

# ACB Beats

The Official Newsletter of the ASEAN Centre for Biodiversity • JANUARY–MARCH 2024

## Enhancing ASEAN Connectivity through Digital Innovation in Conserving Wildlife

On 3 March, we join the global annual observance of the World Wildlife Day with the theme, “Connecting People and Planet: Exploring Digital Innovation in Wildlife Conservation.”

The use of digital technology has been pivotal in the growth of economies across the ASEAN region. Moreover, it has revolutionised approaches to protect and conserve the diverse wild species in Southeast Asia. The ASEAN Centre for Biodiversity (ACB) through its various flagship programmes and initiatives, has made possible the assessment and monitoring of wild flora and fauna and their habitats through various technological innovations.

Across the ASEAN Member States (AMS), young biodiversity champions help to effectively conserve and safeguard our fragile wildlife and their habitats by combining their innate creativity and technological know-how. They document wildlife using cameras, camera lenses, and drones, while park managers assist them in taking photos using camera traps. The ACB’s Small Grants Programme helped develop technologies and management tools to support wildlife monitoring in some ASEAN Heritage Parks in Indonesia. In Myanmar, a platform was also created, which can be accessed through their mobile phones or gadgets to aid in wildlife monitoring, patrolling, and law enforcement. The ACB also conducted training programmes on DNA

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**WORLD WILDLIFE DAY**

CONNECTING PEOPLE AND PLANET:  
EXPLORING DIGITAL INNOVATION IN  
WILDLIFE CONSERVATION

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barcoding designed to provide an in-depth examination of species useful for conservation planning and research. The wealth of biodiversity data gathered through these modern technologies should then be made easily accessible to the public.

To this end, the ACB's main digital platforms—ASEAN Clearing-House Mechanism and the ASEAN Biodiversity Dashboard, are online tools and databases, which guide the AMS in their national and local conservation planning, monitoring, and decision-making. These online platforms contain biodiversity data that are easily accessible to researchers, scientists, students, likeminded organisations, and other online users.

The ACB likewise utilises digital campaigns for a region-wide public awareness on biodiversity. The #WeAreASEANBiodiversity: Our home, our lives, our stories featured in our website, is a strategic communication campaign to promote an inclusive, whole-of-community approach to biodiversity actions, and encourage a wide range of contributions from individual actions to regional cooperation. Prominent personalities in the ASEAN have volunteered to share their voices in this campaign to amplify the call for an integrated and whole-of-community approach including the use of digital media in biodiversity protection among wider local, regional, and national audiences.

Our growing number of publications such as the ASEAN Biodiversity Outlook, project briefs, or technical reports both online and in print, now contain QR codes so that our target audience—specifically

visitors navigating our website, may easily access and download them wherever they are in the world.

### **New discoveries, exciting developments**

Despite centuries of taxonomic research, only less than two million species of animals, plants, and microbes were known to science—with more than 30 million species yet to be discovered.

In the ASEAN region, almost 700 species were discovered from 2000 to early 2024 alone, which include 28 herps (snakes, lizards, and frogs) and 348 insects (16 butterflies, 322 beetles, and 10 ants), to name a few.

From 2023 up to early this year, new discoveries continue to increase—fueling our passion to innovate and optimise the use of technology for wildlife identification, monitoring, and protection.

In the Philippines for example, three new plant and animal species were discovered in Mindanao. A new species of begonia (*Begonia fritschiana*) was found to be growing abundantly on rocky hillsides in the province of Bukidnon. There was also a new orchid species (*Pinalia campanulata*), which was discovered in Mount Busa Key Biodiversity Area (KBA) in South Cotabato. In Davao Oriental, the first helmet orchid species, *Corybas hamiguitanensis* was discovered at Mount Hamiguitan Range Wildlife Sanctuary, an ASEAN Heritage Park and a UNESCO World Heritage Site. Moreover, the newest species of turtle in the world was found in Davao City. Gymnures (*Podogymnura intermedia* and *P. minima*), known as hairy hedgehogs or moonrats,

were discovered during a field survey in the northern Mindanao, Philippines, a new record for the area.

New species were also discovered across ASEAN. The *Hipposideros kingstonae* belonging to species known as roundleaf bats, was discovered in peninsular Thailand and Malaysia, while other specimens have been identified in collections from Borneo. Additionally, a new species of crocodile (*Tylotriton ngoclinensis*) was found in Viet Nam. A diminutive new species of palm (*Pinanga subterranea*) was likewise discovered growing on forest floors throughout Borneo, and in Thailand, a new species of electricbluetarantula (*Chilobrachys natanicharum*) was found in Thai mangroves. Other new discoveries include the following: a “semi-slug” species (*Microparmarion sallehi*) discovered in the lowland rainforests in northern Borneo; a water snake (*Hypsiscopus indonesiensis*) described as “flat-tailed water snake” found in Indonesia; and the Ayeyarwady pit viper (*Trimeresurus ayeyarwadyensis*) named after the Ayeyarwady River, which was discovered in Myanmar using modern genomic techniques.

