Cross Party Group for Biodiversity

Subject: Insect Declines

Minutes

Date: Tuesday 1st October 2019, 12:30-2pm
Location: Seminar Rooms 1&2, Pierhead, Cardiff Bay

Attendees

Membership of CPG	**Organisation**	
John Griffiths AM	*Chair of CPG,* Welsh Labour. **Member of CPG.**	JG
Llyr Gruffydd AM	Plaid Cymru. **Member of CPG.**	LG
Huw Irranca-Davies AM	Welsh Labour. **Member of CPG.**	
Caroline Jones AM	Brexit Party.	
Liz Smith	*Secretariat of CPG* - Wales Environment Link	
Becs Parker	Staff of John Griffiths AM	
Karen Whitfield	Wales Environment Link	
Llinos Price	Wales Environment Link	
Clare Dinham	Buglife	CD
Richard Garner Williams	Salmon & Trout Conservation Cymru	RGW
Tabea Wilkes	RSPB	
Rachel Sharp	Wildlife Trusts Wales	RS
Christine Hugh-Jones	CPRW	CHJ
Lauren Mattingley	Salmon & Trout Conservation	
Leigh Harling-Bowen	CPRW	LM
Margaret Tregear	CPRW	
Shea Buckland-Jones	WWF	
Katy Orford	Research Service	KO
Andrew Minnis	Research Service	
Emily Williams	Research Service	
Dr Sarah Beynon	Bug Farm	SB
Janice Vincett	Surveyor	
Sorcha Lewis	Nature Friendly Farming Network	
Dusi Thomas	Dwr Cymru	
Jessica Kent	Dwr Cymru ecologist	
Cllr Paul Harries	Chairman of Pembrokeshire Coast NP	
Sue Evans	GWCT	SE
Haydn Evans	The Soil Association	HE
Gareth Edge	SE Wales River Trust	
Tony Rees	SE Wales River Trust	

Key Points from the Meeting

1) Opening remarks

John Griffiths AM (JG) opened the event and highlighted the worrying declines of insects across the world, including in the UK. He pointed to Wales Environment Link's briefing on the subject and outlined that speakers will be looking at actions we can take in Wales, on a devolved basis, for this global crisis.

Clare Dinham (CD) thanks John and attendees for being there, and also gave a general outline to introduce the event. All presentation slides from the day are available online here.

2) Clare Dinham, Buglife

To start off the event, CD introduced a video featuring Professor Dave Goulson's research on the 'insect Armageddon' facing us. She gave a presentation outlining the background information, including:

- The importance of research and monitoring, with many data gaps remaining on how fast and why populations are declining. She pointed to the State of Nature and biodiversity indicators being important in this regard.
- She listed the diverse and vital benefits that insects give us, including:
    - pollination;
    - being the foundation level of the food chain for most species;
    - recycling of waste and pest control, especially on farms;
    - and acting as an indicator for the state and quality of the wider environment.
- CD went on to introduce the main causes of decline as habit loss and fragmentation; pollution and agricultural practices; invasive non-native species; and climate change. The Snowdon beetle, with its colourful back, was highlighted as a rare species in Wales which was affected by climate change.

3) Dr Sarah Beynon from The Bug Farm

Dr Sarah Beynon gave a general outline of The Bug Farm and how it works. She runs a an actual working farm, as well as conducting research, involving schools and running a restaurant using insect ingredients. Her partner, a chef, uses insects as a protein.

She described the importance of diverse plant life and healthy soil to ensure bugs flourish, and she talked about how vital wildflower meadows are, despite their drastic decline over the last few decades. Grassland habitats make a significant difference to the variety of life on the farm and SSSIs show how scientifically important they are too. The benefits of grazing were also mentioned, with the Bug Farm supporting Welsh black cattle as well.

SB highlighted some of her favourite species on the farm and how they've supported their growth. She went on to discuss Dung Beetles Direct, a service she has created for other farms to help proliferate dung beetles in agriculture. She outlined their vital 'service' to the farm as a recycler of waste. Other services dung beetles provide include pest control, nutrient recycling, soil compaction and creating a healthy soil structure, food for farmland birds and mammals, as well as controlling parasites.

She outlined the economic benefits, saying that she has written a paper on this, in the Ecological Entomology journal, and asked stakeholders to get in touch if they wanted a copy sent to them.

On tourism, SB showed how The Bug Farm works as a visitor attraction and she joins up with as many other initiatives as possible, including Bee Friendly cities (St David's is one) and Pollinator Trail maps.

Finally, she briefly went through why more people are eating insects, particularly in other countries. They contain a similar amount of protein to beef and are extremely efficient converters of resources into protein. She has just invented a new mince called Vexo, with 79% less fat than meat mince, which she's promoting in schools as a way to encourage healthier eating.

As the session was over-running, JG explained that himself and LG would need to leave for Plenary shortly so opened up the floor for some discussion, prior to the third presentation.

5) Q&A

Llŷr Gruffydd AM (LG) noted that there are big challenges to change the agricultural system. He said it's vital to get farmers to go with you on the journey. LG acknowledged the great things that SB has achieved on her own farm, but pointed out the specialist nature of this model, and the expertise required to achieve this. He felt that the model works **because** of its specialist nature and questioned whether this, and other nature friendly models, is something that could be scaled up sufficiently to work for the majority of farmers. 90% of farmers are going to struggle to make such a transition.

SB replied that, at the moment, it is confusing for consumers to support commodities that are produced in different, sustainable ways. They aren't given the clear information they need to make choices that will support such a transition, so it's really important for farmers to be incentivised appropriately.

Haydn Evans (HE) felt that biodiversity recovery needs to stop being 'siloed'. If, for example, there is exponential growth in biofuels then this could also be disastrous for biodiversity. He commented that being aware of your audience when providing information about these issues is important.

