

Land, water and bees – don't take us for granted:

More to explore –

Bees and their pollinating partners

Background notes

The value of pollination

Research and further reading

Wellcome Trust Insect Pollinators Initiative: www.wellcome.ac.uk/news/2010/news/wtx059955.htm

UK National Ecosystem Assessment – ecosystem services: uknea.unep-wcmc.org/

The economics of pollination of the California almond crop: www.bbc.co.uk/news/science-environment-21741651

Effects of loss of wild pollinators (with research links):
www.theguardian.com/environment/2013/feb/28/wild-bees-pollinators-crop-yields

Klein AM, Vaissière BE, Cane JH *et al.* Importance of pollinators in changing landscapes for world crops. *Proc R Soc B Biol Sci.* 2007. DOI: 10.1098/rspb.2006.3721
rspb.royalsocietypublishing.org/content/274/1608/303

Neonicotinoids

You may have read about the debate around neonicotinoid ('neonic') pesticides. Some research suggests that they are harmful to bees, but other scientists dispute this. The European Union has been considering a ban.

Research and further reading

Godfray HCJ, Blacquière T, Field LM *et al.* A restatement of the natural science evidence base concerning neonicotinoid insecticides and insect pollinators. *Proc R Soc B Biol Sci* 2014, 281, 20140558. DOI: 10.1098/rspb.2014.0558
rspb.royalsocietypublishing.org/content/281/1786/20140558

Neonicotinoids 'more dangerous than originally thought':
www.theguardian.com/environment/2015/aug/26/banned-pesticides-pose-a-greater-risk-to-bees-than-thought-eu-experts-warn

Neonicotinoids are widespread in US waterways: news.agropages.com/News/NewsDetail---15654-e.htm

Friends of the Earth challenges UK government in court: www.farminguk.com/News/Bees-Friends-of-the-Earth-mounts-legal-challenge-over-government-pesticide-decision_36826.html



Pesticide found to affect honeybees: www.theguardian.com/environment/2015/aug/21/oilseed-pesticide-linked-to-uk-honeybee-deaths-study-finds

US EPA concludes neonicotinoid is harmful to bees (2016):
www.theguardian.com/environment/2016/jan/06/honeybee-populations-decline-pesticides-united-states-epa-study-imidacloprid

Neonicotinoids may affect bees' brains (2013):
www.telegraph.co.uk/news/earth/wildlife/9957303/Pesticides-damage-the-brains-of-bees.html

The Great British Bee Count

Further reading

Great British Bee Count for 2016: www.foe.co.uk/page/great-british-bee-count-2016-sign-up

Friends of the Earth campaign and results:
www.foe.co.uk/what_we_do/the_bee_cause_home_map_39371

Did you know?

Bee-eaters: birds that burrow

These colourful birds usually nest in southern Europe but have been observed raising chicks in the UK (most recently in 2015, <http://www.rspb.org.uk/news/404609-rare-beeeaters-breed-in-cumbria>). Like sand martins, they dig tunnels in sandy banks in which to nest. It seems likely that climate change is enabling them to spread northwards, and they may eventually become established in the UK.