



## Amazing Discoveries in the Amazon: New Species Found Every 3 Days Over Last Decade

26 October 2010

**Between 1999 and 2009, more than 1,200 new species of plants and vertebrates were discovered in the Amazon biome – or one new species every 3 days – confirming the Amazon as one of the most diverse places on Earth, says a WWF report.**

“This report clearly shows the incredible diversity of life in the Amazon”, said Francisco Ruiz, Leader of WWF’s *Living Amazon Initiative*. It also serves as a reminder of how much we still have to learn about this unique region, and what we could lose if we don’t change the way we think about development, and promote conservation at a regional level that provides economic, social, and environmental benefits to people in the region and those within the Amazon’s far-reaching climatic influence, added Ruiz.

The new species outlined in “*Amazon Alive!: A Decade of Discoveries 1999-2009*” include 637 plants, 257 fish, 216 amphibians, 55 reptiles, 16 birds and 39 mammals.

### **Among some of the fabulous findings are:**

- The first new anaconda species identified since 1936. Described in 2002 from Bolivia’s north-eastern Amazon province, and then found also in the floodplains of Bolivia’s Pando province, the 4 meter long *Eunectes beniensis* was initially believed to be the result of hybridization between green and yellow anacondas, but was later determined to be a distinct species.
- One of the most extraordinary species, the *Ranitomeya amazonica*, a frog with an incredible burst of flames on its head, and contrasting water-patterned legs. The frog’s main habitat is near the Iquitos area in the region of Loreto, Peru, and is primary lowland moist forest. The frog has also been encountered in the Alpahuayo Mishana National Reserve in Peru.
- A member of the true parrot family, the *Pytilia aurantiocephala* has an extraordinary bald head, and displays an astonishing spectrum of colors. Known only from a few localities in the Lower Madeira and Upper Tapajos rivers in Brazil, the species has been listed as ‘near threatened’, due to its moderately small population, which is declining owing to habitat loss.
- The Amazon River dolphin or pink river dolphin was recorded by science in the 1830s, and given the scientific name of *Inia geoffrensis*. In 2006, scientific evidence showed that there is a separate species – *Inia boliviensis* – of the dolphin in Bolivia, although some scientists consider it a subspecies of *Inia geoffrensis*. In contrast to the Amazon River dolphins, their Bolivian relatives have more teeth, smaller heads, and smaller but wider and rounder bodies.
- A blind and tiny, bright red new species of catfish that lives mainly in subterranean waters. Found

in the state of Rondonia, Brazil, the fish *Phreatobius dracunculus* began to appear after a well was dug in the village of Rio Pardo, when they were accidentally trapped in buckets used to extract water. The species has since been found in another 12 of 20 wells in the region.

Although most of the Amazon region remains fairly undisturbed, the threats to it are rapidly increasing. During the last 50 years humankind has caused the destruction of at least 17% of the Amazon rainforest – this is an area greater than the size of Venezuela, or twice the size of Spain. One of the main causes of this transformation is the rapid expansion in regional and global markets for meat, soy and biofuels, increasing the demand for land. It is estimated that 80 percent of deforested areas in the Amazon are occupied by cattle pastures.

In addition, unsustainable development models, rapid regional economical growth, and increasing energy demands, are also impacting on the Amazon.

The Amazon's forests not only house the most outstanding diversity of life on Earth, but also store 90-140 billion tonnes of carbon. Releasing even a portion of this through further forest loss and land use change, would accelerate global warming significantly compromising life on Earth as we know it.

*“Urgent and immediate action is needed if we are to avoid this frightening scenario”*, said, Francisco Ruiz. The fate of the Amazon – and of its species whether known or yet to be discovered - depends on a significant shift in the current way development is embraced by all Amazon countries, added Ruiz.

Through its Living Amazon Initiative, WWF is working towards a comprehensive approach to work with governments, civil society, and the private sector to promote the transformational process needed to bring about an alternative scenario to better preserve the Amazon's biodiversity.

