

**God's European Climate
Keepers Outreach**

GECKO



Gibraltar Archdeaconry

ECO NEWS

March 2026

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Gecko



**We want to hear your
news, projects and
problems!
Please share.**

Please submit your articles to
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ECO CHURCH
AN A ROCHA UK PROJECT



Valentine cats

A message from Chris Wells Reader, St Vincent's Algarve

Welcome to the 2026 Lenten edition of Gecko.

As Jesus makes his journey to Jerusalem, he tells his disciples what will happen to complete his ministry and his mission on Earth.

For us, it's the beginning of a period of contemplation, when we take more time to focus on prayer, meditation and silence. It is a time to remember how much Jesus suffered so that we might be saved.

It's also a great opportunity to consider how we might do something for the World he is saving! *God created the World, the waters, and the living creatures in the waters and on the land.* (Genesis 1, 20-24)

This edition has information about how to take care of the land and the sea; about mammalian life on Earth and how we've changed it, and how to encourage a healthy future for the Earth.

We've had many great contributions for the newsletters since we started nine months ago - please keep them coming. However, we've had less stories about animals and how you are caring for them, than we expected! We'd love to hear some animal stories from you; with pictures!

In the meantime, in our first edition we shared a picture of our tiny, five-week-old rescue kittens. Well, now they are a year old, and how they have grown!!



CHANGE THE WORLD: DONATE A TREE

Chris and Tricia Wells, St Vincent's Chaplaincy, Algarve

Our Planet Earth is in a perilous position!

Burning fossil fuels has led to increasing Carbon Dioxide levels and Global Warming, threatening food and water sources, peace, health, life and biodiversity. This Christmas, join us in an initiative to constructively take back control, planting trees to help restore our Planet Earth and care for God's Amazing Creation.

Have you purchased a tree, gifted one to someone special, or received a tree as a gift? If so, you'll be waiting to hear about the exciting progress of our reforestation project! We're thrilled to announce that we've raised an incredible €2,500 and secured a generous grant of €1,200, allowing us to clear land and purchase 700 seedling trees. This is a monumental achievement, and we are profoundly grateful for your unwavering support and generosity.



Clearing the land

Initially, our progress was delayed by torrential rains in the Algarve, but the skies have cleared, and a little later than planned, the land is now ready. We're excited to announce that planting kicked off in the first week of March. So far, we've successfully planted 500 medronho trees and 200 cork oaks. We're hopeful for ample rainfall to nurture and establish their roots. The holm oaks are set to be planted in the autumn, once the summer heat subsides.



Seedlings for planting



Seedlings planted and protected



Pedro – happy planting!



Prayers for growth

Come November and December, we're planning to plant grevillea robusta (a stunning ornamental tree), sweet chestnut, and walnut trees. The latter two will be strategically planted near water and irrigated as an exciting experiment to assess their growth potential.

As we gear up for the second phase of planting this autumn, we will need your help to raise additional funds. We warmly invite you to spread the word by sharing our project with friends and family and encouraging them to donate. It's as easy as scanning the provided QR code! (See page 7.)

Some background information

Repeated fires and severe drought in the Algarve have destroyed trees and other useful vegetation (whilst allowing some less friendly invasive species like Gum Cistus (*Cistus gadanifer*), Acacia and Pampas Grass (*Cortaderia selloana*) to grow. The loss of vegetation not only reduces carbon dioxide absorption, but promotes flooding and loss of topsoil. There is a threat of further forest fires. Loss of natural habitat reduces natural habitat and further reduces opportunities for fauna.

The article in this issue on biodiversity and mammal biomass is terrifying to us. Not only have we humans squeezed out other species and promoted only those of use to us, but some unsavoury specimens actually hunt the few remaining species “for fun” rather than for food.

One of the objects of the project dear to our hearts is the restoration of natural habitat for many species, not just mammalian, but especially birdlife, and moths.



Genet

In the run-up to the planting, A Rocha carried out several projects to assess fauna on the land, including setting camera traps. We already have seen on these pictures:- genet, mongoose, water voles and rabbits. But we want more. Surveys will be repeated after successful reforestation.

We also have many wild boar, though we'd like a few less of those as they are somewhat destructive. We already have myriads of frogs toads and snakes.

Our project will lead on absorption of carbon dioxide throughout the Algarve, work towards lessening climate change, and will reset and encourage the water cycle. It will discourage forest fires, and protect soil and property. It will allow people to increase their enjoyment and leisure time in a healthy and fulfilling natural environment in which they can reflect on the beauty and mystery of nature and creation.



CHANGE THE WORLD – GIVE A TREE AS A GIFT

GLOBAL WARMING IS ALREADY HAPPENING, so we ask you to consider:

- ❖ Carbon dioxide (CO₂) levels are at a historical high.
- ❖ The heat trapping effect contributes to Global Warming.
- ❖ In Iberia, many trees have been lost to clearing, and even some recently to drought.
- ❖ Trees play a vital role in maintaining our planet's health

Our reforestation project in the Algarve, a joint initiative between St Vincent's Anglican Chaplaincy and A Rocha Portugal, is planting indigenous trees.

We are recording the changes made, including improved biodiversity and opportunities for increased bird life. What's more, it is possible to visit the project, either helping with it or just relaxing in appreciation of nature and God's wonderful Creation.

The recipient of a gifted tree will get an e-card with details, and both you and they will get a yearly update on the project.

Your gift of a tree will grow over time, absorb CO₂, provide a habitat for wildlife and contribute to the fight against climate change.

