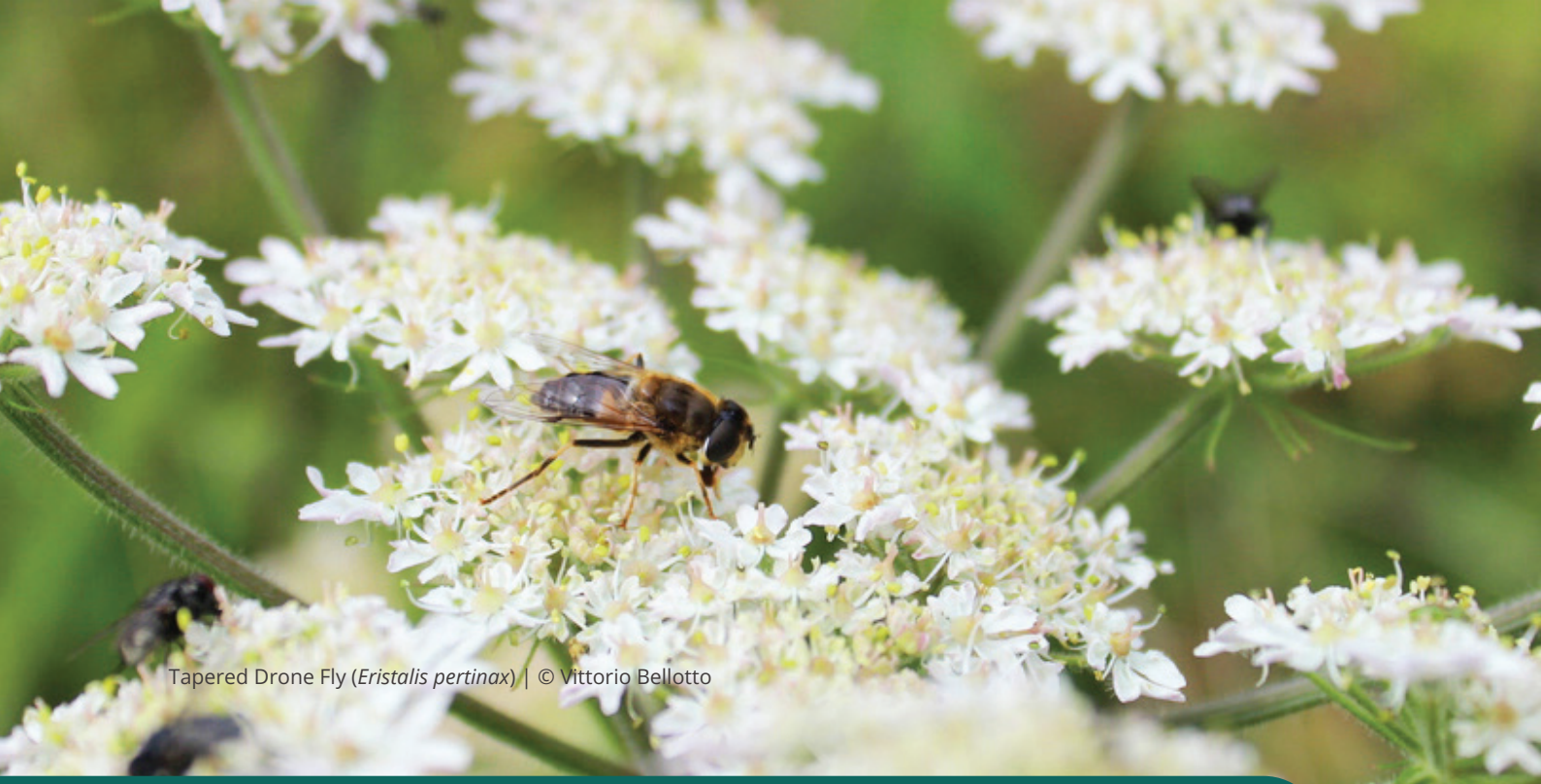

Tapered Drone Fly (*Eristalis pertinax*) | © Vittorio Bellotto

Policy Brief

Towards pollinator-friendly policy and practices: Worldviews, opportunities and barriers

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This policy brief is produced as part of the **Horizon 2020 Safeguard project.** The brief is based on **research conducted at the Swedish University of Agricultural Sciences (SLU),** focused on indirect drivers of pollinator loss **linked to values, institutions and governance.** It also covers **the outcomes of a Safeguard Buzzing Table, organised by the IUCN and SLU** in February 2024. The Buzzing Table involved key EU stakeholders active in different policy areas of relevance to pollinators.

