

# Earth's health depends on more than cute animals



CHEW WEI SHAN checks out the less attractive animals that play a big part in keeping our ecosystems healthy.

When **conservationists** talk about saving endangered species, they usually talk about large, cute animals like pandas, tigers, polar bears, and dolphins. People naturally feel a connection towards creatures like these.

Conservationists have a term for such animals: charismatic megafauna. "Charismatic" means having a special appeal, like a celebrity. "Mega" means big, and "fauna" is the Latin word for animal life. Add them up and you get pandas and polar bears: big, attractive animals.

In comparison, small, unattractive animals like fish and insects often get ignored. This is a shame. Every species in nature is important, no matter what it looks like.

Even the disappearance of a tiny creature can have huge effects on the environment.

## A different kind of beauty contest

When we come across campaigns for animal conservation, we are used to seeing pictures of recognisable animals like tigers and elephants. But, this approach **neglects** many other species that deserve our help.

Ever heard of the spectacled bear, the secretary bird, or the Gila monster? Scientists say that these lesser-known animals are key to raising money for protecting ecosystems that are in danger. So, conservationists are now looking for new "flagship species" — poster animals that will serve as the faces of fundraising campaigns.

Hugh Possingham, chief scientist at conservation **NGO** The Nature Conservancy, supports these efforts. "It's time for us to put some science behind the species we use to market and fundraise for conservation," Dr Possingham argues. He **asserts** that it is not enough to only use animals that are popular or seen as "cute" by the public. Researchers across the globe are now working together to identify priority places for conservation in the world, and select the best flagship species to fundraise for them.

Last year, scientists said that one million animal and plant species are now threatened with extinction. Because of this biodiversity crisis, it is crucial that conservationists have enough money to continue protecting wildlife.

"We can't afford to waste a single

conservation dollar," says Jennifer McGowan of Australia's Macquarie University. "We need to be strategic, effective and efficient with the conservation work that we do."

Dr McGowan believes that the right flagship species will help to "appeal to hearts and minds". She explains that during the recent wildfires in Australia, many images of injured koalas and other Australian animals were shared widely online. Because of this, donations poured in. "Millions of dollars were raised", Dr McGowan shared. "No-one can look at those pictures and not have their hearts break."

Science journal *Nature Communications* compiled a list of mammals, birds, and reptiles that could serve as the new "poster animals" of conservation — creatures that deserve to be in advertisements, just like pandas and tigers. Some of these animals include:

- the Gila monster, which lives in the deserts of Mexico and the US.
- the spectacled bear from the Andean mountain forests
- the secretary bird of the East African savannahs
- the rhinoceros hornbill of South East Asia
- the gnu goat from the eastern Himalayas.

Read about these animals on these two pages. Which of them will win your heart?

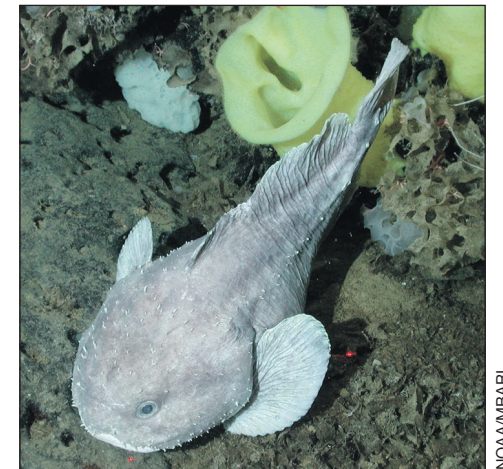
## Ugly but important: why scientists love the blobfish

Our ecosystems do not just depend on charismatic megafauna. Less impressive and even ugly or scary creatures, such as bees and axolotls, also need to survive in order to keep our planet healthy. Each time an animal goes extinct, an imbalance is created in the food chain.

To draw people's attention to endangered species that are not so cute, British scientist Simon Watt started a fake group called the Ugly Animal Preservation Society. Their official mascot is the blobfish.

The blobfish → lives deep in the oceans around Australia. It is called a blobfish because it becomes a blob — a blob that looks like a melted human face — if taken out of water.

Sadly, the blobfish is endangered. They are often caught by fishermen in trawling nets. These creatures live somewhere between 600 and 1,200 metres beneath the waves. Down there, the pressure is up to



NOAAMBARI

120 times higher than it is at the surface. Humans would not survive that environment without being in a submarine.

Blobfish help the environment in many ways. By feeding on harmful bacteria, plant matter, crustaceans, and molluscs, they help to maintain the populations of other species and keep the ocean floor clean.

## THE BEE

We may not realise it, but bees → are far more important than we think. Bees help the world to produce 70% of the fruits, vegetables, seeds, and nuts that we eat every day.