Continued species discovery, identification, and documentation will yield many benefits for humanity, including improved comprehension of the natural world, genetic material that could lead to medical advancements, and improvements in food security, poverty reduction, and climate resilience. Digital innovation and technology may be the gamechangers that we need to further uncover and safeguard the incredible diversity of the Earth's web of life.

## ASEAN reaffirms commitment to mainstream biodiversity into One Health



**BANGKOK, Thailand** – Biodiversity and health experts from the ASEAN Member States (AMS) convened earlier in February to talk about the roles of environment, wildlife, and biodiversity in disease prevention, detection, and resurgence.

The technical forum *Reflecting on the Relevant Role of Biodiversity, Wildlife Conservation, and Environment in Building Resilience through One Health Approach* gathered key technical staff from the AMS and relevant ASEAN sectoral bodies to exchange views and align efforts that contribute to One Health implementation in the region.

One Health refers to a unified approach to balance the health of people, animals, and ecosystems. The term was first used in 2004 after the emergence of the severe acute respiratory disease (SARS) and avian influenza H5N1. It emphasises the relationship between human health and

environmental health, covering a range of issues such as zoonotic diseases, vector-borne diseases, and food safety among others. The occurrence of the COVID-19 pandemic further underlined the importance and immediate implementation of One Health.

### **Biodiversity, environment in One Health discussions**

The ASEAN Declaration on One Health Initiative, adopted during the 42nd ASEAN Summit in 2023, recognises the vulnerability of the AMS to epidemics and pandemics that may be borne from the relationship between humans and the environment and that are further exacerbated by climate change.

Dr. Vong Sok, head of Environment Division of the ASEAN Secretariat, shared that “the Leaders’ Declaration consolidated existing initiatives and mechanisms of One Health collaboration in the region, as well as between countries and

among various sectors, ministries/ government agencies, academia, the private sector, and other institutions. The establishment of the ASEAN One Health Network and the development of an ASEAN One Health Joint Plan of Action reinforce multisectoral collaboration and coordination of the One Health Initiative, which includes the contribution and collaboration from the environment.”

He reiterated the necessity of a holistic approach in studying the impact of the pandemic from its possible origins, including biodiversity, to the end receptor: public health. Handling, transport, and trafficking in wildlife trade create issues and challenges that require concerted efforts from key stakeholders.

For her part, the ASEAN Centre for Biodiversity (ACB) Executive Director, Dr. Theresa Mundita Lim, asserts in her message

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## World Wetlands Day 2024: Securing the health and wellbeing of ASEAN communities

The ASEAN Centre for Biodiversity (ACB) joins the global celebration of the World Wetlands Day 2024 with the theme, *Wetlands and Human Wellbeing*, giving emphasis on this ecosystem's biological riches and its critical role in the survival, resilience, and wellbeing of people.

There are almost two million sq km of wetlands in the Southeast Asian region. At present, there are 59 Wetlands of International Importance or Ramsar sites occupying a total land area of 26,592 sq km in eight ASEAN Member States (AMS). The ASEAN region is also home to 60 percent of tropical peatlands and 42 per cent of mangrove forests in the world.

### Wetlands are not wastelands

People often view wetlands as wastelands or areas that need to be drained or converted for development and other land uses. However, they are nature's secret wonders because of their ability to provide vital services to sustain life and maintain balance of ecosystems. Wetlands are important stopover sites for migratory waterbirds, habitats for many fauna and flora species, and are rich food sources and breeding grounds for fishes.

Moreover, wetlands are considered 'kidneys of the Earth' because of their capacity to purify the soil and provide drinking water to communities. Wetlands are our best ally in the fight against climate change because they are considered as the planet's greatest natural carbon stores. They serve

as buffers against storm surges, flooding, and sea level rise. Wetlands are essential for food security, they support ecotourism, and provide alternative livelihood sources. As engines of local economies, wetlands are the lifeline of ASEAN people who are largely living in rural communities.

### Efforts to save ASEAN wetlands

Despite the many wonders wetlands bring, they are now the most threatened ecosystem on the planet. Human activities contribute largely to the rapid loss of the world's wetlands, with an estimated decline of 35 per cent since the 1970s.

The ACB, through its flagship programmes, helps protect the valuable wetlands in the region through ecosystem restoration initiatives such as reforestation and mangrove rehabilitation, biodiversity mainstreaming, and the development and adoption of

support policy frameworks and networks. The ACB also served as one of the international advisers of the World Coastal Forum 2023 that was held in China to help address challenges in coastal wetland conservation and protection through science and evidence-based approaches.

