## News

## Learning from observational data to improve protected area management

Hunting is a key driver of biodiversity loss, particularly in Southeast Asia where the illegal trade in wildlife is rife. To effectively prevent poaching, protected area (PA) managers require reliable, accurate information about poaching prevalence, poacher identities and behaviour. In many PAs managers rely on ranger-collected data and tools such as SMART to collect this information, monitor threats and plan law enforcement strategies. While ranger-collected data can provide important information, their potential can only be realised when biases inherent in the data collection process are properly accounted for. Recording of illegal activities is influenced by many factors, most importantly that the fundamental purpose of patrols is to change the behaviour of offenders. This makes the analysis of ranger-collected data extremely complex.

In January 2016 a research project entitled "Learning from observational data to improve PA management" was launched to improve the use of ranger-collected data for PA management. The project is funded by the UK's Natural Environment Research Council and is a threeyear collaboration between scientists at the Universities of Edinburgh, Oxford and York in the UK and the Wildlife Conservation Society in Cambodia. An inception workshop was held in Phnom Penh and Keo Seima Wildlife Sanctuary (KSWS), Mondulkiri in May 2016 and was attended by government and NGO representatives. The project has two strands: 1) a modelling component simulating patrol and poacher behaviour to understand how patrol data can best be used to inform law enforcement strategies; 2) a fieldwork component based in KSWS which will investigate poaching prevalence and poacher decision-making, determine how patrol efforts affect snare detection rates and assess the factors that motivate rangers on patrol, and provide data to empirically validate our models. Our overall objectives are to create simple, practical rules of thumb to enable PA managers to accurately interpret their patrol data, and to provide specific information to support management of KSWS.

Dr Aidan KEANE (University of Edinburgh), Harriet IBBETT (University of Oxford) & Prof E.J. MILNER-GULLAND (University of Oxford). Email: aidan.keane@ed.ac.uk, harriet.ibbett@zoo.ox.ac.uk, ej.milner-gulland@zoo.ox.ac.uk

## **Development of guidelines for wetland wise use in Cambodia**

The Wildfowl and Wetlands Trust (UK) is working with the Department of Freshwater Wetlands Conservation in the Cambodian Ministry of Environment and Bird-Life International (Cambodia) to develop "Guidelines for wetland wise use". The guidelines will appear in the form of a handbook for wetland site managers and other stakeholders and will include practical information on approaches and techniques that can be used to effectively manage wetlands for the benefit of people and biodiversity, specifically focussing on the issues and challenges that wetlands face in Cambodia.

To facilitate development of the guidelines, a consultation workshop was held in August 2016 at the Sunway Hotel in Phnom Penh. This was attended by over 40 participants, including representatives from the Cambodian Ministry of Environment and other government ministries, the Royal University of Phnom Penh, Panhasasra University and several NGOs. The workshop introduced the rationale behind the need for guidelines to promote wise use of wetlands in Cambodia, and provided an opportunity for stakeholders to discuss management challenges and important aspects that should be included in the guidelines.

Following the workshop, an accompanying study tour took place to Boeung Prek Lapouv Protected Landscape in Takeo Province, one of the largest remnants of seasonally-inundated grassland in the Lower Mekong region. The study tour acted as a learning experience, providing participants with an opportunity to see wetland management in practice. The trip also facilitated further discussions on wise uses of wetlands and its outcomes will be used to inform development of the guidelines.

Work has now begun on drafting the guidelines, with a draft due to be released for comments in January 2017. The effort is funded by the UK Government's Darwin Initiative and the Critical Ecosystem Partnership Fund.

Dr Grace BLACKHAM, Wildfowl and Wetlands Trust, UK. Email: grace.blackham@wwt.org.uk