# Biodiversity 101 Your complete beginner guide

LEARN MORE

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#### What you get

- 1. Definition
- 2. Types
- 3. Why Important
- 4. Current state
- 5. Cause of decline
- 6. Useful resources
- 7. What you can do

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#### Definition

Biodiversity refers to the variety of living things, both big & small, that exist on Earth.

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# 3 Types of Biodiversity

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#### Species Diversity

This refers to the variety of different species that exist on Earth.

It includes all the different types of plants, animals, fungi, and microorganisms.

#### 2. Genetic Diversity

This type of biodiversity focuses on the variety of genes within a particular species.

Genes determine the traits and characteristics of living organisms.

### Ecosystem Diversity

3.

Ecosystems are made up of living organisms & their physical surroundings, such as forests, coral reefs, grasslands & lakes.

Ecosystem diversity refers to the variety of different ecosystems in a given area or on the planet as a whole.

# Why is Biodiversity important?

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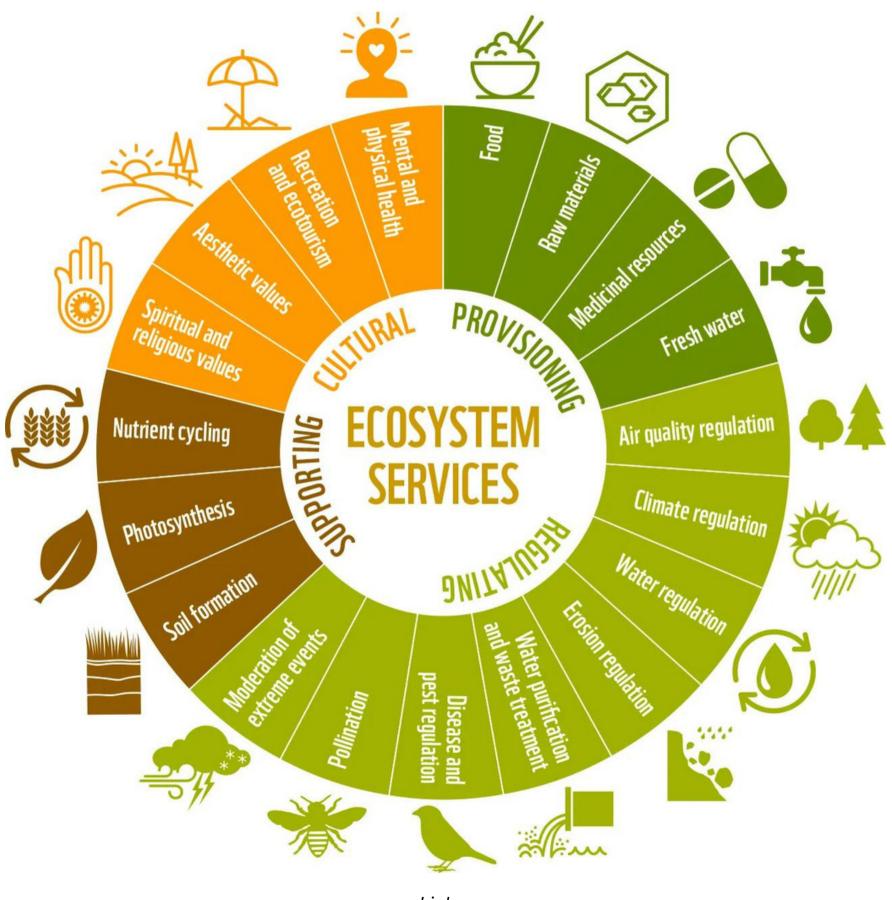
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#### GDP

Or over half the world's total GDP – is moderately or highly dependent on nature and its services.

Construction (\$4 trillion), agriculture (\$2.5 trillion) & food (\$1.4 trillion) are the 3 largest industries that depend most on nature.

#### But there is more:



# What's the current state of Biodiversity?

# Sh#t

And that is a nice way of saying it.

# Species Extinction Rates

It is estimated that the current rate of species extinction is between 1,000 & 10,000 times higher than the natural extinction rate before human influence.

### Decline in Populations

According to a report by the WWF, global populations of mammals, birds, fish, reptiles, & amphibians have declined by an average of 68% between 1970 & 2016.

#### Loss of habitat

Habitat destruction is a major driver of biodiversity loss.

It is estimated that around 80% of Earth's land surface has been significantly impacted by human activities.

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1 million species (or approximately 1 in 8 known species) are at risk of extinction if current trends continue.