Another notable wetland conservation initiative is the ASEAN Heritage Parks (AHP) Programme that was designed to protect areas of high conservation importance throughout the region. This almost four-decade programme encourages sustainable wetland management through capacity development activities in support of the parks' enhanced protected area management, law enforcement, sustainable financing, livelihood activities, and species conservation. Currently, there are nine AHPs representing the wetland ecosystem including

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Fishermen of the Inlay Lake Wildlife Sanctuary, one of the ASEAN Heritage Parks in Myanmar. Photo by: Min Maung Maung Myo

## World Wetlands Day 2024...

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the Inlay Lake Wildlife Sanctuary (Myanmar), Agusan Marsh Wildlife Sanctuary (Philippines), Sungei Buloh Wetland Reserve (Singapore), and Ba Be National Park (Viet Nam). The ACB serves as the secretariat of the AHP Programme.

Another significant initiative of the region on wetlands protection is the establishment of the ASEAN Flyway Network (AFN). Led by Singapore and the ACB, the AFN is a network of flyway network sites, managers, and other key stakeholders in the region that facilitates cooperation needed to ensure the conservation of migratory waterbirds and the wetlands that support them. The ASEAN region lies at the heart of the East Asian-Australasian Flyway (EAAF), one of the world's major flyways, which supports the annual migration of 50 million waterbirds as they journey between the northern arctic breeding grounds in Russia and non-breeding grounds

of Southeast Asia, Australia, and New Zealand. While these waterbirds depend on wetlands in the ASEAN for food and water during their stop-overs, they also contribute to the integrity of these ecosystems by regulating the population of pests and disease carriers.

In March this year, the ACB organised the Third AFN Meeting with Cambodia as the host country under the project, *Improving Biodiversity Conservation of Wetlands and Migratory Waterbirds in the ASEAN Region-Phase II*. This was held in collaboration with the National Parks Board (NParks) Singapore and with the support of the Japan-ASEAN Integration Fund (JAIF).

### Addressing gaps and moving forward

Apparent gaps in the implementation of initiatives and activities must be addressed to

ensure a more effective wetland restoration in the region. First, AMS must be able to resolve data deficiencies to support better management of their wetlands. Furthermore, valuation of natural resources throughout ASEAN must be encouraged to come up with better policy frameworks and evidence-based conservation measures.

In close collaboration with Lao PDR, this year's ASEAN Chair, the AMS, and development partners, the ACB stays committed to preserving the region's wetland ecosystems and the multitude of services they provide. Just as wetlands connect diverse ecosystems, communities, habitats, and species, ASEAN aims to strengthen ties among its member states to enhance the region's connectivity and resilience for the welfare of its people.



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## First ACB statement on biodiversity delivered at UNEA-6

**NAIROBI, Kenya**—In recognition of its contribution to the achievement of global environmental goals, the ASEAN Centre for Biodiversity (ACB) officially received its *Intergovernmental Organisation (IGO) Observer Status* from the United Nations Environment Assembly (UNEA). This accreditation was announced during the plenary session of the recently concluded sixth session of the UNEA. Setting strategic direction for the United Nations Environment Programme, UNEA is the world’s highest-level decision-making body on environmental issues.

“We welcome the significant strides that are being taken by UNEA to highlight the synergy among the Multilateral Environmental Agreements (MEAs), and reinforce collaborations as we grapple with the triple planetary crisis. As the ASEAN region’s centre for excellence for biodiversity, the ACB appreciates MEA synergies as an opportunity for expanding partnerships and maximising resources to achieve multiple objectives”, cited Dr. Theresa Mundita S. Lim, executive director of the ACB, in her intervention delivered during the plenary.

Dr. Lim said that since the creation of the ACB by the 10 Member States of the Association of the Southeast Asian Nations (ASEAN) in 2005, it has been facilitating and strengthening regional action in Southeast Asia towards delivering the goals of the CBD and in the process, also achieving the targets set by other MEAs.

“By fostering cooperation among the ASEAN Member States and with our dialogue and



ACB Executive Director Dr. Theresa Mundita S. Lim delivered an intervention as first-time IGO at UNEA-6.

development partners, as well as other stakeholders, including the private sector, indigenous peoples and local communities, women, and the youth, the ACB, as a regional IGO, contributes to multilateralism and the ASEAN’s whole-of-community approach,” Dr. Lim added.

UNEA-6 focused on how multilateralism can help tackle the triple planetary crisis of climate change, nature and biodiversity loss, and pollution. The meeting concluded with 15 resolutions, two decisions, and a ministerial declaration adopted.

“Part of our collective efforts in the ASEAN region is the ACB’s facilitation of the development of the Regional Biodiversity Strategy and Action Plan or the ‘ASEAN Biodiversity Plan,’ which will support the implementation of the Global Biodiversity Framework and NBSAPs, scale up national action at the regional level, and take into account ASEAN’s common priorities, such as mainstreaming biodiversity across development sectors, the promotion of nature-based solutions to climate change,

including the restoration and conservation of mangroves and peatlands, resource mobilisation, capacity enhancement and technology transfer, and developing regional indicators for monitoring and evaluation,” Dr. Lim said.

UNEA-6 recorded 7,000 delegates from 182 UN Member States, civil society, indigenous peoples, international organisations, scientists, and the private sector in various events held from 19 February to 1 March 2024.