The goal is a shared vision of conservation and development that is environmentally, economically, and socially sustainable; natural ecosystems are valued appropriately for the environmental goods they provide; tenure and rights to land and resources are planned; agriculture and ranching are carried out following best management practices; and transportation and energy infrastructure development is well planned to minimize environmental impacts and impoverishment of cultural diversity.

Part of the solution for Amazon nations to safeguard the Amazon's species and habitats is being considered by governments meeting as part of the United Nations' Convention on Biological Diversity: a multi-country approach to create a complete and effectively managed system of protected areas in the Amazon region.

Many of the discoveries of new species have been made in the Amazon network of protected areas, said Yolanda Kakabadse, President of WWF-I. This year - the Year of Biodiversity – is an excellent opportunity for Heads of State to help protect even more the Amazon's diversity of life to ensure the survival of species that live there and the continued provision of environmental goods and services that we all benefit from, added Kakabadse.

#### **Amazon facts:**

The region comprises the largest rainforest and river system on Earth. It consists of over 600 different types of terrestrial and freshwater habitats, from swamps to grasslands to montane and lowland forests, and it houses an incredible 10% of the world's known species, including endemic and endangered flora and fauna.

The Amazon River is by far the world's largest river in terms of the volume of water it discharges into the sea. Just two hours of its flow could meet the freshwater needs of New York City's approximately 7.5 million residents for a whole year.

More than 30 million people living in the Amazon depend on its resources and services – many millions more living as far away as North America and Europe, still are within the Amazon's far-reaching climatic influence.



• *One of the most extraordinary species, the Ranitomeya amazonica, a frog with an incredible burst of flames on its head, and contrasting water-patterned legs. The frog's main habitat is near the Iquitos area in the region of Loreto, Peru, and is primary lowland moist forest. The frog has also been encountered in the Alpahuayo Mishana National Reserve in Peru.*



*A blind and tiny, bright red new species of catfish that lives mainly in subterranean waters. Found in the state of Rondonia, Brazil, the fish Phreatobius dracunculus began to appear after a well was dug in the village of Rio Pardo, when they were accidentally trapped in buckets used to extract water. The species has since been found in another 12 of 20 wells in the region.*



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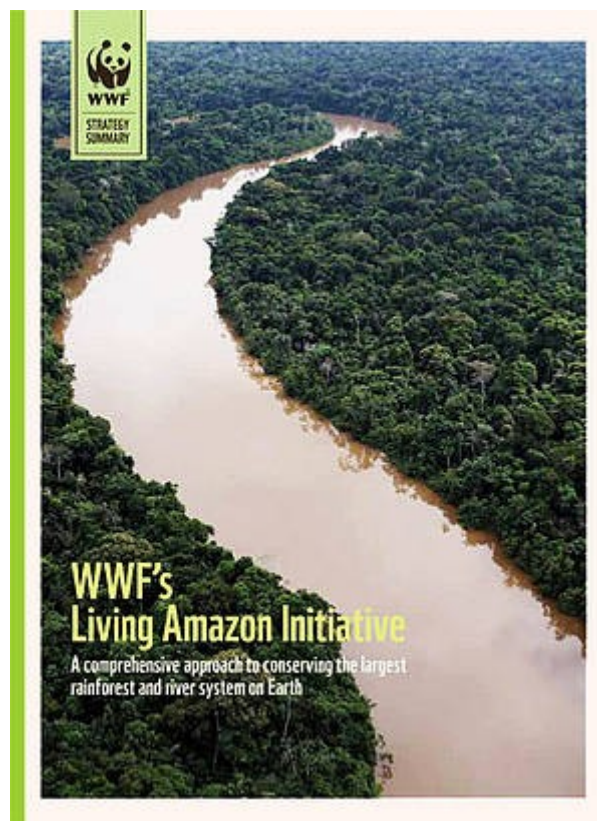
# WWF's Living Amazon Initiative: a comprehensive approach to conserving the largest rainforest and river system on Earth

26 October 2010

Today, we use 25 % more resources than our planet can provide sustainably.

