

BirdLife

T H E M A G A Z I N E

OCTOBER-DECEMBER 2019

A M A Z O N A B L A Z E

How the world's most famous rainforest caught fire –
and what happens next

IBAs SPECIAL

**VITAL HABITATS SAVED BY CONSERVATION ACTION / THE GREATEST THREATS
TO SITES TODAY / THE FUTURE OF SITE-BASED CONSERVATION**

Together we are BirdLife International Partnership for **nature** and **people**



www.birdlife.org

BirdLife International is the world's largest nature conservation partnership. Through our unique local-to-global approach, we deliver high impact and long term conservation for the benefit of nature and people

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WHAT ARE WE DOING TO PROTECT BRAZIL'S OTHER GREAT RAINFOREST?

THE NUMBERS GAME

When trying to explain the importance of BirdLife's Important Birds and Biodiversity Areas (IBAs) concept, it's tempting to simply play the numbers game. 40+ years. Input from over 100 BirdLife Partners. A staggering 13,000 sites identified and documented, in over 200 countries and territories (and, increasingly, in the marine environment, too). Impressive stats that back up the IBA programme's claim to the world's largest network of sites identified as being of conservation value. But then, 13,000 isn't any better than 1,300, or 130, or even just one, if all we're doing is listing areas for the sake of listing.

But it's the underlying numbers that tell us the true value of IBAs. Legally-binding protection facilitated at over 2,000 IBAs. Over 4,000 Local Conservation Groups monitoring and managing their IBAs. And 645,000 hectares of vital habitat, managed and protected by the combined might of the BirdLife Partnership. IBAs are the backbone of our work, bringing focus to efforts at both local and global levels, and ensuring our attention remains on protecting sites of the highest importance. It is a measure of IBAs impact on conservation that their identification criteria is now forming the foundation of KBAs [p 34], which are expanding the concept to cover all life on Earth. For just 10 examples of how IBA identification has led to real change, flip to page 10.

Alex Dale, Editor

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ZOLTAN WALICZKY

Based in Quito, Ecuador, Zoltan is the coordinator of BirdLife's IBA programme, having worked on them in various national, regional and global capacities since 1991. On [page 34](#) he takes a look at how IBAs are evolving into Key Biodiversity Areas (KBAs): extending their influence beyond birds to all life.



JAMES LOWEN

Former BirdLife staffer James is the Editor of *Neotropical Birding*, published by the Neotropical Bird Club. With extensive experience of living and travelling around South America, James was the natural choice to examine the current situation in Brazil - his findings are on [page 16](#).



NIGEL COLLAR

One of our most pre-eminent ornithologists, Nigel has worked for BirdLife for 38 years, currently as Leventis Fellow in Conservation Biology. The past two of those 38 has seen Nigel focus on the plight of an Endangered dove in the Pacific - read its remarkable story on [page 44](#).



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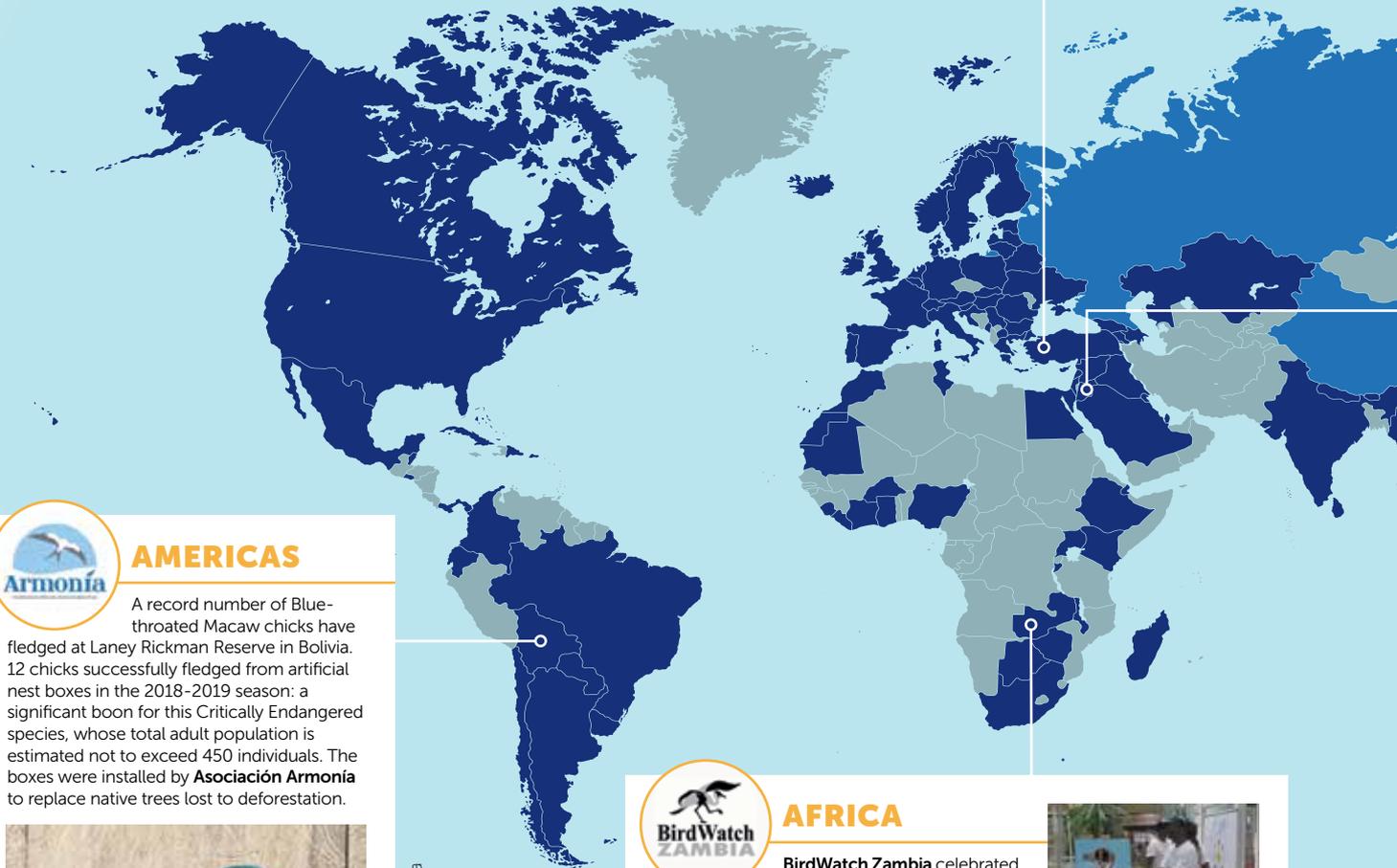
- BIRDLIFE PARTNER
- BIRDLIFE COUNTRY PROGRAMME

Doğa EUROPE

Kaz Mountains, an IBA in western Turkey, is under severe threat from gold mine construction by the Canadian company Alamos Gold. Work has already begun, felling 195,000 trees – four times as many as planned. Thousands of campaigners from have flocked to the site, and BirdLife Partner **Doğa Derneği** is urging NGOs worldwide to protest the mine, which would use toxic cyanide to extract gold.



Photo Eielicht



AMERICAS

A record number of Blue-throated Macaw chicks have fledged at Laney Rickman Reserve in Bolivia. 12 chicks successfully fledged from artificial nest boxes in the 2018-2019 season: a significant boon for this Critically Endangered species, whose total adult population is estimated not to exceed 450 individuals. The boxes were installed by **Asociación Armonía** to replace native trees lost to deforestation.



Photo Márton Hardy, Asociación Armonía



AFRICA

BirdWatch Zambia celebrated its 50th anniversary with a two-day event bringing together over 17,000 participants at East Park Mall, Lusaka. The event showcased BirdWatch Zambia's history and conservation successes, which include the publication of *An Atlas of Zambian Birds* (which serves as a directory of Zambian IBAs), their ongoing Vulture Safe Zones initiative, and a school art competition to engage younger audiences.



Photo Chaona Phiri



MIDDLE EAST

RSCN (BirdLife in Jordan) recently participated in a workshop against the illegal trade of birds of prey, held in Abu Dhabi, United Arab Emirates. Working alongside organisations such as the International Fund for Houbara Conservation, Ornithological Society of the Middle East, and the Convention on the Conservation of Migratory Species of Wild Animals, together they formulated a declaration focusing on collaboration and education.



Photo Yehya Khaled, RSCN



ASIA

The number of species on the priority list of the Asian Songbirds in Trade Specialist Group has risen from 28 to 44. The additions, made at the Asian Songbird Crisis meeting this year, include the Javan Leafbird (below). **Burung Indonesia** is collaborating on projects to evaluate the last songbird strongholds in Java's mountains, and better understand the perceptions of the island's 3,000+ songbird owners.



Photo JJ Harrison



PACIFIC

BirdLife Australia has successfully translocated the Mallee Emu-wren back to its former habitat in South Australia after bushfires rendered it locally extinct. After 'fire-proofing' the area by controlled burning, eighty birds were moved from Murray-Sunset National Park by a team of translocation experts, who conveyed these tiny birds in breeding pairs, in boxes custom-built by volunteers.



Photo Ron Knight

BIRD BULLETIN



NEW MONKEY SPECIES DISCOVERED IN RAPIDLY-DEFORESTED AREA OF AMAZON

The discovery of a new species should be a source of fascination and excitement: but when researchers found a new species of marmoset in southwest Pará, Brazil, they knew they already needed to be concerned about its survival. The marmoset, named *Mico munduruku* in honour of the Munduruku indigenous people who live in the area, was discovered by a team led by Rodrigo Costa Araújo of the National Institute of Amazonian Research, who noticed its unusual white tail. Rodrigo and his team were supported in their research by the Conservation Leadership Programme, a partnership between BirdLife, Fauna & Flora International and the WCS. Sadly, this incredibly species-rich area has suffered extensive illegal logging and agricultural encroachment. More worryingly, four hydroelectric power plants have been approved for construction. Deforestation in the Amazon as a whole has accelerated markedly in recent months: in June 2019, 88% more forest was cleared than in June 2018. See page 22 for more information.

Photo Stephen Nash



ONE TO WATCH





Shy by name...

The Shy Albatross *Thalassarche cauta* glides over the Indian Ocean, hoisted on mighty wings spanning 2.5 metres. These ocean wanderers often travel the distance between Australia and South Africa in search of food, but despite this impressive range, their breeding colonies are restricted to just three islands in Tasmania, where all Shy Albatrosses far and wide return to reproduce. It's not only their birthplace to which individuals remain faithful. When they finally find 'the one', after a great deal of courting with potential mates, they stay true to that partner for life. A pair of Shy Albatrosses will devote all their parental efforts to just one egg - one chick - each year, sharing the responsibilities of incubation and feeding. Such a diligent and deliberate approach to raising offspring should result in high breeding success, but humans have brought threats that all the parental care in the world cannot always overcome. At the start of the 20th century, populations were decimated by the harvesting of their feathers, which were used to plump up mattresses. It was only when numbers got so low that trade was no longer viable that the population began to recover. But having dodged this bullet, the species now faces a challenge that won't let up so easily – climate change. Increased rainfall has lowered reproductive success at the aptly-named Albatross Island, and violent waves are a hazard for the exposed Pedra Branca colony. While the climate is an ongoing concern, the greatest cause of mortality for this bird today is incidental bycatch by longline fisheries. For a hungry bird at sea, often with two mouths to feed, the perilous lure of a fishing vessel is too great and by chancing a free meal they become ensnared on fishing hooks. It's a cruel twist of fate that the Shy Albatrosses' lack of shyness around humans has the species heading towards a classification of Vulnerable on the IUCN Red List. But let's not victim blame – the responsibility is ours. Fortunately our Albatross Task Force is working directly with fishermen worldwide to reduce incidents of bycatch.

SHY ALBATROSS *Diomedea epomophora*
Photo Andre Anita/Shutterstock

10 IBAS SAVED

THROUGH CONSERVATION ACTION

The magnificent Rila Mountains, Bulgaria – where ski tourism has threatened to slice through irreplaceable habitats (see page 12)
Photo Leondeleeuw

Since the late 1970s, the BirdLife Partnership has worked collectively to identify, document and protect the places of greatest significance for the conservation of the world's birds. We call these vital places Important Bird and Biodiversity Areas (IBAs). BirdLife Partners and other experts have, to date, identified and documented more than 13,000 of these sites in over 200 countries and territories worldwide, and in the oceans, too. These sites provide the BirdLife

Partnership, and other actors, with focus to their conservation action, planning, and advocacy.

This is because birds and other wildlife are not evenly distributed across the world. IBAs cover about 7% of the terrestrial and 2% of the global sea area. Thus, concentrating our efforts on these areas is a cost-effective and efficient way of ensuring the survival of a large number of species.

However, currently around 33% of IBAs lack formal protection, and a further 45% are only partially

protected. While these stats are cause for worry, they only serve to highlight the value of documenting these vital habitats so we can mobilise action to protect them.

Our IBA Programme brings focus to our efforts both at local and global levels, and means that while it is impossible for us to protect every last bit of nature in existence, we can at least throw our energy and collective influence behind saving those that will have the greatest impact to the persistence of biodiversity on the planet. Here are just a few examples...

Cousin Island / Styve Reineck/Shutterstock



COUSIN ISLAND SEYCHELLES

WHAT MAKES IT SO SPECIAL?

Encircled by white-gold sands and thriving coral reefs, this 27-hectare jewel of an island is blanketed in verdant native woodland, with areas of mangrove and a rocky outcrop protruding from the southern half.

WHO LIVES HERE?

Seychelles Warbler, Seychelles Magpie-robin, Hawksbill Turtle

HOW WAS IT THREATENED?

Cousin Island had been cleared completely of native vegetation and planted from coast to coast with coconut trees. Restoration became a priority on discovering it was the last refuge of the Seychelles Warbler.

OUR RESPONSE:

In 1968 (thus predating IBAs themselves), BirdLife (then ICPB) launched a worldwide campaign to purchase the island outright. In 1975, it was declared a Special Reserve. The island is now 80% native forest, with ecotourism supporting its upkeep.