Among the resolutions covered were environmental aspects of minerals and metals, the sound management of chemicals and wastes, and highly hazardous pesticides to sustainable lifestyles, sand and dust storms, land degradation, and environmental assistance and recovery in areas affected by armed conflict. The importance of cooperation with MEAs was also underscored during the discussions. The ACB is also an accredited IGO observer of various MEAs including the Convention on Biological Diversity, Convention on the

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## ACB, GIZ celebrate 14-year partnership for ASEAN biodiversity



Officials and staff from the ASEAN Centre for Biodiversity, GIZ and the Federal Government of Germany, ASEAN Secretariat, ASEAN Member States, dialogue and development partners, with some Philippine media in a group shot at the closing ceremony of the ISB II Project.

**MANILA, Philippines**—Driven by a shared vision to conserve, sustainably manage, and equitably share benefits from biodiversity for the well-being of people in Southeast Asia, the ASEAN Centre for Biodiversity (ACB) and the Federal Government of Germany through the *Deutsche Gesellschaft für Internationale Zusammenarbeit* (GIZ) GmbH celebrated the success of their 14-year partnership through a three-day Closing Forum held from 19 to 21 March 2024.

With the theme, *From Vision to Action: Celebrating 14 years of cooperation for ASEAN Biodiversity*, the forum highlighted the gains from the longstanding cooperation between ACB and GIZ, which started in 2010 with the Biodiversity and Climate Change Project. This was followed by the *Biodiversity-based Products (BBP) as an Economic Source for the Improvement of Livelihoods and Biodiversity Protection* Project and the *Institutional Strengthening*

*of the Biodiversity Sector in ASEAN I and II.*

From 2010 to 2024, the Federal Government of Germany has provided a total of EUR 18 million for the four projects, EUR 4 million of which was dedicated to the recently-concluded ISB II Project. The latest project significantly contributed to the strengthening of the organisational management of the ACB, the development of the Operations Manual of the ASEAN Heritage Parks (AHPs) Programme, flagship programme of the ASEAN on protected area management, facilitating joint ASEAN positions in international environment agreements, and mainstreaming biodiversity in the development sector.

“With a more strengthened ACB, you can all be assured that we will sustain the gains of this project, and will continue to scale up regional efforts for sustainable development. In the last three years, the ACB has mobilised

more than USD 24 million (24,810,035.60) from various sources—development and dialogue partners, private sector and multilateral funding entities, to support current and future regional level biodiversity projects,” said Dr. Theresa Mundita Lim, executive director of the ACB.

Such strategies borne out of the ACB-Germany cooperation translate into actions to effectively address climate change, pollution, and biodiversity loss, improve livelihoods, and engage stakeholders in various sectors through cross-pillar and multisectoral collaborations.

His Excellency Dr. Andreas Michael Pfaffernoschke, Ambassador of the Federal Republic of Germany in the Philippines, said in his welcome remarks, that in the ASEAN region, Germany is currently supporting bilateral projects on biodiversity in Cambodia, Indonesia, Lao PDR,

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Philippines, Thailand, Viet Nam, and regional projects together with the ASEAN Secretariat.

“In the Philippines alone, the German Government supports projects on climate change and biodiversity conservation with over EUR 50 million funding. Germany is committed to multilateral solutions to ensure the resilience of ecosystems and societies, and stability of the whole global order. Preserving biodiversity in ASEAN, therefore, is in all our global interest from economic, social, ecological, and moral perspectives,” His Excellency said in his speech at the ISB II Closing Forum.

“I believe that the coming days will not signal the end of a successful partnership, but will only mark the beginning of more collaborative efforts for ASEAN biodiversity. Let this series of events allow us to reflect on how far we have achieved together, and explore how we can further scale up our cooperation for sustainability, building on the gains from this project,” said Dr. Lim.

Dr. Lim added that the ACB-GIZ partnership led to the now more robust and responsive organisational structure of the Centre, through ISB II's support for its Comprehensive Institutional Review. Under the new structure, the ACB's priority programme areas, namely, biodiversity conservation; knowledge management; capacity development; mainstreaming biodiversity; partnerships; communication, education, and public awareness; have been the primary approaches in meeting the new global biodiversity targets under the Biodiversity Plan and other multilateral environmental

agreements, and the Sustainable Development Goals.

Mr. Ky-Anh Nguyen, Director of the Sustainable Development Directorate of the ASEAN Secretariat, hopes the ACB-Germany partnership will continue to evolve and will build a broader list of partners from the government, private sector, civil society, and other stakeholders in ASEAN, championing biodiversity conservation and addressing the multifaceted global challenges, including climate change.

“We at the ASEAN Secretariat, commit to steadfast support for the work of the ACB and its partners, such as the Government of Germany, and will continue to amplify the importance of well-balanced ecosystems and their proper management for sustainable economic development in the ASEAN region,” Mr. Nguyen said.

