

THE GREEN FUSE



A natural history magazine created by young naturalists for naturalists young and old

Issue 8
Winter/Spring 2023

Welcome

Hello, dear Reader, and welcome to the very latest edition of The Green Fuse Magazine! We hope you have been keeping well since our Summer/Autumn 2022 edition and we apologise for making you wait quite so long for this current one. A number of us have been busy with our GCSEs and this has kept us away from the GFM. As most of us are home-educated, we are able to spread our GCSEs over a longer time frame than our school-educated peers, so exams will be taking up a large chunk of our time for the next few years. It is for this reason that, from now on, the GFM team will be producing two editions per year – one for Summer/Autumn and one for Winter/Spring. In fact, given that 'A'-levels follow GCSEs as night follows day, it is likely that, for the foreseeable, we will be sticking to two editions per year. We hope you understand.

The Winter/Spring GFM you are holding in your [virtual] hands is chock-full of all sorts of seasonal delights that we hope you enjoy and find interesting. As always, if you would like to contribute an article, a picture, a poem, a puzzle – anything at all, really! – we would love to hear from you. To submit your work or just to find out a bit more about how to contribute to the GFM, contact us at thegreenfusemagazine@gmail.com.

Happy reading!!



Contents

The Girl Before Greta Page 8	Seaweeds of the World – a Guide to Every Order Page 26
Rachel Millward Interview Page 11	Earthshot Prize Page 39
Greta Thunberg Biography Page 13	Readers' Page Page 29
Agnes Denes – Pioneer of Environmenal Art Page 17	Green Fuse News Page 31
Listen to the World Page 20	Puzzles! Page 35
An Ecological Artist Page 22	Answers! Page 37

About Us



Rose Fulton (14)

Editor, Illustrator, Journalist, Graphic Designer

I am home educated and a keen naturalist. I have always loved nature and would like to pursue a career in zoology when I am older. I particularly enjoy birdwatching, photography and woodland walks.



Megan George (12)

Photographer, Journalist

I am a young naturalist living on a farm in the beautiful countryside of Carmarthenshire and my favourite activity is horse riding. I love photography and watching wildlife, particularly birds.



Heidi

Writer, Journalist, Photographer

I love nature and capturing its beauty through art, stories, poems and articles. I enjoy finding out about all of the incredible species that are out there and why they do the things they do.



George Fulton (12)

Illustrator, Photographer, Journalist, Puzzle-master

I love entomology and aquatic life. I would like to work in conservation. I have my own museum with lots of natural history exhibits. I love drawing and creating things. I am currently trying to grow my own food and tropical plants.



Libby Greenhill (14)

Writer, Poet, Journalist, Web-designer

I am an enthusiastic naturalist who loves going on walks through the woods and spending time with my pets. I have always loved writing and have started writing more stories and poetry about nature.





The Girl Before Greta

Severn Cullis–Suzuki

By Libby Greenhill

Severn Cullis–Suzuki came to my attention after watching Simone Giampaolo’s beautiful animation, an animation that illustrates the speech that Severn gave at the Rio Summit in 1992 at the age of 12.

Severn always had a deep concern for the environment, it was a very important issue for her. She decided to set up the Environmental Children’s Organisation, she was only 10! This led to Severn speaking at the UN Earth Summit when she was only 12. Her speech was called ‘Only a Child’ and it talked about her knowledge of the hardships the world is facing. She understands its dangers, so why couldn’t world leaders? After her speech, Severn continued to advocate for action on climate change, she seemed to be the voice of future generations. When Severn became a teenager, she was appointed to the Earth Charter Commission whose members advise and support the Earth Charter movement, a global movement whose aim is to make all life on earth thrive. Severn is, to this day, still a member.

In Severn’s ‘Only a Child’ speech, she talks about how her life has been affected by the effects of global warming. Severn’s own life has been affected by climate, she has had some of her everyday activities stripped away from her, such as, she cannot fish with her father, as some of the fish in her area are cancerous. She said she could not dream of exploring the wondrous wild when she is older as she didn’t know if, by the time she was an adult, it would still exist. These are some of the things that inspired Severn to make her speech, she had to tell the world about what she and many others were going through. In her speech she talks about how in the room there are many important people, but at the core, they are someone’s children, someone’s parents, they are loved by someone. She refers to everyone being a family, and that they should work together. Even though we are all a family, we do not care for each other, we do not love each other. Severn talked about how she once met a young child living on the streets. The child said ‘I wish I was rich’. This wasn’t out of greed or a wish for comfort, but Severn discovered that the child wanted to give food and shelter to the poor. If someone who has nothing is willing to give to others, why can’t we? Severn hadn’t lived a poor life, but she was able to understand what it could be like to be poor, to be constantly hungry or constantly scared. Severn also shamed war by saying, ‘If all the money spent on war was spent on ending poverty and finding environmental answers, what a wonderful place this earth would be’.

In 2012, when Severn was 33, she went to the UN Rio+20 conference as a champion for the youth group called 'WE Canada', an organisation that goes overseas to support education, health, opportunity and more. Severn has also teamed with the Sloth Club in Japan, which favours slow and sustainable living, like the life of a tree sloth. She went with the Sloth Club on four speaking tours. These tours had a focus on the 'Million Mothers Movement' which was led by mothers who were against nuclear power. Another thing that Severn has done is co-written a book, 'Notes from Canada's Young Activists'. This book tells the stories of some of the activists within Canada and what inspired them to try and make a change. Today, Severn is focussing on the decrease of diversity within biodiversity, worldviews, economies, language, traditional views and even identity. She hopes to one day make a change in how we view diversity.