1 tree 5€

5 trees 20€

Coppice of 15 trees 50 €

*This Christmas, please consider eco giving
– a gift for our loved ones' futures*

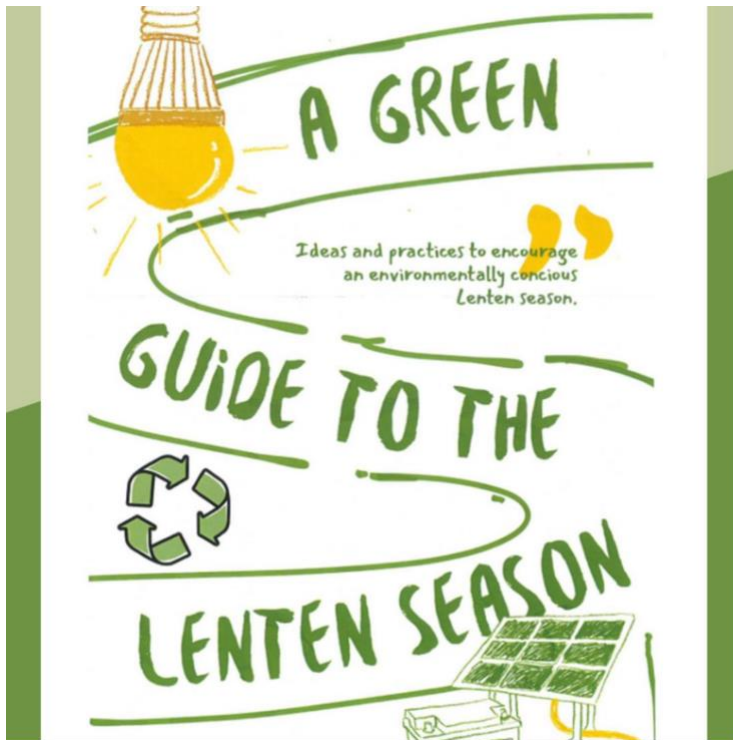


To purchase a tree(s) simply scan the QR code with your phone app and follow instructions for payment into St Vincent's Anglican Chaplaincy account. You will receive an email acknowledgement.

Email tricia.d.wells@gmail.com with name and email of recipient and they will receive an e-card.

A GREEN GUIDE TO THE LENTEN SEASON

Tricia Wells (Chaplaincy Warden and LEO, St Vincent's Chaplaincy, Algarve)



Conscious consumerism is the practice of making intentional, informed purchasing decisions that prioritise positive social, economic, and environmental impacts. It involves choosing sustainable products, supporting ethical brands with fair labour practices, and reducing waste to align consumption with personal values.

Key aspects of conscious consumerism include:

Sustainability & Ethics: Choosing products with minimal environmental footprint (e.g., eco-friendly, zero waste) and ensuring they are ethically sourced.

Research & Awareness: Investigating supply chains, company policies, and the impact of purchases, rather than just shopping by price.

Conscious Actions: Buying less, repairing items, buying second-hand, and supporting local businesses to reduce overall consumption.

Examples of Conscious Consumerism:

Fast Fashion Alternatives: Opting for sustainable clothing brands or thrifting, as explained by [Built In](#).

Eco-friendly Products: Buying organic, cruelty-free, or zero-waste, which can be explored in [this article from HASKELL](#).

Minimalism: Reducing waste by only purchasing necessary items.

CARBON FAST FOR LENT

Try the traditional Lenten challenge of eating meat-free meals. This is the origin of Carnivale (literally 'meat farewell) – the lead-up to the period of avoiding meat during Lent.

What do you do during Lent, the 40 days leading up to Easter? For Christians, Lent is the time to remember the 40 days that Jesus spent in the Wilderness, facing challenge and temptation. It is a time to reflect on God's purpose for our life.

In recent years, many Christians have adapted this noble tradition to become more mindful of – and reduce - their impacts on Creation.

Prayer, penance, repentance of sins, atonement, giving to others (almsgiving) and self-denial are ways that help Christians remember this time in Jesus' life and wait and prepare for the celebration of His resurrection at Easter.

Traditionally, Christians have practised fasting and abstinence from festivities during Lent, just as Jesus did in the Wilderness. These practices feature in many religions. For example, Muslims will fast during Ramadan. They will also practise self-restraint in body and mind. This fasting, from dawn until sunset, is one of the five pillars of Islam. It is a time to purify the soul, refocus attention on God, and practice self-sacrifice – just as numerous Christians do in Lent.

A lot of people use this period of fasting as a way to trial or begin a positive change to how they live some aspect of their lives.

CHALLENGE FOR LENT

Claire Simpson, LEO, St James' Porto, came up with the idea that members of the congregation in an effort to reduce their meat, particularly beef, consumption, come up with a bean-based recipe to be shared in their church. A perfect challenge for Lent! It's worth noting that per kilogram of usable food, beef has the highest environmental cost, while the humble bean has a tiny fraction of the impact.

Please let Tricia Wells, tricia.d.wells@gmail.com, have your ideas for bean-based recipes that we can share and include in the Low Carbon Cookery Book which is in preparation. To get your taste buds going try the recipe following recipe.

Carrot, Dill & White Bean Salad Recipe



If you can, buy young carrots at your local farmers' market - slice them in 1/4" slices for this salad. And if you don't have dill, use whatever favourite herbs you have - basil, cilantro, lemon verbena, chives, and marjoram all work great.