### Prospective collaboration on business and biodiversity

As part of the three-day ISB II Project Closing Forum, the ACB facilitated a multistakeholder planning workshop of the ASEAN Business and Biodiversity Initiative (ABBI), a pioneering effort of the ASEAN Business Advisory Council (ASEAN-BAC) and ACB to mainstream biodiversity and nature-based solutions in the strategic priorities of the business sector for a greener and more sustainable future for ASEAN.

In collaboration with the ASEAN-BAC Secretariat, the said workshop convened leading green business advocates and stakeholders of the ASEAN region to craft the future direction of the ABBI—the first of its kind as a pivotal regional platform for sustainable and nature-positive business practices.

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Participants of the first ASEAN Business and Biodiversity Initiative planning workshop



## ACB, GIZ celebrate 14-year partnership... continued from page 8



Ms. Pamela Reblora, Acting Director of the ACB Communication Department during the launching of the new ACB website, knowledge management platforms, and knowledge products made possible by the ISB II Project.

Participants include representatives from the ASEAN Member States (AMS), ASEAN Secretariat, ASEAN-BAC, Malaysia Platform for Business and Biodiversity, Thailand Environment Institute, Business for Nature, Thailand's Biodiversity-Based Economy Development Office, Non-Timber Forest Products – Exchange Programme, and the Global Environment Centre, among others.

This workshop was part of the activities being facilitated by the ACB as Chair of the Global Partnership for Business and Biodiversity (GPBB) from 2022–2024. GPBB links various initiatives and stakeholders to cooperate on common biodiversity projects and concerns into business operations, and connect ASEAN with the global business and biodiversity

leaders on achieving the triple bottom line of people, planet, and profit.


The ABBI is a potential area of collaboration for prospective projects of the ACB and GIZ to integrate biodiversity in business plans and processes.

### Launch of the new ACB website, knowledge products

Part of the project accomplishments of the ISB II was enhancing the information-sharing capacity of the ACB to support the development of ASEAN positions in international agreements and dialogues as well as to provide more accurate scientific information to guide the AMS in their policy formulation and decision-making on

biodiversity conservation. This has led to valuable accomplishments such as the development of the ASEAN Multisector Biodiversity Mainstreaming Framework, which will chart the path for the region's efforts towards integrating biodiversity considerations across sectors at all levels; mainstreaming action plans for the tourism, fisheries, and infrastructure sectors; as well as e-learning modules on mainstreaming biodiversity in the agriculture sector, to name a few.

All of these milestones were put on visual display at a showcase on 21 March at the ACB Headquarters, marking the end of the three-day activities of the ISB II Project Closing.



## Access the most recent knowledge products on ASEAN Biodiversity

bit.ly/ISB2KPs



## Get to know the unique ‘dragons’ of ASEAN

Lunar New Year is a widely observed holiday in Southeast Asia, marked by colourful and vibrant festivities. This year is the “Year of the Wood Dragon,” represented by the most powerful among the 12 animals in Chinese mythology. Combined with the element of wood symbolising vitality, growth, and kindness, it is said that this year is expected to bring opportunities and changes, and is a favourable year for exploring new collaborations and partnerships. As such, we are hoping that this will be a fantastic year for all of us at the ASEAN Centre for Biodiversity (ACB), to continue facilitating regional cooperation in conserving our web of life, including the ‘dragons’ of ASEAN.

### Real-life ‘dragons’ of Southeast Asia

Dragons are featured prominently in mythology, folklore, and many cultures across the world. These magical creatures are often described as huge, winged, serpent-like, and fire-breathing beasts.

Though these mystical beings inhabit the realm of fantasy, there are real-life “dragons” that are just as fascinating as the legendary ones. Like the dragons of lore, these animals are the four-legged, cold-blooded, reptiles—the lizards.

There is a wide variety of lizards in Southeast Asia that are found nowhere else in the world. The most popular among them are Indonesia’s Komodo Dragon (*Varanus komodoensis*), the Philippine Sailfin Dragon (*Hydrosaurus pustulatus*), Sulawesi Lined Gliding Lizard (*Draco spilonotus*), Common Flying Dragon (*Draco volans*), and the recently discovered Khammouan Karst Dragon (*Laodracon carsticola*) from Lao PDR. Lizards perform important ecological functions such as seed dispersal, control of insect populations, and are vital food sources for different animals. Learn about these unique ASEAN species that exemplify the region’s biological diversity.

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### Komodo Dragon (*Varanus komodoensis*)

Living off the coast of Indonesia’s Lesser Sunda Islands known as Komodo National Park, Komodo Dragons are the largest of all lizards, measuring about 10 feet long and typically weighing up to 154 pounds. Komodo Dragons can thrive in severe climate conditions and can live up to 30 years. Although they can be seen basking in the sun, these carnivores or meat-eaters, prefer to stay in the tropical forests of the islands. They have long tails, can swim, and can even run as fast as 19 km per hour. Compared to other reptiles, they only have a small population and are only found in five islands in Indonesia. They help prevent the spread of diseases by eating carcasses, thus promoting overall health of the ecosystem. With the establishment of patrols and increased community understanding of the need to protect these species, the Indonesian government has improved ecotourism practices at Komodo National Park, thereby strengthening the conservation of these dragons.