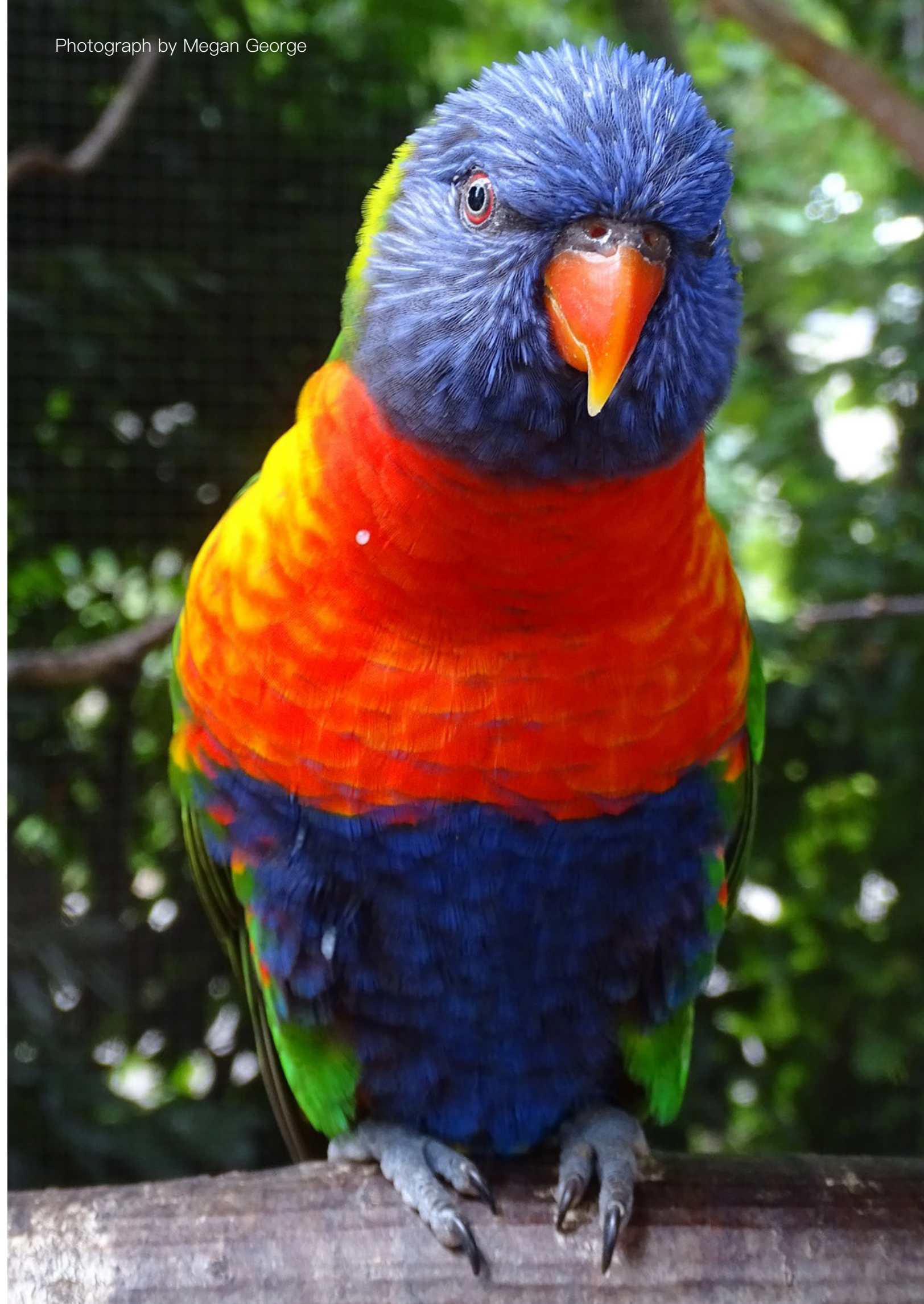
Severn's speech could never be made again, nothing could ever be quite like it. There will never again be a first girl to make an impact for Climate. There would be a second and third, but never another first. Severn planted a sharp, severing shovel into the coarse ground that today would become a pit of younger and older screaming for a change. I have talked about how incredible the speech itself is, but now I must talk in detail about the astonishing animation of Only a Child presented to us by Simone Giampaolo. This captivating animation seems to take Severn's words and pull them into extraordinary life. They truly make you understand the intentions of her speech. Throughout the animation, the style changes, there are elements of smooth paints that melt into each other, and others that seem almost gritty. This is because there were many different animators creating this beautiful piece, each of them using a different style and not working alongside each other, meaning that Simone was able to combine these different and diverse styles. It makes me think of all the differences between people, there aren't two humans exactly the same, no creatures exactly the same. However, we still come together as a community, we work together as one.

Simone is Swiss and a London-based director and animator, he is well known for not only his incredible skill, but also his love and longing for storytelling and humour! In 2013, Simone graduated from a BA Animation, Art and Design course with a distinction. He spent many years as a director of animations with Blue-Zoo Animation, he worked on projects with big names such as Disney, Lego, Marvel and the BBC. Simone's skills aren't limited to purely directing, he has also worked on animation and pre-production. Recently he has been working on short films and mini-stories.

I can't believe how the voice of one girl could say so much, while at the same time not enough ears listened, it truly was a breath-taking speech. I also cannot believe the beauty of Simone's animation, I have nothing but praise for both of these people and their extraordinary work.

A message from Severn Cullis-Suzuki: "It is wonderful to know so many people around the world believe in working towards a world of peace, diversity and joy. Thank you for sharing the Rio 1992 speech to the UN; it still amazes me that the Rio Speech, given so long ago, continues to be shown and used in classrooms and families to help inspire children and adults alike. The longevity of it has re-affirmed to me the power and importance of the voice of youth; we need our youth to speak truth to power. I send my best wishes to you and to all The Green Fuse readers."

Photograph by Megan George



An interview with Rachel Millward



By Rose Fulton

What is your current role in the Green Party and what does it involve?

I am a Green Party District Councillor. I represent Hartfield – a rural ward – on the Wealden District Council. That's part of East Sussex. I was elected in a by-election (that's an election at an unusual time, sadly the previous Conservative Councillor for Hartfield died) last December. I represent the people who live in a collection of villages around Hartfield so that their concerns are taken into account on issues like planning (what gets built where – often a very controversial topic!), waste collections, benefits, housing, wellness and tourism. At the moment I sit on the Planning Committee, there are various other committees which other colleagues sit on which make decisions and have oversight of council budgets and governance. All this sounds super bureaucratic, and I guess it is! I also spend time just connecting with my residents – hearing what their concerns are and making sure they know how to access council services and make their voices heard on key issues. A fun part of the job is helping make community projects happen, like the citizen science river water testing programme we are about to begin. That's not a duty as a councillor, but it certainly ties in with my work.

Why did you choose to be in the Green Party?

The climate emergency and the biodiversity crisis need to be front and centre of our decision making. We have all the technology we need to avert the worst of the impending disasters, but we lack the political will. That's really just appalling! We need complete system change – not just a bit of improvement here or there within the current system that caused all this mess. I love the integrity of the Green Party. There's no historical baggage or misplaced loyalty to the old ways. It's all about here and now. Starting from where we are, what can we do to build a greener, fairer future?

Many people would like to vote for the Green Party but don't, as they feel there are not enough people voting for the Green Party, so they feel the Green Party are unlikely to get into power. What would you say to these people?

38% of the population say they might vote Green. That's MASSIVE! We are in a moment of crisis. We need system change. We need to vote with our heads and our hearts in sync. Greens are unlikely to magically manage to win a majority in the next election! BUT every Green in the room changes the conversation, and the conversation MUST change. I think now, more than ever, people are deeply disillusioned with the old political structures. A vote for the Green Party is a vote for a new kind of politics.

What made you decide to stand for election for The Green Party?

I used to work in film and the arts, but the feeling just kept growing that I should dedicate all the skills and experience I have to being part of the climate solution and helping nature in any way I can, so I decided to be open to doing something completely different. I could see that I have some of the skills and attributes that can be useful in politics. I've always been politically engaged and always loved community work. There are some amazing eco-activists out there, but I knew I might be useful within the establishment rather than pressuring from outside. So, when I heard that our local Green Party was looking for a candidate for the by-election, I put myself forward. I didn't expect it to happen so soon – but five days later I was running my campaign, knocking on doors, and a month later I was elected!

What advice would you give to a young person who wants to bring about political change for the benefit of the environment?

Use your vote! And use your voice – if there are specific local issues you care about, write to your councillors, write to your MP. Elected politicians have to take the time to respond, it's the baseline of their job, so they will hear you (though they may not listen).

Most important, I think, is to focus locally. It is very easy to feel overwhelmed when looking at the problems across the world. Of course, it really is important that we retain global perspective. We need to remember that our actions impact places and people far away. And we need to stay aware of what is happening around the earth. BUT – think global, act local. Generally speaking, we will look after ourselves, our own mental health and wellbeing, much better if we get active, together, locally. Eco-anxiety only has one balm, and that is action, and action gives us active hope. There are so many different ways to do this. Is there a "Friends of your local river", for example? Do they do litter picks or water testing? Or is there a wildlife trust or nature reserve which takes volunteers? There might be ways to get involved and be part of change and nature restoration at a local level. Being intimately involved in the work of restoring nature in your local area will give you a deeper understanding of current global issues.

Can young people get involved with The Green Party?