INGREDIENTS

- 1/4 cup extra-virgin olive oil
- 3 tablespoons fresh lemon juice
- 1/4 teaspoon fine grain salt
- 1/2 cup thinly sliced shallots
- more olive oil (or ghee) for cooking
- 2 cups sliced carrots, cut 1/4-inch thick on deep bias
- 3 cups cooked white beans
- scant 1/4 cup chopped fresh dill (or basil)
- 2 tablespoons brown sugar (or honey)
- 1/3 cup sliced almonds, toasted

INSTRUCTIONS

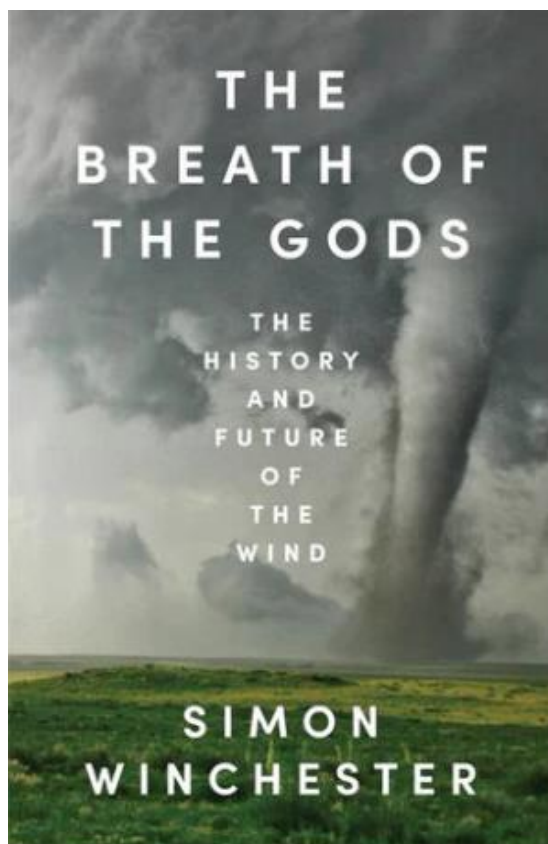
1. Combine the olive oil, lemon juice, salt and shallots in a small bowl. Stir and set aside.
2. In your largest frying pan over medium high heat, toss the carrots with a splash of olive oil. Let them cook in a single layer - they'll give off a bit of water at first. Keep cooking, tossing gently every three or four minutes until the carrots are deeply browned. All told, about twelve minutes.
3. Add the beans and dill to the pan and cook for another five minutes, or until the beans are well heated through. If you are using beans that weren't canned you can allow them to brown a bit as well (just cook a bit longer, and stir less frequently) - they can handle this in a way that most canned beans can't. If you need to add a bit more olive oil to the pan - do so.
4. Place the contents of the pan into a large mixing bowl, sprinkle with the brown sugar and pour the 3/4 of the lemon-olive oil mixture over the top. Toss gently. Let sit for ten minutes. Toss gently once again, taste and adjust with more salt or sugar or lemon juice if needed to balance the flavours.
5. Serve warm or at room temperature and finish by sprinkling with the almonds just before serving. If you have any herb flowers add them now too.
6. Let sit for ten minutes. Toss gently once again, taste and adjust with more salt or sugar or lemon juice if needed to balance the flavours.
7. Serve warm or at room temperature and finish by sprinkling with the almonds just before serving. If you have any herb flowers add them now too.



SUNDAY TIMES BOOK REVIEW

The Breath of the Gods

The History and Future of the Wind



£25.00

***Sunday Times* bestselling author Simon Winchester returns with a thought-provoking history of the wind, written in his edifying and entertaining style.**

What is going on with our atmosphere? The headlines are filled with news of devastating hurricanes, murderous tornadoes, and cataclysmic fires. Gale force advisories are issued on a regular basis by weather services around the world.

Atmospheric scientists are warning that winds – the force at the centre of all these dangerous natural events – are expected to steadily increase in the years ahead, strengthening in power, speed, and frequency. While this prediction worried the insurance industry, governmental leaders, scientists, and

conscientious citizens, one particular segment of society received it with unbridled enthusiasm. To the energy industry, rising wind strength and speeds as an unalloyed boon for humankind – a vital source of clean and ‘safe’ power.

Between these two poles – wind as a malevolent force, and wind as saviour of our planet – lies a world of fascination, history, literature, science, poetry, and engineering which Simon Winchester explores with the curiosity and Vigor that are the hallmarks of his bestselling works. In *The Breath of the Gods*, he explains how wind plays a part in our everyday lives, from airplane or car travel to the ‘natural disasters’ that are becoming more frequent and regular.

The Breath of the Gods is an urgently-needed portrait across time of that unseen force – unseen but not unfelt – that respects no national borders and no vessel or structure in its path. Wind, the movement of the air, is seen by so many as a heavenly creation and generally a thing of essential goodness. But when it flexes its invisible muscles, all should take care and be very afraid.

Simon Winchester (author)

Format: Hardback

THE OCEANS – A BUFFER AGAINST CLIMATE CHANGE

Chris Wells, Reader, St Vincent's, Algarve

We are all aware of Climate change (and boy, have we seen wetter winters this year, so expect a warmer summer). We associate this with extra CO₂ production from human land activity and reduced greenery. However, the oceans have a massive role to play in our climate, and our climate care needs to extend beyond the land to the seas.

71% of the Earth's surface is water, whether salty seas or freshwater lakes and rivers. Human free divers can amazingly get down to (a record by Alexey Molchanov) 300 meters, but that is truly just a drop in the ocean.

