for economic reform, with emphasis on green growth, offer room for transformational frameworks such as doughnut economics and convivial conservation. These frameworks promote nature conservation and sustainable resource use and are guided by concepts of sufficiency and redistribution. They shift emphasis from merely economic wealth or monetary gain to holistic well-being; if solutions are locally tailored, they support community conservation efforts to simultaneously improve livelihoods and nature conservation.

In this roundtable discussion, we ask: how do we transform livelihoods in a way that is conservation-compatible and viable in the long-term? Building on participants' interests and motivations, we hope to collectively create a compendium of detailed case studies that have transformed livelihoods, and/or identify key characteristics, gaps and recommendations; topics of discussion can include conservation basic income, mobile finance, climate and biodiversity smart agriculture and fisheries, and tourism reforms.

Non-targeted/Secondary Poisoning of Vultures

Length: 4 hours (half day)

Day & Time: Sunday, 23 July from 8:00-12:00

ID: 8

Organizer: Samir Sinha, Wildlife Trust of India

The contributing role of poisoning in the decline of vulture populations is often overlooked. While India has curtailed the Diclofenac related vulture mortality through legislation, poisoning proves to be an emerging threat to vulture populations. This mortality has been due to poisoning from insecticides often used by local people on livestock carcasses to eliminate feral dogs that attack and feed on livestock. Such carcasses make the scavenging vultures indirect victims. Incidents increase the risks to already dwindled populations of “Critically Endangered” vulture species like Slender-billed and Oriental White-Backed and “Near Threatened” Himalayan griffon. Currently, the response to such incidents have only been reactive that provide a palliative solution to the problem. The symposium and subsequent discussion will highlight the efforts taken so far to mitigate this threat. While it’s understood that diclofenac related mortality of vulture is still a major issue for vulture populations in India, but the presentation itself will exemplify how secondary poisoning is a specific threat in one region of India and that can have cascading effect on the already declining vulture populations. Discussion and possible solutions will emanate on both reactive and preventive strategies to mitigate the problem.

Diversity4Biodiversity: How to Ensure Diversity of Voices to Conserve our Biodiversity

Length: 4 hours (half day)

Day & Time: Sunday, 23 July from 13:00-17:00

ID: 13

Organizer: Nafeesa Esmail, Wilder Institute Calgary Zoo

Biodiversity is a key component of our everyday lives and the heart of the very existence of human beings on this planet. However, with growing concern around the rapid decline of biodiversity, fundamental voices and perspectives are missing in critical conversations and solution-building for conservation. Failure to put a stop to siloed and homogenous conservation solutions is destroying our natural world.

How can we prevent ‘helicopter science’ from robbing local communities of ownership of studies and solutions developed from data collected in their backyards and extracted from their lived experiences? What needs to happen to grow inclusivity as an integral part of the scientific research process? Who should take the lead and champion these changes? How can we address the risks and vulnerabilities of those who are underrepresented? How do you scale and mainstream a cultural shift in the research world to address a problem that is so time sensitive? How do we transform deep-rooted inequalities with support from the scientific fraternity? How does the erasure of indigenous knowledge end and become accredited scientific information? Can we leverage compassionate and collaborative leadership in conservation?

This roundtable discussion will unpack these challenging issues in an engaging, deep dive into diversity and inclusion as a core driver of biodiversity protection.