

# Finnish national pollinator monitoring scheme



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# Key elements of the Finnish pollinator monitoring scheme according to the National Pollinator Strategy (2022)

## 2. Start new complementing pollinator monitoring (2022-)

### Monitored groups

- Bumblebees
- Solitary bees
- Butterflies
- Hoverflies

### Monitored habitats

- Agricultural areas
- Diverse semi-natural grasslands
- Commercial and protected forests
- Alpine fells

## 1. Safeguard the continuity of existing citizen science monitoring schemes

National butterfly atlas monitoring scheme (1991-)

National moth monitoring scheme (1993-)

Butterfly transect monitoring scheme (1999-)

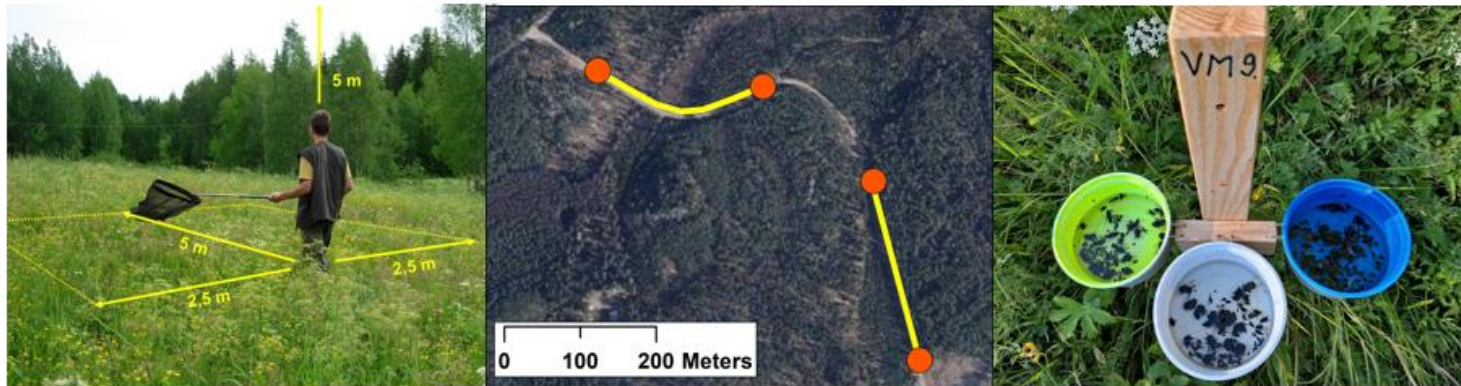
Alpine butterfly monitoring (2008-)

Bumblebee monitoring scheme (2019-)

# A complementing new scheme started in 2022 with parallel use of transect counts and pan traps

## Monitoring by Transect counts and Pan traps

- 2 x 250 m transects per site
- 4 counts during June-July
- 2 x 2 pan traps per site
- 3 x 2-week trapping periods



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Butterflies



Bumblebees



Solitary bees



Hoverflies

- The methods suggested in the proposal for an EU Pollinator Monitoring Scheme (Potts et al. 2021)
- Data collection in June-July
- Two methods usefully complement each other
- Transect counts focusing on butterflies and bumblebees
- Pan traps collect all flower-visiting insects
  - Also many small species difficult to identify in the field
  - Producing data on solitary bees and hoverflies