The Ocean's greatest depth is 10,000 meters in the Mariana Trench, that is 7 miles deep (compared with Everest, which is 8,849m high).



As much as 78% of all animal life (including plankton and algae) on planet earth is found beneath the ocean's surface. Fish are plentiful at 5000 meters (they have swim bladders to let them exist there). Mariana snailfish are found at the very bottom of the Trench.

Importantly, more than half the oxygen we breathe every day is produced by the ocean, from planktons (both plants and animals, known as Phytoplankton, Zooplankton) If we kill these off, we will literally asphyxiate. Oceans also absorb around 25-30% of the world's CO₂. Coastal systems like mangroves, coral, salt marshes and seagrass meadows absorb carbon dioxide up to 50 times faster than the same area of tropical rainforest. Again, these areas are vital to our survival. The oceans also capture and regulate (to an extent) excess heat

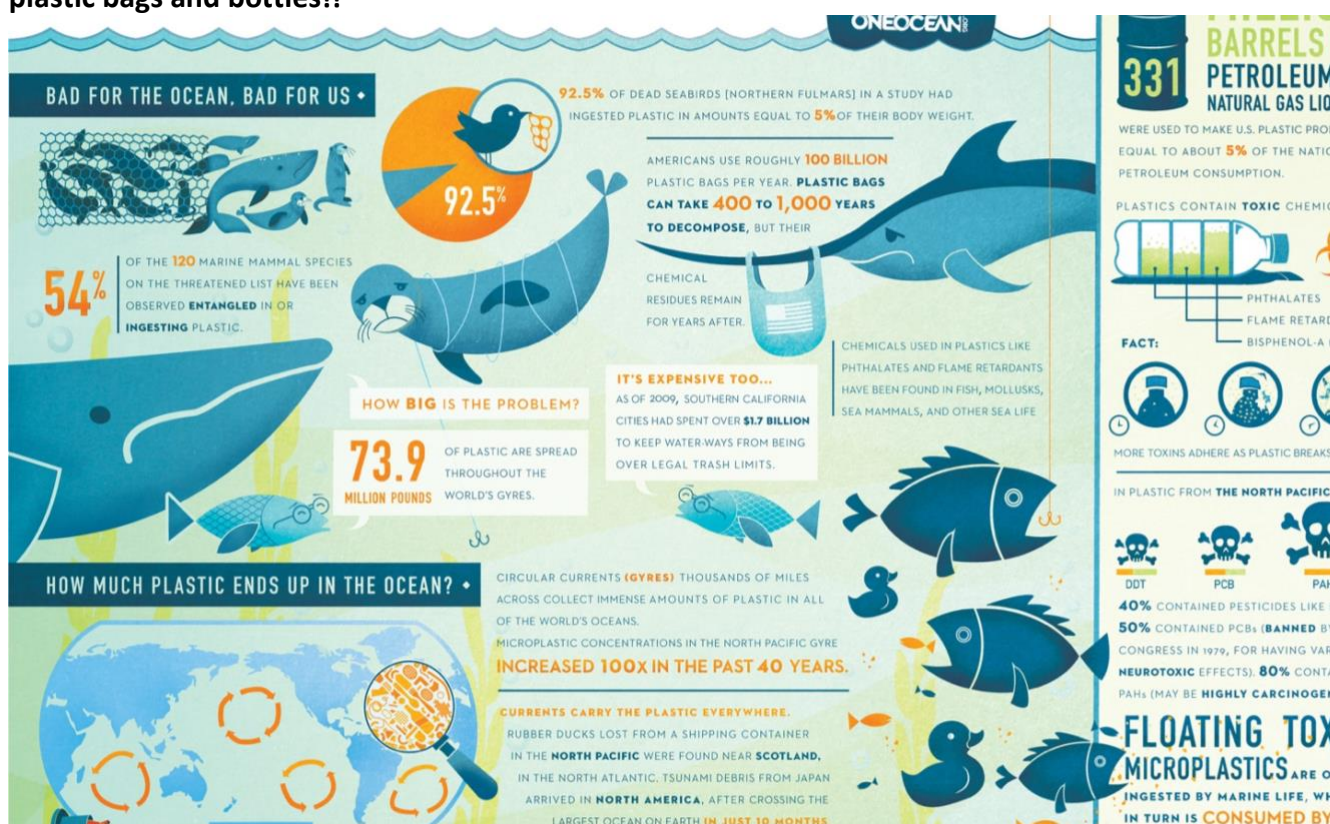
Not only are the seas warming, but we are polluting them! Even desalination can be bad, at a local level, and there have been understandable protests about potential desalination plants along the Algarve.

Plastic in the sea damages it and spoils it as an environment. Corals, fish and whales are all affected. Plants are poisoned. Sharks are endangered.

Plastics – are made from Petrocarbons, Oil, and Gas. Humans produce over **400 million metric tons** of plastic annually. We saw thousands of Hectares of plastic sheeting along the Costas as we drove back from Synod, tattered and flapping in the wind, covering all the profit concentrating agriculture in Southern Spain at the cost of the Mediterranean Sea’s future. We could literally see bits flying off and landing in the sea!

400 million tons is roughly the weight of all the humans on the planet — and production is rising. What is more, it breaks down slowly, present types taking 20 to 500 years to decompose.