Yes of course! Young Greens are active, there are various groups across the UK. www.younggreens.org.uk. Your local Green Party of adults might (should!) also welcome you as young people to join them and help out in campaigning to get more Green politicians elected. There are local elections next May across the country. That means a LOT of leaflets to deliver, doors to knock on to collect data, data to enter into various spreadsheets... things for extroverts, things for introverts and everyone in between! And get involved in your local party, I remember first helping to get the vote out on election day as a teenager and I had such a great time getting to know different parts of the town I grew up in and connecting with people I wouldn't otherwise have met.

What advice would you give to a young naturalist?

Well, you're already connecting to nature and doing what you love, so you're winning, right?! Activism can be really draining – nature connection is not just an awesome way to restore energy, it's also the point. If we centre love of nature, the politics can flow and the perspective stays true... Nature really is in trouble, and yet she's unbelievably generous and constantly sharing such wisdom to learn from and happy-making awesomeness to enjoy. I think tucking yourself into that, let yourself be held and loved by nature as you love her – that's the way to be, as we head together into the unknown. This isn't really advice. You could probably advise me better. I'm just cheering you on.

Greta Thunberg Biography

By Libby Greenhill

Within this biography, I am going to talk about the incredible Greta Thunberg, she has made such a difference on how we see global warming, so I think it is important that everybody knows more about her incredible life that she has dedicated to our beautiful planet.

Greta's Life

Greta was raised in Stockholm, Sweden, her mother is opera singer Malena Ernman, her father is a writer and actor, Svante Thunberg. She has a younger sister called Beata. Greta lived a very comfortable life, her house was large and they owned a lovely week-end home. Her parents had always taught Greta and her sister to care for the environment, they turned lights off when they didn't need them, and often rode their bikes instead of driving in the car. One day whilst in school, Greta was shown a film about climate change (she was about 8 years old), it showed the icebergs melting and polar bears struggling to find safety. The film stayed with Greta, she constantly thought about climate change, and wondered why nobody seemed to be doing anything to stop it. By the time Greta was eleven, she had gone into a state of depression, she hardly ate or talked, often she would sit for hours stroking her dog Moses but doing nothing else. Her parents were very worried, and decided to take Greta to the doctor, to see if a conclusion could be reached. Greta was diagnosed with Asperger's Syndrome (a form of autism). This explained to Greta's parents the reasons behind many of Greta's characteristics. With help from the doctor, Greta started to get better. Greta later called her Asperger's Syndrome her 'superpower'. She says that it helped her to focus on one single problem – climate change. When Greta returned to school, she was bullied, the other children didn't understand her and thought that she was strange.

What is Climate Change?

Climate change is an important topic that is being talked about a lot at the moment, but you might not know exactly what it is. The planet is getting hotter because of the emission of greenhouse gasses, the main one being CO₂. CO₂ is admitted into the atmosphere through animals, industrial farms, decomposing of plants etc. Many plants absorb CO₂, but because of deforestation, there aren't enough trees to absorb the amount of CO₂ being emitted. CO₂ isn't the only Greenhouse gas, another major one is methane, this is produced by cows, and because of livestock farming for producing beef, methane is being produced in very large amounts. But what are we doing to help? In various meetings, world leaders have come together to make an agreement of what to do to help. World leaders have agreed to try and keep the climate temperature rising by 1.5 degrees. Even if we reach this goal, there will still be consequences. The bad thing is, many people think that governments are making empty promises as a form of "greenwashing", this means that people are possibly being led on and the Government might not live up to its promise.

Banners by Libby Greenhill

The World's Reaction to Climate Change

From the late 1970s, world leaders have been meeting at events like COP27 in order to discuss the Climate Crisis. They have found that the answer for stopping global warming is to end the large amount of fossil fuel emissions (especially carbon dioxide) going into the air. However, this would be a difficult thing to achieve as it would mean changing the way that people live their lives and putting many people out of work. In 2016, there was a meeting held in Paris, known as the Paris Agreement. Representatives from every nation in the world attended and, after two weeks, everyone had signed the agreement to address climate change. One person in particular who attended the Paris agreement was Greta Thunberg! She delivered her speech, 'Change is coming whether you like it or not', and she became a voice for young people in the world who felt like they weren't being heard.

How it All Started

Greta was desperate to do something to raise awareness of the climate crisis and had heard that in America, people were having school strikes in protest at school shootings. Greta admired this and decided to have a go herself, but in protest at climate change. Greta said that she remembered thinking that 'it was strange that humans, who are an animal species among others, could be capable of changing the Earth's climate.' She also found it strange that it didn't seem more important, she thought that it should be the only thing people talked about, because it is such an important matter. Greta sat outside the buildings of the Swedish parliament with a sign that translates as 'School Strike for Climate'. Greta was fined by the Parliament, saying that they were embarrassed by her. Greta didn't give up, she simply moved her strike and carried on. At first Greta was alone in her strikes, but slowly people became more interested and joined her. Over the following few years, thousands of people around the world went on strike for climate, all because of Greta. One day Greta got a phone call that changed her life, she was invited to the Paris Agreement Conference to give a speech on climate change. She later went on to other events where she delivered more speeches, including her famous 'How Dare You' speech.

Despite the terrible things people have been doing, Greta does not believe they are evil, she says that people do not help the environment because they want to follow the majority and not stand out.



Greta's Speeches

At the United Nations' Climate Action Summit in New York on 23 September 2019, Greta made her famous 'How dare you' speech. In it, Greta speaks emotively, making listeners feel strongly about climate and helping us to understand how important climate change is to her. She talks about 'stolen dreams', 'suffering' and even 'dying'. She makes reference to 'mass extinction', when a species is vanishing much faster than it's reproducing. This makes us feel worried, we are learning about the terrible nature of Climate change, we need to make a change before there is no more hope. Greta's repetition of the words 'How Dare You', shows fury, makes us feel angry, it is not young people's fault. We are being lied to. She talks about the hope given to people through lies. Even if we achieve the global goal of cutting emissions by 50%, it is still too many emissions, we need to do more. It has become the responsibility of the children's generation to look after the world when they grow up, but if we wait until then it will be too late. Another of Greta's speeches is the speech at the National Assembly in Paris, where she says that government thinks that young people are overreacting when they talk about climate change. It isn't as big an issue as people like Greta are saying it is. This couldn't be further from the truth – in fact, climate isn't talked about enough. People don't know how big an issue it is because they haven't been told about it. One very important thing in this speech is the fact that Greta creates hope, she says that lives can be saved by staying below a 1.5 degree temperature rise, this means that if we put in work to help the climate, the planet and the creatures living in it could be saved. Greta's third speech was at the British Parliament, in this speech Greta says that most people won't listen to her because she is just a child. This puts the Government in a bad light, as it seems ridiculous that not only is the Government against Greta because she is a child, but it is also showing that a child is seemingly more knowledgeable than the Government. She also says that by the time she is in her mid-twenties, she will have been told that she is young with her life ahead of her, but Greta herself doesn't even know if she will have much of a future by the time she is this age.

Greta's Latest News

You might not have heard much in 2022 about what Greta was doing for our climate, but that doesn't mean she has stopped campaigning. She has recently written an excellent book called 'The Climate Book'. It is the book that she wishes she had had when she was starting to learn about climate change. It consists of many essays on all different parts of Global Warming. It is the perfect book for someone who wants to help the environment but doesn't know enough about it. You may have also noticed that Greta didn't appear at Cop 27, this isn't just because she doesn't have the time (though Greta is currently very busy), it is for a number of very important reasons. Firstly, she doesn't want to draw the attention to herself, she says that there are so many young activists, and the attention shouldn't be solely on Greta. She also says that COP is a form of greenwashing (a strategy used by corporations and governments to make the public think that more is being done for the planet than is actually being done.) One of the biggest things that Greta is currently doing is attempting to sue the Swedish government for their acts against the planet.

