



GUILDFORD ENVIRONMENTAL FORUM

newsletter

www.gefweb.org.uk

JUNE – AUGUST 2019

"This is an emergency"



Sky News

EXTINCTION REBELLION
XR

EXTINCTION REBELLION

by Forum member Jonathan Mitchell

Frustrated by the lack of urgency shown by governments on both climate change and biodiversity loss, many people feel that letter writing, marches, petitions, supporting NGOs and personal shopping choices will not stop humanity sleepwalking to planetary disaster.

In response, Extinction Rebellion (XR) was launched in the UK in 2018, inspired by movements such as Gandhi's Independence Movement and the Suffragettes. Their demands are that the Government must:

- i) **tell the truth by declaring a climate and ecological emergency, working with other institutions to communicate the urgency for change**
- ii) **act now to halt biodiversity loss and reduce greenhouse gas emissions to net zero by 2025, and**
- iii) **create and be led by the decisions of a Citizens' Assembly on climate and ecological justice.**

Their principles are based on non-violence.

IN NOVEMBER, I JOINED several thousand supporters as part of the first large-scale action of civil disobedience blocking five London bridges. To many of us, for whom civil disobedience isn't a natural response, there was apprehension, but XR's approach allayed this. This action, in which 85 arrests were made, received some exposure in the mainstream media. Significant social media coverage resulted in the movement taking off both locally (e.g. XR Godalming, and now XR Guildford) and globally (e.g. XR Freiburg), a rapid expansion catalysed by XR's policy of autonomy and decentralisation.

Independently, the school strike movement,

started by Greta Thunberg in Sweden last August, has also spread worldwide, including Guildford. Organisers estimated that on 15th March more than one million students protested at more than 2,000 locations in 125 countries.

In April, XR's International Rebellion had a profound impact in the UK when four key sites in central London – Oxford Circus, Marble Arch, Waterloo Bridge and Parliament Square – were occupied for up to 11 days with over 1,100 arrests including eight from XR Godalming. This disruption, alongside action planned in 32 other countries, resulted

in worldwide media coverage and subsequent meetings between XR representatives and UK Ministers and MPs.

Key to XR's success to date has been the non-violent approach and their ability to inspire essentially moderate people to take part, with many willing to be arrested. The sites in London were drug- and alcohol-free, with the area behind the arrest line set up for workshops, well-being, advice and entertainment. There was no expectation placed on attendees and you could be involved in any way you chose. I joined the XR Godalming group on a tree-lined Waterloo Bridge where passers-by were drawn into a very peaceful area, despite the periodic arrests taking place of attendees sitting on a defined line across the road.

Both these XR actions and school strikes were pivotal in the UK Parliament declaring a climate and environmental emergency on 1st May.

Following the October IPCC report, the UK Government asked the Committee on Climate Change (CCC) to advise on a target date for net-zero emissions. On 2nd May

A Hampshire XR supporter is arrested on Waterloo Bridge



the CCC reported (disappointingly) that "2050 is the latest date for the UK to credibly maintain its status as a climate change leader and the earliest to be credibly deliverable" and that this target is of the "highest possible ambition". The CCC expects to advise on the pathway to achieving net-zero in 2020. Much like XR's ambitious target of 2025, the CCC 2050 target is contentious, especially in the context of 43 local councils already targeting 2030 (climateemergency.uk) and the declaration by Parliament on 1st May. However, the detailed analysis in the report provides a valuable baseline from which to argue for an earlier date. Involving more people in this debate is key and XR is committed to communicating the facts and realities of the climate crisis to the public, as well as planning future direct action.

Given the UK's material cumulative historical emissions and that the crisis will more severely impact lower emitters, I believe the UK has a moral duty to strive for as early a net-zero target as possible.

We really are at a significant moment in history. The oft used quote "If not us, then who? If not now, then when?" never seemed more appropriate.

In 2008, the UK arguably led the way with the Climate Change Act that targeted a reduction of emissions of 80% over 1990 levels by 2050; but the early easy reductions, helped by offshoring emissions associated with consumption to e.g. China, have not been sustained and the UK is not on track to meet targets arising from that Act.

In October 2018, the Intergovernmental Panel on Climate Change (IPCC) report (see GEF newsletter Dec 2018) highlighted the catastrophic effects of a global temperature increase of 2°C, over pre-industrial levels, compared to a 1.5°C rise. However, based on the commitments from the 2016 Paris Agreement, our planet is on course for a cataclysmic 3°C by 2100 and probably more when feedback loops are accounted for. To keep the increase to 1.5°C requires a 45% cut in global emissions by 2030 (compared to 2010) and net-zero emissions by 2050.

GUARDIAN LIVE

by Forum member Sam Warner

A FEW WEEKS AGO, I was lucky enough to attend a Guardian Live event led by the Swedish 16-year-old catalyst of the school strike movement, Greta Thunberg, alongside the co-founder of the UK Student Climate Network, Anna Taylor, and the Green Party MP Caroline Lucas. The event started with a rousing speech by Lucas. She then introduced Thunberg and Taylor who were greeted with cheers and a standing ovation before they had even spoken.

To provide some background for any readers who didn't know, last summer 15-year-old Greta Thunberg, frustrated by inaction in the face of impending catastrophe, decided she would strike from school to give attention to the climate crisis because, in her own words, "Why should we study for a future that is being taken away from us? Why should we learn facts when facts clearly don't matter?". Much to her surprise, in just under a year, her one action sparked thousands of youth climate protests across 125 countries, that helped propel the climate agenda back to the front pages and her voice to podiums across the world.

