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Outbreeding ideas for conservation success

It is increasingly recognized that interdisciplinarity is needed to tackle global challenges (Ledford, 2015, *Nature*, 525, 308–311), a daunting example being the problems of conserving biodiversity. However, walls between disciplines have proven no less difficult to tear down than those between nations (Reagan, 1987, *Remarks at Brandenburg Gate*, *Berlin, Germany*, 06/12/1987. www.archives.gov/historical-docs/todays-doc/index.html?dod-date=612). Interdisciplinary research suffers consistently low funding success (Bromham et al., 2016, *Nature*, 534, 684–687) and there are still philistines who perceive it as the province of researchers 'who aren't good enough to make it in their own field' (Ledford, 2015, *Nature*, 525, 308–311).

Challenging this stubborn disciplinary cartography remains, unfortunately, the exception in applied conservation research. As an illustration, the three international conferences that the University of Oxford's Wildlife Conservation Research Unit (WildCRU) organized during the past 15 years on canid, felid and mustelid conservation hosted, despite our best efforts, only a handful of delegates (out of nearly 1,000) with backgrounds genuinely beyond the biological sciences. Conservation scientists are sowing the seeds of inbred ideas that are decreasingly likely to germinate in today's complex world.

Emboldened by urgency and the prospect of gridlock (Hale et al., 2013, Gridlock: Why Global Cooperation is Failing when We Need It Most. Polity Press), WildCRU and the international NGO Panthera recently experimented with an alternative meeting format in an attempt to break the mould and identify innovative conservation strategies to prevent the extinction of lions Panthera leo in Africa (Bauer et al., 2015, Proceedings of the National Academy of Sciences of the United States of America, 112, 14894-14899). In what we call the Oxford Format (named after its venue, in the tradition of diplomatic mechanisms; e.g. the Normandy Format to tackle the crisis in Ukraine), c. 30 lion insiders (ecologists, zoologists, geneticists from WildCRU and Panthera) brainstormed during 3 days with 30 lion outsiders (leading international political scientists, economists, philosophers, development experts) at the Cecil Summit (www.ox.ac.uk/news/science-blog/cecilsummit-another-key-milestone-lion-conservationmovement). The format began with short presentations by insiders (both researchers and those working with communities living alongside lions) on the lion's predicament, followed by short presentations by outsiders to provide radically different perspectives on this predicament. The unfolding discussions blended ideas that led to recasting lion

conservation as an issue fundamentally framed by economics and governance. Paradoxically, none of these discussions focused on lion ecology but all were critically relevant to lion survival in an increasingly crowded African continent.

Although stimulating novel ideas is a far cry from implementing them, the success of the first Oxford Format summit in generating outbred ideas convinces us that the prize will be won by forcing, rather than by simply urging, interdisciplinarity to address conservation issues. There is no excuse left for inbred conservation thinking.

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Singapore hosts international efforts for conserving migratory waterbirds in the Asia-Pacific

Two major international meetings targeted at the region's migratory birds have recently been hosted in Singapore, a country that has a key role in conserving waterbirds migrating from as far north as Siberia to as far south as Tasmania. What happens in the Arctic does not stay in the Arctic, and the other way around, is the mantra underpinning the conservation of Arctic breeding birds under the Conservation of Arctic Flora and Fauna working group, part of the Arctic Council, to which Singapore is an observer. This goal is being pursued through the Arctic Migratory Bird Initiative, which met on 8-9 January to discuss pressing issues in the East Asian-Australasian Flyway. Hunting of migratory waterbirds was reported from multiple countries across the flyway, raising concerns about their survival. Addressing unsustainable hunting is one of the key objectives of this Initiative, and a recommendation was made, with support from the Convention on Migratory Species, to establish a working group drawing on lessons from experience in the Mediterranean (Bird Conservation International, 2016, 26, 1-28).

The 9th Meeting of the Partners of the East Asian–Australasian Flyway Partnership took place during 11–15 January. This is a multi-actor voluntary agreement for conserving migratory waterbirds in the 22 countries of the East Asian–Australasian Flyway. The Partnership primarily focuses on habitat conservation, which remains a pressing issue, particularly in the Yellow Sea. The membership of the Partnership continues to grow, with the Hanns Seidel Foundation joining since the last Meeting. This non-governmental organization is playing an important role through conservation and capacity building initiatives in

the Democratic People's Republic of Korea, such as supporting its accession to the Ramsar Convention and application to join the Partnership.

The Partnership's Flyway Site Network continues to expand, although not without challenges. Since the last Meeting 13 new sites have been designated in six countries, covering key habitats for shorebirds, cranes, ducks, geese and seabirds. However, a mechanism for monitoring the status of sites and responding to threats is still lacking. Partners discussed the possibility of adopting the Ramsar model for such a purpose but some countries expressed their preference for management to remain a domestic matter.

The Partnership also continued to expand its governance mechanisms to strengthen the core framework supporting its activities. A new Technical Committee was established, which will provide scientific and technical advice to the Secretariat, Partners, Working Groups, and Task Forces. New Rules of Procedure were approved for the proceedings of the Meetings, which will increase formality, potentially improving decision-making as well as increasing legitimacy. A 10-year Strategic Plan will be developed, bringing the partnership in line with the workings of multilateral environmental agreements. Building on the previous Meeting, a fee-based voluntary contribution system by partners was adopted to diversify the funding base, although implementation may be challenging because national governments often do not have mechanisms in place to meet this type of demand from non-legally binding agreements.

Progress was made on programmatic activities for conservation. Under the umbrella of the Partnership, Working Groups and Task Forces are charged with coordinating the delivery of key actions for particular waterbird taxa and areas. Action plans were approved for the Far Eastern curlew *Numenius madagascariensis* and scaly-sided merganser *Mergus squamatus*, both of which are Endangered. Both listed hunting as a key threat to the species and this issue emerged through various other fora. Consequently, building

on the Arctic Migratory Bird Initiative meeting recommendation, an interim Task Force on Illegal Hunting, Taking, and Trade of Migratory Waterbirds was established under the East Asian–Australasian Flyway Partnership.

The lack of standardized monitoring of waterbirds was a recurring concern identified during the Meeting, particularly for shorebirds in South-east Asia and for the flyway's 118 breeding seabirds. Recognizing this, the Seabird Working Group pledged to carry out a flyway-wide analysis of population trends and knowledge gaps. Echoing this need, a task force focused on species monitoring reiterated a goal of previous meetings to develop a cooperative framework to better coordinate monitoring throughout the flyway.

Habitat loss continues to drive declines and plague recovery efforts in the flyway but awareness of this issue is increasing. The intention of the Republic of Korea to submit a significant amount of its remaining tidal flats for UN World Heritage Listing is a promising sign, as is the development of the South-east Asian network for wetland conservation under the Association of Southeast Asian Nations. The Critically Endangered Chinese crested tern *Thalasseus bernsteini*, thought to be extinct for over 60 years before its rediscovery in 2000, stood as a beacon of hope, showing what can be achieved through specific actions on the ground.

For more information, see www.eaaflyway.net/; www.caff.is/arctic-migratory-birds-initiative-ambi; *Oryx*, 2015, 49, 393–394; *Oryx*, 2012, 46, 479–480.

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