We're surrounded by plastic. It's in the single use packaging we discard, the consumer goods that fill our stores, and in our clothing, which sheds microplastic fibers in the wash. **Avoidable (by us) is plastic bags and bottles!!**



Every year, billions of pounds of more plastic end up in the world's oceans. Studies estimate there are now some **50 trillion pieces of plastic** in the world's oceans.

Plastic accumulating in our oceans and on our beaches has become a global crisis. Billions of pounds of plastic can be found in swirling convergences that make up about 40 percent of the world's ocean surfaces. **At current rates plastic is expected to outweigh all the fish in the sea by 2050.**

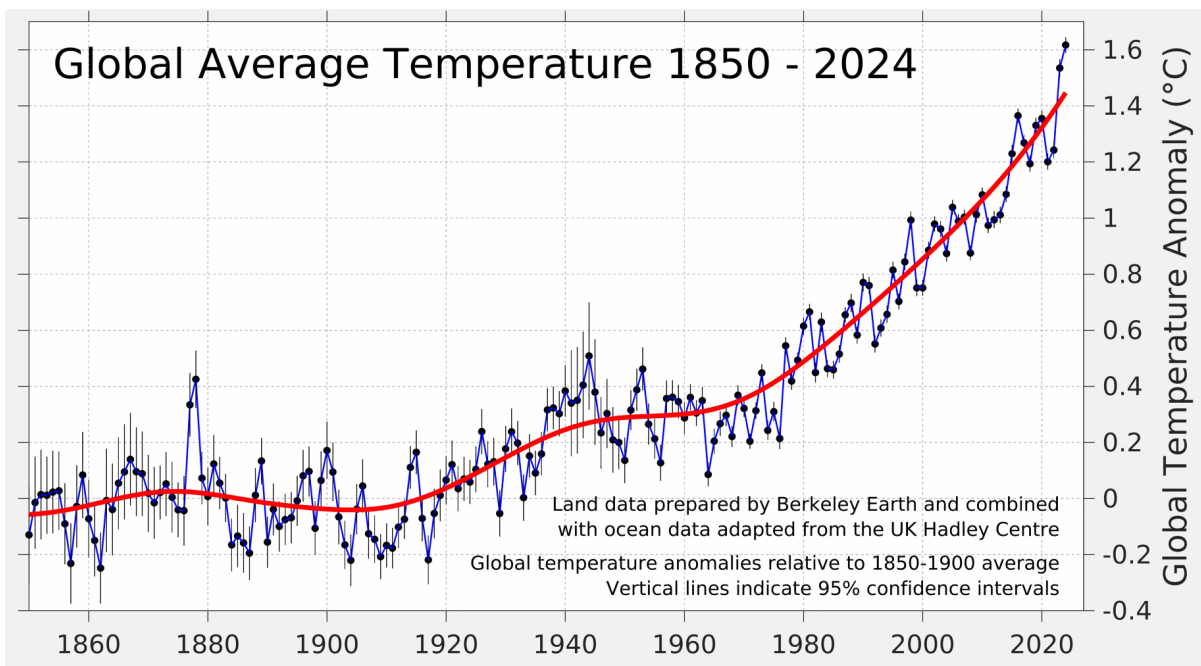
Plastics pollution has a direct and deadly effect on wildlife. Thousands of seabirds and sea turtles, seals and other marine mammals are killed each year after ingesting plastic or getting entangled in it. **Endangered wildlife** like [Hawaiian monk seals](#) and [Pacific loggerhead sea turtles](#) are among nearly 700 species that eat and get caught in plastic litter.

OXYGEN AND CARBON

Research on *Prochlorococcus*, an abundant bacteria/**phytoplankton** in the ocean that produces oxygen, has shown that leaking toxins from plastic negatively affects their oxygen production and their reproduction. Oceans not only **produce oxygen**, but also **pump carbon down** to the seabed. Zooplankton found ingesting microplastic consumed 40% less carbon biomass. The faecal pellets of zooplankton also sink at a lower rate when consuming significant doses of microplastic, which also may have an impact on the carbon pump.

Microplastic is all around us — in our seafood, tap water, and salt. Studies indicate that plastic can pass through the blood-brain barrier in mice as quickly as 2 hours after consumption. Research has found that it potentially poses acute and (sub) chronic toxicity, carcinogenicity, and developmental toxicity.

90% of non-meat food contains microplastics, so we cannot escape them. But we can minimise them.



Here is what you can do to help the oceans, seas, lakes, and rivers

- **Reduce Your Carbon Footprint:** The ocean absorbs over 25% of human-produced CO₂, leading to acidification. Lower your impact by driving less, using energy-efficient appliances, switching to renewable energy, and reducing meat/dairy consumption.
- **Reduce Plastic Usage:** Plastic pollution threatens marine life. Switch to reusable bags, bottles, and straws, and avoid single-use plastics.
- **Support Sustainable Seafood:** Choose seafood that is responsibly sourced to prevent overfishing and habitat destruction.
- **Conserve Water:** Less water usage means less runoff and wastewater flowing into the ocean.
- **Support Marine Conservation:** Support organizations and policies like the 30x30 initiative, which aims to protect 30% of the world's ocean by 2030.
- **Be an Ocean-Friendly Visitor:** When visiting the coast, avoid stepping on coral reefs, do not feed marine life, and participate in beach cleanups.

These actions help build ocean resilience against rising temperatures and acidification, ensuring the ocean can continue to regulate the planet's atmosphere and temperature.