Greater-Spotted Eagle / Vladimir Kogan Michael/Shutterstock



INNER GULF OF THAILAND

WHAT MAKES IT SO SPECIAL?

Much of the mangrove forests that occupied this expanse of mudflats were destroyed to create salt pans. Fortuitously, these man-made salt pans now cater for important populations of shorebirds in need of rest and refreshment during migration.

WHO LIVES HERE?

Greater Spotted Eagle, Spot-billed Pelican, Nordmann's Greenshank

HOW WAS IT THREATENED?

Salt pans are becoming less profitable, triggering owners to sell their land to the aquaculture industry. The ecological benefits of the salt pans was unintentional, but the lack of recognition of their value threatened to ensure these shorebird habitats went the way of the mangroves.

OUR RESPONSE:

Generous donors funded our Thai Partner, BCST, to purchase Pak Thale: the site with the greatest numbers and diversity of shorebirds in Thailand. These salt pans are now a nature reserve, presenting ecotourism opportunities and optimising conditions for wildlife.



Mopane Woodland / Hans Hillewaert



MUTULUNGANGA ZAMBIA

WHAT MAKES IT SO SPECIAL?

The reserve has a sizeable area of mopane woodland, where vibrant birds flit between dappled leaves and hippos and elephants forage within the scrubland.

WHO LIVES HERE?

African Pitta, Barred Long-tailed Cuckoo, Purple-crested Turaco

HOW WAS IT THREATENED?

In 2010, two companies were given large concessions to log the mopane, which would leave less than a third of these trees standing. Besides threatening precious biodiversity, this would make local communities vulnerable to floods, erosion and grassland fires.

OUR RESPONSE:

Our Zambian Partner ZOS mustered several NGOs and officially objected to the Environmental Council. Pressure from ZOS and its allies, alongside a community petition with 600 signatures, resulted in the logging project finally being rejected.



Three-toed Woodpecker / Ron Knight/Flickr



RILA MOUNTAINS BULGARIA

WHAT MAKES IT SO SPECIAL?

The towering Rila mountain range is the birthplace of some of the Balkans' longest rivers. They flow past glacial lakes and down through verdant, centuries-old forest.

WHO LIVES HERE?

Three-toed Woodpecker, Golden Eagle, Eurasian Pygmy-owl

HOW WAS IT THREATENED?

Tourism, especially ski resorts, risked destroying habitats. In 2007 the government rejected several protected area proposals and started building a ski lift.

OUR RESPONSE:

In 2008, our Bulgarian Partner BSPB submitted a complaint to the European Commission. After a decade of advocacy, in 2018 the European Court found Bulgaria at fault for not fully designating the site a Special Protection Area under the EU Habitats Directive. The site is now formally protected with an expanded 'buffer zone' in the foothills.



Berga Floodplain / Environmental Change and Security Program



BERGA FLOODPLAIN ETHIOPIA

WHAT MAKES IT SO SPECIAL?

Lush grasses and sedges ripple in the breeze across this high-altitude wetland, part of the vast plains of Ethiopia's north-western highlands. The Berga River runs through it, feeding ponds and marshes dotted with flowers.

WHO LIVES HERE?

White-winged Flufftail, Blue-winged Goose, Rouget's Rail

HOW WAS IT THREATENED?

Berga Floodplain is the principal breeding site of the White-winged Flufftail. Local communities used to graze their cattle on the wetlands during the breeding season, inadvertently disturbing this Critically Endangered species' nests.

OUR RESPONSE:

Through our Local Conservation Group initiative, farmers agreed not to graze cattle on the floodplain during breeding season. One farmer even donated 3,000 m² of land to grow trees and vegetables to finance the site's maintenance.



Great Knot / Laurie Boyle



GULF OF MOTTAMA MYANMAR

WHAT MAKES IT SO SPECIAL?

Spanning this gulf is one of the largest mudflats in the world, bustling with life. The three rivers that meet here supply nutrients to fish and an abundance of invertebrates, which in turn sustain crowds of hungry migratory shorebirds.

WHO LIVES HERE?

Spoon-billed Sandpiper, Spotted Greenshank, Great Knot

HOW WAS IT THREATENED?

Illegal over-fishing caused fish catch to drop 50-90% within a decade, disrupting the ecosystem. Additionally, with no legal protection, wintering birds were imperilled by poaching.

OUR RESPONSE:

Fantastic news came on World Migratory Bird Day 2017, when 45,000 hectares were designated a Ramsar Site after persistent lobbying from BANCA (BirdLife in Myanmar). On the ground, BANCA consistently monitor shorebirds and conduct anti-poaching patrols.



Storm's Stork / Mike Prince



HARAPAN RAINFOREST INDONESIA

WHAT MAKES IT SO SPECIAL?

This verdant tropical forest rivals the Amazon in biodiversity richness. Alongside 305 bird species, it also supports spectacular large mammals such as the Sumatran Tiger.

WHO LIVES HERE?

Storm's Stork, Short-tailed Coucal, Wallace's Hawk-eagle

HOW WAS IT THREATENED?

Illegal logging, agricultural encroachment, forest fires and mining all imperil the ecosystem and the livelihoods of indigenous peoples. Despite significant progress, our work is ongoing.

OUR RESPONSE:

In an unprecedented legal move, our Partner Burung Indonesia, supported by BirdLife, persuaded the government to allow private organisations to manage logging concessions to restore ecosystems. Harapan means 'hope' in Indonesian: as the first site in our Forests of Hope programme, Harapan has created the legal framework for other Partners to follow suit.



Messina Strait / Gurgen Bakhshetyan/Shutterstock



MESSINA STRAIT ITALY

WHAT MAKES IT SO SPECIAL?

Messina Strait is an important migration route, especially for raptors. Thousand-strong flocks funnel themselves over the narrowest sea crossing, measuring just 50 kilometres between mainland Italy and Sicily, causing a spectacular 'bottleneck'.

WHO LIVES HERE?

European Honey-buzzard, Western Marsh-harrier, Red-footed Falcon

HOW WAS IT THREATENED?

This bottleneck used to be a hotbed of poaching, with as many as 5,000 Eurasian Honey-buzzards illegally shot down for sport every year.

OUR RESPONSE:

In the 1980s, our Italian Partner LIPU set up 'anti-poaching camps' where volunteers watched over birds and reported illegal activity. Despite threats, violence and even a bomb destroying LIPU's local office, community awareness and law enforcement have drastically reduced poaching, saving over 85,000 honey-buzzards.



Regent Honeyeater / Valentin/Flickr



LOWER HUNTER VALLEY AUSTRALIA

WHAT MAKES IT SO SPECIAL?

This colourful landscape is dotted with Spotted Gum trees, whose bark has a unique marbled pattern. The valley hosts 132 bird species, and proximity to the coast provides predictable rainfall, making it a refuge for two Critically Endangered birds during droughts.

WHO LIVES HERE?

Regent Honeyeater, Swift Parrot

HOW WAS IT THREATENED?

Habitat destruction for industrial purposes is a looming threat. In 2016, a proposal to build steelworks on a crucial breeding site for Regent Honeyeaters was approved by the council.

OUR RESPONSE:

BirdLife Australia used extensive research to prove the proposal had downplayed the site's ecological importance. The government rejected the plan, recognising that it would have put this special bird in "grave peril".



Acteon & Gambier / Island Conservation



ACTEON & GAMBIER FRENCH POLYNESIA

WHAT MAKES IT SO SPECIAL?

These low-lying, sandy archipelagos are home to some of the world's rarest bird species, including the Polynesian Ground-dove, thought to number fewer than 200 birds.

WHO LIVES HERE?

Polynesian Ground-dove, Tuamotu Sandpiper, Polynesian Storm-petrel

HOW WAS IT THREATENED?

The ecosystem was being destroyed by invasive mammals including cats and black rats, who not only ate native birds and eggs, but also competed with them for food.

OUR RESPONSE:

In one of the most ambitious island restorations ever attempted (with supporters such as the Angry Birds smartphone game), helicopters and ships transported hundreds of tonnes of equipment and bait across the archipelagos. Five of the six target islands are now predator-free, and coconut growth has doubled, supporting local communities.



THE G R E A T E S T T H R E A T S F A C I N G I B A S T O D A Y

The threats facing the world's IBAs are complex and varied. But thanks to improvements and innovations in monitoring over the past 40 years, we have a clearer picture than ever of the main issues – and the IBAs most at risk

Olivia Crowe

Identifying key sites for birds and biodiversity has been the key objective of BirdLife's Important Bird and Biodiversity Areas (IBA) programme since it began in the late 1970s. Unfortunately, IBAs, regardless of whether they are protected or not, increasingly come under pressure from badly planned development and land use activities. Recognising the need to measure the impacts of these activities, and the effectiveness of any conservation measures implemented,

BirdLife launched a comprehensive monitoring protocol in 2006. As part of this monitoring protocol, we ask BirdLife Partners globally to report regularly on the condition of their IBAs, including on threats.

IBA monitoring has exposed many sites which are subject to very high levels of threat, and which are at the greatest risk of losing their biodiversity assets. There are currently 241 sites in 48 countries on BirdLife's IBAs in Danger list, an initiative that highlights and promotes sites in dire need of

urgent conservation action.

Here, we take a closer look at some of the threats taking place in IBAs based on threat information gathered at almost 4,800 IBAs and stored in the World Database of Key Biodiversity Areas. The top-20 threats (out of a total of 43 reported) are illustrated in the accompanying graph (see right), which highlights the predominant threats identified across most global regions. Further details on the top four threats are also provided.

Pied Oystercatchers *Haematopus longirostri* at the Coorong, South Australia
Photo Shutterstock

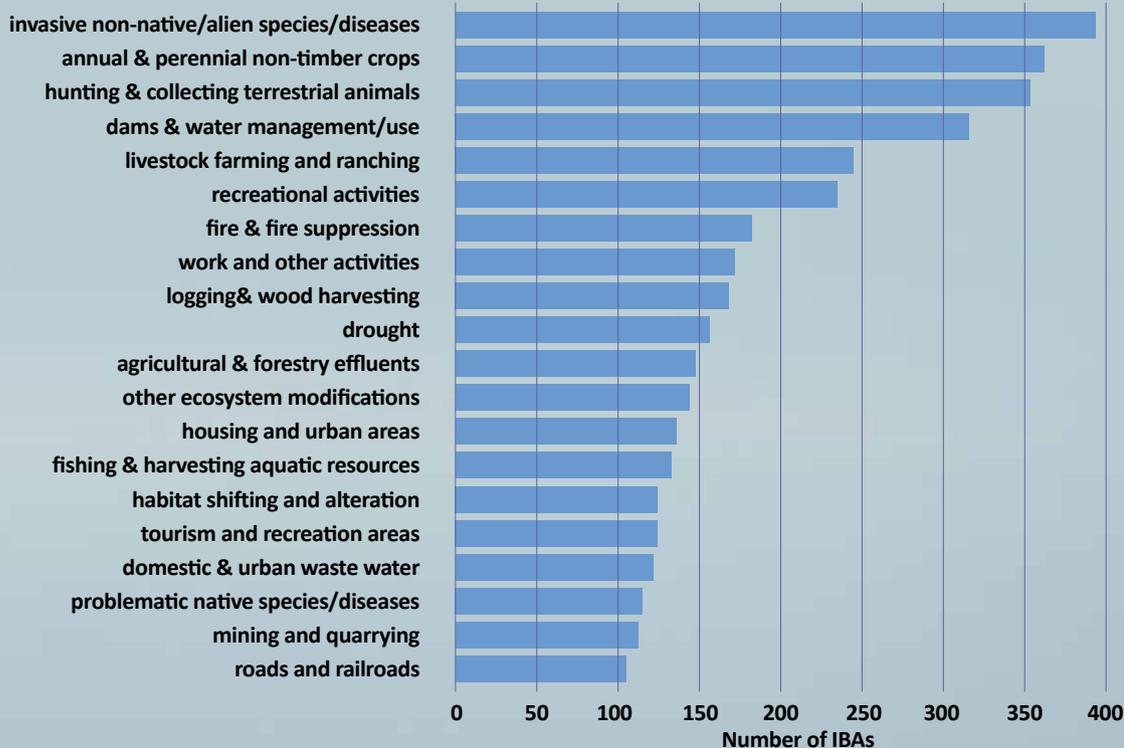


1 INVASIVE NON-NATIVE / ALIEN SPECIES / DISEASES

This refers mostly to incidences of predation at nesting colonies, but also includes habitat alteration, especially in wetlands, caused by non-native aquatic species. Invasive species are a particular problem for threatened seabirds worldwide, and a global assessment of threats to seabirds and published in 2012 listed more than 70 priority islands globally, most of them IBAs, that are seabird breeding colonies requiring urgent management of invasive alien mammal species.

3 HUNTING AND COLLECTING OF TERRESTRIAL ANIMALS

Includes the killing or trapping of wild animals or animal products for commercial, recreation, subsistence, research or cultural purposes, or for control/persecution, as well as accidental mortality and bycatch. Lake Ol'Bolossat IBA in Kenya is one example where the hunting of Grey Crowned-cranes *Balearica regulorum* and collection of their eggs has been shown to affect their reproductive success.



2 ANNUAL AND PERENNIAL NON-TIMBER CROPS

This category concerns the impacts of agricultural crops (food, fodder, fiber and fuel), but not timber operations. This is one of the key threats affecting the Guadalquivir Marshes (Doñana) IBA, one of the largest wetlands in Europe, and the most important wetland in Spain for breeding, passage and wintering waterbirds and passerines. Over 360 species have been recorded, and wintering waterbird numbers amount to 400,000 individuals, climbing to over six million birds during migration periods. The site is an IBA in Danger, and one of the biggest threats relates to the expansion and intensification of agriculture, particularly the uncontrolled use of pesticides and over-exploitation of groundwater for irrigation.

4 DAMS & WATER MANAGEMENT / USE

Referring to changing water flow patterns from their natural range of variation. An example is The Coorong IBA, a coastal lagoon in South Australia. Historically the site was flooded by overland flows of freshwater from a large catchment. These catchments are now interrupted by increasing irrigation schemes resulting in no freshwater available for the natural flood areas. This affects the abundance of breeding waterbirds such as Fairy Terns *Sternula nereis*, and other migratory species.