### Philippine Sailfin Lizard (*Hydrosaurus pustulatus*)

Philippine Sailfin Lizards are also called the Philippine Sailfin Dragons, which belong to the large semi-aquatic lizard species called agamid which are a close relative of the iguanas. Agamid lizards have scaly bodies, well-developed legs, and moderately long tails. Some agamid lizards can also change colours to regulate their body temperatures. They can be found in all major islands of the country, except Palawan Island. They have large feathers called crest on their backs that look like a sail, and they can grow to as much as four feet long. Like Komodo Dragons, Philippine Sailfin Dragons are strong swimmers, and smaller juvenile lizards can run briefly on the water surface. They are omnivores or they can eat both plants and meat. They live in areas with dense vegetation along the coasts and near rivers, riverbanks, lakes, mangrove forests, and even in flooded rice fields that are close to natural forest. They go by several local names. In the Philippines, their Tagalog name is *layagan* or *balubid* while they are called *ibid* in Bisaya.



Photo by: Jason Fernandez

### Sulawesi Lined Gliding Lizard (*Draco spilonotus*)

Sulawesi Lined Gliding Lizards are commonly found in forested areas of Sulawesi, an island in Indonesia. They are actually confined to that island, particularly in Northern Sulawesi's Tangkoko National Park. As medium-sized lizards, their length is usually 5–10 cm. They can survive hot and dry climates and have the ability to camouflage. The males have a pair of patagium or 'wings', that are yellow with brown lines. A patagium is a web of skin that connects the limbs to the body of the lizard, which helps them glide from one tree to another. Males have a round-shaped and yellow-coloured skin flap that looks like a flag attached to their neck called gular flag, which is their main means of communicating with other lizards, most especially in attracting females. Draco lizards live in trees and they feed on ants and termites.



Photo by: Oleg Chernyshov



Photo by: Arnaud Delberghe

### Common Flying Dragon (*Draco volans*)

Common flying dragons or Javan Flying Dragons are well adapted to live in trees, which is why they are called arboreal lizards. They can only be found in the rainforests of Southeast Asia especially in densely wooded habitats. They grow to a length of up to 22 cm including the tail, and the body is tan in colour with dark flecks. The 'wings' of males are coloured tan to bright orange with dark banding; in females, the flaps have irregular markings rather than banding. Like most Draco lizards, this species mainly eats ants and termites. They move from tree to tree not just to hunt for food and to attract mates, but also to escape from possible danger.

### Green Crested Lizard (*Bronchocela cristatella*)

Green Crested Lizards can be found in Indonesia, Malaysia, Myanmar, the Philippines, Singapore, and Thailand. Coloured bright green and sometimes possessing a blue tint on the head, it can change its colour from light green to darker brown when threatened. Its body length is measured 13 cm, while the total length including tail is 57 cm, with their tail making up 75 per cent of their total length. They live in primary and secondary forests, but can also be found in parks, gardens, and in many habitats from rural areas. The males have an attractive neck crest. In Singapore, the population of *B. cristatella* is declining due to their competition with the changeable lizards (*Calotes versicolor*), an introduced species and is considered an invasive alien species in some countries of the ASEAN.

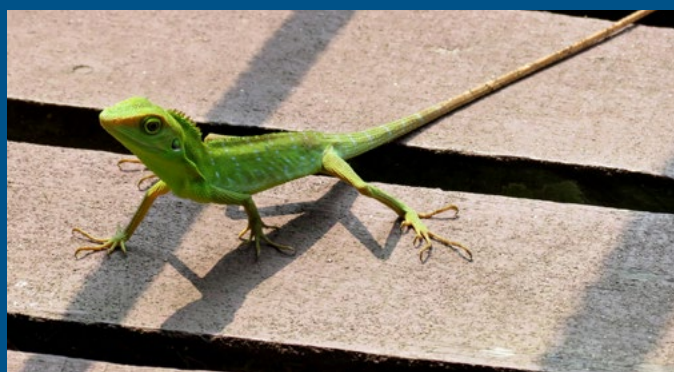


Photo by: Bernard Dupont

### Giant Forest Dragon (*Gonocephalus grandis*)

Giant Forest Dragons (*Gonocephalus grandis*) or Malayan Crested Lizards are found in Indonesia, Malaysia, Myanmar, Thailand, and Viet Nam. Adult males have large and pointed green-coloured crests on their neck and back and with a blue and yellow pattern on the sides of their bodies. Adult females on the other hand, have similar colour but without the green crests. Interestingly, these lizards can change their colour from green to black in minutes. They belong to the family of agamid lizards or the kind that have long tails and well-developed muscular legs. In fact, these lizards are agile and can run quite fast on the forest floor or when climbing up on tree trunks.