The discussion was dominated by the subject of political action and was shaped by Thunberg's characteristic candour as she continuously stressed the urgency to act and the necessity to "listen to the scientists". But the discussion also tackled everything from veganism to not flying and the need to maintain the momentum of the strikes without

burning out, to ensure that adequate pressure continues to be applied.

Throughout the discussion all the panellists stressed that this is only the start and that the protests need to spread, with Greta aptly commenting "it's not...a movement. It's a crisis and we must [act] accordingly", later calling for a general strike for all. Each panellist stressed that whilst these strikes have gained attention, almost every government and company has still failed to act and it is they who are responsible for the majority of emissions. This is the reason such strikes are necessary.

I think the reason both Greta and Anna became the de facto spokespeople for the youth strikers is because of their no-nonsense fact-based position. They see lies for what they are, they demand action and never settle for any level of false promises from politicians or anyone else.

My main take-away from the event was a message of hope. Having spent years following environmental justice and climate change I had been consumed with pessimism. But now with uncorrupted schoolchildren, faultless science and politically viable solutions at the forefront of our collective cause I hope we are at a tipping point. I hope the trickle of change that followed the initial protests manifests into the necessary system change that will guarantee not just our survival but our quality of life for years to come.

G25 GUILDFORD ENVIRONMENTAL FORUM ANNUAL GENERAL MEETING 29 APRIL 2019

ADRIAN THOMPSON chaired the meeting and opened the 2019 AGM of the Guildford Environmental Forum (GEF) by welcoming some 40 GEF members and guests. He reminded the audience that 2018 was the Forum's 25th Anniversary Year. GEF had been founded in 1993, just after the Rio Climate Change Summit, which had called on local communities to take action at a local level to limit the impact of Climate Change.

Adrian commented that there has been much too little progress in those 25 years, but at last the science has been accepted. He felt that there was some good news in this last year, as a consensus has been building around the recognition of the **urgent** need to tackle the threats posed by climate change, which have resulted from our current lifestyles and our carbon-based economies. In the last week of April, we had seen the positive publicity of the Extinction Rebellion, the peak time David Attenborough programme *Climate Change, The Facts* and the amazing 16-year-old Greta Thunberg getting Michael Gove to admit that we as a nation are not doing nearly enough yet on Climate Change.

On Membership, there was a net growth in membership of 24, just ahead of last year's 23 and this helps our finances considerably. He asked GEF members to debate climate change issues with friends and encourage them to join GEF.

On Finance, Adrian advised that GEF finances were looking steady. For two years GEF have now been self-sufficient financially. We no longer receive any grant from Guildford Borough Council (GBC), which gives us total independence from party politics or influence. He commented that costs were the same as the year before, which has enabled GEF to post a deficit of just £59, compared with £217 in 2018. GEF have about £5,000 in the bank and, with increased confidence about membership, GEF is again in a position to invest in our core areas of climate change and biodiversity.

On Projects and Activities, Adrian advised that these were well covered in our newsletters, but that he would particularly like to thank the following GEF members for their specific contributions to our past year's successes: Adrian thanked **Clare Windsor**, GEF's newsletter editor who has done an amazing job for GEF for at least 15 years. The newsletter now has a readership of over 1,000 every issue and there has been so much content provided that the last two issues have had to be increased to 16 pages. He mentioned that an electronic copy of every edition is always available on our website, and that hard copies had recently been provided to the Royal Grammar School (RGS) for their library, going back to September 2005.

Adrian advised that **Richard Seymour** was standing down tonight as Vice Chairman of GEF and thanked Richard for everything that he continues to do for the Executive Committee. As geography master at RGS, Richard provides a crucial link to the Geographical Society of Guildford. This gives all GEF members the opportunity to hear the brilliant lectures that Richard and his team secure each winter. He advised that, as for all GEF talks, there is no charge for entry but it is good to have these events where students dominate the audience.

Adrian then thanked **Alastair Atkinson** and **John Pletts**. They are members of our new Climate Change Group or CCG. As members they have both been co-opted on to the GBC Climate Change Task Group, a new Committee set up by Guildford Borough Council (GBC) in December 2018 and chaired by Cllr. Nikki Nelson-Smith. One of the Task Force's first achievements was for GBC to adopt the Task Force's Innovation Strategy 2019. This is now agreed policy and includes the target of Guildford "becoming a net zero carbon Borough by 2040". Alastair and John are expected to work with the new Council, after the current elections, so as to, in the words of GBC "inform policy input on Climate Change and to make practical suggestions of issues that this Council can and should be addressing going forward, and to make recommendations as appropriate to the Executive and Full Council". Adrian thought it was a huge step for GEF to be back working with GBC in this way.

Next Adrian thanked **James Currie**, who set up the monthly social group called Guildford Green Drinks, about a year ago. All who attend are passionate about the environment and over 20 attend most evenings. It had been very popular with GEF members and had proved a great success, especially by attracting a younger audience. The group meets every fourth Tuesday at 7pm at the Britannia Inn in Millmead. As a fairly regular attender, he recommended this relaxed and enjoyable group, which anyone can join by contacting James on guildfordgreendrinks@outlook.com

Henrietta Stock. Henrietta is a Chartered Energy Manager, who gave us an inspiring talk in January 2018. This led quickly to a group of GEF members with considerable experience in this field to form the GEF Climate Change group. This group has met eight times since last winter and, apart from **Alastair** and **John** (mentioned above), has included **Steve Davis**, **Bill Kyte**, **Ian Stewart**, **Colin Summerhayes** and **John Bannister**. He thanked them for finding time to attend most of the evening meetings and to conduct research between meetings.

