

A N N



O F R E F U G E E S

1,000,000

species face

extinction

Climate change is already happening and we are facing a direct existential threat. Our dominant role and the system we have created have transformed the planet, impacting every life form. Up to 1 million species are at risk of extinction, many within decades.¹ It is hard to grasp the magnitude of this problem, especially when this is unseen by most of us. But we humans are intertwined with the fate of other species.

We heavily depend on the balance of this intricate system, where they provide us not only with food, clean air, and medicine, but also social cohesion, identity, and liveable home. This emergency is happening now and not something that will only start to manifest itself in the future. We, humans and non-humans, will become refugees and possibly face annihilation if we do not change our current system.

“Perhaps the way out from fatalism and disaster is an acceptance that humans may not actually be in control of our planet. This would be the vital first step that could lead to a broader outlook that encompasses more than humans. What if we thought of them as components or even our companions in the complex Earth system? Questions about sustainable development then become questions about how growth in the technosphere can be accommodated with their concerns, interests, and welfare as well as ours.”²

- James Dyke, Senior Lecturer in Global Systems, University of Exeter

I have written stories about how humans are impacting the wildlife, spoken from their voice. These stories are followed with text about what would happen when these species were to disappear. Through these stories, I want us to reconsider our relationship with nature, “develop a greater sensitivity towards everything with which we are inextricably and intimately connected.”³ I hope I can inspire you a new way of thinking that can help us redesign a world and future that encompasses more than human.

Choked with poisonous air

I live in a neighbourhood with 60,000 individuals. It is a bustling area. What's my job? You could say I am a farmer. I work hard to provide food for you, friends, family, and my queen. I work all year round with no holidays. I go out to the field every day in the heat, taking food from the flower and moving pollen from one flower to another. I do this process around 1000 times a day, sometimes more, and this can get quite tiring.

Humans came to our neighbourhood and started to spray neonic, smoke started to surround the paths where we normally work. As I was going

through these smokes, it smelt funny and it makes me nauseous. This situation occurred more frequently and lasted for a long time. After a couple of months, I started to feel dizzy during work. Breathing the air would make me disoriented and I would not know where to go, sometimes I do not even know where my home was.

One day, my friends and my family fell sick and they all died suddenly. I was extremely devastated and confused, why is this happening? I have no idea. But I decided to leave because I feel it is no longer safe for me to stay here - my home.





75 percent of global food crop types, including fruits and vegetables and some of the most important cash crops such as coffee, cocoa and almonds, rely on animal pollination

How would our food supply change without pollinators?

Pollinators – birds, bats, butterflies, bees play a critical role in our food system as most of our food is pollination-dependent. We are killing these pollinators due to our land-use change, intensive agricultural management, pesticide use, environmental pollution, invasive alien species, and climate change.

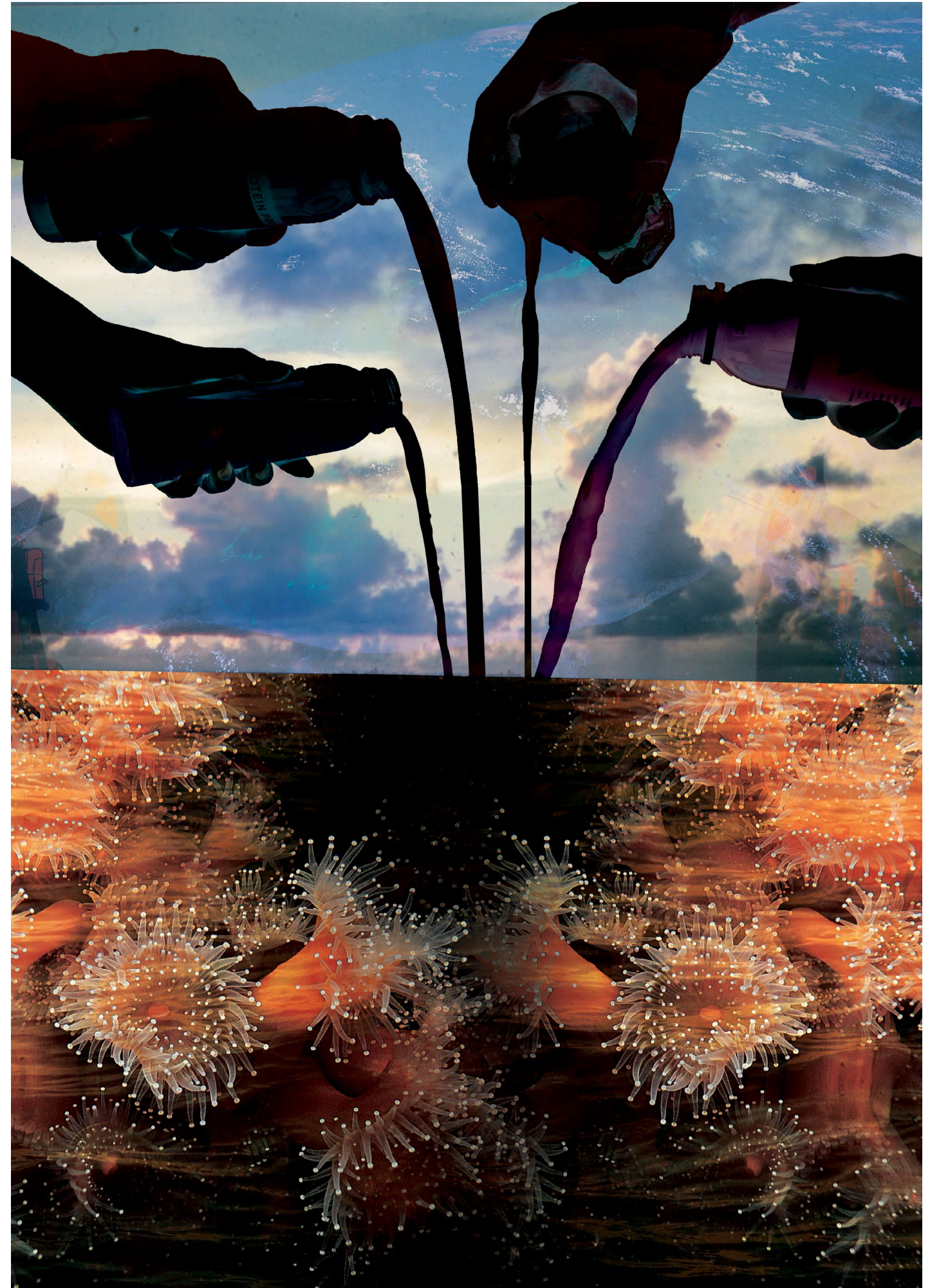
Without them, the food we love would be gone, 75 percent of global food crop types, including fruits and vegetables and some of the most important cash crops such as coffee, cocoa, and almonds, rely on animal pollination.¹ If we want to grow these food, we might succumb to pollinating by our own hands. Otherwise, we would probably be left with just corn, wheat and rice in our diet.

