



Indonesia's inspiring isles

Home to unique species, including flamboyant birds of paradise, shy nocturnal primates and rare butterflies, these remote islands inspired one of the great scientific discoveries of our time: the theory of evolution by natural selection. Now, conservation initiatives are aiming to protect them

The moon is still glinting through the rainforest canopy, illuminating the path with patchy slivers of silvery light, as we set out at 5am along a leafy trail on Bacan Island in Indonesia. My head torch highlights tangled roots and spotlights alien fungi colonising gnarled fallen tree trunks – spectacular spongy high-rises of white and gold, housing myriad crawly night critters that scuttle away as we walk by. After trekking for an hour, we leave the path and carefully pick our way down a steep incline, until our guide stops and signals to look up. High on the branches above, silhouetted against the rising dawn, fantastical beasts are rising from their slumber, preening their luminous green breasts and waving slender white feathers: heavenly birds of paradise, singing to signal the sunrise in this spectacular earthly realm.

I'm exploring Bacan, one of more than 17,000 islands which form the Indonesian archipelago. My two-week voyage from Ternate in the Spice Islands of North Maluku to Bitung in North Sulawesi on board MSV *Ombak Putih* (pictured right) – a traditional Unesco cultural heritage sailing ship known as a pinisi – covers 958 nautical miles and visits communities where visitors remain a rarity but are greeted with open arms.

Stretching across the equator between mainland Southeast Asia and Australia, Indonesia is recognised as one of 17 megadiverse countries of the world, harbouring 17 per cent of the world's wildlife, more than 300,000 wildlife species and precious natural habitats, including mangroves, peat swamp forests and coral reefs, which support a staggering diversity of creatures. Whale sharks, manta rays, dolphins and turtles swim the Molucca Sea, tropical fish inhabit the miraculously flourishing coral reefs, and endemic species,



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such as exuberant black macaques, nocturnal bushbaby-like tarsiers, elusive Sulawesi bear cuscus (a tree-dwelling marsupial) and prehistoric-looking hornbills roam the forests.

Perhaps understandably, it's here that the British Victorian naturalist and explorer, Alfred Russel Wallace, formulated his groundbreaking theories on evolution through natural selection during an eight-year field trip of the region to research and collect samples of flora and fauna in the 1850s. With the aid of a local assistant, Ali, Wallace collected, documented and shipped an astonishing 125,660 animal specimens, including more than 5,000 species new to western science, back to England. These included Wallace's standardwing bird of paradise, which was the prize find at the end of our trek on Bacan. Most of these wonders can now be found in the collections of the Natural History Museum in London and the Oxford Museum of Natural History, and Wallace documented his expedition through this challenging, wild region in his 1869 book, *The Malay Archipelago*.

In 1858, while suffering a severe bout of malaria in the village of Dodinga on the island of Halmahera, Wallace experienced an epiphany – 'a sudden flash of insight' – and, from his base on Ternate, sent a letter with an essay to esteemed naturalist Charles Darwin, detailing his theory of the mechanism of evolutionary change – natural selection.

While Darwin had formulated his own identical theory some 20 years earlier, he had only shared his ideas with two close friends, botanist Joseph Hooker and geologist Charles Lyell.

Seeking to prevent their friend from losing credit for his theory, Hooker and Lyell decided to publish Wallace's essay together with excerpts from Darwin's unpublished writings on the subject. Separately, yet together, the two men had unravelled the great mystery of life on our planet. A year later, Darwin published his book, *On the Origin of Species by Means of Natural Selection*, which explained the theory in greater detail and from which most believe it originated.

World of wonders

While Darwin is hailed today as the father of evolution, Wallace's legacy is often overlooked, but his discoveries and teachings are brought vividly to life on SeaTrek's Indonesian adventures, which follow in the naturalist's wake on voyages in the Maluku Islands, West Papua and Raja Ampat. A memorial is also due to be unveiled in Dodinga in October this year. Zoologist, evolutionary biologist and Wallace expert, George Beccaloni, leads several annual sailings offering a deep dive into Wallace's world of living wonders, his infectious enthusiasm and respect for the naturalist igniting guests' curiosity and desire to explore.