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Adrian went on to thank our two new prospective members of the Executive Committee – **Alan Thorogood** and **Juliette Tiley**. Jules Tiley replied to an appeal for a volunteer to be our Marketing and Communications Officer. She joined GEF at about the same time as Alan Thorogood and the two of them have jointly produced a new flyer, currently being designed by Clare Windsor. Jules is already re-invigorating our social media and has started to get GEF better known across the Borough. Amongst Alan's many contributions to GEF, he has introduced us to our guest speaker tonight.

Adrian also thanked **Roberto Vogel**. For over 10 years Roberto and John Bannister have led the apple-pressing season. Roberto took over last year and will lead the GEF apple-pressing season again this year. This is a most enjoyable activity and attracts families with young children. We have a great opportunity to meet potential new members as our stall is often visited by hundreds each year and we want to hand out our flyers at this year's events. GEF needs at least five more volunteers for about four days this year in the autumn to join these busy events, and Adrian would be delighted to hear from anyone who is interested in helping.

Adrian thanked **Raymond Smith** (our last Chair) and **Mo Usher** for leading GEF's involvement in "Guildford in Bloom" for several years. They have stood down for very understandable reasons and Adrian thanked **Anne Wright** for taking on this role. Anne is heavily involved with the Pewley Down Volunteers, has been a GEF member for at least 15 years and Adrian was most grateful to her for her taking on this important role, working closely with the Parks Department of GBC. Adrian added that Pewley Down is an amazing asset so close to the centre of Guildford; it is a wonderful place to visit throughout the year, but especially in summer. Anne would like to hear from volunteers who might be able to help maintain Pewley Down or who wish to know more about "Guildford in Bloom".

Kate Millington and **John Bannister** were well-known to all who visit the Rosamund Garden on the North Downs near Merrow. Kate has worked tirelessly to develop this Community garden with so much help and support from John Bannister. The garden itself is about 2 acres in size and, over the last 10 years, Kate and John and many volunteers have developed an orchard, vegetable plots, soft fruit, polytunnels and now, bee hives. This is a lovely site and the annual addition of compost makes it a sustainable site to



Our apple-pressing is enjoyed by every age

grow local food. Kate was always looking for more volunteers and Adrian would be pleased to pass on any leads.



Bees have been introduced to the thriving Rosamund Community Garden

Adrian commented that **John Bannister** needs no introduction to most of the audience, but as a past Chair, John continues to work tirelessly for GEF. Adrian thanked John for all his work on achieving the return of the peregrine falcon to Woking. He recommended the website www.wokingperegrines.com, where all could enjoy watching the feeding of the five recently hatched 2019 chicks. He thought this was a great example of how working with a local authority can achieve great results.

The audience then heard about GEF's two main challenges for the future:

A CLIMATE CHANGE

Looking forward, GEF will be guided by the GEF Climate Change Group, mentioned earlier. GEF are determined to maintain the progress that has been made together with Guildford Borough Council since our 25th Anniversary Event. Working with the GBC Climate Change Task force gives us the opportunity to stress the need for change in the following areas:

- a. **Transport** (which accounts for about 20% of our carbon emissions). GBC strategy now includes the target that "Our future transport system will be greener, safer and more reliable". We would like to see much more support for electric vehicle infrastructure. The new Surrey County Council Park and Ride buses are an excellent start.
- b. **Housing and domestic emissions** (approximately 25% of our emissions). Our CCG wishes to work with GBC on the 3 key sectors of
 - i) The build standard of new homes and alterations to existing homes;
 - ii) Through reducing the unnecessary loss of heat from our existing homes; and

- iii) Through working with residents to change their patterns of energy consumption, low carbon energy generation and renewable energy.

- c. **Business links.** The CCG would like to help GBC to develop a network for shared environmental best practice in the Borough.
- d. **Food.** Another key area of consumption where GEF promotes change is in the move away from over much consumption of meat and dairy. The rapid increase of vegetarian, vegan and flexitarian diet to about a third of current UK consumption is as impressive as it is surprising, and there is no reason why GEF cannot continue to support the benefits of a much more sustainable diet.
- e. **Energy.** There is potential for GBC to lead on the installation of more renewable energy such as solar panels in the Borough. The initial subsidies needed to initiate the installation of solar panels are no longer required, but better planning of both new developments and existing housing stock have great potential for reducing the Borough's carbon emissions.
- f. **The recruitment of a climate change team within GBC.** This is proposed within the GBC Innovation Strategy and we would urge GBC to move on this quickly and effectively. We would also urge the appointment of a Climate Change champion from within the Councillors being elected in early May.

B BIODIVERSITY

1. **The loss of species** is at last being recognised. We strongly support the work of Surrey Wildlife Trust in highlighting the shocking decline in Surrey's biodiversity and we are keen to support the new team led by Sarah-Jane Chimbwandira. GEF is limited by numbers, though not by enthusiasm, in supporting these declining species, so we have to limit our activities to what is possible. Two species, whose numbers have collapsed in the last 30 years are butterflies and swifts.
2. **Butterflies.** The successful Small Blue Stepping Stone project will reach the end of the initial 2 year term in July 2019. Adrian told the audience that Fiona Haynes, the part time project officer, and large numbers of volunteers had created over 130 scrapes in the North Downs. Kidney vetch (the only food plant of the small blue butterfly) has been sown in these sites and

will continue to be. This will enable the falling population of small blues to increase on the North Downs between Guildford and Epsom. Adrian was pleased to be able to advise that the project will continue after July 2019 and will be run by Butterfly Conservation with support from many of the same active volunteers, who will maintain the sites in future. These volunteers will then monitor the return of the many species of



The Small Blue Project will now run beyond 2019

declining or rare plants, moths and insects that will benefit from the restored habitat along the North Downs. Other threatened butterfly species that are expected to benefit from this project are the grizzled and dingy skippers, silver-spotted skippers and the adonis blues.