This endangers thousands of species, ecosystems, and humanity itself. To address this critical problem, under its Global Program Framework, WWF has defined two global goals: the conservation of priority areas and species and the reduction of humanity's ecological footprint (our impact on nature), and organized its endeavors into global initiatives that strategically articulate these priorities.

Built upon 40 years of experience in the region, the Living Amazon Initiative is one of such global initiatives concentrating some of WWF's most promising and challenging efforts. This strategy summary is designed to share this innovative conservation approach with partners, authorities, and other stakeholders throughout the Amazon and beyond, and thus contribute to building a common conservation vision for the largest rainforest and river system on Earth.



*WWF's Living Amazon Initiative builds upon 40 + years of conservation experience in the region.*

# Living Amazon Initiative



## **The Living Amazon Initiative**

Given that the forces shaping the Amazon Biome extend far beyond a local context and know no political boundaries, we can no longer work on pieces of the puzzle in isolation from one another. Rather, we must address the biome as a whole in order to secure the viability of the entire system.

Therefore, although WWF's presence in the region has been key to many conservation results over the years, it is with the articulation of the Living Amazon Initiative in 2008 that WWF has been able to bring together 40 years of experience as part of a unified blueprint to address the challenges to the Amazon Biome as a whole.

The primary objective of developing the WWF Living Amazon Initiative is thus to redouble our efforts as an organization on a scale equivalent and relevant to the scope of the problem at hand.

## **An integrated conservation approach**

In order to achieve this vision WWF will maximize its impact by focusing on the most urgent biome-wide threats and most far-reaching opportunities that will afford the greatest leverage for Amazon-wide conservation results. Implementation is of course a joint effort between a variety of stakeholders and partners who not only share our vision and approach, but bring the knowledge, resources, and leadership needed to achieve great conservation and sustainable development results.

The WWF Living Amazon Initiative was developed with technical and programmatic input from many of the stakeholders and partners upon which successful implementation of the strategy will depend.

As a conservation organization, WWF's focus on conservation targets does not diminish the importance of the wellbeing of humankind or our commitment to supporting socio-economic development that is equitable and sustainable. Rather, it puts us in the constructive position of being able to address socio-economic considerations posed by those who do not deal with environmental issues on a daily basis.

In addition, it allows WWF to provide concrete guidance to those who want to promote responsible development that builds upon –rather than destroys– the Amazon's attributes and functions for the good of all.

*Our vision is:*

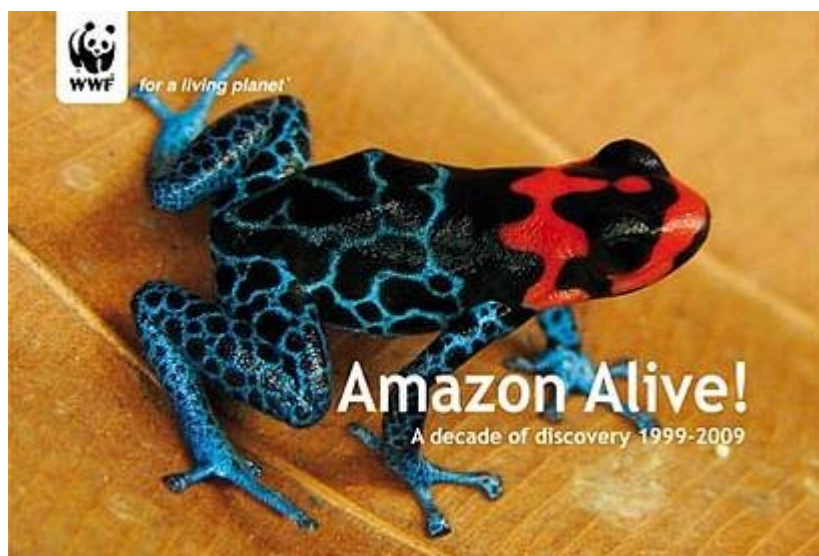
*An ecologically healthy Amazon Biome that maintains its environmental and cultural contribution to local peoples, the countries of the region, and the world, within a framework of social equity, inclusive economic development and global responsibility.*

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## For a Living Amazon!