Flamingos within Doñana National Park, Spain
Photo Shutterstock

The threats shown here are widely variable, and reflect conditions over the past 15 years. The exact order of this list will naturally continue to change, as global policies and demands shift over time. China's multibillion dollar Belt and Road initiative is one such example; China plans to carry out construction projects in more than 60 countries to connect Asia, Africa and Europe through a "belt" of overland corridors and a maritime "road" of shipping lanes. An early scoping assessment of the impact of the six of the land-based corridors by WWF showed overlap with the range of 265 threatened species and almost 2,000 IBAs. It is also important not to lose sight of other threats that may not feature prominent at a global level,



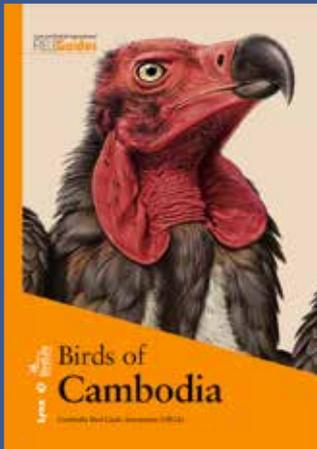
Invasive alien species have been identified as the leading threat to IBAs
Photo John Anderson / RSPB

but are of significance at a localised scale (e.g. renewable energy, mining, oil and gas drilling), and that may pose significant challenges into the future. But thanks to the rigorous monitoring efforts of BirdLife Partners from around the world, we have the data we need to

identify these threats as they develop and sound the early warning alarm. ■

For more information on IBAs and IBA monitoring, please visit:
datazone.birdlife.org/site/mapsearch

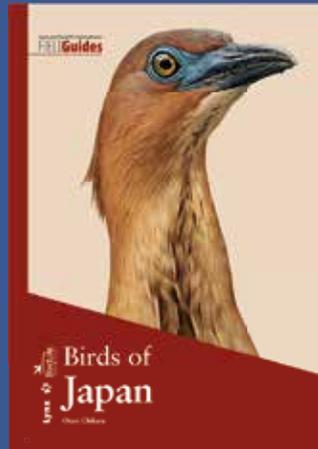
A MODERN, STANDARDIZED COLLECTION OF FIELD GUIDES



Birds of Cambodia

By Cambodia Bird Guide Association (CBGA)

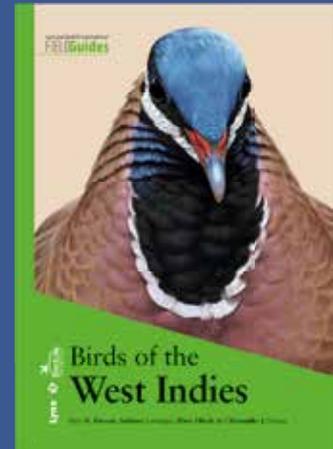
- 629 species.
- 17 endemics or near-endemics, 1 introduced, 52 vagrants.
- c. 1400 illustrations and c. 600 distribution maps.



Birds of Japan

By Otani Chikara

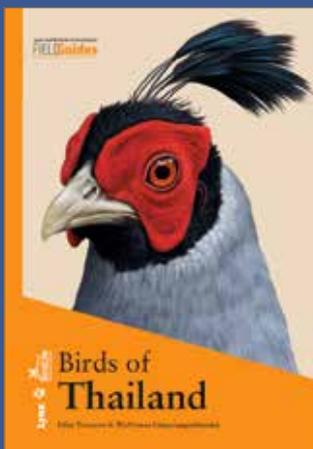
- 740 species.
- 30 endemics or near-endemics, 19 introduced, 190 vagrants.
- Over 1800 illustrations and more than 540 distribution maps.



Birds of the West Indies

By Guy M. Kirwan, Anthony Levesque, Mark Oberle and Christopher J. Sharpe

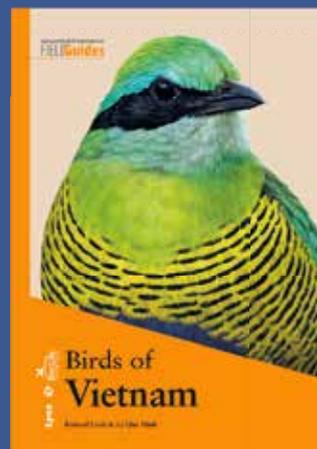
- 712 species.
- c. 190 endemics.
- Over 1600 illustrations and more than 650 distribution maps.



Birds of Thailand

By Uthai Treesucon and Wich'yanan Limparungpatthanakij

- 1049 species.
- 20 endemics or near-endemics, 5 introduced, 1 reintroduced, 58 vagrants.
- c. 2200 illustrations and over 1025 distribution maps.



Birds of Vietnam

By Richard Craik and Lê Quý Minh

- 916 species.
- 46 endemics or near-endemics, 2 introduced, 73 vagrants.
- c. 1900 illustrations and over 870 distribution maps.

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RECLAMATION OF HOPE IN THE YELLOW SEA

Over sixty organisations across the world have come together with China and made a huge advance in protecting this internationally important area for birds, demonstrating the immense power of collaboration

What do the Taj Mahal, Machu Picchu and a stretch of mudflats on the coast of China all have in common? Well, as of this year, they have all been listed as UNESCO World Heritage Sites – areas of significant cultural, historical or scientific interest. While long-term supporters know of the importance of this site, a casual onlooker might wonder how these (subjectively) uninspiring mudflats stack up with such grand and imposing feats of cultural architecture.

The answer is that the Yellow Sea lies at the centre of the East Asian–Australasian Flyway, between China and the Korean peninsula. It acts as a ‘service station’ on this migratory super-highway, and supports the world’s greatest overall numbers, diversity, and number of

Cressida Stevens

↑ **Dalmatian Pelican**
Pelecanus crispus
Photo Sue Cro / Flickr

threatened species of migratory waterbirds. Dalmatian Pelicans *Pelecanus crispus*, Far Eastern Curlews *Numenius madagascariensis*, Great Knots *Calidris tenuirostris* and many others touch down here to rest and refuel, with good reason – invertebrate nutrition is abundant here. Succulent shrimp, snails and clams are all on the menu, and for hungry birds depleted of energy in the midst of their migration, it is an offer that keeps them coming back year on year.

The mudflats come alive when birds congregate to replenish their reserves before continuing their journeys. Some as much as double their weight, gorging themselves on the Yellow Sea’s cuisine. But this consumer loyalty is a problem for birds when increasingly, their favourite eateries are being shut down and



repurposed for human development. When the wetlands are destroyed, the birds know nowhere else to go.

Land reclamation is responsible for destroying about two thirds of the Yellow Sea’s wetlands, placing it as Endangered on the IUCN Red List of Ecosystems. This destruction is driven by creation of land for farming and other industries. In recent years, campaigns from scientists and conservation groups have been proclaiming the international significance of these mudflats. Research shows that migratory birds who rely on these sites to break up their spring and autumn migrations are declining at a faster rate than those that stop by only once each year. Since at least 17 of the migratory shorebirds that rely on the area are globally threatened, this is a big cause for concern.

Therefore, the decision of the World Heritage Committee to list key sites along China’s Yellow Sea coastline is great cause for celebration. This will give the sites recognition of their irreplaceable ecological importance and protection by law under international treaties. A fantastic outcome, and one that was hard fought over several years.

The issue was passed from the scientists to the media, to the politicians and government officials and in 2017, China nominated 14 Yellow Sea coastal sites for World Heritage status. One site – Tiaozini – is particularly crucial in playing host to significant populations of two Endangered species: 80% of Spotted Greenshanks *Tringa guttifer* and 40% of Spoon-billed Sandpipers *Calidris pygmaea* rely on this site during their migrations. Following nomination, the process required all sorts of complex analytical data and requirements to be fulfilled. But China did not just sit back and wait. In the meantime, the nation took a momentous step forward at the start of 2018, banning any

↪ **Spoon-billed Sandpiper**
Calidris pygmaea
Photo Shutterstock

↑ **Great Knot**
Calidris tenuirostris
Photo Laurie Boyle / Flickr

further ‘business-related’ reclamation of land along the Yellow Sea’s tidal flats. This bold step immediately took some of the pressure off and demonstrated China’s commitment in doing all it takes to turn the situation around.

But back to the World Heritage listing. The case was passed to the IUCN, which carries out technical reviews for these nominations, and devastatingly, they recommended the case to be deferred. The situation was severe. Ecologists the world over knew that the Yellow Sea sites were on the edge, and consequently, so were its avian visitors. It was then that BirdLife International rallied the support of 62 conservation organisations and representatives globally (including many of our Partners) to plead the case at the 43rd meeting of the UNESCO World Heritage Committee in Azerbaijan. Thanks to the huge amount of support and China’s proven commitment to the cause, the committee voted unanimously in favour of inscribing the Tiaozini shoals. Attention must now turn to ensuring the other 13 nominated sites follow suit.

This decision is a win for many. Not just the birds that rely on the Yellow Sea sites, but also the nations along the flyway and the people who enjoy these species, as part of a shared and collective natural heritage. China has set an inspiring example and BirdLife International stands ready to support other nations across the flyway in their efforts to further conserve biodiversity. The 15th Conference of the Parties of the United Nation’s Convention for Biological Diversity will be held in China in 2020. The leadership of this nation will be critical in delivering a comprehensive new vision for the conservation of biodiversity – and the nomination of the Yellow Sea underscores what that new vision should represent. ■

BIRD
FACTFILE



**FAR EASTERN
CURLW**
*Numenius
madagascariensis*

RED LIST STATUS:
Endangered

RANGE: Northeast and Southeast Asia, down to Australia

THREATS: Primarily habitat loss at its migratory stopover sites, also direct persecution, disturbance

FAST FACT: Said to have the joint longest bill of all curlews



AMAZON VILLAIN

Images of raging forest fires in the Brazilian Amazon sparked worldwide condemnation during August. Several IBAs have suffered – this in a country that had been lauded for its conversion from environmental villain to conservation hero. How has this happened?

James Lowen

Stark images ignited global horror. The Amazonian rainforest ablaze. The blackened Brazilian metropolis of São Paulo, choking with carbon. Leaders from G7 countries condemned August's environmental atrocity. Brazil's new president, Jair Bolsonaro, was swiftly cast as villain in a tragedy afflicting communities, creatures and climate alike. What lessons might we draw from Brazil's rapid parabola from environmental laggard to leader... and back again?

Fifteen years ago, Brazil stood on conservationists' naughty step. Between 1988 and 2004, Brazilian forest the extent of Poland was destroyed by *grileiros*, squatters legally entitled to establish land ownership by clearing

terrain 'sullied' by trees. Vast expanses of leafy, biodiversity-rich, carbon-storing forest were supplanted by soy ranches and wandering cattle. Their destruction emitted nearly 1% of all carbon dioxide produced by humans since the Industrial Revolution. Woe betide anyone who obstructed the *grileiros*. The outsiders thought nothing of violence against indigenous communities and other land claimants. In Pará state alone, 475 forest-defending activists were assassinated between 1985 and 2002.

Unexpectedly, things changed in 2005. A nun, Dorothy Stang, who supported local farmers striving to save their forest was murdered. This proved a killing too far. Amid national outrage, President Lula da Silva launched an offensive against deforestation. He banned new land claims and logging permits, boosted government enforcement capability, declared dozens of protected areas and indigenous territories, and paid families to safeguard forest. Meanwhile, soy and beef industries responded to consumer pressure by ceasing to sell products from recently deforested terrain.

Conservationists rejoiced as Amazon deforestation halved from 2004 to 2008, and



plummeted 80% by 2012. By 2010, 44% – an area the size of Greenland – was protected or designated as indigenous land. The emission of 3.2 gigatonnes of carbon dioxide was avoided. No more an environmental vandal, Brazil became fêted worldwide. Remarkably, it spared forests while simultaneously boosting agricultural production – cattle by one-fifth and soy by two-thirds. Brazil had decoupled development from deforestation.

Lula da Silva's deforestation-reducing initiatives derived their legitimacy and impetus from an existing piece of legislation called the Forest Code. No single law worldwide has levied such stringent demands on forest owners. Launched in 1965, it required private landowners to set aside 20–50% of native forests as 'legal reserves', a proportion upped to 80% in 1996.

But it was a law under pressure. Come 2012, a year into Dilma Rousseff's presidency, powerful agribusiness interests were fed up with the Code's constraints. They lobbied successfully for dilutions to the Forest Code. The 'New Forest Code' granted amnesty for landholders who had illegally deforested 290,000 km² prior

to 2008. Some conservationists were appalled. If old crimes could be pardoned, how could the New Forest Code realistically deter fresh deforestation?

Such fears were warranted. Rousseff declined to sign the 2014 New York Declaration on Forests, which pledged to eliminate all deforestation by 2030; she would commit only to ending illegal deforestation. Amazon deforestation started rising and, despite two brief downticks, continued to burgeon during Michel Temer's presidency (2016–18).

But it is the rapid surge in deforestation during Jair Bolsonaro's presidency that has really riled conservationists. Riding, in the words of *The Washington Post*, "a wave of voter rage" and right-wing nationalism, Bolsonaro took power in January 2019. His effect on the environment appears swift and intense.

Bolsonaro is opening up protected lands for commercial use, pressing plans for new transport infrastructure that will facilitate loggers' access to Amazonian forests. He has eviscerated government bodies protecting the environment and managing conservation areas. Bolsonaro has sacked senior government

↑ An artist's impression of the blazes which ripped through the Amazon this past summer
Photo OSORIOartist



↑ Golden Parakeet *Guaruba guarouba*
Photo Fernando Calmon/
Shutterstock

➤ Black-fronted Piping-guan *Penelope jacutinga*
Photo Erni/Shutterstock

➔ Brazilian presidential candidate Jair Bolsonaro during a rally in Juiz de Fora, 6th September 2018
Photo Antonio Scorza/
Shutterstock

environmentalists, including the head of the satellite agency that monitors changes in forest cover. He scoffed at government data suggesting that deforestation rates had reached a decade-long peak in July.