3. **Swifts.** John Bannister had led an amazingly successful project to help swifts. Some 30 GEF members had heard the talk by Edward Meyer in January 2018 when Edward outlined how the loss of insects in our countryside (probably due to pesticides used by farmers) has meant that swifts have declined massively in the countryside, but that they can still thrive in our towns. Even in our towns, swifts are threatened by a shortage of nest sites. John Bannister, supported by GEF has secured £1k of funding from the Community Foundation for Surrey. John has asked for donations from those putting up swift boxes and in the last year some 60 swift boxes have been installed around Guildford.

In addition, GEF has secured donations in 2019 that will enable a project in Shalford to go ahead which will install a swift tower that can provide homes for another 55 swift families. John has recently offered, with GEF help, both financial and through volunteers, to extend this project for another year. Adrian requested interested GEF

members to contact John Bannister (see contact details on newsletter) if they were able to help him.

THE FUTURE

GEF needs to attract younger members who will, after all, inherit the world that we older members leave behind. I regret that we have left our children a challenging legacy. Our addiction to carbon (whether it be petrol, oil, gas or plastic) will be a huge challenge to them. Added to that is the loss of biodiversity that we have witnessed and are now beginning to understand better. Please continue to support GEF in doing everything we can to set a truly sustainable course for the future.

ELECTIONS TO THE EXECUTIVE

Adrian advised that the executive committee was sorry to be losing John Scott, who had resigned from the Executive Committee due to time pressures. However, he proposed that Alan Thorogood and Jules Tiley were elected by the AGM as their replacements. All the other continuing members of the executive were unanimously re-elected for the forthcoming year, together with Alan and Jules.

Under Any Other Business, in response to a request by Trevor Jones to include more on transport in future, both as regards articles in the newsletter and in events and talks, Adrian agreed that he would try to do so. It was agreed that the talk on the future of bus travel was a good start. Nina Alpey made suggestions about the difficulty of finding the GEF website in a google search and making the events section clearer. Adrian agreed with Jules Tiley that we would note that and investigate what could be done as soon as possible.

CONCLUSION

Adrian wound up the 2019 AGM by thanking all GEF members for their support, however given. He concluded by saying that the scale of change that is needed to stop carbon emissions from rising further and then to become zero carbon in a few years' time was daunting. Many of the younger generation, including the 16-year-old Greta Thunberg had major worries about the future of the planet.

He was sure that the next 10 years would be critical to the future of the planet. However, he advised that we must remain positive and re-double our efforts to reduce carbon emissions in all the ways outlined this evening and in so many more ways. He urged that we all do whatever we can, here in Guildford, to highlight these issues and press for all the changes necessary.

Adrian Thompson

The Role of Citizen Science in Understanding the Ecology of Non-Native Species

Talk given by Professor Helen Roy MBE, of the Centre of Ecology and Hydrology, at Guildford Environmental Forum's recent AGM

summarised by Forum member Alan Thorogood



HELEN'S TALK FOCUSED ON the effects of environmental change on insect populations and communities. In particular the talk concentrated on the dynamics of invasive non-native species and their effects on biodiversity and ecosystems.

Helen is passionate about the role of citizen science and the opportunities it provides for engaging people actively in science. Over the last 10 years Helen has led several major citizen science initiatives involving tens of thousands of people, whilst working at the UK's Biological Records Centre (BRC), part of the Centre for Ecology (CEH) based in Wallingford.

Major initiatives include the UK Ladybird Survey and EDF Energy Big Bumblebee Discovery.

You can follow Helen on twitter @UKLadybirds

The BRC and Citizen Science

The Biological Records Centre is a world-class observatory for UK biodiversity. A pioneer of what is now called citizen science, BRC links researchers with voluntary recording communities, collating and interpreting data to understand large-scale biological processes by relating changes in species distributions to environmental change.

The work of BRC is a major component of the UK's National Biodiversity Network, whose development it has supported since 1997. There are now 96 million observations available via the NBN Gateway. BRC also works with Defra on the GB Non-Native Species Information Portal (GBNNSIP).

In the 50 years since the formation of BRC, a major achievement has been the publication of distribution maps for more than 10,000 species from more than 100 printed atlases.

The BRC's earliest plant record is from the 16th century, but nowadays records are often submitted via **smartphone apps** which allow volunteers to quickly access information 'on-the-go' using GPS and camera technology. BRC has worked with recording schemes to develop recording apps such as **iRecord Ladybirds** and **iRecord Butterflies** which both recently passed the 10,000 records milestone. It has also helped develop the **iRecord website** for sharing wildlife observations and associated photos.



Bumblebee - RSPB



Peacock butterfly - BBC



Every Record Counts!

The free apps can be downloaded at www.ceh.ac.uk/citizen-science-apps

Alternatively, records may be submitted online at <https://www.brc.ac.uk/irecord/> or by post or email!