# What is causing this?

#### Changing use of land & sea

The biggest driver of biodiversity loss is the way in which people use the land & sea.

How we grow food, harvest materials such as wood or minerals from the ocean floor, & build our cities.

# Direct Exploitation or organisms

Overfishing is happening at such a large scale, nearly a third of all monitored global fish stocks are now overfished.

#### Climate Change

Some species are dying out while others are having to move where they live due to changes in air temperature, weather patterns, & sea levels.

#### Pollution

Pollution has reached all types of ecosystems, even those in remote areas.

Pollution comes in many forms - from nitrogen & ammonia, caused by intense agriculture, to microplastics found in the deepest parts of the ocean.

#### Invasive nonnative species

Are those that arrive in places where they historically didn't live, & out-compete local biodiversity for resources such as sunlight and water.

This causes the native species to die out.

# What you can do

"Only if we understand, can we care. Only if we care, we will help. Only if we help, we shall be saved." -Jane Goodall

# Awareness & Education



# 3 Concepts you need to know

#### 1.Shifting Baseline Syndrome

When people think that degraded & damaged environments are normal because they haven't experienced or don't remember what a healthy & diverse environment should be like.

#### 2. Web of Life

The web of life is like a giant puzzle where every living thing, from plants to animals, is a piece that fits together.

Each piece depends on the others to survive and thrive. If one piece is missing or gets damaged, it affects the whole puzzle. (Spoiler we f#cked up this puzzle)

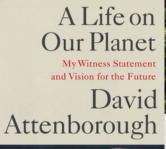
#### 3. Rewilding

Giving nature more freedom to be wild & taking a step back from controlling it too much. It involves bringing back plants & animals that used to live in an area & letting them take care of themselves.

By doing this, we can help nature become healthier & more balanced.

#### 3 books to read

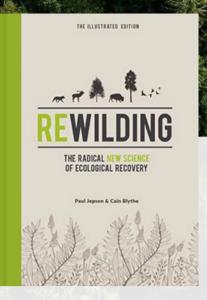
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# 1.A Life on our planet by David Attenborough

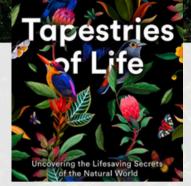
Great sum up why protecting nature is not a nice to have, but desperately needed.



# 2. Rewilding by Paul Jepson & Cain Blythe

Rewilding is one of the best approaches to solving multiple crises simultaneously.

ANNE SVERDRUP-THYGESON



3. Tapestries of Life by Anne Sverdrup Thygeson

Nature is incredible and this book easily shows you how much we benefit from it.

## 3 Goats!

#### l.David Attenborough

The voice behind every nature documentary you probably have watched.

Still going strong to protect wildlife around the world.

## 2. Jane Goodall

Most famous for her work with chimpanzees and founder of the Roots & Shoots program that empowers young people around the world



## 3. Sylvia Earle

Ocean legend that committed her entire life to protect life under the surface. Founder of Mission Blue.

## 3 people to follow



#### **1.Belinda Bramley**

Environmentalist. Ocean solutions consultant. Your source for ocean-related news & actions.

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## 2. Cain Blythe

CEO / Founder at CreditNature & Ecosulis. Rewilding Expert.

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## 3. Ralph Chami

Co-Founder Blue Green Future, LLC and Rebalance Earth.

Specialist that shows the economical benefit of thriving nature.

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# 3 historical figures



## 1.Alexander von Humboldt

German naturalist & explorer, made significant contributions to our understanding of the natural world.

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#### 2. Charles Darwin

English naturalist, is best known for his groundbreaking work on the theory of evolution through natural selection.

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#### 3. Carl Linnaeus

Swedish botanist, physician, & zoologist, is widely regarded as the father of modern taxonomy. His work laid the foundation for the hierarchical classification system.

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## 3 institutions

## **1.IPBES**

Intergovernmental Science-Policy Platform on Biodiversity & Ecosystem Services. Established by the UN in 2012.

Mission is to provide policymakers with objective scientific assessments and expert advice on biodiversity.

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## 2. IUCN

International Union for Conservation of Nature. IUCN is a global organization dedicated to conserving nature and promoting sustainable development.

It is the world's largest and most diverse environmental network.

## 3. CDB

Convention on biological diversity. Developed Kunming-Montreal Global Biodiversity Framework (GBF), which supports the achievement of the Sustainable Development Goals & sets out an ambitious pathway to reach the global vision of a world living in harmony with nature by 2050.

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## 3 movies to watch

### 1.Our Planet

Great sum up of everything you need to know for the start of your biodiversity journey.



