381 new species discovered in the Amazon

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Credit: Zig Koch / WWF

A new WWF and Mamirauá Institute for Sustainable Development report, released on 30 August, reveals that a new animal or plant species is discovered in the Amazon every 2 days, the fastest rate to be observed this century. The findings come as huge parts of the forest are increasingly under threat, sparking further concern over the irreversible -

and potentially catastrophic - consequences unsustainable policy and decision-making could have.

New Species of Vertebrates and Plants in the Amazon 2014-2015, details 381 new species that were discovered over 24 months, including 216 plants, 93 fish, 32 amphibians, 20 mammals (2 of which are fossils), 19 reptiles and 1 bird.

The latest 2014-2015 survey indicates the highest rate of discovery yet, with a species identified every 1.9 days. The average number of new species found in the Amazon in WWF's 1999-2009 report was 111 a year, or one new species every three days, while the 2010-2013 report revealed that at least 441 were discovered, which works out at a rate of one new species every 3.3 days.

A great enigma

Ricardo Mello, coordinator of WWF-Brazil Amazon Programme, says that life within this biome is still a great enigma: "We're in 2017, verifying the existence of new species and even though resources are scarce, we are seeing an immense variety and richness of biodiversity. This is a signal that we still have much to learn about the Amazon".

Mello also states that the new findings should compel decision-makers, both public and private, to think about the irreversible impacts caused by large-scale projects such as roads and hydroelectric dams in the Amazon.

"This biodiversity needs to be known and protected. Studies indicate that the greatest economic potential of a region such as the Amazon is the inclusion of biodiversity in the technological solutions of a new development model, including development of cures for diseases, relying on new species for food purposes, such as superfoods. "

Credit: Zig Koch / WWF

The report comes the week after Brazil's government passed a decree allowing mining in the National Reserve of Copper and Associates (Renca), a huge protected area the size of Switzerland which encompasses nine protected areas. Opening protected areas of the forest up for deforestation and mining, could be disastrous for wildlife and local cultures and indigenous communities. While the decree has since been revised to clarify that mining will not be allowed in conservation or indigenous areas within the former reserve, following national and global outcry, challenges persist for the world's largest tropical forest.

Informing conservation strategies

For João Valsecchi do Amaral, technical and scientific director at the Mamirauá Institute for Sustainable Development, the new knowledge brought by this report will help to identify areas or species that are reeling under pressures, to monitor this biodiversity and establish new strategies of conservation.

"For the conservation of species, it is necessary to know what they are, how many there are and their distribution. These are key details to ensure that ecological and evolutionary processes are understood and maintained to ensure the species survival," he explained.

Protected areas

The creation of protected areas is among the strategies cited in the report to lessen the negative impact of the development that the Amazon is and will continue to be subject to.

The description of new species and the dissemination of scientific results can help raise public awareness and understanding on the importance of the Amazon and the need for greater and more comprehensive knowledge of its biodiversity. They can also form the basis for strategies related to the establishment of protected areas and public conservation policies.

Freshwater fish, Amazon River. Credit: Michel Roggo / WWF

Due to its vast size, variety of species and diversity of habitats, the gaps in scientific knowledge about the Amazon are still enormous. The majority of species recordings are based on observations and collections made along the main rivers, near big cities and in the few protected areas most frequently studied. As a result, new studies on the Amazon's biodiversity, particularly those conducted in the forest's most remote areas, continue to reveal large numbers of species that are as yet unknown to science – and humanity.

New species discovered

As well as recording the new species of vertebrates and plants discovered in the Amazon between January 2014 and December 2015, the report also includes an update on species identified in a previous 2010- 2013 report.

The report, which consolidates the findings from a number of different researchers, highlights some of the most fascinating finds, including:

- A new species of pink river dolphin (Inia Araguaiaensis) - Estimated to have a population of around 1,000 individuals, the species is under threat from the construction of hydroelectric dams, and industrial, agricultural and cattle ranching activities. Pink river dolphins are an important part of the local culture around the Amazon, with a number of myths and legends around them.
- Fire-tailed titi monkey (Plecturocebus miltoni) – This striking monkey from the southern Amazon owes its name to its long bright orange tail. The species is under threat from deforestation.
- A bird that pays tribute to the Brazilian rubber tapper (Zimmerius chicomendesi) – Discovered after its unknown call attracted attention, this bird's name - Chico's Tyrannulet - is a tribute to the rubber tapper and environmentalist Francisco Alves Mendes Filho. Better-known as Chico Mendes, he was a leader of the rubber tapping communities, and played a key role in opening the world's eyes to the problems faced by the Amazon.
- A bird named after former US President Barack Obama and found in a huge area between Brazil, Peru, and Ecuador (Nystalus obamai);
- Another bird named after the famous anthropologist and explorer Marechal Cândido Rondon, found in the South of Amazonas (Hypocnemis rondoni);
- A stingray which has "honeycombs" on its surface, registered in Rondônia, in the region of Alto Madeira (Potamotrygon limai);

- A bird found at the south of Amazonas, in the Sucunduri region, where WWF-Brazil maintains conservation projects (Tolmomyias sucunduri).

The Amazon contains nearly a third of the earth's remaining tropical rainforests and, despite covering only around 1 per cent of the planet's surface, it is estimated to be home to 10 per cent of the earth's known species. Globally, it is estimated that 80 per cent of species are yet to be identified.

The current rate of human-related extinction of species is between 1,000 and 10,000 times that of the natural rate of extinction. Knowing the total number of species in the region provides a baseline to monitor current and future biodiversity losses. The discovery of new species is important for environmental and natural resource management, and can guide the establishment of protected areas to safeguard wildlife and the communities that depend on these resources.

Provided by WWF

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