THE WORLD'S MAMMAL BIOMASS

Hannah Ritchie and Fiona Spooner

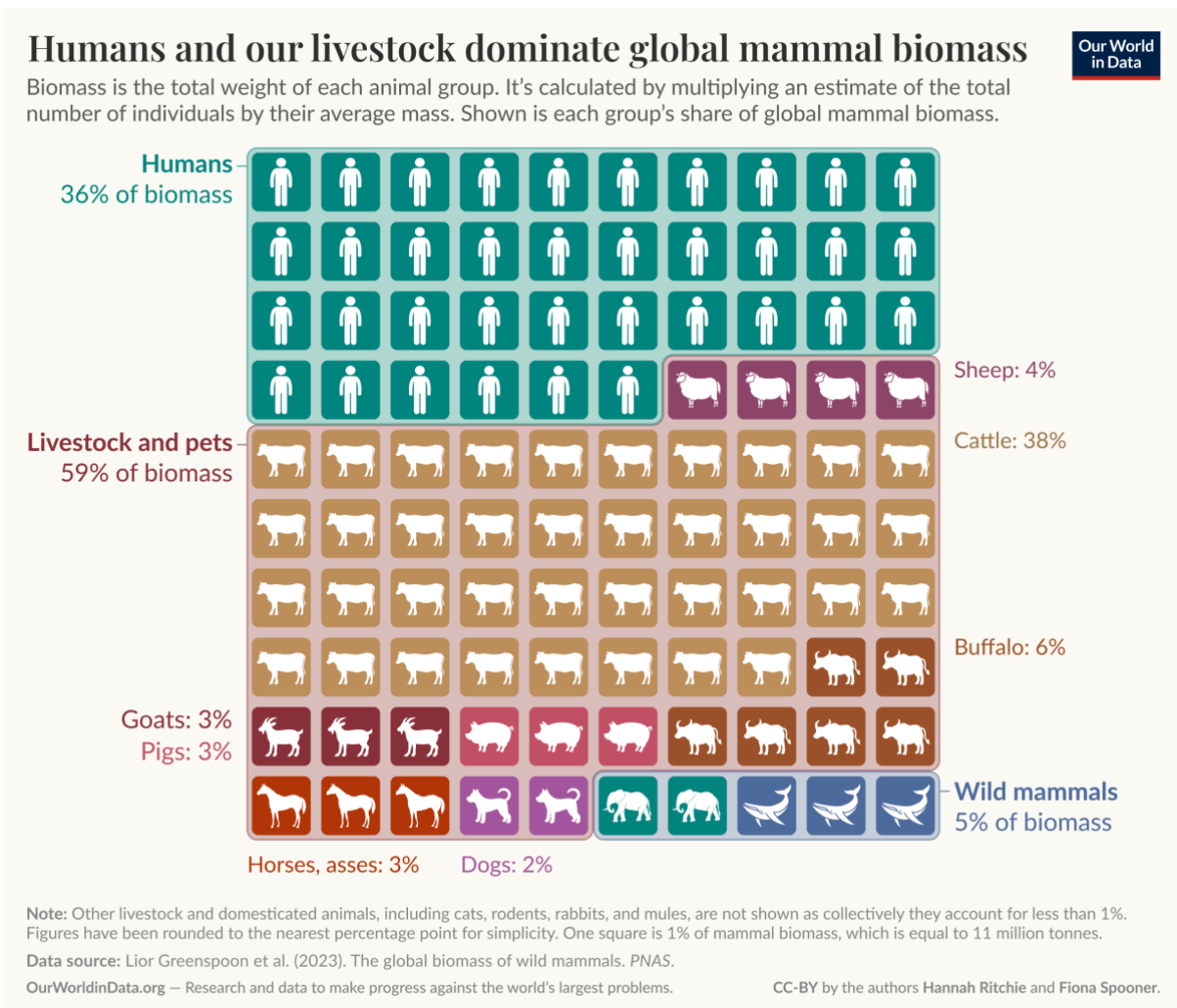
We thank the authors for allowing us to 'recycle' their excellent article

Almost all of the world's mammal biomass is humans and livestock
Humans and livestock make up 95% of the world's mammal biomass;
wild mammals are just 5%.

A diverse range of mammals once roamed the planet. This changed dramatically with the arrival of humans, who have become the dominant species through our own populations, as well as the animals we breed and raise for food.

There are various ways to compare the distribution or abundance of different types of mammals. One way is to compare them based on the *number* of individuals. In these terms, very small animals vastly outnumber larger animals, but this doesn't necessarily give us an idea of how much ecological and biological resources different animals use.

Another metric that ecologists often use is biomass — the total weight of all animals of a given species. This not only takes into account the number of animals but also factors in their size. It gives more weight to larger animals at higher levels of the ecological "pyramid": these rely on well-functioning bases below them.



Let's then look at the breakdown of the global mammal kingdom in these terms. It's shown in the chart below. This data is sourced from the study by Lior Greenspoon and colleagues.

Each square represents one percent of the world's mammal biomass, including both land and marine animals. For context, that 1% is equal to around 11 million tonnes.

The dominance of humans is clear. We account for more than one-third of mammal biomass. Our biomass is more than seven times greater than all wild mammals combined.

Our livestock and pets, which are primarily cattle, account for 59%.

That leaves just 5% as wild mammals, which includes thousands of different species, from elephants and deer to lions and whales.

Beyond the totals for humans, livestock, and wild animals, there are a few striking comparisons that we found surprising. Farmed pigs weigh as much as all of the world's whales, orcas, sea otters, seals, and dolphins combined. All the dogs in the world, including pets and feral dogs, weigh as much as all wild mammals on land.