Key messages

- Pollinator loss is due to a series of direct and indirect drivers, including values, institutions and governance.
- As a policy topic, bringing together very diverse actors, pollinators can foster positive institutional and policy change for sustainability.
- Safeguard researchers identified six major positions on pollinators among actors, each motivated by specific concerns and understanding regarding the degree of needed change.
- So far, few positions beneficial to multiple pollinators have been translated into EU institutions and policy, and such translation has been partial. This contributes to pollinator loss, limiting the collective capacity to shift beyond the status quo.
- During the Safeguard Buzzing Table, EU stakeholders pointed out important factors that hinder mainstreaming of pollinator-friendly practices, including *reluctance to change, lack of ecological knowledge and understanding of pollinators, governance challenges, short-termism and silo-thinking, unavailability of affordable alternatives and lack of monitoring.*
- Safeguard concludes that for the pollinator agenda to foster meaningful change, EU institutions need to target indirect drivers of pollinator loss linked to values, governance and institutions, thereby focusing on *integrating the "pollinator-file" across sectors, recognising and addressing power imbalances at play in the pollinator agenda, fostering opportunities for dialogue and stakeholder engagement,* and *combining ecological science and socio-political knowledge into decision making.*

Objectives

This brief provides an overview of how the EU pollinator agenda – a set of initiatives and policies at the EU policy level to tackle pollinator decline – came to be, and summarises indirect drivers of such decline, linked to **the diverse (and diverging) perspectives on pollinators** in both policy and practice.

While highlighting the **important role of current policies and increased knowledge**, the brief conveys a **message of urgency**, **calling for necessary action** in governance, policy and practice to support a positive change for pollinators.

Introduction

Between EUR 225 billion and EUR 553 billion worth of annual global food production relies on direct contributions by pollinators (IPBES, 2016).

Pollinators are crucial to both nature and people. Without pollination, most flowering plants, the habitats they form and all life that flows from it, would cease to exist. This includes many plants important to us. **More than three quarters of the leading types of global food crops rely to some extent on pollinators**, **and the volume of production of these pollinator-dependent crops has increased by 300%** over the last five decades (IPBES, 2016). Pollinators benefit us in many ways beyond food production, nutrition and livelihoods. They contribute to making medicines, fibres and building materials, support biodiversity and functioning ecosystems, and hold cultural or spiritual importance in many societies.

In 2019, a global review confirmed the dramatic decline of insects, including pollinators, with potential extinction of 40% of the world's species in the coming decades (Sánchez-Bayo et al., 2019). The IUCN Red List assessments indicate that **9% of bee and butterfly species are threatened** (Critically Endangered, Endangered, or Vulnerable) **in Europe, with populations declining for 8% of bees (IUCN, 2014) and 31% of butterflies (IUCN, 2010).** More than a quarter of all bee species threatened at the European level are endemic to Europe, highlighting the European countries' responsibility to protect these species (IUCN, 2014).

Awareness and knowledge about pollinators have increased, influencing decision-making globally. In particular, the IPBES's *Assessment report on pollinators, pollination and food production*, published in 2016 and based on results of research from all over the world, **highlighted the ecosystem services provided by pollinators**, identified risks for society and provided strategic responses to reverse declines, notably on farmland (IPBES, 2016, pp. 29–31). This sparked a significant policy momentum in the EU.