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### 2. Virunga

A great documentary to see what protection of the last wild areas of this planet truly mean.



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#### 3. Blue Planet

Showing what is going on below the surface. A life away from our shores.



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## 3 podcasts to listen to

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## 1.The Rewild Podcast

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Great to dive into the topic of rewilding and travel the different projects within Europe. Hosted by James.



## 2. Lifeworlds

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# Great to shift your perspective about nature.



# 3. Internet of Nature

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Exploring the intersection of technology and nature.



## 3 Interesting Companies

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#### **1.Ecosulis**

Recovering nature, by designing and delivering efficient & scalable nature-based solutions for people & planet.

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## 2. Internet of Elephants

Use real scientific data that is captured about individual animals in the wild, to tell wildlife stories through engaging digital experiences.



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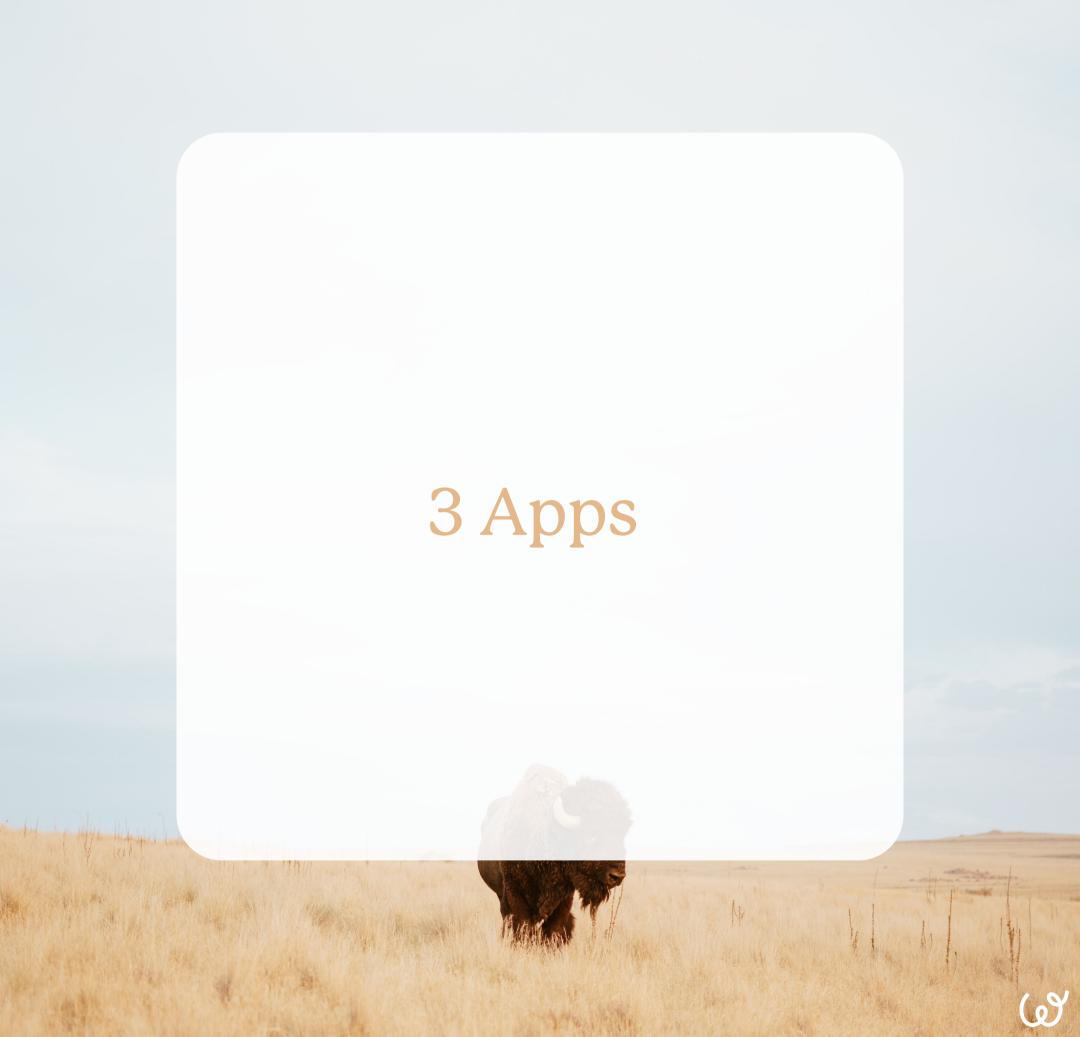
## 3. Wilderlands

Protect Australia's biodiversity. Forever. One square metre at a time.

