An evening for wildlife gardeners 12th January 2023

Links from speaker presentations



Dave Goulson

- Estimate of deaths and other consequences of deficiency of pollinators Smith, M.R et al (2022) Pollinator Deficits, Food Consumption, and Consequences for Human Health: A Modeling Study Environmental Health Perspectives. Vol. 130, No. 12 CID: 127003 https://doi.org/10.1289/EHP10947
- Jennifer Owen's garden biodiversity studies:

 Jennifer Owen (2010) Wildlife of a garden: a thirty-year study. published by RHS Media,
 Owen, J. (1991) The Ecology of a Garden: the first fifteen years. CUP.

 Summaries of studies http://www.wlgf.org/Jennifer%2520Owens%2520studies.pdf

 Summary of species recorded http://www.wlgf.org/jennifer_owen_species_numbers.pdf
- Dave's books mentioned
 The Garden Jungle: or Gardening to save the planet. Jonathon Cape
 Gardening for bumblebees: A practical guide to creating a paradise for pollinators. Penguin
 Random House
 - The Buzz Club (citizen science) https://www.thebuzzclub.uk
- Paper on relative attractiveness of garden flowers for pollinators:
 Rosi Rollings & Dave Goulson (2019) Quantifying the attractiveness of garden flowers for pollinators Journal of Insect Conservation volume 23, pages 803–817
 https://link.springer.com/article/10.1007/s10841-019-00177-3
 - More than weeds project on urban plants https://morethanweeds.co.uk/
- Contamination of garden centre plants with pesticides
 Lentola A, David A, Abdul-Sada A, Tapparo A, Goulson D, Hill EM. (2017) Ornamental
 plants on sale to the public are a significant source of pesticide residues with implications for
 the health of pollinating insects. Environ Pollut. 2017 Sep;228:297-304.
 doi: 10.1016/j.envpol.2017.03.084
- Contamination by veterinary flea products Rosemary Perkins, Martin Whitehead, Wayne Civil, Dave Goulson (2021) Potential role of veterinary flea products in widespread pesticide contamination of English rivers,

Science of The Total Environment, Volume 755, Part 1, 143560 https://doi.org/10.1016/j.scitotenv.2020.143560

• Dave Goulson's bee hotel videos

Make simple bee hotel https://www.youtube.com/watch?v=-azLFlBbN2k

2019 update https://www.youtube.com/watch?v=52Etjme2w40

What size should the holes be in a bee hotel? PART I

https://www.youtube.com/watch?v=zQQmyz-v8Kg

What size should the holes be in a bee hotel? PART II – Results

https://www.youtube.com/watch?v=pxk5jkArC60

- Verge planting near Stirling On The Verge https://www.onthevergestirling.com/
- No Mow May

Plantlife https://www.plantlife.org.uk/uk/about-us/news/no-mow-may-how-to-get-ten-times-more-bees-on-your-lockdown-lawn

• Managing Grassland Road Verges

Plantlife https://www.plantlife.org.uk/uk/our-work/publications/road-verge-management-guide

- Rosybee nursery https://www.rosybee.com/
- Bravecto tablet flea treatment *eg* https://www.animeddirect.co.uk/bravecto-chewable-tablets
- Billy no-mates herb supplement flea tick and mites treatment https://www.csjk9.com/productcart/pc/viewPrd.asp?idproduct=57

Robert Jaques BTO

Observing extreme weather events through weekly garden wildlife records

BTO Garden Birdwatch website https://www.bto.org/our-science/projects/gbw

Drought-resistant gardening https://www.rhs.org.uk/garden-design/drought-resistant-gardening

Drought-tolerant plants to grow BBC Gardener's World Magazine https://www.gardenersworld.com/plants/drought-tolerant-plants-to-grow/

Usutu virus https://www.gardenwildlifehealth.org/portfolio/usutu-virus/

Report death or illness in garden wildlife https://www.gardenwildlifehealth.org/

Mark Schofield Plantlife https://www.plantlife.org.uk/uk Redefining the British 'lawn' for wildlife

Discover wild plants https://www.plantlife.org.uk/uk/discover-wild-plants-nature
Wildflower garden plant selector https://plantlife.love-wildflower_garden/grow_in_the_garden/

Gardening with wildflowers https://plantlife.love-wildflowers.org.uk/wildflower_garden

- State of Nature Report 2019 https://nbn.org.uk/stateofnature2019/reports/
- Managing Grassland Road verges
 https://www.plantlife.org.uk/application/files/6316/5168/1521/Managing_grassland_r
 oad_verges_2020.pdf
- No Mow May https://nomowmay.plantlife.org.uk/
- Carbon storage under grassland Bai, Y. (2022) Grassland soil carbon sequestration: Current understanding, challenges, and solutions. Science Vol 377: pp. 603-608 https://www.science.org/doi/10.1126/science.abo2380
- Nature isn't neat Monmouthshire project https://www.monmouthshire.gov.uk/nin/
- How to make a meadow https://meadows.plantlife.org.uk/

From Q and A for Robert Jaques and Mark Schofield

• Bird flu and garden birds

 $American\ advice\ \underline{https://www.allaboutbirds.org/news/avian-influenza-outbreak-should-youtake-down-your-bird-feeders/\#}$

Trichomonosis in garden birds https://www.gardenwildlifehealth.org/portfolio/trichomonosis-in-garden-birds/

Useful links and comments recorded from Chat during talks

From Judith Conroy (WLGF): Good info on shrill carder bee here - https://www.bumblebeeconservation.org/red-tailed-bumblebees/shrill-carder-bee/

From Ceri Leigh: Dave, re numbers of species - as you'll know, now recorded around 3,300 species from the garden at Natural History Museum in the heart of London. So many species if we put in the habitats!