Banners by Libby Greenhill

What We Can Do

It has been such a pleasure to write about this incredible young activist, and now we as people who care about the planet need to help her to make a difference. Greta has said many times that we need to have our own voices instead of her speaking for us, so let's work together to make our own change.



Agnes Denes – Pioneer of Environmental Art

By Rose Fulton

It can be difficult, sometimes impossible, to find something concealed by a great many other things, or when you don't know where to look for something in a large space. Like when you are trying to find a coin in autumn leaves, a tennis ball in a shoe shop, a sofa in a carpark, a pin in a bale of straw or, more traditionally, a needle in a haystack. But have you ever looked for a haystack in a needle? Probably not. Imagine the needle, shining and sharp, is The City (Manhattan). Now, imagine the haystack, yellow and bountiful, is a wheatfield, Agnes Denes's artwork "Wheatfield – A Confrontation" (1982). In some photographs of this piece, the Statue of Liberty can be seen standing majestically as if in the wheatfield itself. As if in response, Willard Wigan's "Statue of Liberty in the eye of a needle" (2001), cast a miniature version of the statue in the eye of an actual needle, as the title suggests.

Wheatfield – A Confrontation (1982) was situated in a landfill on a two-acre plot in downtown Manhattan worth four and a half billion dollars. Denes, along with many volunteers from the local area, prepared the field for planting by removing all the rubbish and rocks. Two hundred and eighty-five furrows were dug and the seeds sown, all by hand. Two hundred truckloads of soil were then used to cover the seeds. Denes maintained the field for four months before harvesting the wheat on the 16th of August 1982. The artwork yielded over a thousand pounds in weight of glorious, golden wheat.

An exhibition called "The International Art Show for the End of World Hunger" (1987–1990), organised by the Minnesota Museum of Art, travelled to 28 cities around the world. The seeds were given away to people who attended the exhibition and planted all over the globe.

Denes described this artwork as representing "food, energy, commerce, world trade and economics" and referring to "mismanagement, waste, world hunger and ecological concerns", thereby calling attention to humankind's misplaced priorities: a sentiment ever more relevant in our current global situation. She said, "my work aimed to deal with one little problem at a time, and to find benign solutions. I don't make my work for myself; I make it for humanity".

Photograph by Megan George





Listen to the World

By Libby Greenhill

The Grass beam fighting in between cracks twitches,
Like a hare's ear,
Silent in movement, smallest of gestures.
The dying Earth strains to call upon voice.

The brown grass touches brown grass,
Sends message through shivers.
Seems like burnt insects moving the green,
But dying Earth is pleading to be heard.

Children laugh in once grass-filled meadow,
Pluck dewdrop brown grass beams,
Hold to sky.
The pierced burnt clouds absorb message,
Travel on with a final purpose.

Rain drops split upon ground.
Piercing umbrellas with message.
They rage and rage, thundering their word.
Until the children listen.

Young ones play in mirroring puddles
Showing the world for what it is,
As rain drops whisper past their ears.
They gasp then cry at unsavoury message,
It plucks at their heart in a sober tune.

The children dream the message,
But it does not flow from their innocent mouths.
It stays, hidden, as deathly earth does.
The message sings inside their heads,
No escape, no escape.
One child shares message on a white board in Sweden.
The children have a leader.
Now they can fight.
The message as leaves in wind.
Alight and burning
Never to be put out.
Hear the voice of a thousand grass beams,
Hear the voice of a thousand children,
Hear the voice of hopeful Earth.



An Ecological Artist

By Rose Fulton

Ecological art is a vehicle for change: it opens our eyes to the beauty and fragility of the natural world around us and encourages us to fight for its continued existence. I believe that what little progress we, the human race, have made in reversing the effects of anthropogenic global warming would be even less if it wasn't for the inspiration afforded by ecological art. And for that, we have ecological artists to thank.

Karl Taylor is one such artist. Taylor knew from the age of eleven that he wanted to be an ecological artist and saved up his pocket money to buy a massive book called *Birds of the World*, illustrated by Arthur Singer. Taylor found Singer's paintings of birds "beautiful, dynamic and modern" against the white backgrounds and their influence made its way into his own work.

Raymond Ching was another early influence on Taylor's work. Ching is considered one of the most important New Zealand artists of the 20th century and illustrated the *Reader's Digest Birds of Britain* first published in 1969 and still in print today. Taylor says Ching's artworks show "brilliant technique" and are "well observed and full of drama".

At the age of twenty-two, Taylor discovered the work of Robert Bateman who turned out to be his biggest influence. Taylor describes Bateman's artwork as "turning wildlife art upside down". Bateman depicts his subjects as just about to fly off the edges of his paintings, with lots of different shapes and textures which echo the shapes and textures of the subjects. This gives the appearance of detail where the strokes are fairly loose. Taylor found this approach to making art exciting and characterful.

Taylor's art juxtaposes the influence of humankind with the pure freedom of birds. Taylor manages to convey a sense of peace akin to that experienced when watching a robin perched on a snow-capped fence post as it sings its little heart out, or a flamingo gently sifting through the water eddying around its long, pink legs as it searches for its next meal. Taylor's work highlights and contrasts the brutality of man-made structures with the beauty and fragility of birds. These structures are often in the process of decay, showing that nature "always finds a way to rise above [humankind's] interference". The nature in Taylor's artwork is often in the process of gradually reclaiming these artificial elements such as algae on a propeller, rust on a chain, or lichen on a streetlight. The delicacy of the brush strokes gives his paintings an ethereal quality that calms the viewer and invites them to take a moment to contemplate Taylor's choice of subject matter and the relationship between the bird and its immediate surroundings.

Can work like Karl Taylor's be considered environmental art when the sentiment is so delicate and subtle? For me, Taylor's goldcrest painted with such precision, poised with confidence and pride against the bold shapes of the fence beyond, is not only a remarkable feat of artistry but an experience that will stay with me to deepen my admiration for the tiny goldcrest next time I spot one.

What I like about Taylor's work is that in it, you can look at the interface between the separate worlds of wildlife and humans and, in the connection, begin to see beauty and enduring coexistence.

Detail of larger artwork by Karl Taylor



Earthshot Prize

By Libby Greenhill

What is the Earthshot Prize?

The Earthshot Prize was set up in 2021 by Prince William and David Attenborough. It was created in order to try and stop the destruction of our planet by funding the people with ideas that could save the world. Five inspirational contestants each year will win £1 million each! This money goes towards their mission to help Earth. There are five categories: clean air, protect and restore nature, revive our oceans, build a waste-free world and fix our climate. One part of the Earthshot prize which I feel very happy about is the fact that none of the contestants was there in person (they participated via video link). Seeing as the candidates came from all around the world, it wouldn't be sustainable to fly them all to Boston USA (where last year's award ceremony was held) so that they could be there in person.

Winners:

44.01 – Oman

44.01, may seem like a strange name, to some maybe just random numbers, but these aren't just any numbers, they are the molecule weight of carbon dioxide, this element is in fact what 44.01 is all about. This astonishing company have found a new way to get rid of CO₂, they are mineralising this Greenhouse gas into peridotite, which is a rock found not only in Oman but all around the world! 44.01 works with amazing air capture technology to directly take CO₂ out of the atmosphere. Their work is cost effective, as they do not need much expensive monitoring after mineralisation has happened. Their work is also natural, safe, quick and permanent – there doesn't seem to be anything wrong with this solution!