WILDERLANDS

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#### 1.Merlin

Can't see the bird but hear it. Just record the sounds to learn more about your local friends.

# Merlin®

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#### 2. Wildya

Combining personal development & nature. 7min per day to grow your better & wilder self.

Gildya



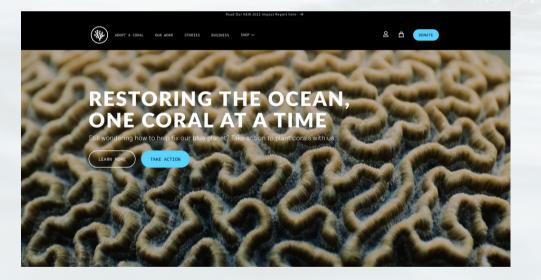
#### Just point your camera towards the animal or plant and learn more about it.



## 3 NGO to support

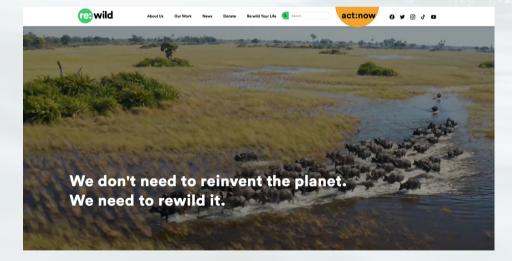
### **1.Coral Gardeners**

Helping corals in French Polynesia to recover.



#### 2. Re:wild

# Global Rewilding NGO pushing the concept far and wide.



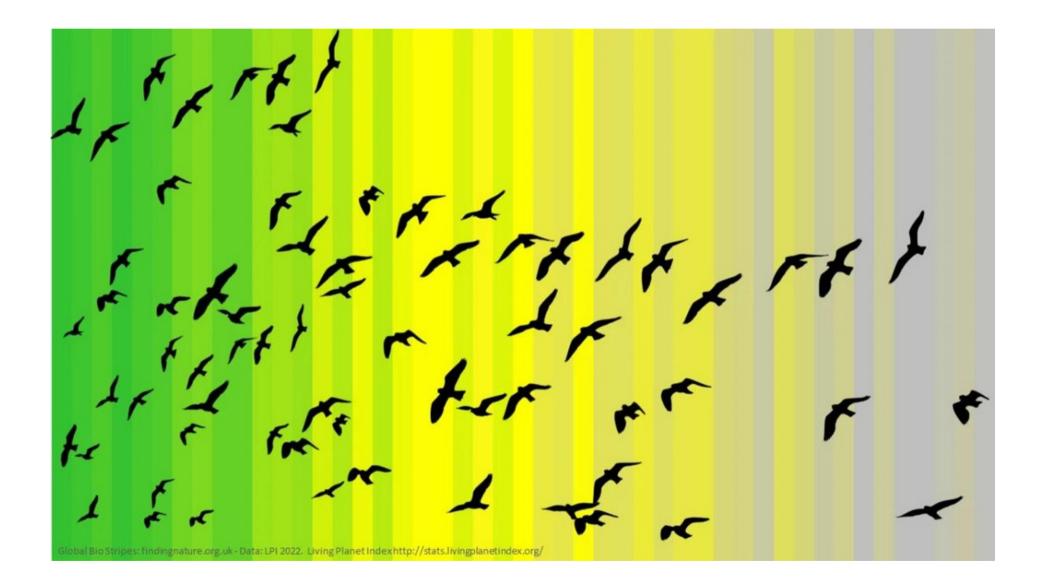
## 3. African Parks Network

Supporting countries in Africa to protect their natural heritage, while creating opportunities for local people

