Conservation news

Conservation Leadership Programme 2022 Team Awards announced

In April, the Conservation Leadership Programme (CLP) announced the winners of its 2022 Team Awards, which will provide support for 23 teams of early-career conservationists leading projects on globally threatened species. These local biodiversity champions will receive project funding worth a combined total of USD 456,077, thanks to support from Arcadia—a charitable fund of Lisbet Rausing and Peter Baldwin—and the March Conservation Fund.

One member from each award-winning team is invited to attend the CLP Conservation Leadership & Management workshop. This year, this course is in a hybrid format, with the first part having taken place virtually, in July, and the second part tentatively planned to take place in-person, in October. As in previous years, the workshop offers training in essential topics for professional conservationists, enabling them to build on the knowledge and skills that will underpin their future careers as conservation leaders. By bringing participants together from around the world, the workshop provides an opportunity to form valuable connections with other early-career conservationists. Winning a CLP award also gives each team access to the CLP alumni network, which offers further opportunities for funding, training, mentoring and knowledge exchange.

This year's award-winning projects include seven Continuation Awards granted to CLP alumni, allowing them to scale up their past CLP projects: two Leadership Awards (c. USD 50,000 each) and five Follow-Up Awards (c. USD 25,000 each). Sixteen Future Conservationist Awards (c. USD 15,000 each) have been granted to teams of early-career conservationists. There are nine projects in Latin America and the Caribbean, seven in Africa, and seven in Asia and the Pacific.

The successful teams will undertake research and practical conservation action to conserve a range of threatened species, many of which are categorized as threatened on the IUCN Red List. These include the red siskin *Carduelis cucullata* in Guyana, giant squeaker frog *Arthroleptis krokosua* and giant guitarfishes *Rhynchobatus luebberti* and *Glaucostegus cemiculus* in Ghana, Maire's yew tree *Taxus mairei* in Nepal, and gharial *Gavialis gangeticus* in India.

CLP was able to fund two of the Future Conservationist Awards this year thanks to support from the March Conservation Fund, secured through BirdLife International. One of these projects will focus on reconciling the expansion of oil palm plantations with the conservation of the Endangered grey parrot *Psittacus erithacus* in Nigeria, and

the other seeks to explore the threats facing the Critically Endangered Bengal florican *Houbaropsis bengalensis* in the Koshi Tappu Wildlife Reserve, Nepal. To view a full list of the projects, visit conservationleadershipprogramme.org/our-projects/latest-projects-2022.

CLP was initiated in 1985 and is a partnership between BirdLife International, Fauna & Flora International and the Wildlife Conservation Society.

KATE TOINTON (orcid.org/0000-0002-7106-8606, kate.tointon@fauna-flora.org) Fauna & Flora International, Cambridge, UK

© Fauna & Flora International, 2022. This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence CC BY 4.0.

Sedentarization of the striped hyaena *Hyaena* hyaena in Dghoumes National Park, Tunisia

The distributions and densities of large carnivore populations in southern Tunisia contracted with the historical expansion of agricultural activities, particularly livestock herding, as a result of human-carnivore conflict and persecution. Many of these carnivore species subsequently became extinct in Tunisia, leaving the African wolf Canis lupaster and the red fox Vulpes vulpes as the largest carnivores in most of Tunisia's ecosystems. The striped hyaena Hyaena hyaena became extremely rare in Tunisia at the end of the 20th century, and although recent cameratrap monitoring of Jebel Serj National Park in northern Tunisia has detected the presence of the species (A. Jebali, pers. comm., 2022), there have been no recent confirmed sightings in southern Tunisia. The main threats to the striped hyaena are targeted or accidental poisoning, especially prevalent around pastoralist settlements, and targeted hunting for traditional medicine in rural areas. It is categorized on the IUCN Red List as Vulnerable across the Mediterranean area.

The 80 km² Dghoumes National Park in southern Tunisia comprises steppe grassland and mountains on the edge of Chott el Jerid, 11 km from the oasis town of Dghoumes. As part of biodiversity assessments and post-release monitoring for reintroduced scimitar-horned oryx *Oryx dammah*, dorcas gazelle *Gazella dorcas* and North African ostrich *Struthio camelus camelus*, a camera-trap grid with 1 km spacing was established in the Park during April 2018–March 2022. In total, 30 camera traps were deployed along animal trails at c. 60 cm above the ground, accumulating a total of > 25,000 camera-trap days. Striped hyaenas were detected in only 1 month in each of 2018

and 2019, but there were detections in 6 months of both 2020 and 2021, with the last record in November 2021 and a total of 20 observations of at least two individuals. Following similar protocols, camera trapping in Jbil National Park (Governorate of Kebili) and Sidi Toui National Park (Governorate of Medenine) in southern Tunisia for 14,377 and 4,006 camera-trap days during April 2019–October 2021 and October 2020–March 2021, respectively, failed to detect the species.