Buff-tailed bumblebee (*Bombus terrestris*) | © Vittorio Bellotto

Policy overview

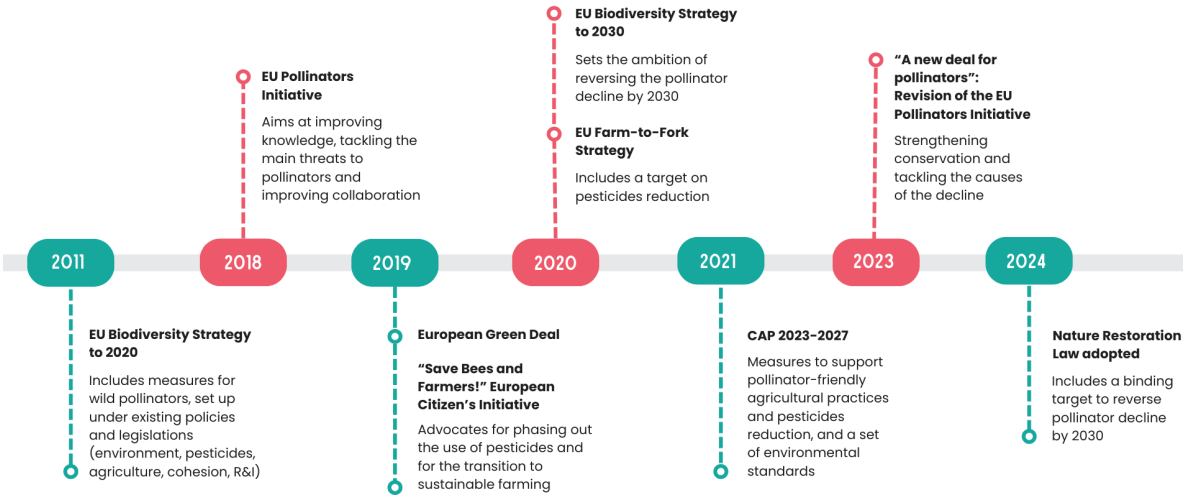
In response to the evidence on the importance and decline of pollinators, a growing number of initiatives, declarations and policies have been set at the EU policy level, including the *EU Pollinators Initiative* launched in 2018 and revised in 2023 (Fig. 1). Together, they have formed an '**EU Pollinator agenda'**, to attract various actors to the topic of pollinators and together address their decline.

In addition, the European Commission has implemented various **measures within existing policies and legislation in the environment, pesticides, agriculture, cohesion, and research and innovation areas,** such as the Birds and Habitats Directives, the Natura 2000 Network, the Nitrate Directive and conservation features in the CAP, among other.

Prior to 2020, most of the measures set to tackle pollinator decline were focused on the protection or creation of habitat considered to be beneficial to pollinators, on managed honey bees, on chemicals or on the control of invasive alien species (ECA, 2020). The European Court of Auditors (2020) demonstrated that the EU Pollinators Initiative had little effect on halting their decline and identified key gaps, in particular regarding wild pollinators. As a result, the *Initiative* was revised to allow for further mainstreaming of pollinators as a policy topic into the EU agricultural and health policy areas. In this context, the Safeguard project, by dedicating research to the direct and indirect drivers, impacts, and effective responses of pollinators decline, contributes to the EU Pollinators Initiative.

Since then, progress has been unequal. The EFSA's bee guidance was revised in 2023 but has not yet been endorsed by Member States. Ambitions for reducing pesticide use– with pesticides remaining a key driver of pollinator loss, see Fig. 2 – were hampered including by the renouncement to revise the Sustainable Pesticide Use Directive (EP, 2024). Yet, the new CAP strategic plans, Urban Nature Plans and the recent adoption of the Nature Restoration Law (and especially articles 10 and 14) have all generated new levers of actions to strengthen the pollinator agenda (Catalina Moldoveanu et al., 2024).

Figure 1. Main policy initiatives set within the EU pollinator agenda.