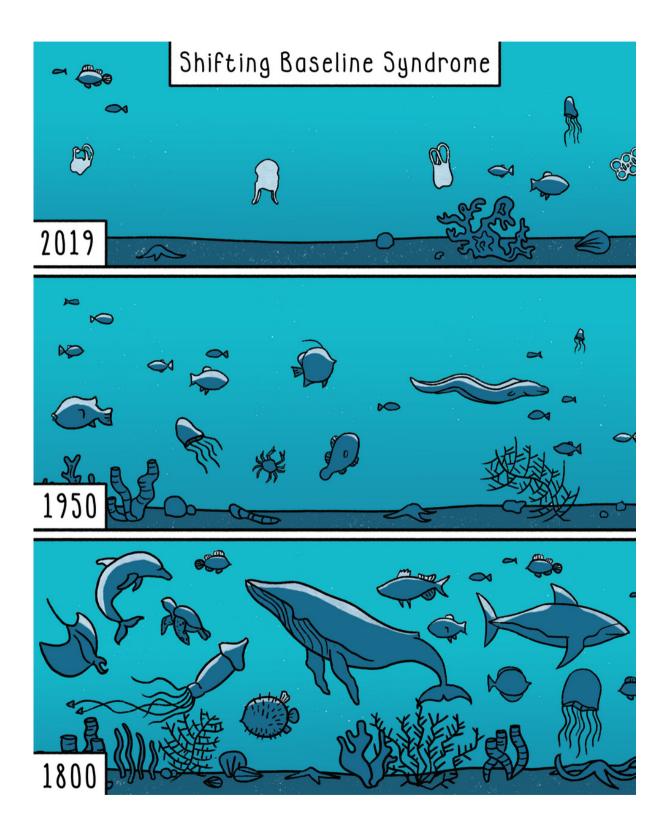


## 3 visuals to remember

## **Biodiversity Stripes**

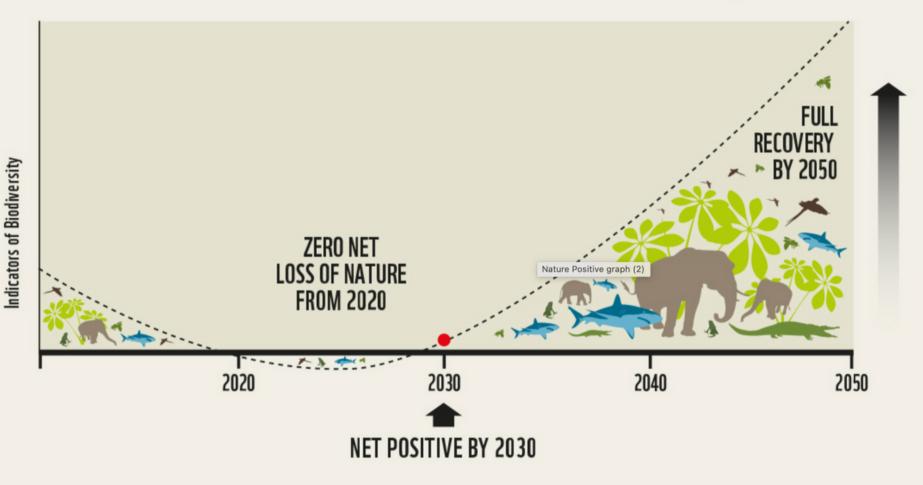


## Shifting Baseline Syndrome



### Nature Positive

#### **Global Goal for Nature: Nature Positive by 2030**



# ACTION

"What you do makes a difference, and you have to decide what kind of difference you want to make." -Jane Goodall

# 1.Change what you eat

Switch to vegetarian/vegan diet & buy organic produce.

Food production has caused 70% of biodiversity loss on land and 50% in fresh water.

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## 2. Demand change

Pressure on politics to by voting, petitions, strikes, keeping them accountable & co.

# 3. Legal Rights

Support legal rights for nature

#### 4. Donate

Donate money or time to nature causes (Environmental nonprofits receive less than 2% of charitable dollars)

#### 5. Career

Dedicate your career to this battle. We need the brightest and most passionate people to tackle this crisis.

<u>Sam's job portal</u> is a great starting point if you look for a job. The <u>Biodiversity Hero OS</u> is a great place if you want to start your own thing.

#### 6. Raise awareness

Spread awareness & help to inform others about the importance.

Download this PDF for example & send it to your colleagues.

# 7. Reduce

Reduce your consumption.

The less we need the less we use natural resources.

### 8. Time outdoors

Spend more time outdoors to learn about your local ecosystem.

By using the apps as discussed before.

## 9. Rewild

Rewild your balcony, streets, garden, land etc.

<u>Chris</u> has some great resources on where to start.

# 10. Support 30X30

To safeguard biodiversity and reduce the negative impact we created the global goal to protect 30% of land & sea until 2030.

E.O. Wilson & I would like to take it even to 50%

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#### Now, don't be overwhelmed.

Yes, there is a lot of sh#t going on, but good news is that we can still turn this around.

So share these insights with your friends, family members, colleagues & co.

Let's be brave and take bold actions for a wilder planet.

#### Your turn.



#### Still here?

My name is Oliver, Founder of <u>Wildya & Wild Business Mates</u>.

I attempt to transform ecoanxiety into action.

If you enjoyed this you can follow me <u>here</u>