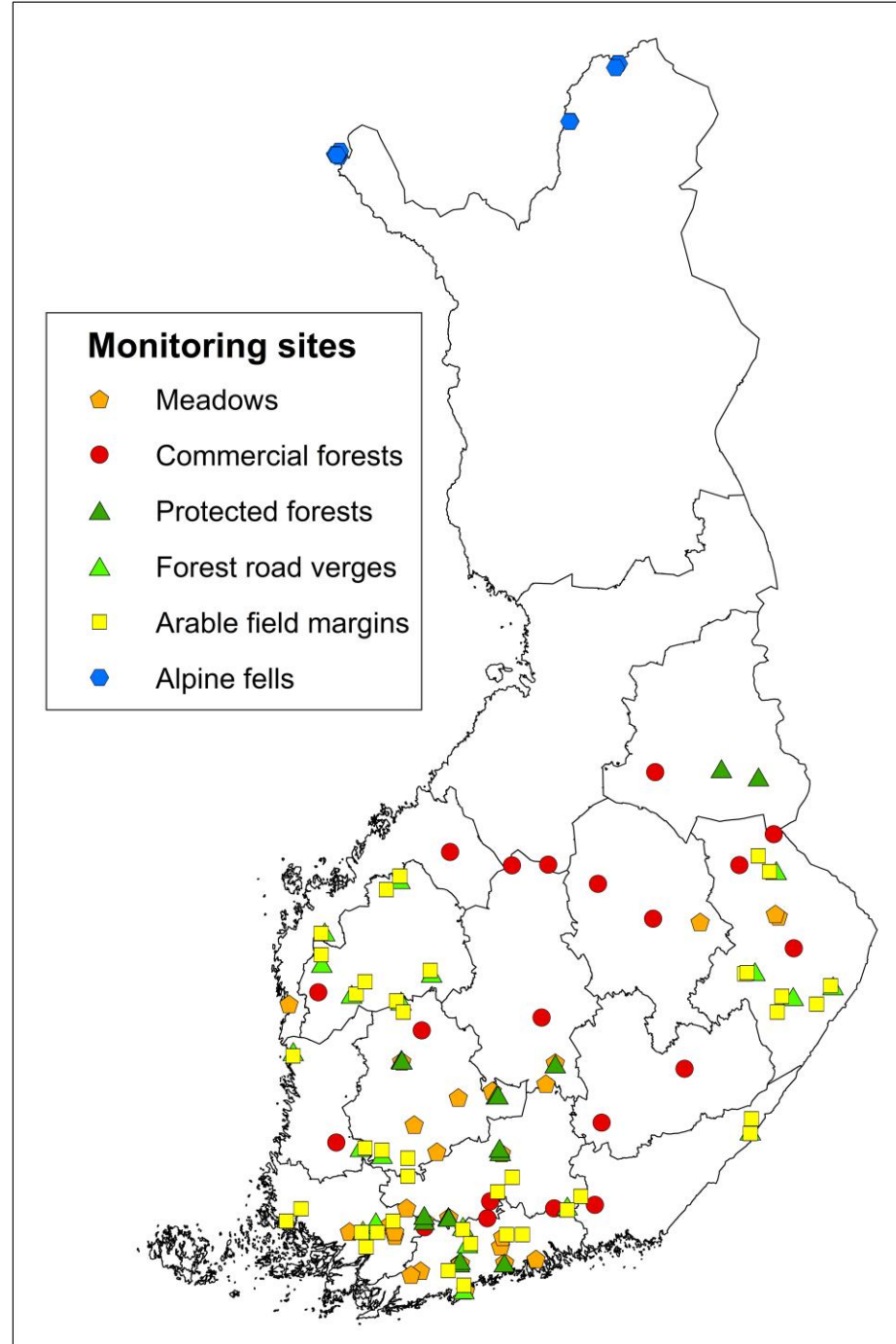
# First year's results



- In summer 2022 monitoring in six different habitats in 134 sites
- Both pan traps and transect counts revealed a large material
  - Covering 349 pollinator species and ca 50 % of the Finnish fauna of the focal pollinator groups

Species group	Pan traps		Transects		Percentage of Finnish fauna (%)
	Species	Individuals	Species	Individuals	
Bumblebees	29	5172	29	4207	78
Solitary bees	105	3391			51
Butterflies			66	8192	55
Hoverflies	149	2661			43
<b>Total</b>	<b>283</b>	<b>11224</b>	<b>95</b>	<b>12399</b>	<b>49</b>

- The coverage of our pollinator species increased substantially compared to voluntary citizen science schemes
- Novel information on species habitat preferences and geographic distribution
- Good baseline for long-term monitoring



# Thank you!