<https://4401.earth>

Mukuru Clean Stoves – Nairobi, Kenya

Mukuru Clean Stoves designs, produces and distributes cheap and trusty stoves for poor households. These stoves aren't only good for poorer families, they are also environmentally friendly. They do not use anywhere near as much fuel as open fires do, meaning that families are experiencing less air pollution in their homes as a consequence. Charlot Magayi, the founder of Mukuru Clean Stoves, lived in the slums for much of her life, she was orphaned at a young age and become a mother at 16. Because of this she had to drop out of school and start working so that she and her child could survive. Charlot and her daughter owned a charcoal-burning stove, these were very dangerous. Charlot's daughter experienced just how dangerous these stoves were, as at a young age she was severely burned by one. Charlot made it her mission to help people who lived like she did, to try and stop people suffering from the dangers of these stoves through accidents and medical conditions caused by the hazardous nature of the stoves. Charlot aimed to try and make people's lives at least a little bit better.

<https://mukurustoves.org>

Queensland Indigenous Women's Ranger Network – Great Barrier Reef, Queensland, Australia

As many of us know, because of climate change, the Great Barrier Reef is dying. This is incredibly bad for the creatures living in the reef as they depend on it to survive, so as it dies, they are dying too. Coral reefs are also vitally important as they generate clean air and protect vulnerable coastlines from erosion, flooding and storms. Indigenous women rangers in the area are working together to gain data on the sea creatures most at risk. The indigenous women rangers of the Great Barrier Reef also work to help women in the area to get a voice. Only 20% of rangers in Queensland are female, so this organisation should help females to become more engaged with the ocean. The Indigenous women rangers of the Great Barrier Reef hope to one day gain enough supporters to have rangers all around the world, protecting the ocean and helping to repair ecosystems.

<https://qiwrn.com.au>

Kheyti

Kheyti is an Indian company set up to stop the suffering that so many small farmers go through, they suffer extreme exhaustion and often don't earn enough money to buy food. One of the things that pushed Kheyti to start was when they saw a man eating dirt, this man said that he had no money for food but his stomach didn't know that. Imagine being forced to eat dirt just so that you can eat something. Kheyti created a small greenhouse which protects crops from extreme weather and uses 90% less water! This means that farmers can get enough food to sell so that they can survive, whilst also being environmentally friendly. At the moment, 1,000 farms have a Kheyti greenhouse, and Kheyti have plans that by 2027 over 50,000 farmers will have access to their greenhouses!

<https://kheyti.com>

Notpla–London UK

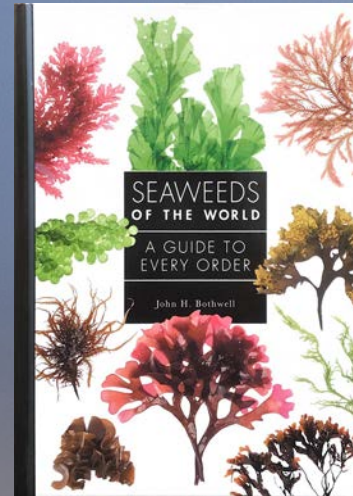
Notpla's aim to cut down on plastic packaging comes from their fear of the record-breaking amount of plastic waste humans generate and what it is doing to our planet. Finally it seems that everyone knows that plastic is such a huge issue, but did you know that only 12% of plastic ever produced has ever been incinerated, and only a shocking 9% has ever been recycled?! The rest has been dumped in landfills and oceans. Notpla has come up with the incredible plan of using seaweed for packaging, it is biodegradable and even edible if you want it to be. This amazing packaging can be used for almost anything, from clingfilm to chip boxes, even soap packets that dissolve when you wash your hands with them! Wouldn't it be amazing if we could reduce our consumption of plastic by using seaweed instead?!

<https://www.notpla.com>

Seaweeds of the World – a Guide to Every Order

By Rose Fulton

The title, 'Seaweeds of the World – a Guide to Every Order', is a considerable claim but by no means an understatement. All the major seaweed families and genera are covered in exquisite detail, beautifully complemented by stunning photographs and bold layouts which draw your eye to the page. John H. Bothwell's writing is clear and to the point, with every topic laid out in a logical order and easy to find. There are chapters on the natural history of seaweed, seaweed diversity, and a chapter each on green, red and brown seaweeds, as well as a useful glossary. Whether you're a hardened phycologist or just interested in finding out more about the delicate fronds that waft around your ankles in the shallows, this is definitely a user-friendly guide. Highly recommended.



Readers' Page

The Ant's Nest

By Sophie

One day, a little ant noticed that her colony was being very wasteful with their food. She didn't like that all the other ants were throwing out what wasn't very tasty and keeping all the perfect berries and leaves. She realized that there were a lot of other insects that weren't getting very much food, and she decided to start saving all the thrown-away food and showing the Queen how much was being wasted. The Queen agreed that there was too much food being wasted and that anything that wasn't eaten was going to be put back outside so that all the other insects could have some if they needed it. They did this for a week and at the end of the week, all the other insects were very grateful to the ants. The Queen decided that all the other insects that needed food should come to the colony and take anything they needed out of the throw-away pile. In the end, all the insects were happy and fed. The end.

If you want to send in your own piece of creative writing, please email us at: thegreenfusemagazine@gmail.com

Green Fuse News

By Libby Greenhill

Helping Wildlife in Winter

One very important thing to do for animals in winter is leave water for them. When it's so cold that most water is frozen, it can be hard for animals to find water. Leave out a container with water in it and make sure that it doesn't freeze. Do this by either putting black liner on the base of your container (black retains heat well so will stop the water from freezing as quickly), or by buying liquids that stop water from freezing. If you are wanting to leave bird seeds out in winter, it's a good idea to use sunflower seeds, these don't have husks that birds need to use up energy removing, so they are perfect for winter time! It's important to check if there are any regulations about whether feeding wild birds is currently permitted as there are often restrictions in place because of the risk of bird flu.