"If we lose bees, then we may lose all of the plants they pollinate, all of the animals that eat those plants, and ultimately it will ripple up the food chain to us. A world without bees just couldn't sustain over 7 billion people," explains BBC Earth presenter Maddie Moate.

Worryingly, many bee colonies have lost their homes due to



ORANGEAUROCHS

urbanisation and climate change. Much needs to be done to save them from extinction.

## VOCAB BUILDER

**conservationists** (say "kon-ser-vay-she-nists"; noun) = people who promote and work for the protection of wildlife and the environment.

**neglects** (say "nig-lekts"; verb) = disregards; does not give proper attention to something.

**NGO** (say "en-jee-o"; acronym) = short form for "non-governmental organisation". NGOs are not run for profit and, instead, typically deals with social or environmental issues.

**asserts** (say "e-serts"; verb) = forcefully states a belief.

## THE SPECTACLED BEAR



TAMBAKO THE JAGUAR

The spectacled bear **↑**, also known as the Andean bear, is found in the Andean mountain forests of South America. The adorable bear earned its name because of the rings of white fur around its eyes, which sometimes look like a pair of spectacles.

Spectacled bears are omnivorous, but most of their diet consists of fruit. Because of this, they play a very important role in the forest. As the bears move around, the seeds that they

eat are excreted in their droppings. This helps to spread the seeds over long distances, allowing new generations of fruit trees to grow throughout the forest.

Worryingly, wild Andean bears are at risk of extinction. These gentle creatures are often poached or illegally hunted for their meat, fat, and body parts. Human activity, deforestation, and climate change also continue to rob these bears of their habitats.

## THE SECRETARY BIRD



STEVE GARFIE

The secretary bird **↑** is a large bird of prey. These African birds are found in the south of the Sahara desert. Europeans first spotted these birds in the 1880s. Back then, male secretaries wore grey tailcoats and knee-length pants. They often carried quill pens made from goose feathers, tucked behind their ears. This is how the

secretary bird earned its name — it has long quills that stick out at the back of its head, grey feathers that look like a tailcoat, and black feathers that go midway down its legs like short pants!

While there are still many secretary birds in existence, habitat loss and deforestation are starting to threaten its future.

## THE AXOLOTL



VASSIL

In our March 2020 issue, we wrote that conservationists are working desperately to save a strange salamander called the axolotl (say “aks-oh-loh-tuhl”) **↑**. The species has been declared critically endangered.

The axolotl is named after an Aztec god, and was even the inspiration behind the Pokemon, Mudkip. Like Wolverine from the X-men, the amphibian can heal itself and regrow lost limbs. The people of Mexico City recently chose it as their official emoji.

The axolotl is one of the most important animals to scientists. By studying how they regenerate lost or damaged body parts, scientists can unlock many secrets of evolution and human medicine.

## THE GILA MONSTER



ANDREW DUBOIS

The Gila (pronounced hee-la) monster **↑** has a bad reputation. Many think it is a deadly reptile that can kill people with gusts of its poisonous breath. The truth is that, while the Gila monster is indeed venomous, its poison rarely causes death. Plus, they tend to avoid humans and other large animals.

Miraculously, in fact, humans have been using the lizard’s venom to save lives. In the 1970s, scientists discovered that the substance can be harnessed into a treatment for type 2 diabetes.

Gila monsters live in the deserts of Mexico and America. They are good climbers and are often found high up in tall cactus trees foraging for bird eggs. Unfortunately, many Gila monsters have lost their homes due to the building of farms, canals, roads, and highways. They are also illegally poached for pets, or killed by domestic cats and dogs.

## SCRIBBLES

Visit [share.whatsapp.com](http://share.whatsapp.com) to write to us!

“We will be able to do the things we are afraid of doing, if we are willing to give it a try.” — Tan Yi Wei Elisabeth, Sec 1, Zhong Hua Secondary

“Let’s appreciate what the nurses, doctors, and cleaners have done for all of us.” — Jerome Lin Hongyu, Pri 6, Sembawang Primary



“People are littering into the oceans and not even realising what harm it can do to our environment.” — Elaine Serrano, Pri 5, Northoaks Primary

“I am amazed that hornbills, which are such magnificent creatures, live in our neighbourhood.” — Lavanya Shankar, Pri 5, Changkat Primary



“We must not be a bystander but an upstander when we witness bullying.” — Avinesh Kishan, Pri 6, Edgefield Primary

“I hope the Australian forest fires will make everyone more aware and motivated to do their part in stopping climate change.” — Gadipati Sree Mahaa, Pri 6, Elias Park Primary