Turn down the thermostat

I live near the coast and I love the whole living environment! We have a great community because we help each other. I have residences living in my home and they are called zooxanthellae. They give the exterior of my home a vibrant color, making the neighborhood bright and picturesque. They provide me with food every day and in return, I give them carbon dioxide and a shelter. I also provide BNB to strangers to protect them from the strong currents, a safe place that they can reside in. Most of them come from different places around the world.

As times goes by, my home starts to get warmer, it is like someone turned on a heater! It's got so hot that it makes me so uncomfortable. The zooxanthellae started to leave one by one as they felt it is too hot to live at my place. Slowly, our neighborhood became a ghost town, white empty buildings. And I no longer have any food left, I am very hungry as there is so little food I can get from the ocean.

The 'humans' tried to move us to another home with cooler waters. But it is a slow and tedious process as there is so many of us around the world. Some of my friends waited for a long time and they died from starvation.





Loss of coastal habitats and coral reefs reduces coastal protection, which increases the risk from floods and hurricanes to life and property for the 100 million to 300 million people living within coastal 100-year flood zones.

What would happen if all coral reefs die?

Coral reef only covers less than one percent of the earth's surface but an estimated one-quarter of all ocean species depending on reefs for food and shelter. However, we are creating an unbearable and stressful living environment for them, with rising water temperatures, ocean acidification, pollution, overfishing, and destructive fishing. We have now lost 50% of its coral in the last 30 years.⁴

Without coral protecting our coastlines, there will be no natural breakwater and buffer against erosion. They can longer protect us from flooding in extreme storms, and waters will flood our homes. Their death increases the risk from floods and hurricanes to life and property for the 100 million to 300 million people living within coastal 100-year flood zones.¹ Apart from protecting us, we also heavily rely on them for food. Over half a billion people depend on these reefs for food and almost 1/5th of the world's protein comes from seafood.⁴

I am homeless

The sun is shining through the leaves and I feel the warm moist air around me. The fresh air makes me feel alive. I have been living in the forest for my whole life and I enjoy the tranquillity but also the vibrant life. As a child, I was in charge of keeping the water clean. As I have grown up, I took up the role of 'pest control' in my neighbourhood, I make sure that the insect and arthropod populations are in balance.

Tractors and trucks suddenly came one day and started to destroy my home. Converting the land to farming fields. More came

the next month and they started to build animal farms. High rise building also popped up one by one, and a lot of humans started to move here.

There's no space for me to live now, they have all turned into concrete pavements. The air has become so polluted that I fell really sick, this is because my skin is permeable and all the pollutants go through my skin. There's also not much food left in the area so I decided to venture off to find a new home.





An estimated 4 billion people rely primarily on natural medicines for their health care and some 70 per cent of drugs used for cancer are natural or are synthetic products inspired by nature.

How the disappearance of amphibians will lead to an ecological collapse?

Amphibians — including frogs, salamanders, and caecilians — are the species group that has the highest extinction risk. More than 40 percent of amphibian species are currently threatened.¹ We are exacerbating the rate of extinction through our human activities: habitat destruction, the introduction of predatory invasive species, commercial trade, and pollutants.

They are keystone species in many ecosystems. Their disappearance will lead to dramatic changes to the environment, the worst case would be an ecological collapse. With the ecosystem collapsing, it would significantly affect our health. An estimated 4 billion people rely primarily on natural medicines for their health care and some 70 percent of drugs used for cancer are natural or are synthetic products inspired by nature.¹ We might envisage a stage where we have to fight for medicine.

**I believe we can change and redesign a world
that encompasses more than human.**

We have to start by pressuring governments into taking action on climate change and the mass extinction of animal species. Here's five main interventions that can generate transformative change by tackling the underlying indirect drivers of nature deterioration¹:

1. Incentives and capacity building

– developing incentives and widespread capacity for environmental responsibility and eliminating perverse incentives.

2. Cross-sectoral cooperation

– reforming sectoral and segmented decision-making to promote integration across sectors and jurisdictions.

3. Pre-emptive action

– taking pre-emptive and precautionary actions in regulatory and management institutions and businesses to avoid, mitigate and remedy the deterioration of nature, and monitoring their outcomes.

4. Decision-making in the context of resilience and uncertainty

– managing for resilient social and ecological systems in the face of uncertainty and complexity to deliver decisions that are robust in a wide range of scenarios

5. Environmental law and implementation

– strengthening environmental laws and policies and their implementation, and the rule of law more generally

RESILIENT