Congratulations Dara McAnulty

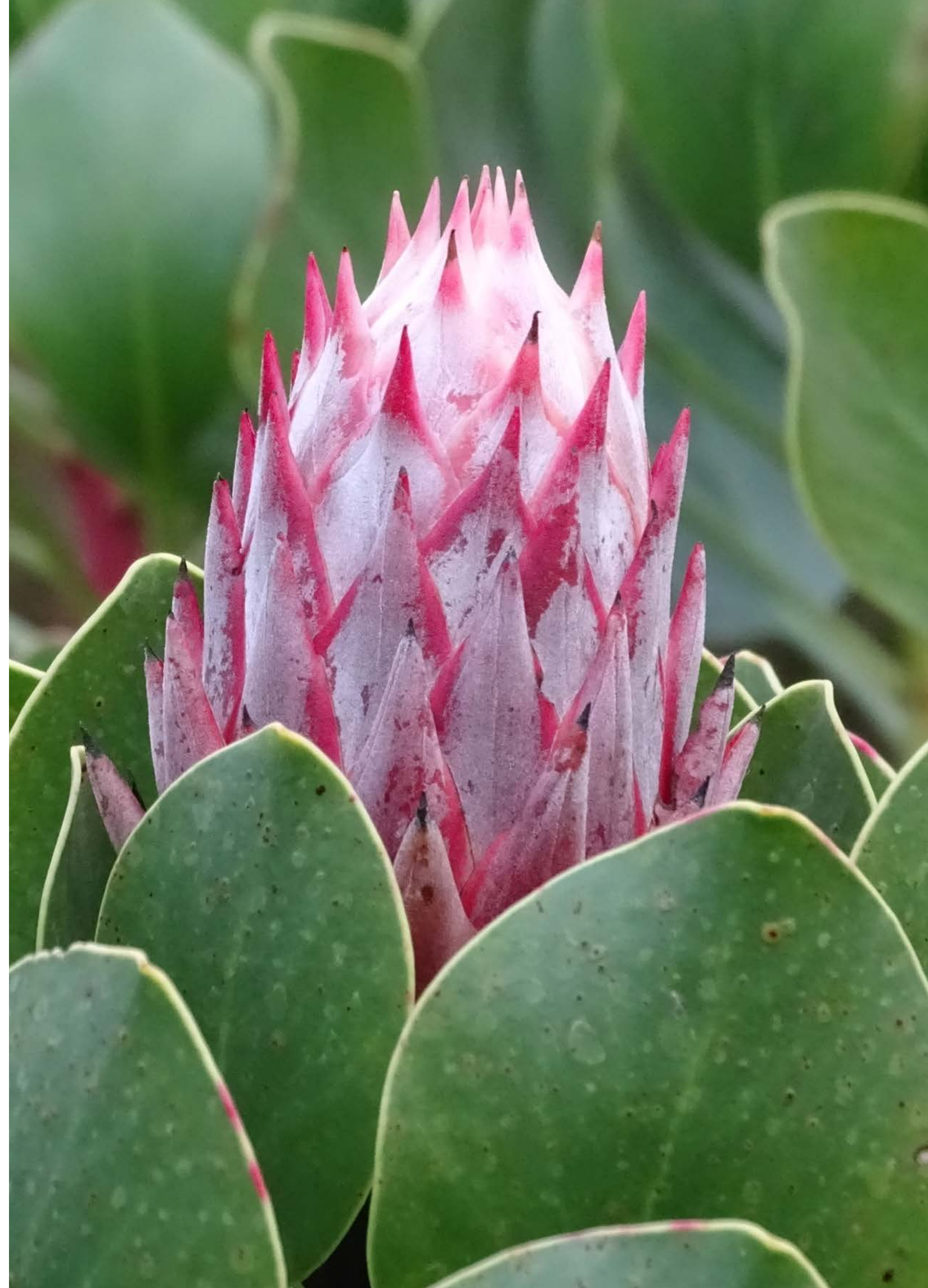
Previous readers of 'The Green Fuse' might remember that 'The Green Fuse' team have previously taken an interest in Dara McAnulty, and have been impressed by his incredible work for the environment as well as helping people in the autistic community. Now it seems that we aren't the only ones astonished by his amazing work. King Charles III has awarded Dara with the honour of being on The New Year's Honours List, he was awarded the British Empire Medal for his environmental work and his work with the autistic community. Dara was the youngest recipient on the 2022 New Year Honour List! We are all very proud of him and are sure you will be too.

Wild Deodorant

My mum and I have used Wild refillable for a while now and are very impressed by it. I contacted Faye Jawad from Wild and asked if she could tell us a little about it. This is her response, thank you Faye:

Wild is a brand that is on a mission to eliminate single-use plastic from personal care products. They have created a natural, refillable deodorant that has no single-use plastic or chemicals. When you switch to a Wild deodorant, you are directly reducing waste sent to landfill – on average, using a Wild deodorant saves 30g of plastic from going to landfill every single time you refill! Over your whole lifespan, that is a lot of plastic! You get an aluminium deodorant case that comes in many different colours and the occasional pattern and it lasts you for life. Then you have a choice of different deodorant refill scents that you can either buy one-off or start a convenient subscription. The scents range from classics like Fresh Cotton and Sea salt to crazy limited edition releases like Candy Floss or Pina Colada! Not only will you have a deodorant that looks beautiful, you will also be directly reducing plastic waste in landfill and living more sustainably.

Photograph by Rose Fulton



King Charles III

We are glad to be welcoming a new King, and we are hoping that he will continue his amazing conservation work! King Charles III showed a passion for the environment long before it was seen by the public as a big issue. Because of his early interest in the environment, he was seen as an oddity. People couldn't understand his obsession with helping the planet, that just shows how far we've come! Throughout his life, King Charles has made speeches stressing the importance of protecting the environment and he was a major figure during COP26. Keep up the good work, Your Majesty.

Why we love air fryers

Recently air fryers have become majorly popular, they might be amazing for cooking delicious food, but what else are they good for? Air Fryers use up a lot less energy than a normal oven and, with their shorter cooking time, they are much better for the environment! I have an Air Fryer of my own and I love it, it has helped me to cook more meals by myself, with the bonus of being able to make more sustainable food. So, if you've been thinking of getting one, I can strongly encourage you to do so.

Meat Free Monday

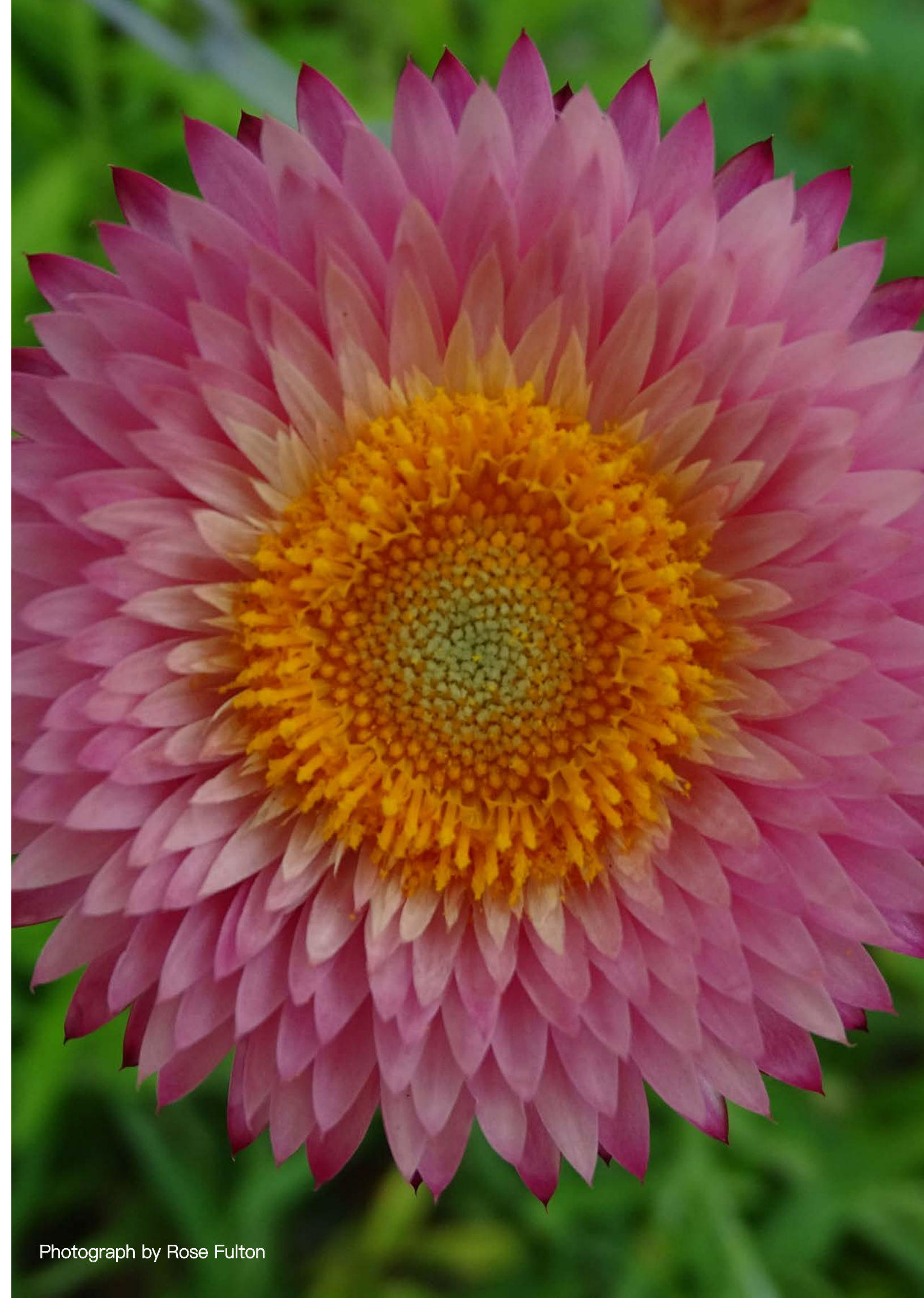
'Mum's Chilli Recipe'