One in ten known species on Earth lives in the Amazon. Its forests contain 90-140 billion metric tons of carbon, the release of even a portion of which would accelerate global warming significantly. 30 million people living in the Amazon depend on its resources and services – not to mention many millions more living as far away as North America and Europe, but still within the Amazon's far-reaching climatic influence.

## Amazon Alive!



The Amazon is the largest rainforest on Earth. It's famed for its unrivalled biological diversity, with wildlife that includes jaguars, river dolphins, manatees, giant otters, capybaras, harpy eagles, anacondas and piranhas.

**Between 1999 and 2009, at least 1,200 new species of plants and vertebrates have been discovered in the Amazon biome.** The new species include 637 plants, 257 fish, 216 amphibians,

55 reptiles, 16 birds and 39 mammals. In addition, thousands....

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### **40 + years of conservation experience**

For more than 40 years, WWF has been at the forefront in protecting the Amazon. Building on this experience, WWF is working with governments, local communities and others to ensure conservation and sustainable development throughout the world's largest rainforest and river system.

## **Can the Amazon survive?**

**The good news** is that over 80% of the Amazon's original forest is largely intact.

**The bad news** is that our generation could witness the extinction of the Amazon.

Rapidly expanding global markets for meat, soy and biofuels and the imminent realization of large-scale transportation and energy infrastructure projects coupled with poor planning, weak governance and lack of an integrated vision of sustainable development for the Amazon are contributing to accelerated rates of deforestation and increased pressure on the natural resources and environmental services upon which millions of people depend, including yourself.

Increased temperatures and decreased precipitation caused by global warming will exacerbate these trends and could lead to a "tipping point" where the tropical moist forest ecosystem collapses and is replaced over large areas by a mixture of savannah and semi-arid ecosystems. The implications of this massive ecosystem shift for biodiversity, global climate and human livelihoods would be profound.

### **Living Amazon Initiative**



### **Increasing threats**

Learn more about the threats to the Amazon and what WWF is doing to tackle them, [here](#)



# Problems in the Amazon



*Approaching tropical storm Flooded forest Amazonas Brazil*

## Forests burn, soils dwindle and people suffer

Market forces, population pressure and infrastructure advances are continuing to pry open the [Amazon rainforest](#).

**As the pressures afflicting the region grow in intensity, it is becoming increasingly clear that the price to be paid is not only loss of biodiversity and habitat – but also of a decreasing life quality for people.**

Among the threats behind environmental destruction and degradation in the Amazon are the lack of policy frameworks to support sustainable development and natural resource protection, political instability, the inability of some institutional and governmental entities to establish and enforce legislation for nature conservation, and poverty and inequality.

### **The price of development at all costs**

Today, regional government programmes and initiatives are pushing for constant development, often encouraging blind clearance of forests for cattle ranching, oil drilling or [soybean production](#). Such efforts seek to secure much-needed foreign exchange and generally develop economies.

As the countries of the Amazon become increasingly integrated into the global economy and there is increased demand for ever-limited natural resources, efforts to protect the region continue to be threatened by unsustainable economic demands.

### **Trade, the fuel of deforestation**

Development activities in the Amazon are responding in part to the insatiable international demand for raw goods. For example, Brazil's beef exports are closely linked to financial markets and the strength of the Real, the Brazilian currency.

When the real devaluated, the price of beef in real approximately doubled, creating a huge incentive for ranchers to expand their pasture area.

At the same time, the price of Brazilian beef in dollars fell, which made Brazil's exports more competitive on international markets.<sup>1</sup>

Conversely, when the real strengthens, exporters struggle to keep their slice of the market.