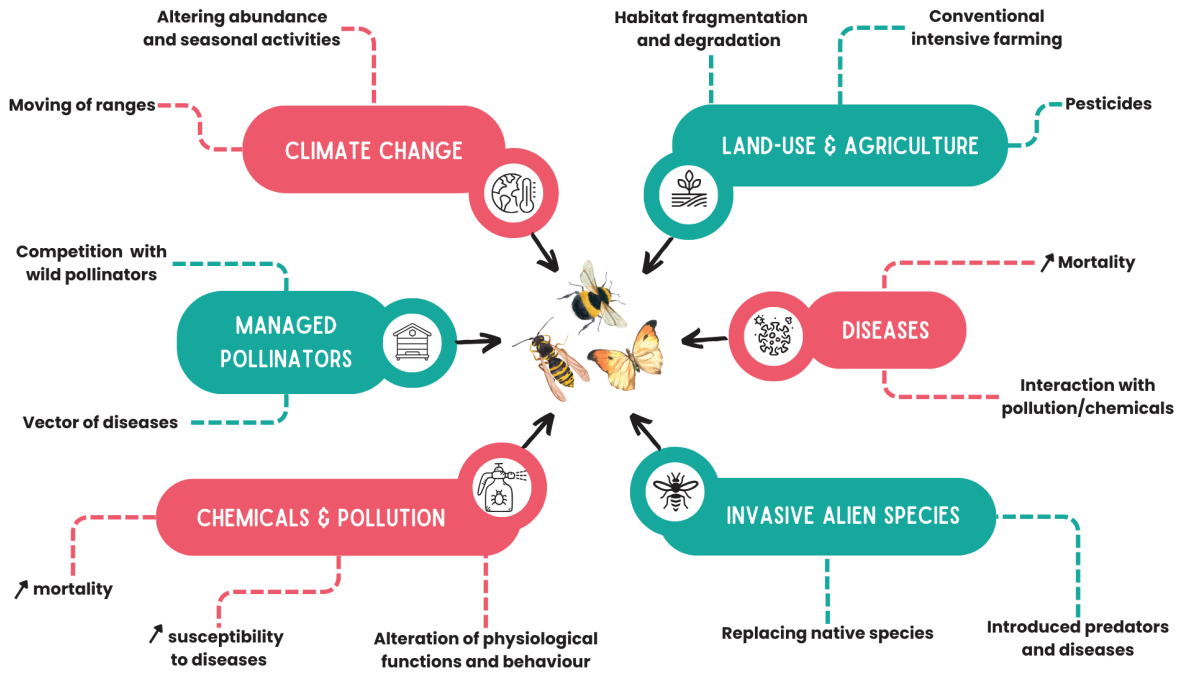
Drivers of pollinator decline

There is **no single overriding cause of pollinator loss. A series of direct drivers of change have been identified** by several sources (Fig. 2). The message that arises is one of urgency, stressing the importance of addressing such decline and threats reinforced by interactive drivers.

Direct drivers of biodiversity loss result from indirect drivers. Indirect drivers can be demographic, sociocultural, economic, technological, or relate to conflicts, epidemics, institutions and governance (Díaz et al. 2019). **All of these are underpinned by worldviews and values**, which structure the way societies are organised (Díaz et al., 2019; IPBES, 2022a). Current policy and economic decision-making prioritise only a narrow set of nature's values globally, at the expense of nature, society and future generations (IPBES, 2022a). For example, in Europe, the institutions and policies structuring agriculture and food systems remain focused on short-term economic growth, productivity and profitability, often at the expense of ecosystem health and viability (EEA, 2022). This **can create cognitive lock-ins in decision-making,** where switching to alternative views becomes challenging. For instance, in the absence of broader institutional and policy change, the strong focus on short-term economic and profit-related goals leads to some biodiversity-friendly farming practices not being considered financially viable or otherwise too risky to be adopted by farmers (Weituschat et al., 2022).

Addressing pollinator loss requires transformative change across all drivers (Stout & Dicks., 2022; Díaz et al., 2019). This necessitates to take into account the diverse values of nature in political and economic decisions across scales (IPBES, 2022a).

Figure 2. Direct drivers of pollinator change (replicated from ECA,2020).



Scarce swallowtail (*Iphiclides podalirius*)| © Vittorio Bellotto

Indirect drivers connected to pollinator loss – through how they have been organised and adopted – include economic development, global trade and finance, technology and demographic trends (Stout & Dicks., 2022). Regarding institutions and governance, **not all relevant stakeholders** with knowledge and concerns about pollinators and their habitats **are sufficiently involved in decision-making**, including beekeepers, small-scale farmers, indigenous peoples and/or local communities (IRGC, 2009; Hill et al., 2019). Conflicting views across stakeholders in relation to pollinators as well as non-respected land tenure rights are additional hindering factors (IRGC, 2009; Hill et al., 2019), as are **limited knowledge and training** about pollinators among some practitioners, including farmers (e.g. Elisante et al., 2019). At the same time, **limited engagement with practitioners or their perspectives** in the production and communication of knowledge about pollinators and associated management practices restricts opportunities for practice change (Ruck et al., 2024).

Indirect drivers of pollinator loss linked to values, governance and institutions remain understudied in the EU (IPBES, 2022a). This motivated the Safeguard research on indirect drivers and the Buzzing Table, reported below.

Safeguard research results on indirect drivers linked to values, institutions and governance

As part of Safeguard, SLU researchers studied how the EU pollinator agenda came to be and what has limited its scope when translated into policy and practice. To do so, they took a so-called 'discourse perspective' to identify the key positions on pollinators that may 'negotiate, collaborate or conflict' at the EU policy level. This research relied on 31 interviews conducted during 2023–2024 with key EU policy makers and stakeholders influencing policies of relevance to pollinators, a focus group with IPBES experts involved in the first report on pollinators, participant observation and documents.