Island treks lead to encounters with the striking Wallace's golden birdwing butterfly – fiery orange beauties larger than my hand – while combing the coast reveals lengthy longhorn beetles, industrious sand bubbler crabs and carnivorous pitcher plants, luring, drowning and ingesting insects in the forests behind. What lies beneath the waves is equally as

enchanting. Snorkelling until my fingertips wrinkle, I spend hours seeking out marine life, from swooping manta rays to skittish reef sharks, banded blue sea snakes and technicoloured nudibranchs, sliding among the corals. The warm, clear waters reveal gardens of luminous giant clams and swaying sea anemone cities, where clownfish peep out and retreat as I float above them in the blue. Wallace was here collecting for eight years; I have two weeks to mentally catalogue as many wonderfully wild memories as I can.

Unique discoveries

'The number of new species Wallace documented during his time in Indonesia was remarkable,' says George, director of the Wallace Correspondence Project, during one of our voyage talks. 'Wallace did not come from a privileged background and was largely self-taught, but he was highly thought of by his contemporaries, including Darwin. He became one of the most famous people in the world in his lifetime, being awarded numerous prestigious scientific awards for his work, including five medals for his independent discovery of natural selection.'

As we walk along the rural street where Wallace is believed to have lived during his stay, George tells us: 'Dodinga is one of the most important places in the history of science. There aren't many places in the world which are the site of an amazing scientific discovery, but this is one of them.'

Dodinga is one of several remote local villages, surrounded by wildlife-rich forests, which are visited by SeaTrek on

its Indonesian snorkelling tours. The company supports community education with book donations and materials containing advice on marine conservation. It also distributes water purification systems and provides swimming goggles so that local children can explore the stunning underwater world on their doorstep.

'It's important that the next generation care for the environment and the incredible diverse species that these islands support,' says our tour leader Dion Luas, who was born in North Sulawesi. As with so many countries, Indonesia's natural habitats and wildlife are increasingly under threat from pollution, development and, of course, climate change.

Species under threat

'While Indonesia is the world's biodiversity capital, with more plant and animal species in its terrestrial, freshwater and marine environments than most other countries in the world, it also has more endangered species than almost any other country in the world, most of them endangered by human activities,' says Marcy Summers, director and co-founder of the Alliance for Tompotika Conservation (AITo), which protects and restores endangered species and habitats, while supporting local communities in Sulawesi.

We meet Marcy on a visit to one of AITo's projects on the Tompotika peninsula, established in 2006 after local villagers asked the visiting conservation biologist to help them stop the decline in the population of endemic Maleo birds in the

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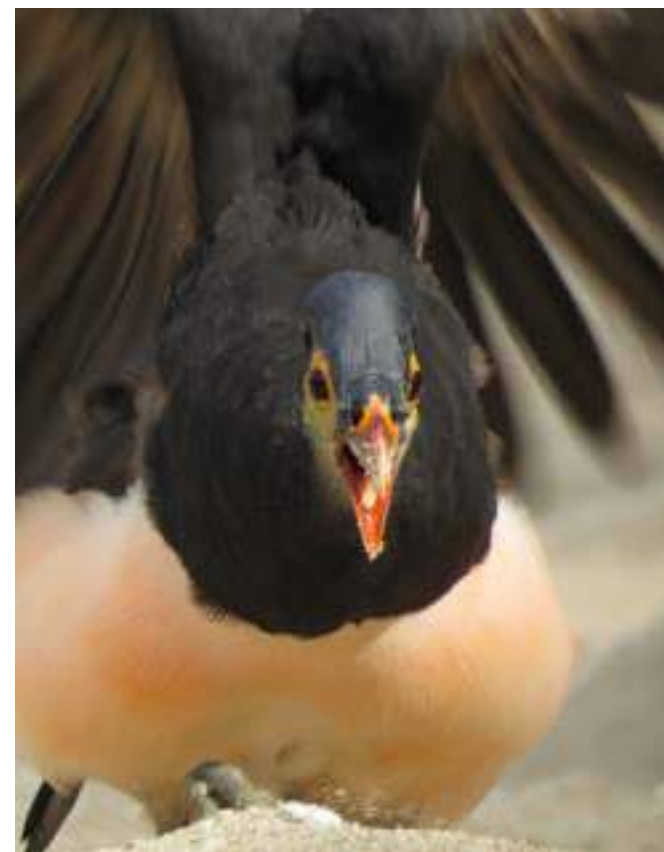


region. When Wallace visited Sulawesi in the mid-1800s, he described the island's beaches as being 'black', because of the number of Maleos that covered them, digging large holes in the sand to lay their eggs. Today, the Maleo (right and above) is a much-loved symbol of Sulawesi, but despite being legally protected, habitat destruction and excessive harvesting of their eggs by humans has wiped out 90 per cent of the population, and these iconic birds are now listed by the International Union for Conservation of Nature as 'Critically Endangered'.