### **Trade requires infrastructure**

Responding to international demands in agricultural products requires infrastructure such as dams and roads. BR-163 and BR-319, two of the main roads to be laid down through the Brazilian

Amazon rainforest, are examples of this situation.

But global demand is not limited to cattle and soy. To satisfy its industrial needs, China is involved in mining projects in the eastern Amazon, ranging from aluminium and steel to nickel and copper.<sup>2</sup>

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<sup>1</sup>Kaimowitz et al. 2004. [Hamburger Connection Fuels Amazon Destruction: Cattle ranching and deforestation in Brazil's Amazon](#). Centre for International Forestry Research (CIFOR). 10 pp.

<sup>2</sup>The New York Times. Sunday, November 20, 2005. [China's global push for resources makes waves in Amazon basin](#).

[Next \[Why is the Amazon still under threat?\] >>](#)

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## Glossary

### **Amazon rainforest biome**

Area of the Amazon River Basin (definition below) that is dominated by the rainforest. Biomes are defined by communities of plant and animal species which have adapted to particular physical conditions (e.g. climate and soil), within a major ecological area.

Other biomes include tundra, taiga (boreal forest); desert; and tropical rainforest, savannah (grasslands).

### **Amazon River Basin**

Area drained by the Amazon River and its tributaries.

### **Amazon (Legal)**

Administrative area defined by economic purposes, to promote the economic development of the region.

The designation of the Legal Amazon is one of the first measures taken by the Brazilian Government to promote the economic development of the region. Originally established in 1953, the area covers 5,200,000 km<sup>2</sup>, comprising around 61% of the Brazilian territory. It was modified by the military regime in 1966 in order to stimulate the development of the states located in the northern part of the country.

The plan was that the development of the region would be achieved through the establishment of private companies – initially cattle and agriculture, and mining companies afterwards – attracted by the fiscal advantages offered by the government.

At the time, the military development plan also included the construction of roads such as the Trans-Amazon and Perimetral Norte – to export the production and promote the installation of settlements along roads. Cities such as Altamira and Anapu, where the activist Sister Dorothy Stang was murdered in February 2005, were established in the early 1970s.

The critical social and environmental problems the region faces today are a consequence of these policies.

**Note:** *Compared to the Amazon biome, the Legal Amazon also encompasses savannas and ecotones*

*(transitional areas between ecosystems, e.g. rainforest and savanna).*

## **Cerrado**

The Cerrado is South America's largest savanna region. This vast area, almost 200,000 km<sup>2</sup> in size, constitutes one of the largest savanna-forest complexes in the world. An enormous diversity of plants and animals are found there, but these are increasingly threatened - especially by expanding soy plantations. [Learn more about the Cerrado](#)

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## What WWF is doing: an integrated approach

Urgent and immediate action is needed if we are to ensure the Amazon's conservation. Over the next years WWF will develop far reaching and powerful partnerships with governments, civil society, and the private sector to promote the transformational processes needed to bring about an optimistic and sustainable scenario for the Amazon, in which:

- Governments, local peoples, and civil society in the region share an [integrated vision of conservation and development](#) that is environmentally, economically, and socially sustainable;
- Natural ecosystems are [valued appropriately](#) for the environmental goods and services they provide and the livelihoods they sustain;
- Tenure and [rights to land and resources are planned](#), defined and enforced to help achieve this conservation and development vision;
- Agriculture and ranching are carried out following [best management practices](#) on lands that are appropriate and legal; and
- Transportation and energy [infrastructure development](#) is planned, designed and implemented to minimize impact on natural ecosystems, hydrological disruption and impoverishment of biological and cultural diversity.

### Living Amazon Initiative

Given that the forces shaping the Amazon Biome extend far beyond a local context and know no political boundaries, we can no longer work on pieces of the puzzle in isolation from one another. Rather, we must address the biome as a whole in order to secure the viability of the entire system.

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