Asian hornet - BBC

Examples of the Role of Citizen Science

Pollinator Monitoring Scheme

Many wild and cultivated plants depend on insects to pollinate their flowers, with successful pollination leading to successful seed or fruit production. There are concerns that numbers of pollinating insects such as bees and flies may be declining, but we need more data to be able to track any changes in abundance across the country. The Flower-Insect Timed Count (FIT Count) is designed to collect new data on the numbers of flower-visiting insects, as part of a wider set of studies for a national Pollinator Monitoring Scheme. Further information on this or how to take part can be found at the iRecord website

The Spread of the Harlequin Ladybird

The Harlequin ladybird (*Harmonia axyridis*), heralded as "the most invasive ladybird on Earth", was first recorded in the UK in October 2004. Within a few months the online Harlequin Ladybird Survey was launched as part of the wider UK Ladybird Survey. Ten years later, in an inexorable advance, the Harlequin was found in most of England. Over the last decade, tens of thousands of people have contributed their sightings of this invasive non-native ladybird (and other species of ladybird) to the UK Ladybird Survey. Key findings of the survey to date include:

- The fact that seven out of eight native species of ladybird were declining and this was strongly linked to the arrival of the Harlequin ladybird.
- The colour patterns of Harlequin ladybirds, their association with different habitats

and plants within these habitats, their reproductive behaviour, their flight patterns and so much more has influenced the spread of this species.

- The Harlequin ladybird has been shown to be more resistant to parasites than other ladybirds.
- The dataset has been shared with other scientists across the UK and around the world, and findings compared with others who are studying the Harlequin ladybird across Europe, South Africa, North and South America and Asia.
- The role of citizen scientists in this research has been inspiring and we have enjoyed sharing experiences with other citizen scientists and their projects.
- The number of new arrivals is increasing year on year and the number of records of *H. axyridis* received by the UK Ladybird Survey demonstrates the critical role that people can play in non-native species surveillance.
- The commitment of people to recording Harlequin ladybirds encouraged the development of a recording system for other non-native species which is being used as an early warning tool for the Asian hornet and other species that are on the horizon. The demand for scientific evidence to underpin our understanding of the impacts of invasive non-native species on other wildlife continues to be high.



Harlequin ladybird - Buglife

THE FORECAST

by Forum member Michael Tanner

THE FIRST OF THE MAJOR WORLD CLIMATE CHANGE CONFERENCES took place 40 years ago in Geneva. Since that event there have been 24 COPs (Conferences of the Parties) from which the names of Helsinki, Copenhagen, Kyoto and Paris are almost catchwords. These meetings of 100 or more countries have seen the raising and the dashing of hope. The public expectation of their effectiveness has sometimes been pathetically high, but it has taken that 40 years to show how huge a task it is to obtain agreement on decisions that, if implemented, would make uncompromising demands on people of all nations, particularly if they were affluent and likely to be averse to a more abstinent life style.

The last major COP was enacted in Paris in 2015 and a famous Agreement was produced and signed by most of the participants – these signatories did not include the USA though it made sympathetic gestures. What has happened since sometimes looked quite promising, but scientists and others working assiduously and independently in the background were enabled by advanced technology and newly available funds to carry out and publish well researched, indisputable facts and figures which clearly demanded a more urgent response from every human being capable of understanding their implication.

There is no doubt that over the past two years or so attitudes to ‘Climate Change’ have become more exercised, more crystallised, more vocalised and taken on a more obvious role in public debate. There are several quite evident reasons for this, not the least being the markedly more frequent occurrence of natural disasters associated with freak weather and the fact that such events make excellent television viewing. Moreover, when such disasters seem no longer to be confining themselves to conveniently distant regions, but come knocking on the back door, populations in

developed countries who for a long time have taken a high level of security for granted, rapidly develop higher levels of empathy with the less fortunate.

Nevertheless, it has once again taken decades for an Inconvenient Truth to struggle through the barbed wire and minefields of obfuscation laid down by those whose ethics are profit and whose weapons are huge dividends: the corporations who have global influence, the investment banks who cheat, the politicians who have lost the plot of where they came from and where they were meant to be going, the irresponsible billionaire proprietors of mass media, the leaders of some evolving countries with huge natural resources, whose own greed has been exploited by the greed of outsiders who, behind a veil of sophistication and seeming good will, have only too often surreptitiously abandoned their principles.

The ball started to roll in the international conferences at Helsinki and Copenhagen but these achieved little more than demonstrating widespread and growing concerns that there was such a phenomenon as Climate Change, that this phenomenon was man-made, that the rate of its development was accelerating out of control, and that something effective should be done about it. But how many such conferences are required to produce and implement effective measures? Concern was turning to alarm, though many felt somewhat better after the great Paris Conference of 2015, in which scores of nations expressed their willingness to sign accords on the matter and to follow this up with actions listed with a timetable. This was followed by some dragging of feet and backtracking by the biggest consumer of all the nations, the USA, and a few others.

This engendered or rather, joined with, a distrust of leadership and the elite in many countries. One thing, however, seemed more reliable and that was scientific proof: in the last decade the technologies for

- Berlin 1995
- Geneva 1996
- Kyoto 1997
- Buenos Aires 1998
- Bonn 1999
- The Hague 2000
- Marrakech 2001
- New Delhi 2002
- Milan 2003
- Buenos Aires 2004
- Montreal 2005
- Nairobi 2006
- Bali 2007
- Poznan 2008
- Copenhagen 2009
- Cancun 2010
- Durban 2011
- Doha 2012
- Warsaw 2013
- Lima 2014
- Paris 2015
- Marrakech 2016
- Bonn 2017
- Katowice 2018
- Santiago 2019

“Right now, we are facing a man-made disaster of global scale. Our greatest threat in thousands of years. Climate change.”