The research identified **six major positions on pollinators present at EU policy level**, as depicted in Fig. 3. These positions attend to different pollinators differently. They are based on diverging ideals about human-nature relations and about the scale of institutional and policy change deemed necessary to reverse pollinator loss (*status quo, reformist or transformative* views). They consequently promote different policy solutions, empower different actors, and prioritise different land use practices, pollinator species and communities. Some positions are complementary or compatible if negotiated, while others deeply conflict with each other.

All the middle positions (*2* to *5*) have contributed to the rise of the EU pollinator agenda. In this context, pollinators have come to take the role of a "boundary object", being both sufficiently broad and meaningful to motivate diverse actors focused on different concerns to meet, collaborate and bring about institutional change within and across their respective policy areas. This could contribute to a transition or transformative change, reversing pollinator loss. Yet, the research stresses that the ambiguity around pollinators implies that they hold meaning across the whole spectrum of positions, including those that favour the status quo (*1* and *6*).

The research shows that few of the middle positions have translated into EU policy. In particular, positions centring on relational values (*3* and *4*) have remained little represented. This is despite their role in supporting the EU pollinator agenda and their known importance for pollinator conservation (IPBES, 2016; IPBES, 2022a; Hill et al., 2019). This leads to a lack of consideration for diverse concerns and ways to relate to pollinators, which risks EU policy options considered to not move beyond the status quo.

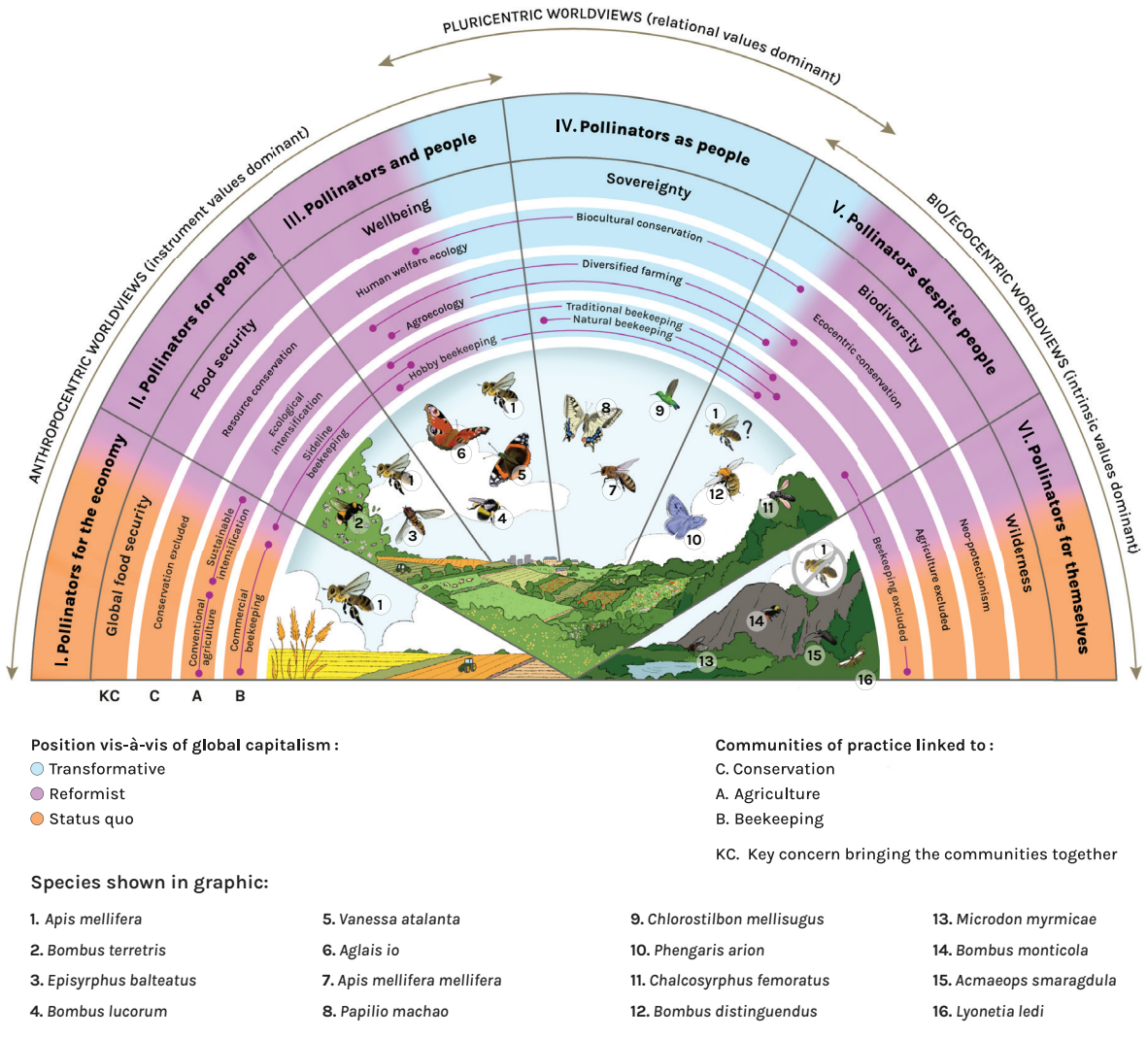
Within the **environmental policy area**, a bio/ecocentric position (*5, pollinators despite people)* currently dominates, valuing pollinators based on their intrinsic value, with a prioritisation of rare and threatened species. It centres the pollinator agenda on wild, rather than managed pollinators, out of biodiversity concerns and places it under the guidance of wild pollinator experts. This is followed by the *pollinators for people* (*2*) position, stressing the importance of pollinator conservation for food security and seeking to reinstall common pollinator habitat on farmland for pollination function, services and co-benefits. Together, these positions adopt a technical understanding of policymaking, where expert-based knowledge is to guide policy