Marcy, the AIto team, and local villagers resolved to change the fate of the species by monitoring their nesting sites and protecting the eggs from poachers. Demonstrating that nature can recover when impactful initiatives are put in place, the Maleo population has increased sevenfold since the project began.

'The taking of eggs by humans is the primary threat to the Maleo birds of Sulawesi,' says Marcy, as we watch pairs of the endearing birds digging large pits at the nesting site between the rainforest and the ocean, in preparation for each of the females to lay a single, huge egg. 'However, in Tompotika, we've shown that with appropriate local outreach, villagers will voluntarily agree to end the poaching. Our "Respect for Nature" approach, which leaves the eggs in the nests, rather than moving them to hatcheries, has resulted in population increases seen nowhere else. We've proved that community-based conservation can bring this incredible species back from the brink.'

On board *Ombak Putih*, the Indonesian tour leaders and crew help guests to navigate their way through this fascinating



PHOTOS: (TOP) PANDIJARIYO KRESNO-ALTO. (BOTTOM) NOVAL SULING-ALTO

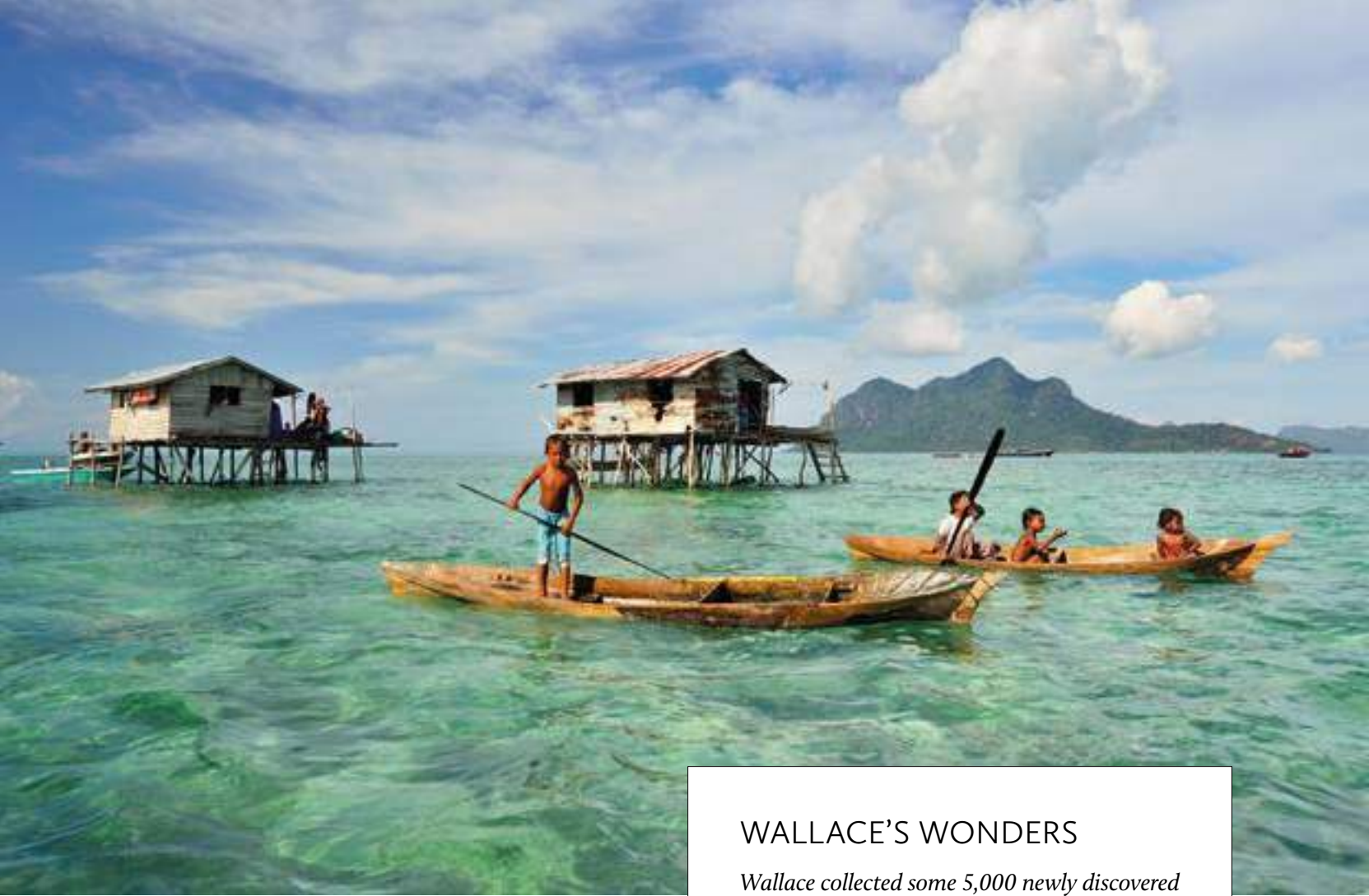
and diverse island realm, which remains steeped in ancient tradition, while facing the changes and challenges of an encroaching modern world. Each evening brings a briefing on deck, before a delicious Southeast-Asian feast under the stars, with invaluable advice on how to ensure respectful encounters with the remote communities allowing us into their homes, from recommendations of what to wear to suggestions of local foods to try. They also share Indonesian words and phrases to break the ice and broker friendships ashore. We're welcomed warmly everywhere, with buoyant greetings in English, cheeky high-fives, beaming smiles and frequent requests for selfies.