– Sir David Attenborough

measuring took huge strides and were evidently receiving funds to improve and promulgate their findings: yes, intelligent conjecture now had proof – proof that the icecaps and glaciers of the world were melting faster than ever; proof that the sea levels were rising; proof that this and that record of temperature and rainfall and wind strength presented a picture of something inexorable and threatening to many forms of terrestrial life; and proof that Man himself was the unwitting (?) instigator of what was happening all around. The unprecedented facts and figures had been scrutinized, checked and rechecked. Those who had denied the truth of these facts still wriggled on the hook of reason to make themselves sound plausible, but mostly they served the paymasters of corporations or governments who had little or no idea of how fallacious their version of economics was and no idea of how truly to measure GDP. Short-term profit in the form of money or votes was their creed.

So where do we, quite suddenly and almost surprisingly, find ourselves in such disturbing and disturbed times? How much faith can John Citizen have in the powers-that-be to tackle something that

is certainly unique in recorded history? Even that question harbours outdated and dangerous concepts: John Citizen is as much a part of the problem and the solution as anyone else. Certainly in the more developed countries he has, at least through I.T. and the internet, the means of keeping in touch with events and other men. As with all man’s clever tools however, is he going to abuse this one or use it with good sense, towards good purpose, guided by sound and humane principles? Currently we are witnessing a real struggle to resolve this matter also, but some of the signs are auspicious.

Suddenly, amidst all the agitated clucking and wailing in the hen yard that all the rumours of a gigantic fox were true, there was heard a sound which made them all stop, tilt their little hen heads in one direction and listen to a voice they had heard before, though only in their dreams. Well, at least it seemed to me like that, and I am no more than one of them.

I refer of course to the events of the past two or three weeks: the meeting of President Macron in Paris with the Secretary General of the United Nations; the pronouncements issued internationally from that meeting; the detailed assessment and declarations published before this by the independent Committee on Climate Change sponsored by the UK Government; the marches and announcements made by the members of Extinction Rebellion (a title which eschewed diplomatic niceties) and of course, the instigator of that movement herself, the teenage Swedish schoolgirl, Greta Thunberg.

Every one of these was reading from the same page, the very same unequivocal message: “We are in this totally perilous place; this is the nature of that place; this is how and when we will strive to save mankind AND his cohabitants on this planet from imminent extinction.” And then the Secretary General of the United Nations, Antonio Guterres, announced that the next global conference would be in December of this very year, in the capital of Chile, Santiago, on the edge of the world’s biggest ocean – the Pacific – where Man’s polluting habits are exhibited as much as, if not more than, anywhere else in the world, and around which so many nations have their home! The preceding month of November would be devoted to the



Above: Antonio Guterres and Emmanuel Macron Below: Greta Thunberg



The Future of Bus Services in Surrey

Gordon Frost, the Director of Operations for Stagecoach South, gave a fascinating and illuminating talk to GEF members on 8th April. Gordon made it clear that his comments would be personal views and not necessarily Stagecoach official policy. Adrian Thompson summarises some of the key points.

Challenges

- Funding. Cutbacks in funding for local authorities have been severe over the last 10 years. The loss of bus service providers such as Abellio (now concentrating on Central London) and Excetera, which has ceased trading, means that some rural routes are in danger of being lost.
- The politics are uncertain. The main national political parties have widely different visions of how to run our bus services.
- Underinvestment in Infrastructure. The current Guildford bus station does not encourage new service users.
- Technological changes. 10 years ago hybrid diesel-electric buses seemed to be the future, but not now due to less clean energy and the weight of the batteries.
- There is new competition from Companies such as Uber.
- The cost of petrol and diesel emissions on the lives of children is not properly taken into account in cost comparisons between cars and buses.
- Half of fare-paying transactions are in cash.

Trends

- The introduction of electric-powered buses such as those of Guildford Electrics on the five Park and Ride routes into Guildford town centre. These buses need only one charge per day and have much lower running costs. Excluding depreciation on the more expensive capital outlay on Electric buses, the running



necessary preparatory discussions between the representatives of all of us.

By then there should be no more prevaricating, time-wasting dispute of the underlying facts, but the spirit of global co-operation needed to meet a challenge greater than any before.

What did the aforementioned 'same page' proclaim in terms of cause and remedy?

1. That carbon emissions from human activity had warmed and continued at an increasing rate to raise the average global temperature dangerously above what it was at the essential beginning of the Industrial Revolution.
2. That unless this process were halted and the resultant temperature lowered within 30 years from now (50 had been on some tables) a disastrous and irreversible disruption of world climate patterns would produce terrestrial conditions in which many life forms on the Planet could no longer exist – Mankind was just one of these life forms.
3. In the event of the ensuing massive extinctions, Nature would gradually restore herself – 'gradually' meant several hundred thousands of years AND the resultant world would no longer have Man on board.

And the remedies:

1. Rapidly reduce emissions from the use of fossil fuels to zero.
2. Cease the wasting of anything, from food to all the other fuels, and all the natural materials exploited by Man.
3. Restore the following things that Man has destroyed: habitats of other living organisms, especially the soil in which everything grows and the plants (trees in particular) which capture carbon.

And the implications of taking the above measures:

1. A degree of collaborative wisdom never so far experienced on this earth.
2. A degree of shared abstinence never so far experienced and particularly painful to the currently greatest consumers.
3. A reduction in World Population.
4. A continuing striving to improve human ability to understand the environment which has to be shared by all life forms: i.e. an 'ECOLOGY' which is currently only in its infancy.