Chickens and other poultry outweigh wild birds

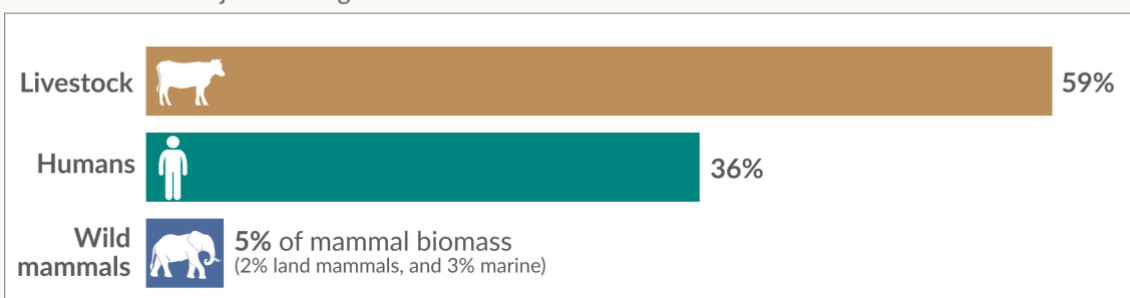
When we show people the chart above, one question often comes up: what about chickens? Of course, chickens are not mammals. But we can make a similar comparison between poultry and wild birds. Like mammals, poultry livestock collectively weigh much more than all the world's wild birds. You can see this in the next chart.

Wild mammals and birds are vastly outweighed by humans and livestock

Our World in Data

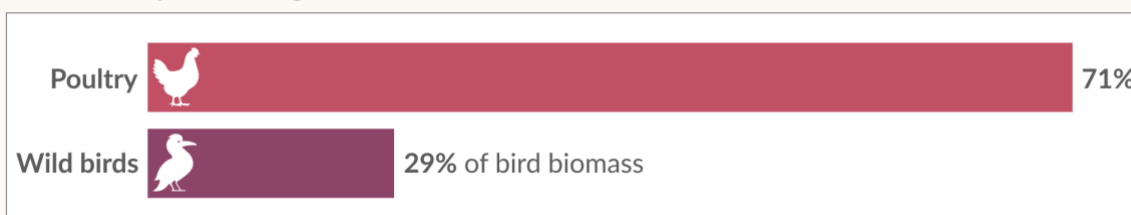
Mammals

All mammals – including humans and livestock – weigh around 1.1 billion tonnes. Wild mammals are just 5% of global mammal biomass.



Birds

All birds – including poultry – weigh around 47 million tonnes. Wild birds are just 29% of global bird biomass.



Note: Other livestock and domesticated animals, including cats, rodents, rabbits and mules are not shown as collectively that account for less than 1%. Figures have been rounded to the nearest percentage point for simplicity.

Data source: Lior Greenspoon et al. (2023) and Bar-On et al. (2018). PNAS.

OurWorldinData.org – Research and data to make progress against the world's largest problems.

Licensed under CC-BY by the authors.

The *size* of the difference between poultry and wild birds, though, is much less certain than it is for humans and livestock versus wild mammals. That's because estimates for the number of wild birds vary a lot.

Our biomass is more than seven times greater than all wild mammals combined.

Wild mammals have declined, but the total amount of mammal biomass has increased a lot.

How did humans come to dominate the mammal kingdom?

A huge decline in the number and size of wild mammals has played a major role. Estimates suggest that the biomass of wild mammals [has declined](#) by roughly 85% over the last 100,000 years, and particularly since the migration of human populations across the planet.⁵

But that's not the only reason. It's not that the abundance of wild mammals was replaced one by one by humans and livestock. In fact, human activity has dramatically increased the total amount of mammal biomass on the planet.

Around 100,000 years ago, the total biomass of land mammals summed up to approximately 120 million tonnes, essentially all of it in the form of *wild* animals.⁶ By 10,000 years ago, this had fallen to 90 million tonnes. But the most dramatic changes followed the advent of agriculture. Wild mammal populations and biomass continued to decline, while human and livestock populations gradually increased.

In this section, we're focusing on terrestrial mammals, so marine mammal figures have not been included.

By 1850, the total mammal biomass on land — including wild animals, humans, and livestock — had increased to an estimated 250 million tonnes.⁷ Since then, this has continued to increase rapidly. Today, mammals weigh roughly 1100 million tonnes, which represents a quadrupling since 1850. Wild mammals declined, but this was more than offset by the huge rise in biomass of humans and farmed mammals.

Farmed pigs weigh as much as all of the world's whales, orcas, sea otters, seals, and dolphins combined.

Humans achieved this by harnessing external resources and energy inputs that weren't available to wild animal populations before. We've used fossil fuels and agricultural innovations to harness synthetic fertilizers. We've engineered extremely productive crop varieties [that grow much faster](#) — and supply more energy — than conventional plants. We've cleared land to make space for raising livestock at higher densities than you'd find them in the wild. Essentially, we've added huge amounts of energy to the system that was there in the absence of human populations.

But while the mammal kingdom is more “vast” than ever before, this has, at least so far, come at the cost of diversity. Wild mammals have shrunk not just in relative terms, but also in absolute terms.