This is the context in which August's forest fires were perceived worldwide. Granted, fire is a regular dry-season phenomenon. But Brazil's satellite agency detected 74,000 fires between New Year's Day and 20 August – 84% up on 2018 and the most conflagrations since 2010.

"The full repercussions will only be clear in the medium or long term", says Pedro Develey, Director of SAVE Brasil (BirdLife Partner). Develey fears we will lose more forest and biodiversity, as the distribution of many fires overlaps with that of globally threatened birds. Globally threatened Amazonian species found in at-risk IBAs include Golden-crowned Manakin *Lepidothrix vilasboasi* (Vulnerable) in Novo Progresso; Golden Parakeet *Guaruba guarouba* (Vulnerable) in Cristalino/Serra do Cachimbo; Rondonia Bushbird *Clytoctantes atrogularis* (Vulnerable) in Alto Sucunduri; and Rio Branco Antbird *Cercomacra carbonaria* (Critically Endangered) in Campinas e Várzeas do Rio Branco.

Continued monitoring of the extent and impact of the fires is clearly needed. BirdLife



is addressing this need via a project funded by the Cambridge Conservation Initiative that is assessing how to use remote-sensing data to monitor Key Biodiversity Areas. But what about the fires' impacts beyond biodiversity?

BirdLife Partners are among voices

expressing concerns about the fires' climatic consequences. The Copernicus Atmosphere Monitoring Service calculates 228 megatonnes of carbon dioxide equivalent were lost from the world's biggest terrestrial carbon sink during the first eight months of 2019.

People are suffering too. Indigenous territories no longer seem sacrosanct, suffering 68 fires in a single week described by Survival International as perhaps the "worst moment for the Amazon's indigenous people" for three decades.

Bolsonaro's attitude appears to have emboldened settlers, ranchers and loggers. Seeking rights for habitation, soy cultivation (mainly for animal feed), livestock grazing or logging, they no longer fear prosecution for destroying forest. "Poorly regulated land ownership is a key driver of fires and deforestation," says Develey. "With so much land-grabbing and illegal occupation, oversight of the New Forest Code is difficult."

Fires and deforestation are not problems unique to Brazil, of course. This year, fires have devastated vast tracts of Bolivia, Colombia and Paraguay. "Small-scale fires may be ecologically acceptable," says José Luis Cartes, Chief Executive Officer of BirdLife Partner, Guyra Paraguay. "But the intensity, frequency and extent of this year's fires mean we envisage

"Indigenous territories no longer seem sacrosanct, suffering 68 fires in a single week"



considerable impact on Paraguay's wildlife". In Paraguay's already fragmented Atlantic Forest (see page 26), many fires are started to clear land for illegal marijuana cultivation. Birds such as Black-fronted Piping-guan *Pipile jacutinga* (Endangered) and IBAs such as Mbaracayú Forest Nature Reserve are at risk.

So worried is Guyra Paraguay that it joined forces with other NGOs, including BirdLife International and SAVE Brazil, to launch a manifesto demanding "immediate and lasting action from the governments of Brazil, Bolivia and Paraguay". Signatories criticise current government policies for "incentivising deforestation and unsustainable productive practices" and demand "incentives to keep the forest standing".

Media profile has raised the ante. "In Brazil, everyone has been talking about our forests. I've rarely witnessed that", says Develey. Agribusinesses have been worried about the negative repercussions for exports, supporting a campaign demanding the end of deforestation on public lands in Amazon. Conservation of the Amazon has become a concern of productive industries, not just environmentalists. The level of distress has finally roused South America's politicians. In September, seven national leaders (including Bolsonaro) established disaster-

response and satellite-monitoring initiatives, and pledged reforestation.

The rise and fall of Brazil and its Forest Code offer salutary lessons of global relevance. "Brazil was briefly a shining example," says Bryna Griffin, the head of BirdLife's Forests Programme. "But then political winds changed, and gains were quickly and dramatically lost." Brazil's experience demonstrates that increasing law enforcement, expanding protecting areas, recognising indigenous territories, and combining carrots with sticks for agribusinesses can work to reduce deforestation. "Brazil's example shows that we have the tools to make conservation work, but only if we choose to use them", says Griffin.

Saving the Amazon requires land regulation, effective oversight, international pressure and respect for legislation. But whether we are in Brazil or elsewhere, we each have a role to play: as consumers we need to rethink our daily habits. Develey points to the market signal of buying environmentally certified products. Although we did not physically ignite Brazil's fires ourselves, our purchasing choices may have helped fan the flames. As we express outrage at future images of flaming forests, we might do well to remember that change can also start at home. ■

↑ An aerial view of deforestation in the Amazon
Photo Richard Whitcombe/
Shutterstock



Seven-colored Tanager
Tangara fastuosa
Photo: Ciro Albano

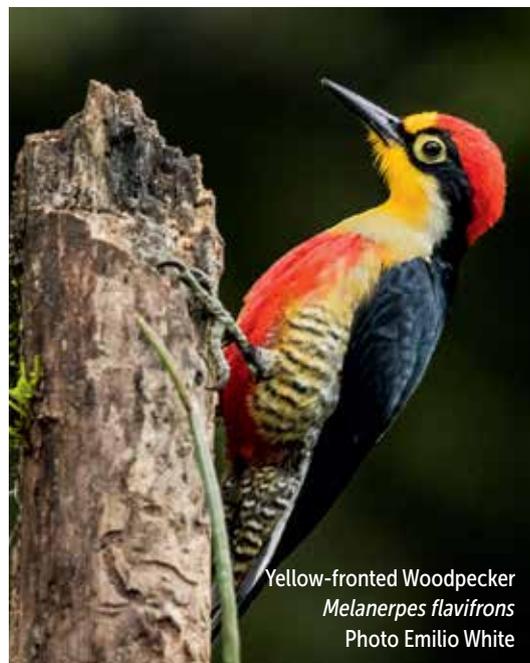
THE OTHER RAINFOREST

The Amazon's plight, while serious, pales in comparison to that wrought on South America's other great rainforest, the Atlantic. Over 90% of its original coverage has disappeared over the last century – but BirdLife Partners are working to safeguard what remains

Emilia Ulloa



The Atlantic Forest is home to nearly 100 endemic reptiles
Photo Carlos Gussoni



Yellow-fronted Woodpecker
Melanerpes flavifrons
Photo Emilio White

Just a hundred years ago, the Atlantic Forest of South America was one of the largest in the world – spanning more than one million square kilometres. Today, however, this crucial habitat is a mere sliver of what it once was - with only eight percent of the original forest remaining, in sparse and isolated fragments. As a result of logging, urban development and the spread of invasive species, the once-imposing Atlantic Forest has become a fragile ecosystem that we are in grave danger of losing forever. Stretching across the eastern coastlines of Brazil, Argentina and Paraguay, the Atlantic Forest, even in its current impoverished state, remains an incredible collection of eco-regions that house biodiversity to rival the Amazon. Inside its boundaries are species not found anywhere else on the planet: roughly 8,000 species of plants, 90 mammals, 94 reptiles, 286 amphibians and 133 species of freshwater fish.

The destruction of this incredible forest began centuries ago, when European colonists began cutting down the forest for timber and converting land to cultivate sugar cane, chocolate and coffee. And human activity has only increased: currently, the Atlantic Forest coexists alongside a population of more than 148 million people. Two of the largest cities in the world – San Pablo and Rio de Janeiro – are located right in the heart of this forest, and to accommodate this, large swathes of surrounding forest have been converted into soya plantations, pineapple farms and ranchlands where cattle graze. Its vegetation has been felled indiscriminately and many of the

plants and animals within the forest have been exploited to the point where they now teeter on the border of extinction.

The few fragments of forest which remain continue to deteriorate due to illegal logging, urban expansion and the illegal trafficking of wildlife. These threats are the same in every country which houses the Atlantic Forest, although the local pressures for each country are unique.

But in unity there is strength, and BirdLife Partners in all three countries have banded together to protect what remains of this irreplaceable forest and restore parts thought to be lost forever. In 2018, the Aage V. Jensen Charity Foundation, who have kindly funded local work in Brazilian and Paraguayan sections of the Atlantic Forest since 2004, awarded BirdLife International a grant to assist with the long-term conservation and restoration of the Atlantic Forest. This investment will considerably scale up our Partners' activities over the following four years, and will centre around two main strategies. The first is to create buffer zones of sustainable habitat management around the forest. The second is to focus on protecting 13 threatened bird species – of which six are Critically Endangered, two are Endangered and five classified as Vulnerable. This cross-border partnership has the potential to protect over one million hectares of IBAs.

ARGENTINA: PROTECTING THE PROVINCE THAT HOUSES NEARLY HALF THE ATLANTIC FOREST

Defined by its red earth and stunning waterfalls, the rugged Misiones Province is home to over



40% of what remains of the Atlantic Forest. Given its importance, it's no surprise Aves Argentinas are ramping up their work in this area, striving to conserve the southernmost portion of the forest by creating new protected areas and strengthening those that already exist.

Aves Argentinas aims to develop ecotourism in three areas with the highest biodiversity: Iguazu, Yaboti, and the surrounding pastures. A birdwatching route is already in place in Iguazu, and Aves have also begun work to support rural park rangers and promote restoration initiatives in key areas.

↑ Tufted Capuchin *Cebus apella*
Photo Emilio White

→ Cultivating shade-grown yerba mate in San Rafael Reserve, Paraguay
Photo Cindy Galeano



BRAZIL: SAFE HAVENS FOR IMPERILLED ENDEMICS

SAVE Brasil already protects two of the most important areas for bird conservation in the north east of the country: Serra do Urubu and Murici. It has been 15 years since the organization acquired a 360-acre reserve in Serra do Urubu in order to put in place conservation projects that combine surveillance, community participation, restoration, bird monitoring and ecotourism. In 2001 SAVE Brasil collaborated with the Brazilian government to create a 6000-hectare protected area in Murici. It may be too late to save the Alagoas Foliage-gleaner *Philydor novaesi* and Cryptic Treehunter *Cichlocolaptes mazarbarnetti*, two endemics which disappeared around the same time, and are expected to have their extinctions confirmed in 2019's Red List update. But these havens will hopefully ensure other Critically Endangered endemics, such as Alagoas Antwren *Myrmotherula snowi*, avoid the same fate.

PARAGUAY: PRODUCING SHADE-GROWN YERBA MATE

The San Rafael Reserve, tucked away in the southeast of Paraguay, is a critical area for biodiversity housing a large number of endemic birds. This land was purchased thanks to a grant from the Aage V. Jensen Charity Foundation in 2012, enabling Guyra Paraguay to begin a project which supports livelihoods of the indigenous Mbya Guarani community, as well as local ranchers. The project involves the promotion of cultivated organic Yerba mate, an invigorating hot beverage popular throughout much of Latin America. Instead of acres of precious forest being flattened to make room for sickly, intensive crops of Yerba Mate tree *Ilex paraguariensis*, the crops are grown under the shade of forest canopies, as nature intended, improving both the flavour and quality of life for the reserve's vulnerable local communities, who are now managing around 100 hectares of organic yerba mate. ■



PEOPLE POWER

by Charlotte Mathiasen

As fires rage through the Amazon and the world seems to prioritise making money over preserving irreplaceable habitats, how can we make sure that the world's most important forest IBAs get the protection they so desperately need? We cannot achieve progress unless we work directly with the indigenous peoples and local communities who live around these sites and depend upon the resources they provide. To ensure lasting change, we need to empower local people to manage their land in a way that can be sustained for generations to come.

The People Partner with Nature (PPN)

programme does just that, supporting sustainable forest management in seven key IBAs across Kenya, Nepal and Uganda. Backed by Danish funding and implemented by DOF (BirdLife in Denmark), the programme has been working with BirdLife Partners Bird Conservation Nepal, Nature Kenya and NatureUganda since 2015.

PPN's pathway towards positive change includes raising public awareness, empowering people both educationally and financially, and integrating conservation into human wellbeing. To achieve this, they provide training and resources for alternative, nature-friendly livelihoods that boost

incomes and take pressure off the forest. Throughout, PPN actively involves women, indigenous people and marginalised groups who may not usually have a voice. In order to get everyone's voices heard, they support cooperation between local authorities and forest conservation groups, and engage nationally and internationally in political decisions.

One of PPN's wider aims is to share these best practices with the entire BirdLife Partnership, so sustainable participatory forest management can spread across the world. In the meantime, here are some success stories...

ECHUYA FOREST, UGANDA

INVESTING IN PEOPLE

Being given access to credit has transformed the lives of rural Ugandans - empowering them to invest in their futures

by Dianah Nalwanga

For many years, rural communities living around Echuya Forest Reserve in southwestern Uganda were stuck in a cycle of poverty. In hard times they were often forced to encroach upon the protected forest to survive. We found that access to credit was one of the main constraints preventing people from pursuing enterprises that would lift them out of poverty. In response to this predicament, NatureUganda helped to set up a series of small Village Savings and Loan Associations (VSLAs), injecting some seed money to kick-start community enterprises.

In 2012, Mrs Seseriya Nyiradekeye was encouraged to join the VSLA in her village. She used her investment to buy three sacks of potato seeds, which she planted. She subsequently harvested 26 sacks, of which 21 were sold, two used at

home and three kept for next season.

As well as local livelihoods, NatureUganda also helped to safeguard people's land, offering training and support in soil and water conservation. Communities constructed trenches across their gardens to prevent soil erosion, stabilizing the banks with plants which both bind the soil, and provide fodder for animals. "With the availability of fodder in my garden, I was inspired to start a zero-grazing project," says Nyiradekeye. "I used part of the money from the sale of potatoes to pay back the loan, and purchased a cow and calf with the remaining funds. Currently, I use the trees and grass in my garden to feed the animals, and the cow dung as organic fertilizer". Empowered by enterprises like these, local people now have the resilience to face the future without drawing on the forest's finite resources. ■



Seseriya and her cows
Photo Nature Uganda



IBA FACT FILE



Photo Nature Uganda

ECHUYA FOREST

LOCATION: Southwestern Uganda

TYPE: Montane forest, high-altitude swamp

SIZE: 3,600 hectares

KEY SPECIES: Grauer's Swamp-warbler, Handsome Francolin, *Ruwenzori Batis*

WHAT MAKES IT A HOME

At the centre of a narrow valley surrounded by steep forested hillsides lies a permanent high-altitude swamp, which drains into the Murindi River. This mosaic of habitats supports diverse species including the rare Delany's Swamp Mouse.