And some aspects which are likely to seem more important perhaps in the early days of

coping: life styles (re energy conservation efficiency, is 19°C all right with you?). Transport, especially a huge reduction in aeroplane use which is vital. What would be your scheme for cooperation here, even if your business currently demands that you really ought to be consulting face to face with others in Timbuktu or further afield or that you do really need that shot of Caribbean sunshine? The decision whether or not to eat red meat or hard cheese is, as you quickly realise, just one in a very, very long queue of prospects unattractive to many.

OK, so 'clever technology is going to get us off the hook and you poor laymen are nowhere near understanding how clever it is.' The history of technologies does not support this, if you look hard enough: why, in a time when we can already solve medical problems by a hugely improved and improving knowledge of DNA, are we poorer than ever at avoiding bloody conflicts and most of all, have allowed ourselves to descend into this Climate abyss? Least of all do we really understand ourselves and, in serious debate of how to govern ourselves, seem to be less able than the Greek philosophers of the fourth century BC.

BUT to return to a much earlier point: Is the current speaker an optimist or a pessimist? Do you really want an answer? History to date would leave me pessimistic but, as I said earlier, we are encountering something that has no precedent, no history. However, I do think that we are on the verge, if we put our money where our mouths are, of a cybernetic breakthrough which could be capable of enabling us to really BEGIN to study and understand the ECOLOGY of all life forms, even our own, and that, for once, without motivation from 'Profit', in its current and commonly understood sense.

OH Brave New World! Aldous Huxley seems to have got very near the truth, but stick to Harry Potter if you want to relax.

"If we don't take action, the collapse of our civilisations and the extinction of much of the natural world is on the horizon."

– Sir David Attenborough

Extinction

Many scientists argue that the planet seems to be undergoing a sixth mass extinction.

The last time we experienced a mass extinction – which wiped out the dinosaurs – it took Earth's species 10 million years to recover.

(Source: www.businessinsider.com)

Cooped up

In the UK today, three-quarters of children spend less time outdoors than prison inmates.

(Source: Planet Child, ITV)

FACTS & FIGURES

Home cooking

Of the ready meals eaten in Europe, 50% are consumed in the UK. This may be associated with gaps in our cooking knowledge. A 2018 survey found that only four in ten of us know more than nine recipes, and most people know only three.

(Source: Living Earth, Spring '19)

What's in your mobile?

Scientists at the University of Plymouth have smashed a mobile phone to dust and done a chemical analysis of the resulting mess. They found tungsten and cobalt (from conflict zones in Africa) plus gold, silver and other high value and rare elements, all of which need to be mined by extracting high value ores. This is putting a significant strain on the planet.

(Source: Plymouth Herald, 14 May '19)

costs of electric buses can be as little as 10% of conventional diesel costs. The capital cost is about double that of diesel currently, but some grants could be available.

- The bus routes most likely to prosper are the high-frequency busy routes in town centres. An example is the new service connecting the University to the town centre.
- Buses in Brighton and Oxford have done well as a result of high car park charges in the respective town centres.



- Payment of fares needs to move to contactless payments or by phone app.
- There have been massive cuts in funding from local authorities.

The future

- More rural routes look likely to disappear without a major change in policy.
- Political will is needed to discourage car journeys and move traffic onto more environmentally friendly means of transport.
- The choice between public transport and private car travel will need to take the enormous hidden cost of Climate Change on the next generation into account.
- There seems to be a future for smaller operators such as Safeguard with less than 20 buses, but the future is challenging for operators with 20 to 50 buses.
- The new Park and Ride buses in Guildford are very economical to run, popular with drivers and the battery charge lasts all day.
- Electric buses could be a major part of the future, but the existing stock of diesel buses means that diesel may still be a part of the bus mix in 2040 unless much more drastic action is taken.



Conclusion

The hidden cost to health of poor air quality needs to be taken into account in future planning. The future is in the much more economical electric buses. Political will is needed in Guildford and elsewhere to switch to electric buses and to discourage diesel and petrol journeys into the town centre. Changes are needed to discourage car journeys and encourage the use of walking, cycling, buses (and trains). This means that new housing developments need buses to be planned into the infrastructure from the start of the development.

GEF SWIFT PROJECT UPDATE

John Bannister

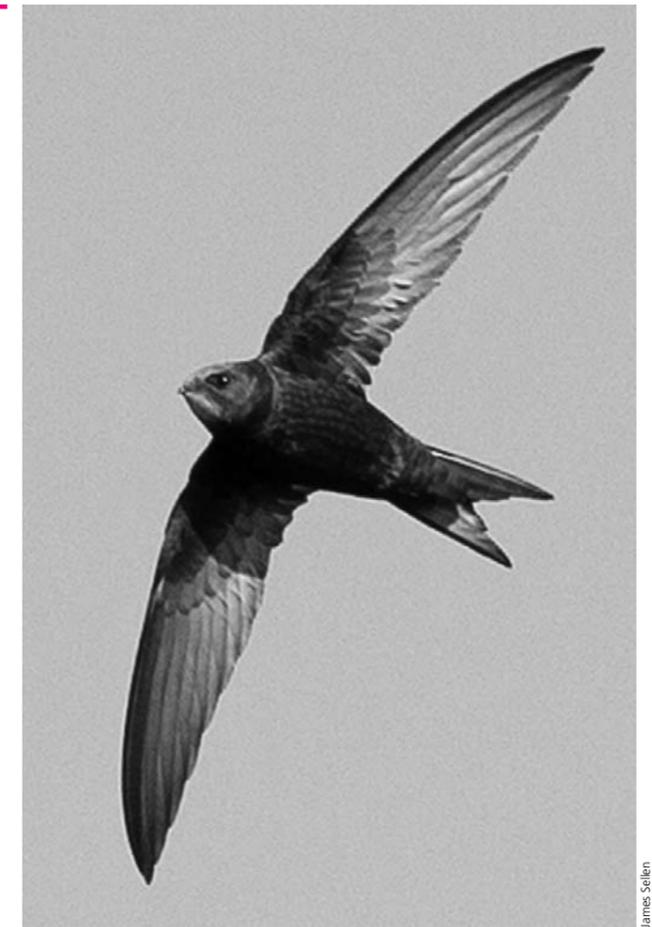
ON AROUND 1st MAY, House Martins, Sand Martins and a few Swallows started to arrive from their long sojourn in Africa. A few Swifts came to Guildford shortly after, bringing much joy.