From Jake Rayson: Another question! Is there a more gardener friendly source for the information on the Database of Insects & Their Food Plants? http://dbif.brc.ac.uk/hosts.aspx

From Jan Miller: *Alliaria petiolaris* (jack by the hedge) and Honesty are also larval food for Orange Tip butterflies. I have been championing all the larval foodplants since my book pubd 2010, and glad to say that you can now buy Birds foot trefoil from some online big plant suppliers! [orange tip is recorded feeding on a large number of cabbage relatives Winter Cress Barbarea vulgaris I sparticularly often recorded. – see http://dbif.brc.ac.uk/invertebratesresults.aspx?insectid=651

From Liz Davis: Can I give a shout out to Hedge Woundwort. *Stachys sylvatica* Very boring looking but can be tucked away in the garden against fences and hedge and can be absolutely buzzing with bees.

From Johan Ingles-Le Nobel (WLGF): The Database of Pollinator Interactions (DoPI) documents British pollinator-plant associations https://www.sussex.ac.uk/lifesci/ebe/dopi

From Judith Conroy (WLGF): To weaken grass growth: intense, close mowing (and removal of arisings) for at least one season will weaken the grass, then try to 'ruffle' small channels of bare earth for seeds or add plugs. Yellow rattle will also help weaken grass species:-)

From Judith Conroy (WLGF): The Bumblebee Conservation Trust's BeeWalk https://beewalk.org.uk/

From Judith Conroy (WLGF): One of Dave's videos on solitary bee houses here (should lead to links to others too) - https://www.youtube.com/watch?v=-azLFlBbN2k

From Charlotte K.: Billy no mates flea treatment is highly recommended https://www.theneemteam.co.uk/csj-billy-no-mates-herbal-flea-deterrent.html

From Sally Cunningham: Garden Organic has a list of organic nurseries [List of peat-free nurseries https://dogwooddays.net/2020/04/30/updated-peat-free-nurseries-list/ short list of organic nurseries: https://www.gardensillustrated.com/feature/best-organic-nurseries/]

From Elena: My website has a list of suggested plants for pollinators for each month of the year: https://www.elenainthegarden.com/about

From Judith Conroy (WLGF): The WLGF pages on plants for pollinators are here - http://www.wlgf.org/plants pollinators.html and a reminder that it is free to join us http://www.wlgf.org/join_the_forum.php Don't forget what a mine of information our website is. The mostly recently updated section is on garden lichens - http://www.wlgf.org/lichens.html

From Jake Rayson: Dr Ian Bedford also does a 5 min slot at end of Roots and Podcast https://rootsandall.co.uk/podcasts/

From Jake Rayson: And if you're on Mastodon, there is a tag to follow called

#LichenSubscribe! https://mas.to/tags/lichensubscribe

Are there any studies ongoing or planned to investigate whether the spread of Ring Necked Parakeets throughout the country are having any impact on our garden birds please? From Judith Conroy (WLGF): Here is the WLGF page on garden birds http://www.wlgf.org/birds_intro.html Parakeet page is http://www.wlgf.org/birds_intro.html Parakeet page is https://insideecology.com/2017/08/30/invasive-non-native-species-uk-ring-necked-parakeet/

From Jake Rayson: Question for Rob: is there are resource for showing which are the best native food plants for birds, - whether that's for caterpillars, seeds, fruits etc.? [*Try* http://www.wlgf.org/ht_birds.pdf]

From Judith Conroy (WLGF): For hummingbird hawk moths, larval food plants are Lady's Bedstraw (*Galium verum*), Hedge Bedstraw (*Galium album*) and Wild Madder (*Rubia peregrina*). Also seen laying eggs on Red Valerian (*Centranthus ruber*).

From Sue Dawson Dorset Wildlife Trust: No mow policies for Local gov needs to be managed properly with publicity and signage. This is a 3-5 year process, more expensive because of collection needing specific mow and collect machinery. Reduction in LG budgets makes this difficult for some councils to initiate. Urban populations don't necessarily appreciate wildflower unmown areas which tend to look unkept later in the season. Highway safety is also a consideration and can also be a source of complaints

From Jan Miller: we had a conference at WLGF on flowering lawns several years ago, on the website at http://www.wlgf.org/June%202017%20Proceedings.pdf

From Judith Conroy (WLGF): WLGF info here on garden meadows - http://www.wlgf.org/ht_meadow.pdf and some info on 'shaggier lawns' http://www.wlgf.org/ht_improve_lawn.pdf