and practice, and thus, with data production as a priority. Despite their dominance within the environmental sphere, these positions have only been partially translated into EU policy.

In the **agricultural and health policy areas**, at the EU level, despite attempts to mainstream wild pollinators there, an economy-focused anthropocentric position remains dominant (*1, pollinators for the economy*). This position understands wild pollinator loss as a priority policy problem for conservation rather than for food production. As a result, positions that seek to foster pollinator habitats as part of farming (*2, pollinators for people*), or that favour small-scale diversified farming systems and biodiversity-rich landscapes for both managed and wild pollinators (*3, pollinators and people; 4, pollinators as people*), have been poorly integrated into the agricultural and health policy areas.

The research anticipates that if the current distribution of positions across EU policy areas remains unchallenged, the institutional silos between conservation and agriculture policy and practice will be maintained or might even further polarise, enforcing the status quo.

Figure 3. Visualisation of six main positions on pollinators and related concerns[1]



Position vis-à-vis of global capitalism :
- Transformative
- Reformist
- Status quo

Communities of practice linked to :
- C. Conservation
- A. Agriculture
- B. Beekeeping

KC. Key concern bringing the communities together

Species shown in graphic:

1. *Apis mellifera*
2. *Bombus terretris*
3. *Episyrphus balteatus*
4. *Bombus lucorum*
5. *Vanessa atalanta*
6. *Aglais io*
7. *Apis mellifera mellifera*
8. *Papilio machao*
9. *Chlorostilbon mellisugus*
10. *Phengaris arion*
11. *Chalcosyrphus femoratus*
12. *Bombus distinguendus*
13. *Microdon myrmicae*
14. *Bombus monticola*
15. *Acmaeops smaragdula*
16. *Lyonetia ledi*

1 Figure constructed in collaboration with the scientific illustrator Sacha Berna.

Understanding EU policy dynamics and hindering factors on pollinators: a stakeholder perspective

A stakeholder dialogue titled "Safeguard Buzzing Table: Understanding EU Policy Dynamics on Pollinators" was organised by IUCN and SLU in 2024, to improve communication between research and policy. The Buzzing Table gathered key stakeholders involved in the pollinator agenda and related policy at EU level. It provided an opportunity for them to meet, discuss and search for synergies. To complement their analysis, **Safeguard researchers carried out observations during the workshop, detailing reflections which are reported in the boxes below.**

SLU researchers presented the preliminary findings from the abovementioned research[2] to set the scene. It was followed by a discussion among stakeholders to reflect on policy and political dynamics that had supported or prevented pollinator-friendly practices as well as on future opportunities and challenges. Six speakers participated in the panel, representing environmental NGOs, EU policymakers from the environmental, agriculture and health policy areas, and farmers organisations. A diverse set of stakeholders attended the dialogue, including policymakers, researchers, and people from conservation NGOs, think tank and networks, totalling 38 participants. The event concluded with questions from the audience.

None of the participants questioned or downsized the relevance of pollinators as a priority policy topic at EU level. The Buzzing Table confirmed Safeguard's research findings regarding the identified positions (Fig. 3) **and that pollinators act as a "boundary object".** It indeed gathered a high number of participants, with diverse profiles and willingness to build bridges for pollinators across their policy areas. Discussions encompassed diverse concerns and, as unfolding, increasingly covered questions of changes in values, institutions and governance to support pollinator-friendly practices. Yet, discussions also remained constrained by the dominant positions at EU level: leverages for transitions and transformative change were little discussed, and positions embodying relational values were under-represented.

