

NATURE



# THE WEIGHT OF LIFE

Executive producers: **Sabine Holzer, Walter Köhler**

**1x 50 min.**  
**4K, 5.1 and Stereo**



# #terramatters

**Life – there's a lot of it. We're familiar with reports of humans dominating the Earth, accessing all the resources available, massive industries changing the world. But there is far more life on the planet than just us. Who or what actually weighs the most? What is there most of? It's not humanity!**

If we look in the oceans, almost 98% of the biomass consists of plankton, tiny plants and animals floating in the water. They're the basis of all life in the sea. Antarctic krill, small crustaceans up to 6 cm in size, feed on the plankton and there are so many krill in the Antarctic waters, there can be 10,000 to 30,000 individuals per m<sup>3</sup> of water. Their total biomass is estimated at 500 million tonnes. In comparison, we humans only manage 100 million tonnes. An adult blue whale in the eastern North Pacific then eats 16 tonnes of krill a day during the feeding season. (A right whale in the North Atlantic eats about 5 tonnes of zooplankton a day, a bow-head whale about 6 tonnes.) Their excretions fertilize the oceans with iron, which in turn feeds phytoplankton – and thus krill; krill being the main food of many other creatures in the Antarctic ecosystem. Fur seals, leopard seals, crab-eating seals, squid, penguins, albatrosses and hundreds of other bird species all depend on this seemingly endless availability of food.

But there's an enormous amount of unseen life on land, right under our feet! In an area of 1 m<sup>2</sup> of fertile

soil, 30 cm deep, there are 1,000 trillion bacteria and 1 trillion fungi ... all invisible to us but weighing up to 2 kg in total. Bigger, visible animals also live under our feet, including up to 800 of earthworms, 1,000 snails and 400,000 springtails. This secret world forms a food chain essential for our survival! Without it the soil would be infertile and crops wouldn't grow.

To feed humans, around 66 billion chickens, 304 million cattle and 1.5 billion pigs are slaughtered every year – yet nature must provide even more food. Approximately 45,000 spider species on Earth alone eat 400 to 800 million tonnes of prey every year, an order of magnitude more than whales' consumption – and spiders eat more insects than humans eat meat!

These enormous numbers, in combination with wildlife shots, macro shots and exciting graphical elements illustrate these magnitudes, showing the complexity and interdependency of Earth's ecosystems.

A production of Terra Mater Studios