Ingredients:

1 onion
1 large red pepper
1tbsp olive oil
1 tbsp ground cumin
1 tsp paprika
1 tsp chili powder
½ tsp cinnamon
2 tbsp apple cider vinegar (optional)
1 tin green lentils
1 tin chopped tomato
1 tin kidney beans
1 tbsp cocoa powder (optional)

Method:

1. Fry finely diced onion in a deep pan using the olive oil
2. Once onion starts to become translucent, add the red pepper
3. While frying, add all the spices and vinegar
4. Once onion and pepper are cooked, add: tin of lentils, tin of tomatoes and half a tin of water
5. Bring to boil and then simmer for 20 mins
6. Add the kidney beans and cocoa powder
7. Cook for a further 20 mins
8. Serve with rice or a baked potato with a spoonful of sour cream and a sprinkle of cheese for added yumminess.



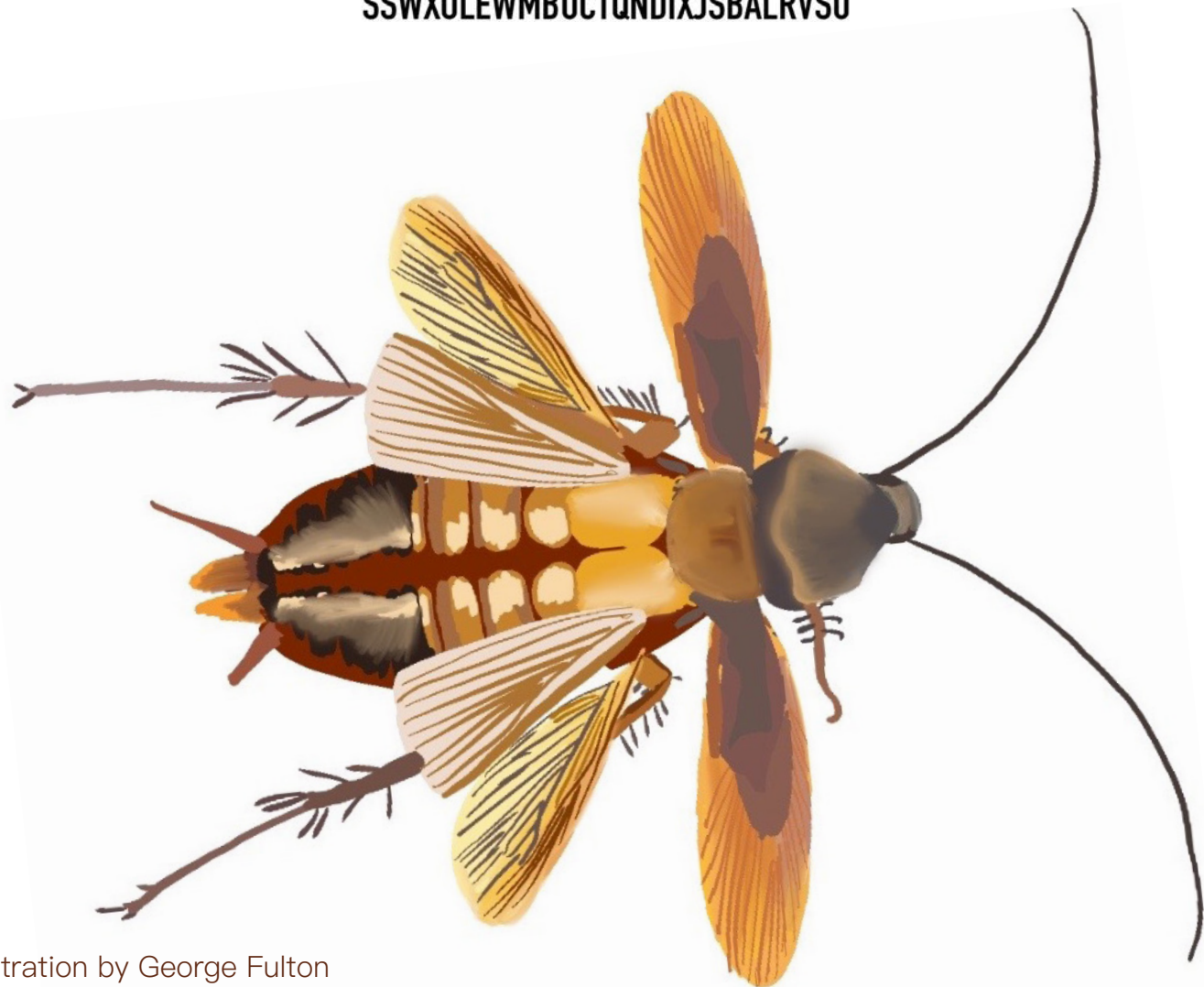
Photograph by Rose Fulton

Puzzles!

By George Fulton

Find the 13 woodland invertebrates hidden in these letters:

GYAKICKPPMFAENGICOMMONCENTIPEDELOPYRFJXJCHGARDENSPIDERUMHISSDSVHRE
WOODANTLOITABIRJONFLATBACKEDMILLIPEDEPREAWCBMKFDJLGTFCKCHAFERGJFEJGUO
PDANBRIMSTONEBUTTERFLYGERYJVDJDJFHBDGDEATHWATCHBEETLEGGTJNFFJGHNNQUIZBYG
EORGEFULTONMOBUSSHGREJJYTSILOPGGISOPDSDEETLVJHFARWIGAAEJXKKNLJOAKBUSH
CRICKETLIFFYYDDJTJNJGGUUFDFIREFLYKKHLODEAAWQQUBVDJMCZZRHINOCEROSBEETLEJLO
SSWXOLEWMBUCTQNDIXJSBALRVSU



Down:

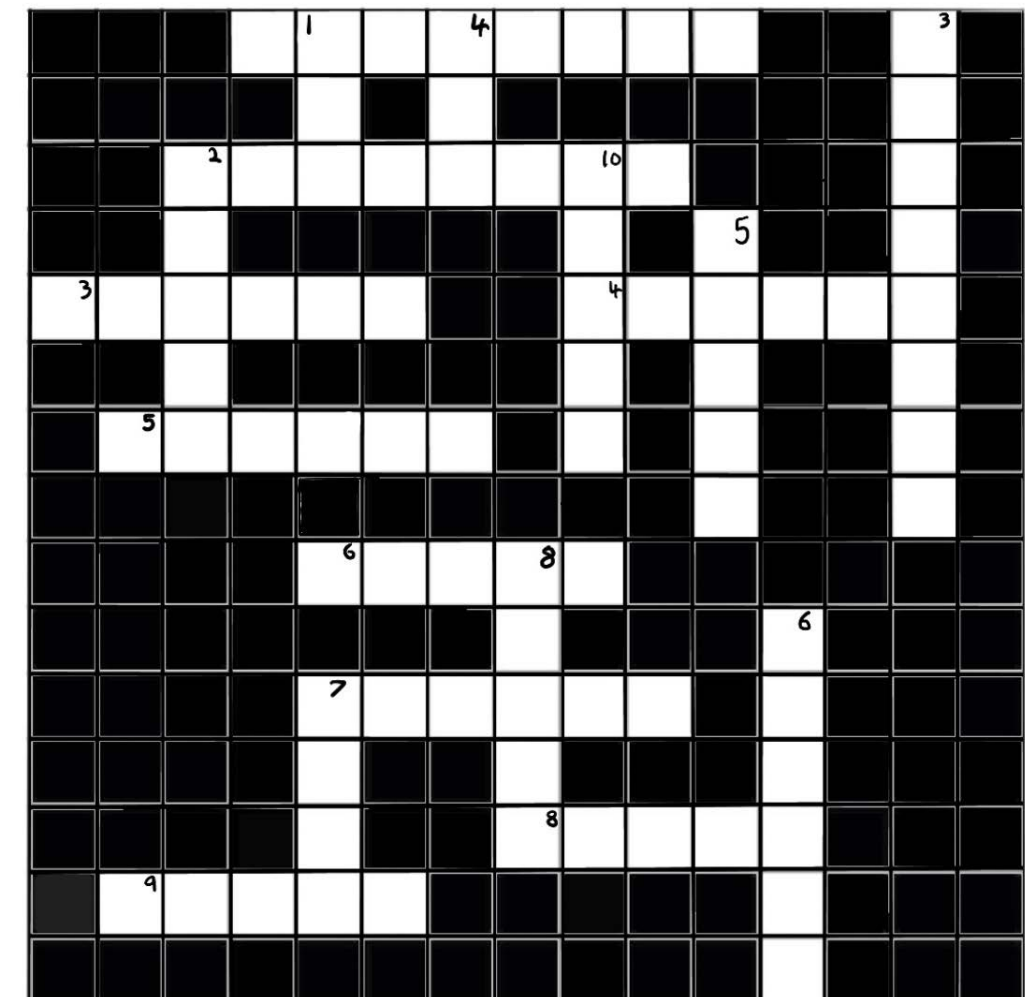
1. Sounds like a female sheep.
2. Often used as Christmas decorations
3. The nuts of this tree are often stuck on strings and used to bash each other.
4. When you burn it, it turns into its self.
5. Respect your _____s and betters
6. This is a very pop'lar tree.
7. Shares its name with a citrus.
8. Deciduous tree with short needles and cones

WARNING! Really hard question:

10. Pictured in the former coat of arms of Pihlajavesi

Across:

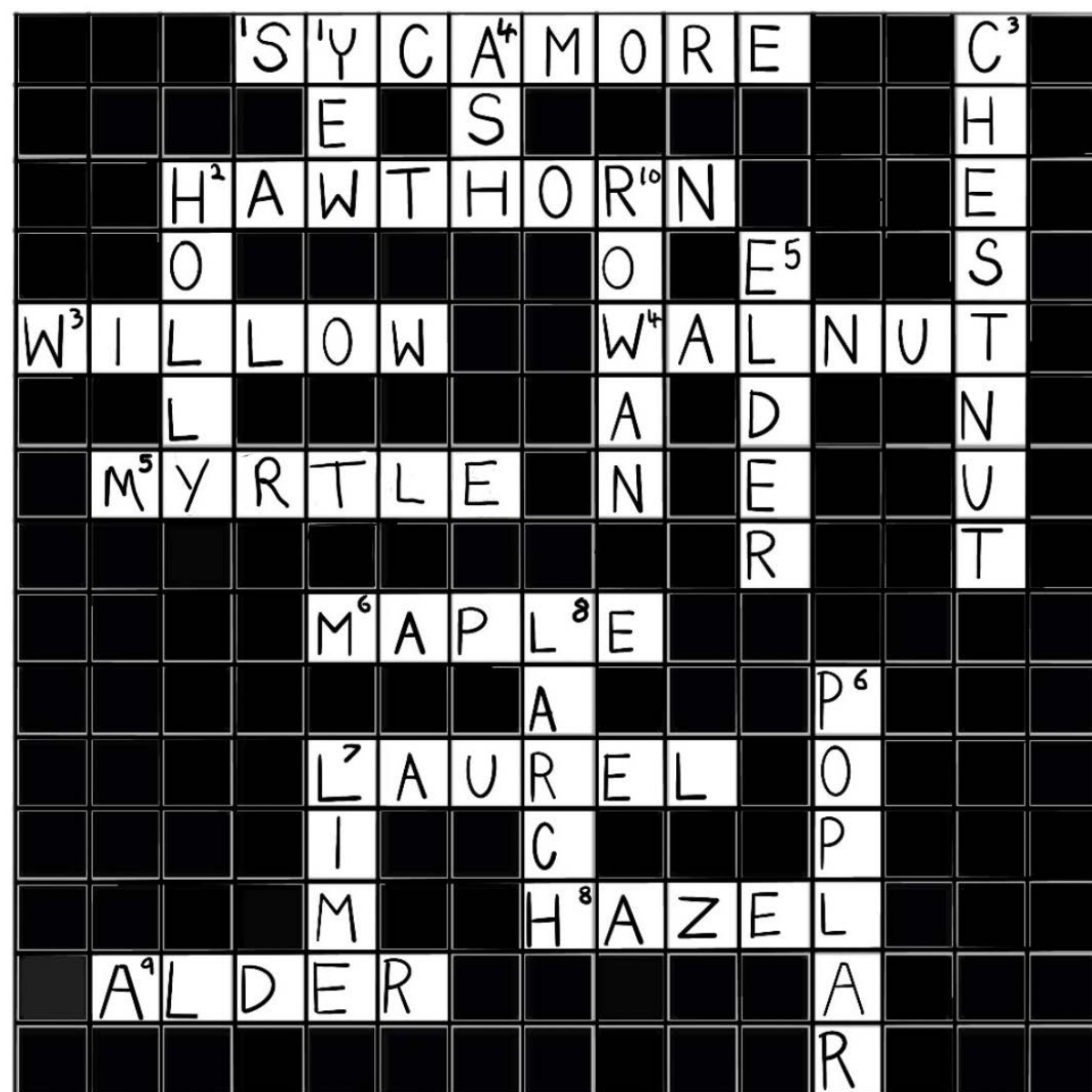
1. It's seeds are often called helicopters.
2. Thaw horn (anagram).
3. It often weeps.
4. It's fruits resemble brains.
5. A shrub that shares its name with a ghost from Harry Potter.
6. It is the producer of delicious syrup.
7. It's other names include bay tree.
8. This tree produces delicious nuts and catkins
9. Reald (anagram)



Answers!

By George Fulton

GYAKICKPPMFAENGICOMMONCENTIPEDELOPYRFJXJCHGARDENSPIDERUMHISSDSVHRE
 WOODANTLOITABIRJONFLATBACKEDMILLIPEDEPREAWCBMKFDJLGTFCOCKCHAFERGJFEJGUO
 PDANBRIMSTONEBUTTERFLYGERYJVDJDJFHBGDDEATHWATCHBEETLEGGTJNFFJGHNNQUIZBYG
 EORGEFULTONMOBUSSSHGREJJYTSILOPGGISOPODSDEETLVJHFEARWIGAAEJXKKNLJOAKBUSH
 CRICKETLIFFFYDDJTTNJGGUUFDFIREFLYKKHLODEAAWQQUBVDJMCZZRHINOCEROSBEETLEJLO
 SSWXOLEWMBUCTQNDIXJSBALRVSU



Photograph by Rose Fulton

To find out more about The Green Fuse Magazine please visit:
www.thegreenfusemagazine.com