Reluctance to change

Some participants articulated that ensuring pollinator-friendly practices requires significant changes in the agricultural system, including avoiding the use of substances such as pesticides that are harmful for pollinators, and switching to farming practices that work with nature (e.g. agroforestry). These align with some of the IPBES (2016)'s conclusions.

2 A more detailed paper based on this research will be published soon.

Participants noted that despite several policies and EU strategies (e.g. Biodiversity Strategy, Farm-to-Fork Strategy) as well as instruments (e.g. Natura2000) and incentives (e.g. agri-environment-climate measures under the CAP) that are to some extent advocating for such changes, pollinators continue to decline. Here, environmental NGOs pointed to a **strong reluctance to change agricultural practices**, deemed connected to questions around the financial viability of pollinator-friendly practices at the level of the farm (see below). CAP funding and public policies in general, if strengthened, were considered as potential avenues to further support pollinator-friendly practices.

Reflecting dominant positions at the EU level, most discussed policy options took the current global, EU and national institutions and policies as given. Consequently, discussions centred on farmers rather than rules, responsibilities and leverages across food chains and food systems. This limits the scope of considered policy options to tackle indirect and direct drivers of pollinator loss.

Lack of ecological knowledge and understanding of pollinators

The discussions during the Buzzing Table highlighted the crucial role of knowledge for any change in agricultural systems towards greater sustainability. For instance, stakeholders agreed that ecological knowledge, including knowledge on the role and value of biodiversity, is fundamental. This particularly concerns pollinators, what they are and their relationships with agricultural productivity. However, they explained that this knowledge is often limited among relevant actors in the farming sector, whose activities are both damaging pollinators and representing important opportunities for their preservation.

Similarly, the understanding of the detrimental impacts of conventional inputs such as pesticides and herbicides varies across actors, with EU policymaker representatives in the Buzzing Table pointing out a generally higher knowledge among practitioners directly exposed compared to actors further down the value chain (e.g. businesses).

Knowledge sharing and tailored capacity building were mentioned as crucial to develop knowledge among professionals, experts, practitioners, rural communities and society at large.

These discussions reflected Safeguard's research findings on the dominance of the 'pollinators despite people' and 'pollinators for people' positions (2 and 4) in the environmental policy area. They confirmed that many stakeholders still focus on "lack of knowledge" as the main issue behind pollinator loss, rather than on major indirect drivers. Thus, while centring on "knowledge gaps" and incentives for farmers, these discussions did not delve into the values, institutions and policies that may prevent practice change. They did not cover levers for various actors to engage with and adapt ecological knowledge to their own needs and practices.

Lack of monitoring

Knowledge of the magnitude and extent of pollinator decline was mentioned to be limited by a lack of systematic monitoring. Environmental NGOs stressed the importance of volunteering and citizen science approaches for data gathering, which remains limited in the agricultural sector. The need for an EU monitoring scheme was identified, to harmonise the systematic monitoring of pollinators, integrate existing data gathering approaches (e.g. Butterfly indicator), mobilise citizens and ensure policy implications.

Reflecting dominant positions in the environmental portfolio as well as institutional silos, there was little engagement with practitioner knowledge and the perspectives of farmers, citizens or beekeepers possibly enrolled in monitoring programmes. Discussions centred on reporting of pollinator trends, and did not engage with how monitoring could also support practice change for pollinators.

Availability of affordable alternatives

Farmers are faced with the challenges of shifting from conventional agricultural models to more sustainable and pollinator-friendly ones, with the Buzzing Table discussions centring on the use of chemicals. A health policymaker highlighted the importance of improving risk assessments for pollinators within the current regulatory frame. The farmers representative focused on the shift from conventional chemicals towards biodiversity-friendly alternatives, suggesting that these alternatives are still lacking affordability and scalability compared to traditional pesticides, fertilizers and biocides. Environmental NGOs confirmed that they commonly encountered this perspective among farmers. The need of extending alternatives beyond arable crops to include livestock farming – for instance for growing grass – was also pointed out. **Raising awareness on the co-benefits** brought by pollinator habitats on farmland was mentioned as a way to better expose farmers to possible practices and solutions.