Sue Evans (SE) asked how the majority of farmers transition to new methods, when it's difficult to mainstream pioneering approaches. Pioneers can make an income but this won't work for everyone. She also made the point that lots of farmers are genuinely interesting in making this change but the economics just don't allow it.

SB agreed and said that a new public goods system is key and will need to fund farmers appropriately and the scheme needs to support farmers to make this change.

Rachel Sharp (RS) asked if farmers are interested in change, then why they are not pushing for change to be funded via a public goods scheme alongside environmental organisations. Ecologists can provide evidence and demonstrate solutions that can work, but they need help lobbying for this to be supported financially by government.

The meeting moved on to the third presentation, from Salmon & Trout Conservation.

4) Richard Garner Williams & Lauren Mattingley, Salmon & Trout Conservation

Richard Garner Williams (RGW) introduced Lauren Mattingley (LM), outlining how and why an NGO focused on wild fish can contribute to recovering insects. He explained that biodiversity, including in rivers, is very interlinked and dependent on all elements to recover together if water quality is to be improved. He introduced the work Salmon & Trout Conservation, in tandem with water companies and other interested partners, are doing on monitoring riverfies through the Smart Rivers Project.

LM outlined Smart Rivers: it's a project set up to use invertebrates as a diagnostic test for fish habitats. As inverts live in the same freshwater areas as young salmon and trout, the water quality pressures are affect them both.

She explained that inverts are the foundation of all life (as food for fish, birds and mammals); spend most of their life exposed to the water; and are an excellent 'storyteller' of water pollution. The types of bugs present and absent from a water sample indicates what kinds of pollution are there.

The Riverfly Census kick-sampled rivers across England, analysing the inverts to pinpoint water quality problems. It results in 8 national water policy recommendations; valuable local census reports for rivers, with recommended actions; and a national database they can expand and keep up to date. The three main pressures found were sediment; chemicals and phosphorous.

LM emphasised that this kind of monitoring is not usually well resourced and it requires expert bench-marking to keep up the research; training of volunteers on how to sample rivers; and data input and analysis of everything that's been gathered. She concluded that Salmon & Trout have 6 Smart Rivers hubs up and running and are in the process of creating 6 more.

6) Wrap up from Clare Dinham

Coming back to CD, she gave another short presentation, to conclude on some of solutions to insect decline. This includes habitat regeneration and reducing the use of harmful pesticides, such as neonicotinoids, both for agricultural and domestic use.

Buglife and Wales Environment Link members would urge the Welsh Government and AMs to develop policy that recover our invertebrates. This should:

- Reconnect isolated and wildlife-rich sites and a landscape scale across Wales. Protect the most important areas for insects and identify **Nature Recovery Networks** to restore, expand and reconnect our best sites.
- Develop an **over-arching agricultural vision** to make food and farming more wildlife friendly and sustainable. A **public goods system** where ecosystem services are rewarded which protect pollinators, soils and watercourses.
- As the Welsh Government introduces regulations on agri pollution in January 2020, it needs to also implement **adequate reporting and monitoring** to track the regulations' effectiveness.
- Introduce a **Welsh Pesticide Reduction Target** for business and public alike.
- Support riparian planting for native species, in order to protect ana shade water courses.

CD concluded the session, again calling for more data and monitoring, to directly inform interventions.

7) Further discussion and Q&A

The group discussed the need to compare ecosystem benefits of different farming systems and scientists need to put more information in to show the benefit to farming and other industries. SB has done research, for example, to demonstrate the economic benefit of dung beetles and to support recommendations to farmers to stop using animal treatments that affect their dung, which is resulting in dung beetle declines.

Katy Orford (KO) noted the use on SB's farm of herbal leys to provide pollinator habitat and asked SB what other plants are beneficial. SB said that yarrow and trefoils are good. She noted that it is more expensive to use herbal lays in fields rather than rye grass, but not too much more expensive. KO asked if farmers know about these options. SB replied that Farming Connect is good for getting information out to farmers about alternative sustainable management practices. CD said that Cotswold Leys are doing seeds for this. Buglife and Calon Wen are working together to test this out.

HE said that he uses this on his farm and it retained its greenery during last year's drought. The farmer next door saw this (his own rye grass fields were totally dry and brown) and this year he has planted herbal leys after he saw how effective it was.

Christine Hugh-Jones (CHJ) asked how we can embed connectivity in policy and legislation. CD explained that the Welsh Government and Trunk Roads Agency funded their project, Bee Lines, which was about connectivity of pollinator friendly habitat along road verges. Buglife has also talked to NRW about including opportunities for connectivity in Area Statements. Green Infrastructure plans could also embed connectivity. Buglife has also been working to ensure Important Invertebrate Areas come up on searches of local record centres to help with planning searches and identify areas that need to be protected for insects.

In other points raised:

- RGW gave an example of river fly projects linking with landowners to carry out improvements where pollution is an issue.
- HE noted that there is a gap in bringing farmers together with scientists – other countries appear to be further ahead.
- RS noted the need for whole system change, including government finance and private finance to support sustainable land management.
- Tony Rees (TR) asked if there was any insect monitoring in heritage areas. CD said not really at the moment. TR pointed to the importance of industrial rivers in the valleys that are recovering in terms of water quality. There is less farming in these areas but they still need to be monitored.

Cllr Paul Harries (PH) asked what engagement is like with the national park authorities on monitoring. CD explained that Buglife did try to get funding (but failed) for projects around St David's in conjunction with the national park around the coast path. Engagement from staff in the national park authority is high but funding is an issue to take things forward.

7) Wrap up

LS wrapped up the session and thanked the speakers and everyone else for coming. The next meeting will be in early 2020; another will take place in summer 2020.