## Turning conflict into an opportunity: The Story of Pak Agus

Born and raised in Brajah Harjosari, a village on the borders of Way Kambas National Park, an ASEAN Heritage Park (AHP), in Southern Sumatra, the 44-year-old Pak Agus often witnesses countless elephant raids and ravages to their farming community's crops and properties.

"These elephants forage on our crops and destroy our properties. Because this has continued for decades, people in our village see them as enemies," he says.

The constant dilemma and the safety issues for humans and elephants alike grew into an ill-fated relationship between them; not to mention that the severe impacts of these raids on the villagers' livelihoods have forced many of them to enter the park to find food.



Pak Agus understands that solving these would not be easy without the help of others. In 2022, he and other village members became beneficiaries of the Small Grants Programme (SGP) by the ASEAN Centre for Biodiversity.

Through the grant, they ventured into an alternative source of income by forming the POKDARWIS Braja Harjosari that offers a tour package – including homestay, birdwatching, night safari, selling of souvenir items, and transportation services for local visitors and tourists who frequent their place to see the wildlife at Way Kambas up close.

"The conflict has been a way for us to work together with SGP, its service provider Penabulu Foundation, and the park management in discovering our potential. Through the help we received, we can now run our homestay, manage the group's money, and explore other income-generating activities. We do not need to go inside the park because we have everything here," shares Pak Agus.

The village members attribute the boost to their ecotourism efforts to the elephants and birds, whose existence piqued people's interest in visiting the area. In turn, Pak Agus and the village members teamed up with the authorities of the Way Kambas National Park and the other villages close to the AHP to establish four patrol groups to ensure the welfare of elephants while keeping them within the village's boundaries.

Through time, village members saw that living in harmony with the elephants was possible. From seeing them as enemies, the elephants have now become their biggest allies.



## New Species discovered in the ASEAN Region



### *Clavicornaltica mataikanensis*

Discovered in Brunei Darussalam by Taxon Expeditions  
Photo by Taxon Expeditions

Reference: Otani, S., Bertoli, L., Lucchini, F., Van Den Beuken, T., Boin, D., Ellis, L. T., Friedrich, H., Jacquot, B., Kountouras, S., Lim, S., Nigro, E., Su'eif, S., Tan, W., Grafe, T. U., Cicuzza, D., Delledonne, M., Njunjić, I., & Schilthuizen, M. (2024). A new, unusually large, *Clavicornaltica* Scherer, 1974 flea beetle from Borneo, described and sequenced in the field by citizen scientists (Coleoptera, Chrysomelidae, Galerucinae). Biodiversity Data Journal, 12. <https://doi.org/10.3897/bdj.12.e119481>



### *Phanera roseoalba*

Discovered in Lao PDR by Tk.Yamam., Tagane & Soulad  
Photo by S. Tagane

Reference: Yamamoto, T., Souladeth, P., Soutakone, K., Kongxaisavath, D., & Tagane, S. (2024). A new species and a new record of *Phanera* (Fabaceae) in Laos, with a lectotypification and a new combination for *P. involucrans*. Phytotaxa, 640(2), 81–89. <https://doi.org/10.11646/phytotaxa.640.2.1>



### *Euscorpriops krachan*

Collected in Kaeng Krachan National Park, Phetchaburi Province, Thailand



Photo by Nawaneti Wong, Košulič, Warrit, Lourenço & Ythier

Reference: Nawaneti Wong, W., Košulič, O., Warrit, N., Lourenço, W. R., & Ythier, É. (2024). A new species of the genus *Scorpiops* Peters, 1861, subgenus *Euscorpriops* Vachon, 1980 from Thailand (Scorpiones, Scorpionidae). ZooKeys, 1193, 161–170. <https://doi.org/10.3897/zookeys.1193.113398>



## ASEAN Regional Forum on Waterbird and Wetland Monitoring held in Siem Reap, Cambodia

Did you know that 50 million migratory waterbirds travel from the Arctic Russia and North America to the southern limits of Australia and New Zealand? They pass by the ASEAN region through the East Asian-Australasian Flyway. During their migration, these birds pause over wetlands to feed and rest. The birds' presence is an indicator of a healthy ecosystem that is favourable to their survival. Hence, safeguarding these 'stop-over' sites means sustaining these migratory species as well as the biodiversity richness of their habitats.

To this end, national focal points and site managers of the ASEAN Flyway Network (AFN) and key officials of like-minded organisations such as the ASEAN Centre for Biodiversity (ACB), National Parks Board (NParks) Singapore, East Asian-Australasian Flyway Partnership Secretariat, Birdlife International,

Ramsar Regional Centre - East Asia, Wetlands International, and University of Queensland convened for the *ASEAN Regional Forum on Waterbird and Wetland Monitoring* held in Siem Reap, Cambodia from 28 to 29 March 2024.

The forum facilitated an exchange of knowledge, experiences, and updates on the sustainable management of migratory bird species and wetlands, and charted the path for the AFN Phase II.