Although their numbers have declined due to our complete takeover of the earth it was essential in our view to try and provide more homes for the Swifts. The number of Swift nesting sites continues to fall so nest boxes were the only answer.

The GEF 'Swift nest box project' was enabled by a kind grant of £1,000 from the Community Foundation for Surrey. Together with some donations from GEF members this has enabled us to give away 60 Swift nest boxes over the past year. These boxes have gone up on private homes, schools (three at the Royal Grammar School alone) and churches. We focused on Guildford town centre, Farncombe and Bentley. These locations were chosen as they were where kind friends picked up the project and found people wanting to put up a box.

We shall do our best to monitor how many boxes are occupied by Swifts. One at least is being used by Great Tits! But we are generous landlords.

One other Swift project we have helped in a small way is the Shalford Swift Tower, which is in the process of being designed and built. Tim Nash, the designer, has produced a wonderful design which will provide about 50 nest sites when completed. At the last count the design was being discussed by Guildford Borough Council.



James Sellen

Forum members have donated several hundred pounds to this project. Now my hope is that the Swift project will continue for another year funded by GEF from its plentiful reserves, but this depends on the GEF Executive Committee. I am optimistic, so please keep contacting me if you want a Swift box.

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Guildford Environmental Forum aims to improve the environment in and around Guildford for wildlife and for people and to build a sustainable future.

Join us in our work for the town and have this newsletter posted to your door four times a year. Forum membership is only £10 per year or £15 for a couple, while for age 21-25 it's £5 and for under 21s it's free. New members are warmly welcomed.

Please contact Adrian Thompson on 01483 222687 or email adrian@lampcottage.net



CALENDAR

All the Forum's meetings are open to the public



Saturday 8th June

Farnham Community Farm's Sustainability Fayre.

Hot food, wildlife talks, children's events, games, delicious fresh produce. Our stall will showcase various GEF projects including the Swifts project. Please come and support us.

Stagecoach bus 65, Guildford-Farnham stops right outside.

1100 to 1600. Gostrey Meadow, Farnham GU9 7RT.

Tuesday 11th June

Church and Earth: why ecological crisis matters to the Church, and why the Church matters for environmental action. Open lecture by Ian Christie, of the Centre for Environment & Sustainability, University of Surrey, and environmental advisor to the Diocese of Southwark. 2000. Trinity Centre, Trinity Churchyard, Guildford GU1 3HN.

Sunday 18th August

Mane Chance Open Day: GEF Apple Pressing.

Mane Chance is a horse and pony rescue charity, and there will be a diverse range of stalls raising money for the charity. All stallholders, including GEF, will donate a proportion of their takings to Mane Chance. We'll be in the orchard, so bring your apples and plastic bottles to take home the juice. And the children love helping us with the pressing, as well as drinking the result!

1200 to 1700. Mane Chance Sanctuary, Monkshatch Garden Farm, Doen Lane, Compton, GU3 1DL.

Thursday 29th August

Scything at Rosamund Garden. Mark Allery is back to to run our tenth year of scything courses for beginners and improvers. Please come and help us manage our grass and top up your scything skills. Sell your strimmer – you'll never need it again. Everything will be provided, including refreshments, but please bring a packed lunch and suitable clothing. You'll learn how to set up the scythe for your body shape, the right technique for best results, how to sharpen the blade, peening (what's that?), the story of hay and scything, etc.

1000 to 1600. Meet at Rosamund Garden at the top of Longdown Road, GU4 8PP. Park along the grass verge. Cost £35 per head, discounts available. Please register with John Bannister to discuss arrangements – 01483 570468 or 07443 914347.

Sunday 1st September

Live Local, Love Winkworth: GEF Apple Pressing

We'll be apple pressing again in this lovely setting just south of Godalming. Please bring your apples and plastic bottles to take home the juice. And bring the children because they love what we do and like to help us wash, cut, grind, pound and press.

1100 to 1600. Details from John Bannister – 01483 570468 or 07443 914347.

Saturday/Sunday 5th/6th October

Surrey Hills Wood Fair: GEF Apple Pressing. This tenth show (now relocated to Cranleigh) promises to be "bigger and better than ever". See <https://www.surreyhills.org/events/> for more details. We will have our usual stall and displays, promoting GEF and its mission by turning unwanted/donated apples into a delicious drink and animal feed. Anyone is welcome to bring their apples, which we will convert by manual means into juice, helped by our young assistants supervised by seasoned volunteers. Please come and support us and experience how turning waste into a resource can be fun, especially for children. If you can help as a volunteer (we provide full training and no experience needed) please email Roberto Vogel on roberto.vogel159@googlemail.com
1000 to 1700. Fish Pond Copse (within Cranleigh Showground).

Guildford Environmental Forum's newsletter is published in March, June, September and December. Please send contributions for the next issue to Clare Windsor (details overleaf) by Monday 12 August. The views expressed in this newsletter are strictly those of its contributors and Guildford Environmental Forum.