ANY THREATS?

The expansion of dairy farming around the fringes of the swamp has threatened the reserve in the past. Today, local poverty is the most pressing concern, as the rural poor often resort to harvesting forest resources.

WHAT IS BEING DONE?

Village Savings and Loan Associations (VSLAs) have been set up to finance sustainable businesses such as potato growing and zero-grazing cattle farming.



Regal Sunbird *Cinnyris regius* in moult
Photo Sharp Photography

DAKATCHA WOODLAND, KENYA GIVING COMMUNITIES A POLITICAL VOICE

One of northern Kenya’s last standing dryland forests was threatened by a politician’s inability to see the economic benefits of conserving woodland – spurring locals into action

by Paul Gacheru

Dakatcha Woodland is one of the last dryland forests on the north coast of Kenya, a refuge for Endangered species found at only a handful of other sites. These include the Sokoke Scops-owl *Otus ireneae* and the Golden-rumped Sengi, an adorable elephant shrew. Despite this, it has no formal protection, leaving it vulnerable to logging, illegal charcoal production and the encroachment of agriculture – especially pineapple growing. In recent years this unique habitat risked being lost altogether when a local politician actively incited the community to clear the woodland to expand cassava cultivation. He justified this decision by claiming that conserving the woodland did not produce economic benefits.

In response to this worrying anti-conservation drive, the Dakatcha

Woodland Conservation Group and the Dakatcha Community Forest Association joined forces to begin lobbying and advocating for their forest. It was thanks to training offered by Nature Kenya that they had the skills and knowledge to act. Together, they organised community awareness meetings and held consultations with county officials to push for forest protection. Their campaign reached its peak when they presented their concerns to the Kilifi County Assembly committee on Environment and catalysed a national response from the Kenya Forest Service, spurred on by local media coverage.

Finally, their hard work paid off when the Dakatcha Woodland Conservation Group was made a permanent member of the Sub-County Committee on the Environment, where they can raise their issues directly to decision makers.

Today, 42 community forest scouts protect the woodland, and local people earn a sustainable income from beekeeping. But if ordinary people had not been empowered to take political action, the story might have been very different. ■



Photo Nature Kenya



FOCAL PARTNER

IBA FACTFILE



Sokoke Scops-owls / John Mwcharo

DAKATCHA WOODLAND

LOCATION: Northern Kenya

TYPE: Coastal woodland

SIZE: 32,000 hectares

KEY SPECIES: Clarke’s Weaver, Sokoke Pipit, Sokoke Scops Owl

WHAT MAKES IT A HOME?

Perched on rolling hills overlooking the coast, Dakatcha Woodland is most northern forest of its kind in Africa. Its lush vegetation regulates the local climate, stores rainwater and prevents soil erosion.

ANY THREATS?

This site is an IBA in Danger with no formal protection. This leaves it vulnerable to uncontrolled logging, illegal charcoal burning and forest clearance for agriculture.

WHAT IS BEING DONE?

42 community forest scouts have been trained in forest protection. Beehives provide sustainable alternative incomes, supported by an eco-resource centre and honey-processing plant.

MADANE FOREST, NEPAL

VARIETY IS THE SPICE OF LIFE

A vegetable-growing programme might not instantly set pulses racing – but its success has put food on the plates of people, livestock and even insects

by Mitra Pandey

Protecting your local forest doesn't have to entail a big upheaval. Sometimes, you just need to diversify a little.

In Hwangdi, West Nepal, the people living around Madane Forest protected area used to make their living growing cash crops such as maize, millet and potatoes – but their earnings were limited, and the only way they could make more money was to clear more land and expand into the protected forest. That changed when our Partner, Bird Conservation Nepal, offered a vegetable-growing programme to 62 farmers, providing them with vegetable seeds and training them to grow mushrooms, cauliflower, cabbage, lady's finger, gourds and tomatoes.

Having only ever grown a few seasonal vegetables before, local people were sceptical of the benefits at first, but were pleasantly surprised by the many

rewards they could reap from this new initiative. It was the first time that farming families in Hwangdi had ever had the opportunity to independently grow a diversity of vegetables on their own farmland. As well as adding new flavour and nutrition to their daily diets, families now sell surplus vegetables at their local market. According to one participant, Mrs. Khima Gharti Magar: "We had to borrow money from neighbours before, but now vegetable farming has made us self-reliant."

The benefits aren't just financial: local people's livestock used to feed on forest plants, but now they can feed on vegetable leftovers, taking even more pressure off the forest. Growing a variety of vegetables is also insect-friendly, providing the food and space that vital pollinators such as bees require to keep the whole ecosystem healthy. It looks like variety really is the spice of life. ■



Nepalese forest
Photo Bird Conservation Nepal

IBA FACTFILE



Red-headed Vulture / Bjorn Olesen

MADANE FOREST (POTENTIAL IBA)

LOCATION: Western Nepal

TYPE: Mountain forest

SIZE: 13,761 HECTARES

SPECIES: Red-headed Vulture, Egyptian Vulture, Cheer Pheasant, Asian Woollyneck

WHAT MAKES IT A HOME?

Thanks to its diverse geography and vegetation, this high-altitude forest is home to a wide variety of wildlife. Positioned between two other IBAs and a lake, it is an important wildlife corridor.

ANY THREATS?

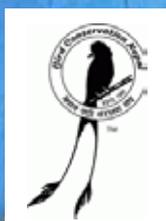
Habitat destruction, overharvesting of natural resources such as vegetation and water, illegal hunting and forest fires are all pressures at this site.

WHAT IS BEING DONE?

In addition to sustainable forest management schemes, PPN conducted a survey of the birds in this area, finding many globally threatened and restricted-range species. BirdLife is always striving to expand its IBA network, and this forest is now high on the list of potential IBAs.



Khima Gharti Magar selling mushrooms
Photo Shambhu Bhattarai



FOCAL PARTNER

The rock-solid criteria we use to identify IBAs is now being used as the foundation for Key Biodiversity Areas (KBAs) – a new standard in site-based conservation which expands the concept beyond birds to all life on our planet

Zoltan Waliczky

THE FUTURE OF IBAS



Key Biodiversity Areas (or KBAs for short) are the new game in town. They represent the unified currency for site conservation, building on four decades of success of the IBA programme and similar concepts. KBAs go beyond birds: these are well-defined sites that are exceptionally important for maintaining the species and ecosystems that make up the rich tapestry of life on Earth.

Thirteen of the biggest global conservation organizations, among them BirdLife and the RSPB (BirdLife in the UK), have joined to form the KBA Partnership and put KBAs on the map. They will achieve this by targetting a wide range of stakeholders, including governments, international institutions and the private sector. Knowing where KBAs are and why they are important should help (among other things) drive

the expansion of the global protected area network and plan future development and land uses that are compatible with their outstanding value for nature. It is equally important to work with local communities living in and around KBAs to make these sites the cornerstone of local sustainable, nature-friendly development.

Although more than 16,000 KBAs have already been identified, there is still a long way to go to catalogue KBAs for all the major animal and plant groups, and for all ecosystems. National coordination groups, whose work is to bring together experts to identify KBAs in a systematic, bottom-up way, have only been established in a minority of countries so far due to lack of capacity and resources. Collecting and analysing data on the distribution of different life forms is resource-intensive, and funding is difficult to secure for this sort

of work despite the urgency of the biodiversity crisis. Civil society organizations are leading the way, establishing regional and global structures to help the process of documenting KBAs and making this information accessible to all.

There is a great opportunity lying in the power of the KBA Partnership and their hundreds of national partners. Working collaboratively to secure the future of the most important sites for nature means that resources can be allocated efficiently and synergies exploited. Advocating with a single voice against harmful developments and for more effective management and conservation of these sites can have greater impact on decision-makers at all levels. KBAs need to be the cornerstone for the post-2020 conservation agenda that will be



This map shows the distribution of the 16,000+ KBAs identified to date. Sites qualify if they meet one or more of the following criteria: threatened biodiversity; geographically restricted biodiversity; ecological integrity; biological processes; and, irreplaceability.

adopted through the Convention on Biological Diversity next year. Whatever targets will be agreed for conserving nature and sustaining its services, KBAs must be embedded within them if we are not to risk losing thousands of species forever.

The BirdLife Partnership, through its 40-year history of documenting IBAs, has unique experience in mobilising data to identify sites using standardised criteria, managing this information and making it widely available on the BirdLife website. Now, we are building on these experiences to develop the

World Database of KBAs on behalf of the entire KBA Partnership. This will support the bottom-up process of identifying KBAs and will make authoritative information on the most important sites for nature easily accessible. The KBA website is being revamped to showcase this information and to communicate the diverse range of activities of the KBA Partnership.

BirdLife has also led the way in establishing Local Conservation Groups at thousands of KBAs. These volunteer

groups are involved in a wide range of activities including monitoring bird populations and threats, developing and implementing economic activities that are compatible with conservation including ecotourism and organic farming, organizing the sustainable use of ecological resources and carrying out habitat restoration. A major challenge is to find new and innovative ways to support the work of these groups and help connect them to enable the sharing of experiences and good practices. With the formation of the KBA Partnership, we can link them up with local organisations actively working on KBAs. This way, we can build support from KBAs at both local and global levels – the most sustainable model for guaranteeing their survival beyond the 21st century. ■

“ KBAs must be embedded within our future targets if we are to avoid extinctions”



Visit: keybiodiversityareas.org

Reeves's Pheasant
Symaticus reevesii
(Vulnerable)
Photo Stelian Ion/
Shutterstock

TRADE OFF

At a crucial meeting in Switzerland last month, governments of more than 180 countries made critical decisions to manage the escalating international trade in wildlife including vultures, songbirds, hornbills, parrots and a number of other bird species



Helmeted Hornbill *Rhinoplax vigil*
Photo Bjorn Olesen

Governments made critical decisions about managing the international trade of a number of highly threatened bird species including vultures, songbirds and hornbills this past August at the Conference of the Parties to the Convention on International Trade in Endangered Species (CITES). The conference featured more bird-related agenda items than ever before – a sign of the rising threat illegal wildlife trade poses to birds around the world.

One of the most crucial decisions involved West African vultures, which were up for discussion for the first time. Vultures are one of the most threatened group of birds in the world – of the 11 species found on the African continent, seven are on the edge of extinction. Sentinel poisoning, or poisoning by poachers to prevent vultures drawing attention towards illegally killed mammal carcasses, has long been a known threat for many of these species. However, in recent years there has been increased awareness that illegal killing and trade for belief-based use is also threatening populations.

“Nearly a third of vulture deaths in Africa are due to illegal trade for belief-based use,” says Dr

Beckie Garbett, BirdLife’s Vulture Conservation Manager. “This is largely occurring in West Africa where vulture populations have been decimated. It is a complex issue to tackle, and requires the support of the entire West African community in order to alleviate this threat for vultures.”

During the meeting, Burkina Faso, Niger and Senegal all sought to bring attention toward this problem, raising concerns about the critical state of six vulture species in the region. In light of this, the meeting mandated the formation of a working group to research the international vulture trade, and to develop and implement policies, many of them based on a Multi-species Action plan to protect vultures that BirdLife helped develop.

Concern was also raised about the plight of songbirds, with the US and Sri Lanka calling for an investigation of the scale and scope of international songbird trade, leading to management and conservation recommendations. The US has noticed increases in recent years of songbirds being imported and is concerned about the impact of this on wild populations; this echoes concerns



across Asia, Africa, Europe and Latin America, as previously highlighted through BirdLife's work on the songbird trade in Asia in particular. However, as most of the 6,000+ songbird species are not subject to specific regulation under CITES, it is difficult to track the scope of the global international trade. Parties therefore requested more information be gathered on the songbird trade to establish conservation, management and enforcement needs.

"Songbirds, with their beautiful songs and colourful plumage, are increasingly affected by trapping for the pet trade and for singing competitions," says Dr Roger Safford, Senior Manager of BirdLife's Preventing Extinctions

↑ White-backed and Hooded Vultures feeding on an elephant carcass, Chobe National Park, Botswana
Photo Beckie Garbett

↓ White-rumped Shama
Copsychus malabaricus
Photo via Shutterstock



Programme. "This now threatens the survival of a range of species around the world. Conservationists know of some urgent needs and are taking action, but there are so many species that we need a new assessment of the scale and scope of international songbird trade, so that we can be confident of the management and conservation priorities."

The formal outcomes of both the vulture and songbird discussions included requests that country Parties to CITES provide the funding necessary to carry out these decisions. A number of other bird-related issues were addressed at the meeting. An agreement was made to support law enforcement protecting the Helmeted Hornbill, which, though banned from international trade, is still illegally hunted for its solid casque. The Black Crowned-crane was moved to CITES Appendix I, meaning commercial international trade of the bird, which is threatened by the captive trade market, will now be banned. Reeves's Pheasant, was added to Appendix II, meaning that international trade of the species must now be monitored and is only allowed through a permitting system.

"The illegal trade in ivory, rhino horn and, this year, giraffe tends to get the headlines at CITES," says Dr Noëlle Kümpel, Head of Policy at BirdLife. "The fact our team were kept busy with so many bird-related proposals shows how all-pervasive and unsustainable the international trade in wildlife has become. It underscores the scale of the threat of the illegal wildlife trade to birds around the world, and the challenge we face in tackling this." ■



Photo: Jean Beaufort

THE BEE'S KNEES

On the small island of Príncipe in the Gulf of Guinea, a new cooperative is converting bee-burners to beekeepers – an initiative that is already restoring forests and enriching livelihoods.

Traditionally, honey collectors on Príncipe Island extracted honey from wild colonies found in the forest by burning their nests. Not only does this method kill most of the bees and risk starting forest fires, but it is also dangerous for the honey collectors themselves, who must scale tall trees with minimal safety equipment.