By [Hannah Ritchie](#) and [Fiona Spooner](#)

December 01, 2025

<https://ourworldindata.org/wild-mammals-birds-biomass#article-citation>

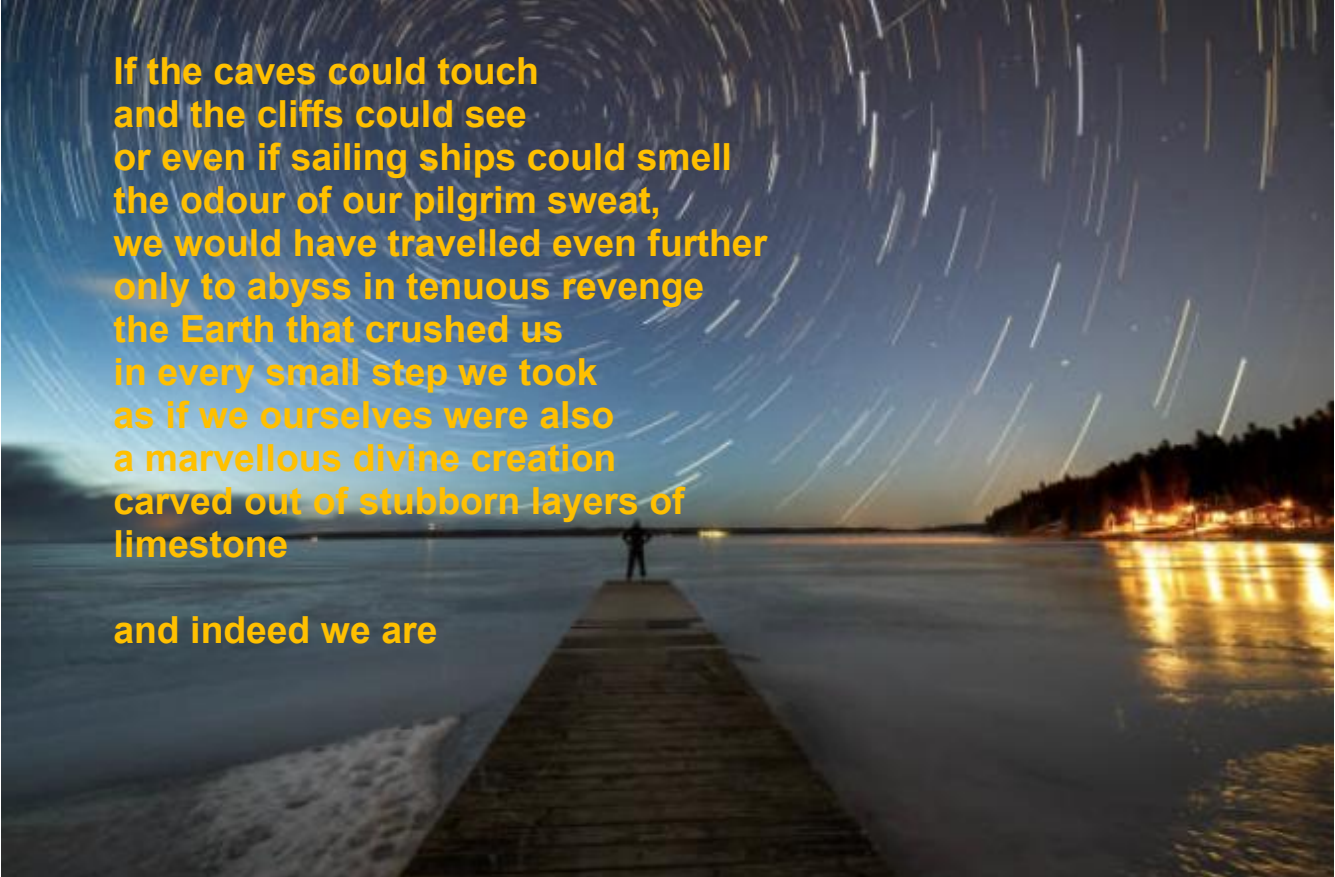
Hannah Ritchie and Fiona Spooner (2025) - “Almost all of the world's mammal biomass is humans and livestock” Published online at OurWorldinData.org. Retrieved from: 'https://archive.ourworldindata.org/20260130-093223/wild-mammals-birds-biomass.html' [Online Resource] (archived on January 30, 2026).



Then, Robinson noticed a carbon footprint in the sand.

POETRY: If the Caves could Touch

Rui Lino Ramalho, A Rocha Portugal



If the caves could touch
and the cliffs could see
or even if sailing ships could smell
the odour of our pilgrim sweat,
we would have travelled even further
only to abyss in tenuous revenge
the Earth that crushed us
in every small step we took
as if we ourselves were also
a marvellous divine creation
carved out of stubborn layers of
limestone

and indeed we are

GECKO NEXT ISSUE - JUNE 26

Some ideas for the next issue:

GECKO everybody so please let us have your articles and ideas. They could include:

- What you are doing towards EcoChurch awards
- Green ideas for Summer
- Prayers/Poems
- Eco changes you have made to your church buildings/chaplain accommodation
- Eco events
- Books, articles that you have found interesting and helpful
- Animal corner

Sustaining God,
who in Christ did not embrace life made new
without entering into the trials and pain
of Creation shattered by sin,
and entered not into glory before he was crucified:
in your compassion grant
that through the crosses we take up -
to walk with trees abused
and living things destroyed for greed
we may yet be blessed to walk
the way of life and peace;
As partners with all your creatures
for the peace and beauty of Creation
at work and play with you;
woven together by the Wild Wind. [the Spirit]

*The next issue will be issued mid-June.
Please let Tricia Wells have articles for inclusion by June 12th.*