Our findings suggest the presence of an increasingly sedentary population of hyaenas in Dghoumes National Park, and that overall the species remains rare in Tunisia. Our ongoing monitoring will provide more information about the population size and ecology of hyaenas and other less known species in southern Tunisia.

Mohamed Khalil Meliane* (⑤ orcid.org/0000-0003-1979-3998, meliane.medkhalil@gmail.com), Amira Saidi* (⑥ orcid.org/0000-0002-3813-7163), Marie Petretto (⑥ orcid.org/0000-0002-5975-7601), Tim Woodfine (⑥ orcid.org/0000-0003-1007-1403), Philip Riordan† (⑥ orcid.org/0000-0001-6285-8596) and Tania Gilbert† (⑥ orcid.org/0000-0002-3898-1508) Marwell Wildlife, Winchester, UK. *Also at: Faculty of Science of Tunis, Research Laboratory of Biodiversity, Management and Conservation of Biological Systems, University of Tunis El Manar, Tunis, Tunisia. †Also at: Biological Sciences, Faculty of Environmental and Life Sciences, University of Southampton, Southampton, UK

This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence CC BY 4.0.

Rediscovery of the striped hyaena *Hyaena hyaena* in the central High Atlas after 22 years

The geographical range of the striped hyaena Hyaena hyaena extends from North and East Africa through Arabia and Anatolia to India, and it is categorized as Near Threatened on the IUCN Red List. The Moroccan central High Atlas Mountains have a rich and varied biological diversity and are home to > 24 wild mammal species, including the striped hyaena. With support from The Rufford Foundation, we surveyed the wild carnivores of this area during 2019-2022, concluding that a number of species have been extirpated and others are at risk of extinction. The leopard Panthera pardus and serval Leptailurus serval are extirpated, the Egyptian mongoose Herpestes ichneumon and common genet Genetta genetta have become rare, the Eurasian otter Lutra lutra and wildcat Felis silvestris less abundant, and only the golden jackal Canis aureus, African wolf Canis lupus lupaster, red fox Vulpes vulpes and least weasel Mustela nivalis are still relatively abundant.

Formerly, the last observation of the striped hyena in these mountains was in 2000. On 20 April 2022, however, an adult hyaena was killed by an inhabitant in the region of Faryata, 22 km north-east of the town of Beni Mellal, and was photographed by local residents. The publication of the video mobilized the local authorities to examine the circumstances of the killing, as capturing or killing threatened species is illegal. This record confirms the species has not completely disappeared from the central High Atlas Mountains. Our previous studies showed that the range of the striped hyaena has declined in this area and that the greatest threats to the long-term survival of this carnivore are overhunting, habitat destruction and highly fragmented populations. Measures are required to conserve the striped hyaena and other native carnivores of these mountains, including education to raise awareness about the ecological and economic roles of wild carnivores, and monitoring of native carnivores and their habitats. It is also important to manage human-carnivore interactions, such as that which resulted in the killing of this striped hyaena in April, to increase public tolerance for wild carnivores.

ABDERRAZAK EL ALAMI (orcid.org/0000-0002-0274-1430, departementbiologiefssm@hotmail.com) and El Mustapha Bouzid (orcid.org/0000-0002-2105-7992) Ministry of National Education, Beni Mellal, Morocco. Aderrazzak Fattah (orcid.org/0000-0003-1146-0291) University of Hassan II, Casablanca, Morocco

This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence CC BY 4.0.

Successful ex situ conservation of Salvia daiguii

Salvia daiguii Y.K.Wei & Y.B.Huang is a species of Salvia native to the Tianmenshan National Forest Park, Hunan Province, China, newly described in 2019. No more than c. 200 wild individuals are known, occurring only beside rocky streams, on cliffs and in crevices in Tianmenshan National Forest Park, over altitudes of 600–700 m. We have recommended that it should be categorized as Critically Endangered based on the IUCN Red List criteria (Wei et al., 2019, Edinburgh Journal of Botany, 76, 359–368). Because of its narrow geographical distribution, the species is potentially facing a high risk of extinction and conservation action is therefore required.

Since 2011, researchers have been propagating *S. daiguii* in Shanghai Chenshan Botanical Garden, both in vitro and by division, and thousands of individuals have been propagated. In addition, hand pollination was undertaken in July 2019 and 2021 at the nursery of Shanghai Chenshan Botanical Garden, where we collected 140 and 150 hand-pollinated