That's why Fauna & Flora International, in partnership with local non-profit organization Fundação Príncipe Trust (FPT), is helping to support COOPAPIP, the only community beekeeping organization on the Island, located in the community of Ponta do Sol. The CEPF-funded project, which began in July 2017, expands on a successful pilot project by FPT that built apiaries for the safe production of honey. The project uses agroforestry – where trees are grown among crops – to restore degraded areas of forest, create flower-rich feeding grounds for the bees, and contribute to islanders' food security by improving horticultural yields.

"This project has made our life easier. Previously, we used to burn bees for honey, but now we no longer need to", said participant Jose Antonio Mendes. "We feel safe in our work thanks to the equipment provided to us."

Francois Kamano & Mariana Carvalho

CRITICAL ECOSYSTEM PARTNERSHIP FUND

This work is supported by the investment of the Critical Ecosystem Partnership Fund (CEPF) in the Guinean Forests of West Africa. CEPF is a joint initiative of l'Agence Française de Développement, Conservation International, the European Union, the Global Environment Facility, the Government of Japan, and the World Bank.



Beekeeping training
Photo COOPAPIP

The project has contributed extensively to the scaling up of commercial beekeeping on the island, though the community cooperative cannot yet meet the demand of visiting international buyers.

"We are already selling the honey to the general community members, and now we are also selling to the tourists," said Manuel Delgado, the President of COOPAPIP.

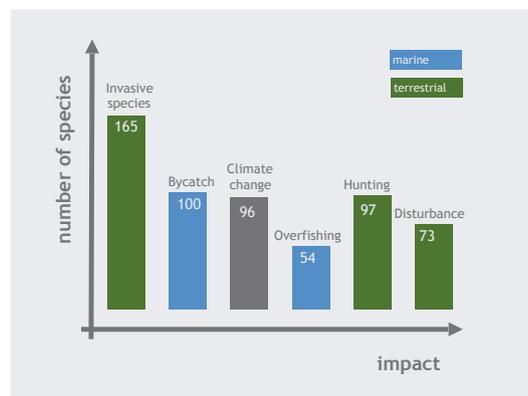
There is much hope that beekeepers still using traditional methods will soon see the benefits of transitioning to sustainable beekeeping with the help of COOPAPIP. ■

TOP THREATS TO SEABIRDS IDENTIFIED

Scientists reviewed more than 900 studies and found that seabirds face big threats both on land and at sea. This helps explain why they are one of the most threatened group of vertebrates.

Margaret Sessa-Hawkins





↑ ↗ Albatrosses caught in fishing nets
Both photos via RSPB Images

→ This chart, which accompanied the paper, shows the leading global threats to seabirds

← Southern Royal Albatrosses *Diomedea epomophora*, Campbell Island, New Zealand
Photo John Carnemolla

Seabirds are in danger. Taken as a whole, they are one of the most threatened groups of vertebrates in the world. Steep declines in seabird populations have been noticed almost everywhere, from albatrosses in the southern ocean to puffins in the North Atlantic. Even once abundant species, including some penguins, are now facing extinction. What is causing these declines? A new study is providing some answers.

For a long time we have known the general threats to seabirds – fisheries, invasive species, pollution – but we haven't known which threats are the most dire, or had a big-picture understanding of how all seabird species are affected. A new study led by BirdLife scientists in collaboration with researchers from the British Antarctic Survey, the Centre for the Environment, Fishery and Aquaculture Science (CEFAS), the University of Washington and the Global Penguin Society, has changed that, by analyzing the problem at a global scale. For the study, scientists reviewed publications on threats to all 359 seabird species worldwide, identified the main drivers of seabird declines and quantified the magnitude of the impact of each threat.

"This study builds on work done in 2012, when we published a global analysis of threats to globally threatened seabird species – those listed as Critically Endangered, Endangered or Vulnerable on the Red List" says Cleo Small, Coordinator of the BirdLife International Marine Programme. "Not only have we updated these results, but we have also assessed threats to the other 249 seabird species that are not currently globally threatened, as these are potentially the threatened species of the future unless we act now".

The results confirm that some of the usual suspects – invasive species, bycatch and climate change – are the top three threats, affecting 46%, 28% and 27% of all seabird species respectively. Hunting, egg collection

and disturbance at breeding colonies are also driving declines in many species. Overfishing is affecting fewer species, but with high impacts on the species it affects.

The study also contradicts popular opinion, by concluding that plastic pollution is not yet a major cause of population declines of seabirds globally. It found only one report so far of plastics causing a significant impact at this level.

"Plastic ingestion is predicted to have a higher impact on small species that spend most of their time on the open ocean," says Lizzie Pearmain, Marine Technical Officer at BirdLife International. "Many of these species' population sizes and trends are poorly known, which makes it difficult to understand the real impact of plastics at population level."

The analyses reveal other worrying news: many common seabirds are exposed to the same dangers as threatened species. In other words, if we don't act to curb these threats now, we will soon see many other seabird species facing extinction.

The authors translated this conclusion into alarming numbers. The study estimates that more than 170 million individual birds (over 20% of all seabirds) are currently exposed to the individual impacts of bycatch, invasive alien species and climate change/severe weather, and that together over 380 million (around 45% of all seabirds) are exposed to at least one of these three threats.

It sounds desperate, but it's not all bad news. The problem is big, but the solutions are (almost all) well known. We know how to mitigate the impact of bycatch on seabirds and other animals, how to eradicate invasive species from infested islands, and how to use the ocean's resources sustainably. Climate change is arguably the most difficult challenge to address – but the impacts of climate change are usually exacerbated by the other top threats. Therefore, by solving problems posed by bycatch, invasive species and overfishing, we are also giving seabirds greater resilience, helping them to face the challenges of a changing ocean. ■



HOW CAN WE SAVE FOUR MILLION BIRDS?

For the first time, a new study sheds light on the scale of illegal bird killing in the Arabian Peninsula, Iraq and Iran, where as many as 4.6 million birds across 413 species may be killed every year. What are the reasons behind this decimation, and what can we do?

It's only when you see the numbers that the scale of the problem really hits home. For years, there had been anecdotal evidence that birds were being illegally killed and taken in large numbers in the Middle East. Figures from BirdLife's 2015 report covering eastern Mediterranean countries confirmed our suspicions that this was a big problem across the wider region. But if we really want to inspire action, we need numbers to back us up.

That's why BirdLife joined forces with the Ornithological Society of the Middle East (OSME) to conduct the first ever comprehensive review of illegal bird killing in the Arabian Peninsula, Iraq and Iran. After more than three years of data collection from diverse sources, aided by local experts, the study was published in August this

Dima Obeidat

↑ A nightjar caught in a near-invisible (to them) 'mist net'
Photo Bassem Rabie

year – and revealed some shocking findings. The report estimated that between 1.7 and 4.6 million birds are illegally killed or taken from the wild every year in the Arabian Peninsula, Iraq and Iran. Worryingly, this is likely to be an underestimate, as information was unavailable for parts of the region. The highest estimates were for Saudi Arabia, with an average of 1.7 million birds killed or taken per year, and 800,000 birds for Iran, despite data being available only for parts of these countries. Estimates for Iraq and Yemen were also relatively high, with 329,000 and 273,000 birds thought to be poached each year.

Another disturbing finding was that a staggering 413 different species are targeted, including many species of global conservation concern: Marbled Teal *Marmaronetta angustirostris*,



Marbled Teal
Marmaronetta angustirostris
Photo JC Atienza



Wild ducks for sale in the markets of Damietta, Egypt
Photo Mindy El Bashir, Nature Conservation Egypt

Common Pochard *Aythya ferina* and European Turtle-dove *Streptopelia turtur* are all classed as Vulnerable on the IUCN Red List. Even more worryingly, the Sociable Lapwing *Vanellus gregarius* (Critically Endangered) is likely to be illegally killed each year in dangerously high numbers relative to its small population size. The report found that most of these birds were illegally killed or taken simply for sport, primarily through shooting and trapping. Where they were killed for food, it was mainly as a delicacy. Local hotspots included the coast of the Caspian Sea in Iran and the mountainous Kurdistan region of Iraq, with an estimated take of over 100,000 birds a year in each location. Both Iran and Iraq contain important wintering and stopover sites for migratory waterbirds, and high levels of poaching may be a factor driving their population declines along the Central Asian Flyway.

When we combine the results of this latest study with data from other Middle Eastern countries (gained from BirdLife's 2015 report on illegal bird killing in the Mediterranean), it paints a disturbing picture for the Middle East as a whole. An average of 17.5 million birds are estimated to be killed annually across the entire region, of which 18% die in the Arabian Peninsula, Iran and Iraq. Our study also highlighted the paucity of information on illegal killing and taking of birds, and more generally on bird population sizes in the region. So, armed with this new information, what steps can we take to tackle this issue?

The most pressing need is for immediate action by national authorities to implement a 'zero tolerance' approach to illegal killing, building on efforts already underway in some countries. National action plans can help bring together all the stakeholders and guide effective action. The key solutions vary between countries but include improvement and enforcement of the law, focused action at particular trouble spots, greater monitoring of illegal activity online, and presence at markets where illegally taken birds are sold with impunity. Once the perpetrators are

AT A GLANCE

NUMBER OF BIRDS ILLEGALLY KILLED

1.7 – 4.6 MILLION A YEAR

ILLEGAL KILLING HOTSPOTS

SAUDI ARABIA, IRAN

MAIN METHODS USED

SHOOTING, TRAPPING

MAIN REASONS

SPORT, CULINARY DELICACIES



This turtle-dove is just one of millions of victims annually
Photo Birdlife Europe - Flight for Survival

identified, adequate penalties need to be applied with greater consistency. It would be better still if the birds were not poached in the first place. This is why we need to educate and raise awareness among the general public, as well as hunters themselves. We also need to research the socioeconomic drivers behind illegal killing, so that we can tailor our solutions to local issues.

Finally, as is highlighted by the cross-border trade of falcons into the Arabian Peninsula, we need collaboration between countries. This is something that BirdLife, with our global approach, is uniquely suited to facilitate. BirdLife Partners from the region are already working together on a roadmap to guide their efforts to tackle this pressing issue. It might not be easy, but we now have the facts to back us up. ■

"A preliminary assessment of the scope and scale of illegal killing and taking of wild birds in the Arabian peninsula, Iran and Iraq" is published in Sandgrouse: www.osme.org/sandgrouse

Help us to end the illegal killing of birds. Support our #FlightForSurvival campaign at flightforsurvival.org

THE RACE TO SAVE THE SANTA CRUZ GROUND- DOVE

When a hundred Endangered doves were illegally captured from the wild, the conservation world rushed to liberate them. But where do you release a bird when its last wild refuge is a dangerous active volcano? BirdLife's Nigel Collar recounts his experience.



Might you know of anyone who would be interested in the adventure of a lifetime to save a species? This is not the kind of question that often gets asked in emails between colleagues in different organisations. But on 27 October 2017, Rick Passaro of the Rainforest Trust briefed me on the plight of the Santa Cruz Ground-dove *Alepocoenas sanctaecrucis* (Endangered) in an email with the subject line: 'Catastrophe in The Solomon Islands! Help?'

The Santa Cruz Ground-dove (locally called Vakavakatia) is endemic to the western Pacific Ocean, taking its name from the place where it was first found: the Santa Cruz Islands, part of the far-flung southeastern Solomons. Within these islands, it is known to inhabit Utapua, where it is now probably extinct owing to deforestation and invasive predators, and Tinakula: a tiny, uninhabited, predator-free oceanic volcanic cone. It has also been found about 400 km to the south on Santo, the largest island in the Vanuatu archipelago, but reports there have only ever been of one or two birds – and introduced rats, cats, pigs and dogs are widespread. Tinakula is therefore a crucial final stronghold for the species.

Rick had just seen an appeal on Facebook by Chris Bone of OceansWatch, a contractee of the Rainforest Trust. Although legally protected in the Solomons, a large number of Santa Cruz Ground-doves had been trapped on Tinakula for export to the Middle East, but the shipment had been blocked at Honiara, the national capital on Guadalcanal. The conditions in which they were being kept were dangerously unhealthy, so Chris and Australia-based environmental consultant Ray Pierce were urgently seeking someone with bird-keeping skills to fly out to the Solomons and take care of them.

In the 2016/7 class of Cambridge University's M.Phil course in Conservation Leadership, there was a young Welshman with a huge interest in birds and a ten-year history as a bird-keeper in various parks in the UK. Joe Wood had finished his degree with a distinction, but unforeseen political developments had prevented him from taking up a post at an internationally prestigious zoo. I rang him – "adventure of a lifetime?" – and he said yes at once.

The European Association of Zoos and Aquaria (EAZA) created an email list of dove experts to serve as a support group, including Duncan Bolton, curator of birds at Birdworld, UK, and Luis Neves, Director of Zoology at Wildlife Reserves Singapore (WRS). But where to find the money to get Joe on a plane and

One of Joe Wood's assistants,
Martin Prescott, holding a Santa
Cruz Ground-dove
Photo Joe Wood

keep him going until the birds were properly secured? The Mohamed bin Zayed (MbZ) Species Conservation Fund was, it happened, just closing for applications in its four-monthly cycle, and Nicolas Heard, its director, encouraged a last-minute bid for £5,000. The request went in at 11pm on 31 October, and the next morning I got my second yes. Just over a week after Rick's email arrived, Joe, under contract to BirdLife, boarded a plane for the 50-hour journey to Honiara.

His first task was a major challenge. Not one, but two shipments proved to have been blocked – but the birds had not been confiscated. To persuade the dealers holding them to give them up was a major face-to-face negotiation over several weeks. Meanwhile, Joe started searching for a place to accommodate them, working with Joe Horokou and Josef Hurutarau from the Environment and Conservation Division (ECD) of the Solomons' Ministry of the Environment, Climate Change, Disaster Management and Meteorology.

Another government department – Agriculture – agreed to convert a disused plant shade house near Honiara airport to a set of aviaries for the 111 rescued doves. The rescue mission received extra funding from Birdworld, BirdLife, Leipzig Zoo, Berlin Zoo and Toledo Zoo, USA. Joe received an invaluable week of assistance by Ivan Choo from WRS's Jurong Bird Park and further support from local enthusiast Kellington Simeon, expat volunteer vet Sripad Sosale and birdkeeper Dean Jakings from Auckland Zoo, New Zealand. By the end of 2017, all birds were ringed and in good health.