Preceding the forum, the *Third ASEAN Flyway Network Meeting* was convened. National focal

points and site managers of the AFN provided updates and sought feedback from network members, experts, and partners regarding the implementation of the project.

The back-to-back events were hosted by the General Directorate of Protected Areas, Ministry of Environment of Cambodia, and co-organised by the ACB and NParks.

The AFN is a regional mechanism facilitated by the ACB and supported by the Government of Japan through the Japan-ASEAN Integration Fund, that aims to protect migratory bird species and their habitats in the region.

### First ACB statement...

continued from page 6

Conservation of Migratory Species of Wild Animals, the Convention on International Trade in Endangered Species of Wild Fauna and Flora, the Convention on Wetlands of International Importance especially as Waterfowl Habitat, and the United Nations Framework Convention on Climate Change.

More than 170 ministers participated in a high-level segment that featured three leadership dialogues and a multi-stakeholder dialogue.



Discussions at the ASEAN Regional Forum on Waterbird and Wetland Monitoring

## Birding in Prek Toal Bird Sanctuary, Cambodia

Participants of the recently concluded ASEAN Forum on Waterbird and Wetland Monitoring visited Prek Toal Bird Sanctuary, a Ramsar site within the Tonle Sap Biosphere Reserve.



Lesser Adjutant



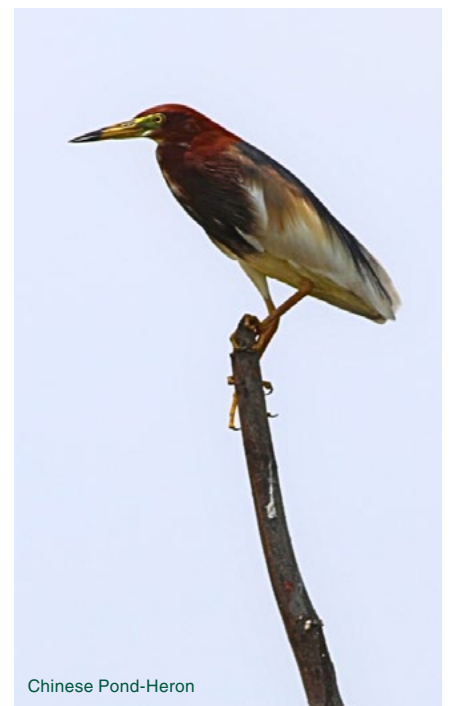
Oriental Darter



Spot-billed Pelican



Painted Stork and Great Egret



Chinese Pond-Heron



Mixed flock of Great, Little, and Indian Cormorants



Grey Herons

## ASEAN reaffirms commitment...continued from page 3

the importance of cross-sectoral and cross-pillar engagements to support the Leader's Declaration including the ASEAN One Health Joint Plan of Action. "These two significant milestones are already in place and provide clear, high-level guidance on how the region must move forward in building

pandemic resilience. We just need to facilitate translating these policies into action on the ground, with an inclusive, well-coordinated, whole-of-society level of participation. This technical forum is one of the first steps at the regional level towards this end," she said.

Dr. Lim elaborated that harmonising policies on public health, livestock and poultry production, and biodiversity, including wildlife protection and trade, to consider their interconnection and relevance to disease control and prevention will be essential to reducing the risks associated with future pandemics. The AMS shared interventions on One Health implementation in their countries. Participants also deliberated pathways through which biodiversity, wildlife, and the environment can feed into the One Health implementation in the region. Recommendations derived from these discussions will serve as bases for the ACB and other ASEAN centres to explore potential collaborations in line with the ASEAN One Health Joint Plan of Action.



Participants in breakout sessions discussed pathways on governance, legislation, financing, advocacy, implementation, workforce development, data, and knowledge management.

## Get to know the unique 'dragons' of ASEAN... continued from page 9

Finally, a new species of lizard was recently found in a limestone landscape in Khammouan Province, Lao PDR. Dragon Lizards (*Laodracon carsticola*) or commonly called Khammouan Karst Dragons, have a slight resemblance to the fictional dragons and belong to the Agamidae family—the kind of lizards that usually inhabit warmer environments. They eat ants and have outstanding capability to camouflage themselves. Their black and gray scale patterns match the limestone rocks and outcrops upon which they climb; and unless they move, it is impossible to detect them. These lizards are approximately 15 cm in length, have blue or grey eyes and some red and blue spots, and rough skin, which help them

climb on coarse rocks. Limestone karsts formations such as karst towers, caves, and sinkholes, are important habitats for dragon lizards and also for many other unique species in the ASEAN.

More sustained and coordinated efforts on the conservation of natural environments where these lizards live, would certainly lead

to the protection of these unique species, some of which are known from small and fragmented populations. Raising awareness on the need to safeguard these ASEAN dragons is also essential, as they are crucial allies in protecting people against dangerous zoonotic diseases and in maintaining a balanced and well-functioning ecosystem.



Khammouan Karst Dragon (*Laodracon carsticola*). Photo by: Nathanael Maury