In tune with nature

In the Togeian Islands, we visit the Bajau of Kabalutan (right and overleaf): the famous sea nomads of Indonesia, known for their almost super-human diving and spearfishing skills. Living in closely packed wooden houses built over the waves, connected by rickety boardwalk streets raised on stilts, the Bajau people's lives are intrinsically linked to the ocean. Greeting us when we arrive at the village jetty is Rohani, better known as Jago (pictured on page xx), meaning 'The Master', and a legend throughout Indonesia for his ability to dive deeper than 120 feet on just one breath. Now almost 90 years old, Jago is the star of the documentary *Jago: A Life Underwater*, which explores the freediver's deep connection to the ocean, and how the Bajau's traditional way of life is under threat, as climate change and commercial overfishing increasingly impacts the coastal

PHOTOS: (TOP) DION LUAS. (BOTTOM) SEATREK CRUISE IMAGES





WALLACE'S WONDERS

Wallace collected some 5,000 newly discovered species during his exploration of the Malay archipelago. Here are three of his finds

Wallace's standardwing bird of paradise

Wallace was the first European to see this incredible bird (pictured on page xx, top left) in 1858, after discovering it in North Maluku, where it lives on the islands of Bacan and Halmahera. The male birds are brown with emerald-green chests, a violet and lilac crown and four long, white plumes, which resemble standards or flags.

Wallace's golden birdwing butterfly

Found on just a few islands in the Moluccas, it was first discovered by Wallace on Bacan Island in 1859. The males have a wingspan of up to 150mm and are black and metallic orange, while the females are brown and white, with a wingspan of up to 190mm.

Wallace's giant bee

The largest bee species in the world was also collected by Wallace in 1859 on Bacan Island. Females are larger than the males, growing up to 39mm in length, with a wingspan of 63mm. They use their large jaws to collect wood fibre and tree resin, which they used to line their nesting burrows within termite nests in the forest canopy.

communities that depend on the sea. While Indonesia's coral reefs remain healthier than most, the local people here are painfully aware of what's changed. 'Once there were plenty of fish and few people. Now there are many people and not many fish,' says Jago. 'We must travel further and hunt in places we've never been before.' After photos and handshakes, The Master bids us goodbye, picks up his speargun, folds his wiry legs into his wooden canoe and paddles for home, as the sun begins to sink into the Tomini Sea. I wonder how long this unique, distant community can keep beating against the tide and how much they, the creatures that share their world – and all of us – will need to adapt to survive as we sail into an uncertain future.

Words: Lauren Jarvis

Lauren is a travel writer with a special interest in wildlife, wellness and conservation. Follow her on Instagram @laurenjarvistravels

SeaTrek Sailing Adventures offers small-ship snorkelling trips throughout the Indonesian archipelago. Visit SeaTrekBali.com for information. Audley Travel creates tailor-made trips, including all flights, 13 nights aboard SeaTrek's 'A SeaTrek with Rare Species, Remote Cultures & Remarkable Corals' cruise and pre- and post-cruise accommodation. For more, go to audleytravel.com/indonesia

Learn more about the discoveries and legacy of Alfred Russel Wallace at wallacefund.myspecies.info and wallaceletters.myspecies.info



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