Meanwhile, it had emerged that an earlier shipment of 25 doves, which could only have come from Tinakula, had gone to a pigeon-fancier in Qatar. So how many might be left on the island? Should the priority be to put the birds back as soon as possible? Ray Pierce, funded by



BIRD FACT FILE



SANTA CRUZ GROUND-DOVE

Alopecoenas sanctaecrucis

RED LIST STATUS:
Endangered

RANGE: Solomon Islands and Vanuatu

THREATS: Invasive species, hunting, habitat loss, illegal wildlife trade

FAST FACT: Forages exclusively on the forest floor, as its name suggests

the Critical Ecosystem Partnership Fund (CEPF), had already established that there were 'in the order of 400-600 birds' on Tinakula, so the damage by the trappers had been significant but not terminal. However, Tinakula is a frequently active volcano. A major eruption wiped out a human settlement there in 1840, and another caused the evacuation of a new colony in 1971. How the doves managed to survive these and several other cataclysmic events is a matter for head-scratching speculation.

Clearly, Tinakula is far from a secure place to repatriate the birds. Moreover, the island has been overrun by Yellow Crazy Ants and Little Fire Ants: two highly destructive invasive species whose impact on the dove has yet to be established. But all the other islands in the Santa Cruz group that Ray has visited are arguably less suitable still, having rats, cats, dogs AND invasive ants. Where, then, might the doves be released? An action plan compiled in 2017-2018 by Ray, aided by Duncan Bolton and myself, identified islands that might prove suitable. However, the report also highlighted how much more work we needed to do: monitoring Tinakula and studying the doves in the wild, generating popular support (vital in the Solomons, where local communities have customary ownership of the land they live on), improving biosecurity and maximising the genetic diversity of the captive population.

↑ Female Santa Cruz Ground-dove
Photo David Tan, Wildlife Reserves Singapore

← Joe's other assistant, Daisy Sipolo
Photo Joe Wood

The last was soonest achieved. Luis Neves at WRS put forward Jurong Bird Park to house and breed a large proportion of the captive



doves, and Jeff Sailer, head of Toledo Zoo, put Joe on his payroll to care for the birds. Even so, it took time, patience and practice to make things happen. Heavy rains, ship rats, biosecurity alarms, veterinary concerns and quarantine arrangements all kept Joe busy in early 2018, while he worked with ECD to allay local and national sensitivities about their birds going abroad. Things were helped by a ringing endorsement of Jurong by Patrick Pikacha, a leading Solomons biodiversity expert, following a visit to Singapore in April.

A loan agreement between WRS and ECD was duly signed on 12 June, confirming that the birds remain the property of the Solomon Islands. Two months later, at WRS's expense, 60 doves (35 males, 25 females) were flown to Singapore, leaving 50 (41 males, nine females) in Honiara. Simultaneously Toledo Zoo announced a generous (and well-received!) plan for a new facility in Honiara Botanical Gardens both to house the birds in Joe's care and to serve as a future reception centre for repatriated birds prior to their release in the wild.

But where will these birds be released?

Tinakula remains an option, pending study to determine its condition and the status of the dove population. However, two ethnically different villages on Malo, south of Tinakula, claim land-rights over the volcano, and both have to give their consent to any visits or dove-related activities there. In January 2019 Ruddy Oti, a highly respected figure in Temotu, travelled with Joe to Malo to negotiate for Ray Pierce to conduct a new survey of Tinakula.

↖ **Male Santa Cruz Ground-dove**
Photo David Tan, Wildlife Reserves Singapore

← **Caged doves held at Honiara, before their rescue by Joe Wood**
Photo Chris Bone

↗ **Joe Wood with his first captive-bred dove, 14 days old**
Photo Angelica Neville

Whatever transpires, as Ray stresses, biosecurity is paramount: every visit – on average once a fortnight – puts the place at risk from rats.

Meanwhile, we need to identify more islands for potential releases. This is urgent, because already Jurong has had such success (26 offspring) that its available space has been absorbed, and Joe's Honiara birds have also been reproducing. Toledo Zoo is willing to take some birds, but pressing questions remain. How many animals should we aim for as a captive reserve, both for restocking purposes and to maximise genetic diversity? How will we fund the search for other suitable islands? Who will undertake this tricky endeavour?

Whatever the answers, the Santa Cruz Ground-dove is in a better place than it was two years ago. All the people and institutions that have collectively put it there deserve huge credit for their speed, positivity and professionalism; and with their continuing collaboration this 'adventure of a lifetime' is set to run for many years yet. ■

FIVE WAYS

WE'RE PROTECTING THE UNIQUE WILDLIFE OF FRANCE'S OVERSEAS TERRITORIES

More than 80 percent of France's biodiversity is located in just five overseas territories: French Guiana, Reunion Island, Martinique, Saint-Martin and Mayotte. But forestry, mining, urban sprawl, tourism and predation by invasive alien species are threatening the regions' wildlife. Five species, already globally threatened, are particularly vulnerable. Fortunately, the LIFE BIODIV'OM project, coordinated by LPO (BirdLife in France), is working to protect these unique areas and species. Here's how...

1 | MADAGASCAR POND-HERON MAYOTTE



Photo Giles ADT

Madagascar Pond-heron *Ardeola idae* (Endangered) is a species of contradictions; despite its name it can be found as far north as Kenya. And despite its range it has very limited breeding grounds, where the bird's eggs and chicks are routinely harvested, despite legal protection. On the archipelago of Mayotte, BIODIV'OM is erecting fencing and putting in place surveillance patrols to fend off poaching and habitat destruction, helping to secure a future for this incredible bird. In addition, the nests will be protected from rats with automatic traps.

2 | NASSAU GROUPE SAINT-MARTIN



Photo RLS Photo/Shutterstock

The Nassau Grouper *Epinephelus striatus* is a big mouth – literally. The way this grouper catches food is by opening its jaws and 'inhaling' prey. Unfortunately this unique behaviour may soon disappear from the sea as the species is classified as Critically Endangered, threatened by loss of its coral reef habitats and sport fishing around the island of Saint-Martin, largely due to tourism. The project aims to help conserve the fish by developing a good practice guide for sport fishers, and potentially restock populations in Saint-Martin.

Acknowledgements
This project was made possible through a generous grant from the European Commission's LIFE fund for nature. You can find more information at:

www.lifebiodivom.fr/en/



Cirque de Mafate caldera on Reunion Island

Photo Infografick/Shutterstock

3 REUNION CUCKOOSHRIKE REUNION ISLAND



Photo Jaime Martínez

Endemic to the island nation of Réunion, the Reunion Cuckooshrike *Lalage newtoni* was never blessed with a large range to begin with. And the spread of invasive rats across the island who prey on their nests (exacerbated by tourists dropping litter, encouraging the rats to spread) means this Critically Endangered species is now confined to just two remaining sites. BIODIV'OM is training local volunteers in rat eradication, translocating birds between the two sites to increase gene flow, and repatriating it to a third site.

4 WHITE-BREASTED THRASHER MARTINIQUE



Photo Théo Tzélepoglou

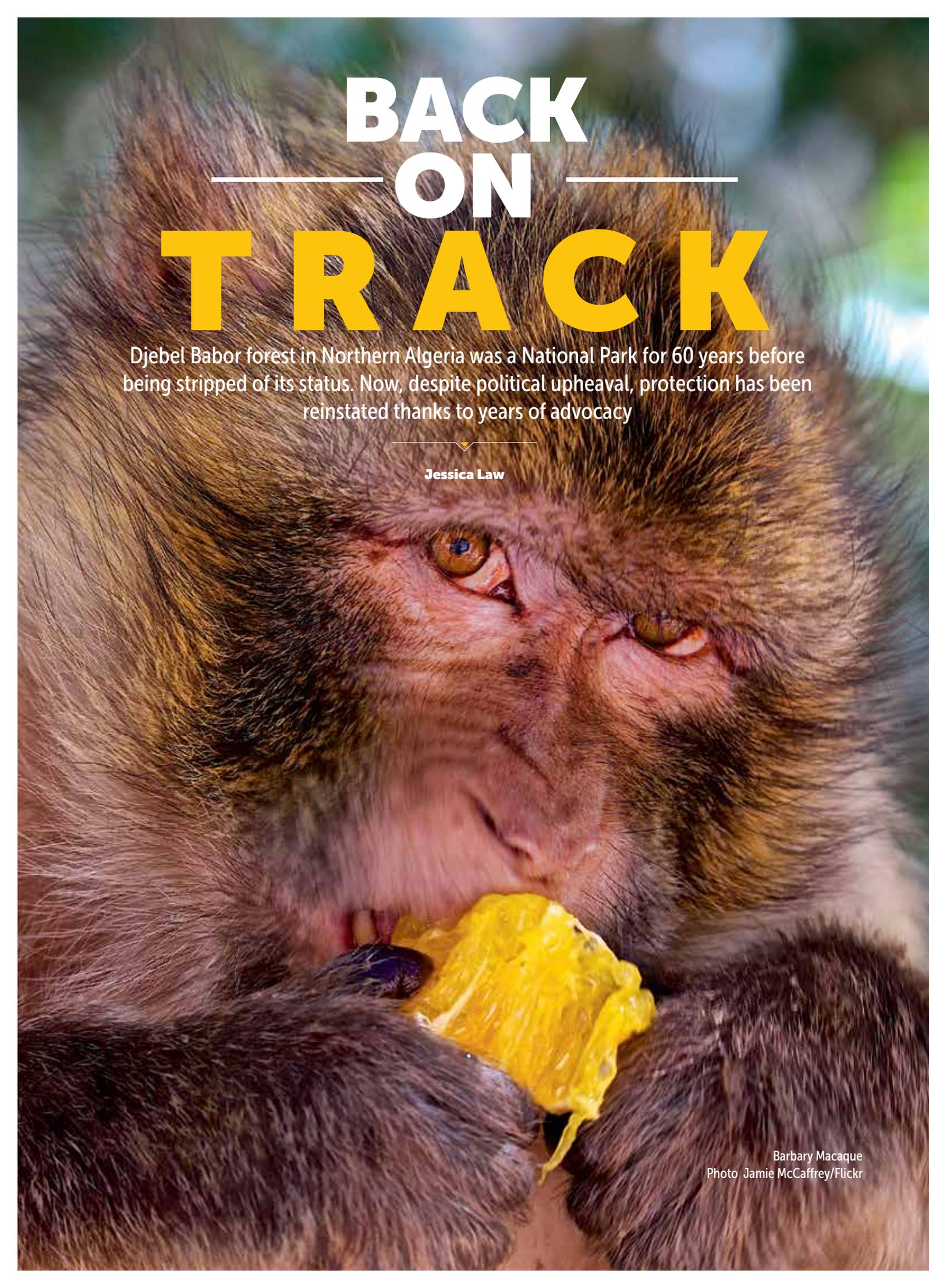
The island of Martinique has a (sadly, all too familiar) problem. Invasive alien species like Black rats, Small Indian Mongooses and Common Possum are threatening the White-breasted Thrasher *Ramphocinlus brachyurus* (Critically Endangered). But the island also has a potential solution. BIODIV'OM is training 'Thrasher Squads' – trained volunteers who work to control the birds' predators. The project will create a natural corridor that will give the species more freedom to move, expanding its habitat beyond its current five square kilometres.

5 ATLANTIC GOLIATH GROUPE FRENCH GUIANA & SAINT-MARTIN



Photo Florida Keys DivePhotos/Shutterstock

Growing up to 2.5 meters and weighing as much as 360 kilograms, the Atlantic Goliath Grouper *Epinephelus itajara* certainly lives up to its name. This enormous fish eats sharks and barracudas for breakfast (literally). While the grouper may be unafraid in the face of marine life, fishing on Guiana has proved a major problem. BIODIV'OM is looking to put in place regulations that would lead to sustainable fishing of the species, so that the sport can continue without such negative impacts on the population.



BACK ON TRACK

Djebel Babor forest in Northern Algeria was a National Park for 60 years before being stripped of its status. Now, despite political upheaval, protection has been reinstated thanks to years of advocacy

Jessica Law

Barbary Macaque
Photo Jamie McCaffrey/Flickr



↗ Algerian Nuthatch via Algerian Postal Service

↙ Barbor forest Photo Awatef Abiadh

BIRD FACTFILE



ALGERIAN NUTHATCH
Sitta ledanti

RED LIST STATUS:
Endangered

RANGE: Just four forest sites on the northern coast of Algeria.

THREATS:
Deforestation, fire, livestock grazing, human disturbance (military activity)

FAST FACT: This species is iconic in Algeria that it once featured on national postage stamps

The lush green vegetation of Djebel Babor forest carpets the edge of the Atlas Mountain range. As you walk among endemic trees like the Algerian Fir, you may spot a troop of Barbary Macaques strolling by with babies clinging to their fur. This Endangered monkey is only macaque found outside Asia, and used to be Europe's only wild primate. Sadly, its range is now limited to a handful of fragmented forests across North Africa. Walk a little further, and you may hear the piping call of the Algerian Nuthatch *Sitta ledanti*, also an Endangered species and the country's only nuthatch. This scurrying songbird is restricted to just five breeding sites, and Djebel Babor Forest is an important one.

You may therefore be shocked to hear that for many years, this precious habitat had no formal protection. Djebel Babor forest was classified as a National Park in 1921, but a decade later the size of the park was significantly reduced. Then in 1985, it was declassified altogether. Thankfully, all that changed on the 28th of May this year, when we received news that, after years of advocacy from conservation organisations, the Algerian government has officially declared the site a protected area.

The struggle to get protection for this site wasn't easy. It began way back in 2013, when organisations led by the Algerian conservation group AREA-ED and supported by the CEPF Mediterranean Programme* came together to protect the forest from fires, illegal logging and over-grazing that threatened to wreak irreparable damage. Experts conducted scientific surveys which found that the area was even more ecologically important than we thought, playing host to important raptor nesting sites and 32 bird species protected by law. One of the

main solutions was a "buffer zone" of reduced land use around the park.