This discussion reflected disagreement among participants and EU policy areas regarding the scale of required (or feasible) change for reverting pollinator loss. In alignment with the 'pollinators for the economy' position, actors engaged in the health and/or agricultural policy areas centred on solutions applicable at the level of the farm given existing institutions, rather than systemic reforms to transit or transform agricultural and food systems. These discussions revealed that measures centred on short-term yield maximisation, disease and pest management remain prioritised in the agricultural and health policy spheres compared to pollinator-friendly measures.

Governance challenges, short-termism and silo-thinking

When it comes to discussions around pollinators, stakeholders in the Buzzing Table agreed that there is a general lack of dialogue and understanding across sectors, leading to silo-thinking and inhibiting action. In addition, representatives of environmental NGOs specified that at the national level governance issues arise, as lack of dialogue is also witnessed between ministries (e.g. environmental and agriculture).

Participants identified that to reverse biodiversity loss, including that of pollinators, a shift from short to long-term vision was essential. This aligns with research showing that biodiversity requires time to recover and thrive (Neubauer, et al., 2021). Most participants agreed that current political and economic decisions are predominantly locked by short-termism, inhibiting the shift towards a sustainability paradigm and ethics. NGO representatives outlined that the long-term impacts of chemicals are neglected by the pesticides industry, while farming stakeholders pointed out that the current CAP lacks sufficient long-term perspectives and resources. They stressed the need for farmers to adopt a longer-term outlook, beyond the crop rotation time and livestock calendar.

The discussion ended on a shared concern about institutional silos and a need for more dialogue across sectors. This confirmed the role of pollinators as a boundary object, and there with its capacity to generate a space where discussions about change across policy areas can unfold. Yet, the scope of discussed change remains constrained by the actors and positions having access to this space, which limits proposed options for change.

Meadow brown (*Maniola jurtina*) | © Vittorio Bellotto

Key recommendations

For the pollinator agenda to generate change beyond the status quo, attention must be paid to indirect drivers of pollinator loss related to values, institutions and governance (Razzaque et al., 2019; Visseren-Hamakers et al.,2021; IPBES, 2022a).

Integrate the pollinator-file across sectors and policy areas

Ambitious measures for pollinators, both wild and domesticated, are to be negotiated and put into place across relevant sectors, involving the environmental, health and agricultural policy areas. This also requires the involvement of other policy areas that influence agricultural and food systems via the policy priorities they set, e.g. those in charge of trade, finance, value chains, digitalisation, diplomacy, planning, education and culture. To do so, political will at the highest level of decision-making across scales and political support from citizens are required.

Recognising and addressing power imbalances

The topic of pollinators is characterised by different (including opposing) views which are subject to unequal access to policymaking, with a few largely advantaged views gaining political leverage. To ensure a more balanced approach, there should be recognition of these dynamics, increased transparency about who influences debates and decisions, and better integration of perspectives currently under-represented at EU level. **This calls for further inclusion of actors holding relational values to nature and responding to some of their policy demands and concerns**, for example those favouring diversified landscapes, agroecology and diversified farming systems, as well as biocultural and novel practices favourable to multiple pollinators in rural, urban and natural spaces.

Honey bee (*Apis mellifera*) | © Adobe Stock

European hoverfly (*Helophilus pendulus*) | © Vittorio Bellotto

Fostering opportunities for dialogue and stakeholder engagement across sectors and scales

To break silos and bridge policy, dialogue is needed across sectors and scales, while addressing power imbalances. **This should be done by advocating for accessible platforms and institutions** where actors can regularly exchange knowledge, collaborate and acknowledge their concerns and dissenting views. This could enable negotiations regarding synergies and/or conflicts over land uses, especially between conservation, farming and beekeeping. Support would be needed for under-represented stakeholders to access these, including small-scale farmers and beekeepers, society at large, indigenous peoples, local communities and youth.

Strengthening the integration of science and socio-political knowledge into decision-making

Sciences grounded in ecology and biology should be given a crucial role to provide the baseline for decision-making beyond the environmental policy area. **Yet, to support practice change, these sciences should be combined with relevant socio-political knowledge held by various stakeholders grounded in practical experience**, as well as existing local, traditional and/or indigenous knowledge beneficial to pollinators (including those of farmers and beekeepers) and social sciences (to help integrate diverse views, adapt institutions and governance and reflect on discussions and decisions). **More visibility could be ensured for those actors who have been successful in implementing pollinator-friendly solutions.**

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Common carder bee (*Bombus pascuorum*) | © Vittorio Bellotto