Although this looked good on paper, it was important that local people also understood and bought into the idea. AREA-ED therefore held meetings with local communities, including family farmers who traditionally graze their livestock around the forest. Here, citizens were able to raise their concerns and agree on solutions that would allow people and nature to live in harmony. AREA-ED also rolled out a public education campaign across the media and even local schools. Local people responded with resounding support.

Despite this diligent preparation, getting the site classified as a protected area was an uphill climb. It was particularly difficult for Djebel Babor forest, as this had been an area used by terrorists during conflicts in Algeria. Ultimately, the fact that a new protected area would help Algeria to meet its Aichi biodiversity targets was a big factor in encouraging the Ministry of Agriculture and the Environment to accept the proposal.

So what happens now? Well, National Park status will garner better investment and protection for the forest and the Endangered species that call it home. It will also enable AREA-ED to work more closely with local people on sustainable farming projects, for example traditional grazing on mountain pastures. Ecotourism is another exciting possibility. Djebel Babor forest will be one of the first forests in Algeria to be managed as part of a whole landscape, rather than in isolation. In this way, it will form the template for similar projects in the future. Above all, we hope that becoming a National Park will be the final, triumphant chapter in this forest's turbulent history. ■



*This work is supported by the investment of the Critical Ecosystem Partnership Fund (CEPF) in the Mediterranean, and lead by the Association de Réflexion, d'Échanges et d'Actions pour L'Environnement et le Développement (AREA-ED), who worked in partnership with the Algerian National Agronomic Institute for Research and the Direction Général des Forêts (DGF) to secure protected area status for Djebel Babor Forest.

→ PROFESSIONAL WINNER

ELIZABETH BOEHM

SPECIES: Sage Grouse *Centrocercus urophasianus*

LOCATION: Pinedale, Wyoming

On a Sage Grouse dancing ground, or lek, the stakes are high. Many males may display there, but most females that visit will mate with one of the few dominant males at the centre of the lek. As a result, genes passed on to the next generation will tend to be those of the strongest males. Elizabeth Boehm spent a number of cold spring mornings photographing the courting display from a blind on the perimeter of the lek to get this shot.





2019

AUDUBON PHOTOGRAPHY AWARDS

With their vibrant colours, graceful flight patterns and captivating expressions, birds have always made beguiling photographic subjects. The winners of the 2019 Audubon Photography Awards show off all these characteristics in vibrant detail. The National Audubon Society (BirdLife in the USA) has been running the award for 10 years now, and received entries from 2,253 individuals living in the United States and Canada.

This year two new prizes were introduced, including The Plants for Birds Prize. The prize was awarded for photographs that feature birds and plants native to the area where the photo was taken. Audubon has been helping bird lovers across Canada and the United States to cultivate bird-friendly plants, trees, shrubs and grasses through its Native Plants Database. Around the world, birds are facing habitat loss and a shortage of foods. Native plants provide both a natural food source and shelter for local birds, creating a bird-friendly garden: a great way to help our feathered friends.

The second new prize was the Fisher Prize, which was awarded to a photographer who took a creative approach to bird photography. The prize is in honour of Kevin Fisher, Audubon's recently retired creative director.

Explore Audubon's Native Plants Database: audubon.org/native-plants



↑ **YOUTH WINNER**

SEBASTIAN VELASQUEZ

SPECIES: Horned Puffin *Fratercula corniculata*

LOCATION: Alaska SeaLife Center (accredited by the Association of Zoos and Aquariums), Seward, Alaska

Unlike the Atlantic and Tufted Puffins, which dig tunnels in soil for their nests, the Horned Puffin usually lays its single egg deep in a crevice among rocks. Such nest sites are harder to access for study, and the habits of this North Pacific species are not as well known as those of its relatives.



↑ **GRAND PRIZE WINNER, AMATEUR**
KATHRIN SWOBODA

SPECIES: Red-winged Blackbird *Agelaius phoeniceus*

LOCATION: Huntley Meadows Park, Alexandria, Virginia

Red-winged Blackbirds are some of the most abundant and conspicuous birds in North America. Beginning in early spring, males perch above marshes, pond edges, damp fields and roadside ditches, flaring their red shoulder patches and belting out arresting songs to announce their claims to breeding territories. This particular bird was backlit by the rising sun, highlighting the vapour as it sang.

← **PLANTS FOR BIRDS WINNER**
MICHAEL SCHULTE

SPECIES: Hooded Oriole *Icterus cucullatus*

LOCATION: San Diego, California

Orioles build hanging nests, weaving plant fibers for a lightweight but durable structure. Living in subtropical climates, the Hooded Oriole finds the perfect building material in the long, strong fibers of palms. It often fastens its nest under a leaf of California fan palm: "Palm-leaf Oriole" was an old alternative name for this bird.



↑ **AMATEUR WINNER**

MARIAM KAMAL

SPECIES: White-necked Jacobin *Florisuga mellivora*

LOCATION: Dave & Dave's Nature Park, Sarapiquí, Costa Rica

Of the 350+ species of hummingbirds, most have small geographic ranges. Bucking the trend is the White-necked Jacobin, common from southern Mexico to southern Brazil. It succeeds by being adaptable, occupying a wide variety of tropical forests and edge habitats. For this photo, Mariam Kamal drove six hours to a reforestation site to catch this photograph of a hummingbird drinking from heliconias.

→ **FISHER PRIZE WINNER**

LY DANG

SPECIES: Black-browed Albatross

LOCATION: Saunders Island, Falkland Islands

Spending most of their lives at sea in southern oceans, Black-browed Albatrosses are masters of the air, soaring and gliding effortlessly on incredibly long wings. The albatross in this photo was one of a breeding colony on Saunders Island, tending their chicks. Ly Dang became fascinated by the simple, elegant beauty of the adults' eyes, and so took this incredible close-up shot.



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Photo: Harpy Eagle Harpia harpyja / Shutterstock

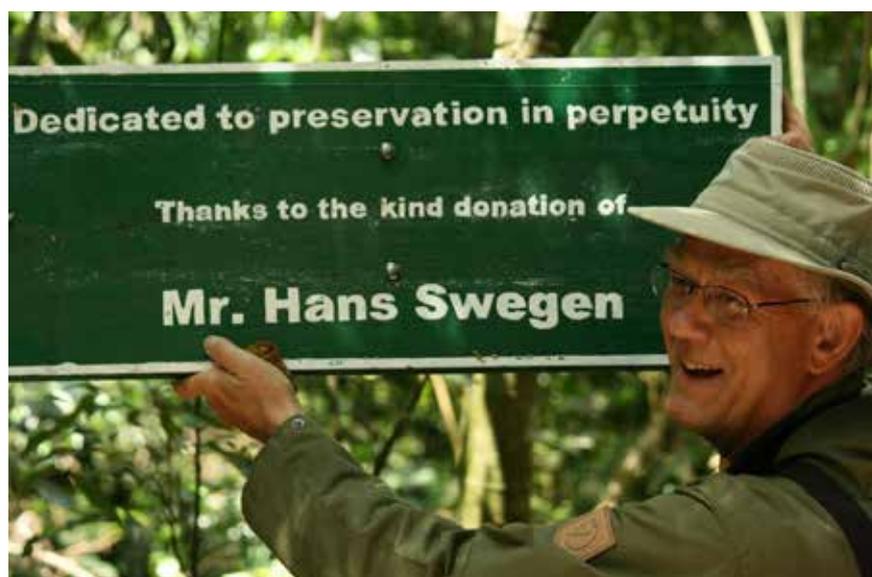
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Jacky Swegen explains why she and her late husband are leaving a legacy gift to BirdLife: "My husband, Hans, was fascinated by wildlife from an early age, and as a young adult he



became passionate about conservation. This led in later years to a desire to take action against the destruction of the forests that are so vital to the life of the planet.

"He began to research the possibility of buying threatened areas of forest land. Thanks to BirdLife, his efforts culminated in the purchase of a precious area of forest in Paraguay and the Dominican Republic. The achievement of these long-pursued goals made him very happy."

"Shortly before his death in 2017 he mentioned that he would make a further donation to BirdLife International, this being his legacy to the organisation which helped him play his part in protecting wildlife and the environment."

Learn more

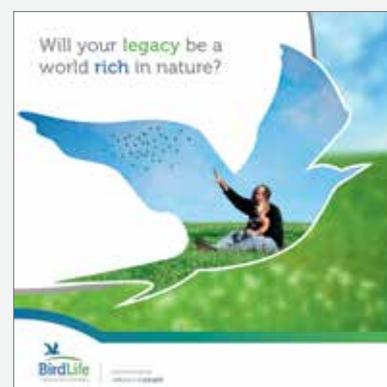
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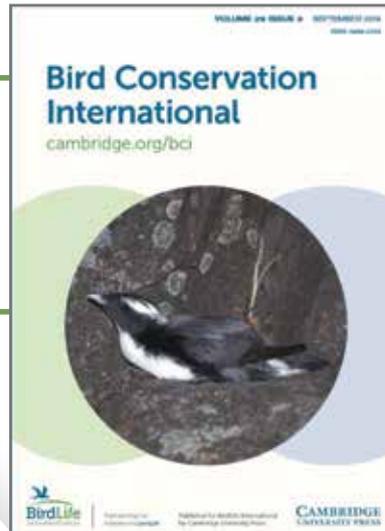
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HOT OFF THE PRESS

The latest scientific breakthroughs from BirdLife's quarterly peer-reviewed journal

HIGHLIGHTS

MARINE IBAS AND JAPANESE MURRELET FEEDING GROUNDS: DO THEY LINE UP?

Where seabirds go when they're at sea is a mystery scientists are only just beginning to solve. The Japanese Murrelet *Synthliboramphus wumizusume* (Vulnerable) is found only in Japan and South Korea – but until now, very little was known about its distribution at sea, or the threats it faces when it's out there. Intrepid researchers spent five years standing on the bows of boats travelling at 20 kilometres per hour, trying to keep their binoculars steady as they scanned the ocean for these small, crested seabirds. The species' breeding grounds were already known to us, and were used to identify coastal IBAs, which were then extended out to sea using a generic foraging radius approach. Promisingly, this paper found these at-sea extensions covered between 25% and 95% of the species' actual foraging grounds. Worryingly, Japanese Murrelets were found to favour shallow, coastal zones when feeding, which puts them at greater risk from human threats such as oil spills, offshore wind farms and fishing nets. At least, armed with this knowledge, we now know how best to protect this rare and threatened species. ■



Photo via Shutterstock

VULTURES ATTACKING LIVESTOCK: PROOF OR PREJUDICE?

Bird-lovers know that vultures are shy, harmless animals that exclusively scavenge for food. That's why ornithologists were shocked to find that there had been 156 official complaints about Griffon Vultures *Gyps fulvus* attacking livestock in France between 2007 and 2014. Had the vultures changed their behaviour, or was this due to farmers' biased perception? Researchers found that the alleged attacks did not occur in areas of high vulture density (a pattern we might expect from predatory behaviour). Instead, they occurred where vultures were only occasional, unfamiliar visitors. In 95 percent of complaints, shepherds were not even present to witness the 'attack'. Since many reports came from outside protected areas (where most vulture education programmes take place), researchers concluded that lack of education was the real culprit. ■

Photo Veselin
Gramatikov



ALSO IN THIS ISSUE:

- › Evaluation of disturbance effect on geese caused by an approaching unmanned aerial vehicle
- › Physiological stress and behavioural responses of European Rollers and Eurasian Scops-owls to human disturbance differ in farming habitats in the south of Spain
- › Nest site selection and its implications for conservation of the Endangered Oriental Stork *Ciconia boyciana* in Yellow River Delta, China

**AND MUCH
MORE...**



Photo via Flickr

SCIENCE AND SOCIETY UNITE TO STUDY PARROT PLIGHT

Like many parrots, the population of Timneh Parrot *Psittacus timneh* in West African forests is thought to have plummeted due to habitat destruction and trapping. In 2016, it was listed as Endangered, but exactly how bad is the situation? A simple way to find out is to ask the people who live alongside the birds themselves. Researchers interviewed 42 local community members on 24 islands across Guinea-Bissau about their sightings of this species. Combined with field surveys, researchers estimated that there are only a few hundred parrots scattered across 22 islands. Tellingly, parrot population densities are highest on islands that are most remote from human settlements, confirming initial fears. ■

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Marine conservation beyond borders



Every issue, we interview a member of BirdLife staff about their important work. This time **Carolina Hazin**, our Global Marine Policy Coordinator, talks about her experiences speaking out for nature at a global meeting that will decide the fate of conservation on the high seas

What are the high seas?

High seas are the open ocean waters, outside national jurisdiction. Currently, circa 60% of the world's oceans are not governed by any one country. Instead, they are run by a complex structure where different business sectors and governments regulate activities such as fishing, shipping, mining and cable laying, often without coordination.

Tell us about the High Seas Treaty...

In August, world governments met in New York to negotiate the first legal draft of a treaty for the conservation and sustainable use of marine life on the high seas. Set under the United Nations Convention on the Law of the Sea, this treaty will set the framework for marine protected areas, environmental impact assessments, and many other measures. We expect the treaty to be adopted in 2020, but this and next year is critical for countries to come to an agreed position.

Where does BirdLife's science come in to all this?

Migratory seabirds face threats across their entire range (bycatch in fisheries, pollution, etc), so protective measures need to be in place throughout. With our seabird tracking data, BirdLife can provide good quality information on seabirds' use of the ocean's space. Additionally, this data can be overlaid with planned or existing human activity,



Black-browed Albatrosses
Thalassarche melanophris
Photo via Unsplash

allowing us to detect areas of risk and inform policy decisions.

Why is this important for conservation?

There is currently a governance gap in the high seas: fisheries set quotas for fishing, the International Seabed Authority regulates on mining. But there's no single global body for protecting biodiversity and for setting the scene for coordination among the many existing regional and sectoral global bodies. We need to close this gap and enhance international cooperation. It is also important that

the business sector effectively adopts sustainable production models.

What are your hopes for future meetings?

We hope that there's more convergence between countries and stronger responsibility. The time is now. Deterioration of ocean health is already being felt, including in food security. This was the first time countries have negotiated over the legal text itself. Some countries seem to prefer a weak framework. But we need to ensure there are robust and clear standards for protecting biodiversity. ■



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