

# Problem and solution approach



## Dramatic loss of insects in Germany and the EU:

- 76.7 % loss of insect biomass
- 90 % of the areas analysed were protected areas with intensive agriculture in the vicinity
- Global study → 40 % of insect species under threat

### What is the main focus to counteract the loss of insects?

- Farmers and food companies → Initiatives to promote pollinators
- Sustainable agricultural practices
- Expertise of farmers and food companies → Implementation of measures especially in insect protection



Regionen

fördern

Insekten













## LIFE IFR - Our goals



### 1) Regional alliance for the promotion of insects

Creation and implementation of regional strategies and biodiversity action plans to promote pollinating insects in agriculture and the food industry through cooperation with relevant stakeholders

### 2) Development and implementation of market-orientated approaches

Evaluation and commercialisation of the biodiversity performance of farmers along the value chain using the Biodiversity Performance Tool (BPT) to create an economic incentive for insect-friendly measures.

### 3) Strengthening insect expertise

Training of farmers and advisors through an online learning format as well as practical training and the provision of technical measures to improve insect diversity in agriculture.













## LIFE IFR - Our goals



### 4) Evaluation and improvement of existing agricultural policy measures

Evaluation of the effectiveness of current agri-environmental measures under the EU's Common Agricultural Policy (CAP) with the aim of identifying shortcomings and developing proposals for improvements

### 5) Implementation of Citizen Science Modules (CSM)

Introduction and utilisation of CSM for monitoring insect populations in IRSR (MonVIA (Thünen Institute) and iNaturalist), including training of relevant stakeholders to implement and evaluate these monitoring projects













## LIFE IFR - Our goals



## 6) Development and implementation of a marketing and communication strategy

Identification of consumer segments and development of a strategy to promote demand for insect-friendly products and raise consumer awareness of the importance of insect conservation in agriculture













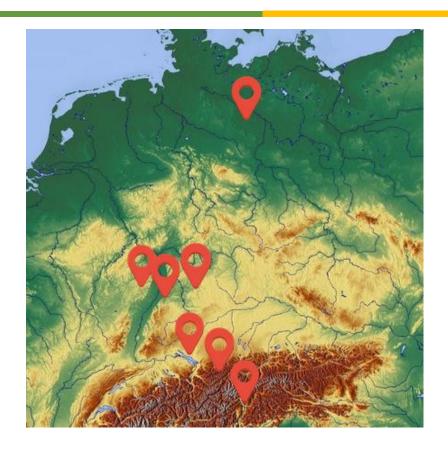






## LIFE IFR - Regions and stakeholders





- Farmers & producer organisations
- Companies in the food industry
- Agricultural trade & cultivation associations
- Private nature conservation
- Food standards & quality labels
- Agricultural advisory organisations
- District offices and specialised administrations
- Cities and municipalities
- Other organisations and projects
- Beekeepers













# IFR Allgäu



#### 9 demonstration farms

- Haymilk farm Assemann
- Philipp Heine
- Biolandhof Hold
- Höß company
- Demeterhof Lanquanz
- Biohof Samenfink
- The Topinambur manufactory
- Rehabilitation clinic Überruh
- Golfclub Waldegg-Wiggensbach e.V.

- Grassland species enrichment through mowing and seeding
- Grassland extensification
- Old grass strips
- Flowering areas and fallow land
- Species-rich fringes/buffer strips
- Insect-friendly mowing
- Extensive pasture
- Planting fruit trees
- Hedge planting
- Deadwood/sandbar/sandstone pile

















#### Events

- Annual grassland day on field trial area with offers for the general public and for agriculture and dairies
- Online event for farmers: Biodiversity protection & biodiversity management in grassland
- Seven target group-specific training courses and excursions
- · Lecture and field tour: Bees and agriculture
- Three lectures at agricultural colleges and agricultural high schools
- Three iNaturalist training courses at the Wangen State Garden Show
- Two high-profile markets: PRIMAVERA Rose Festival and FutureUp Market
- Development of regional funds for sustainable agriculture and insect promotion
- Expert monitoring of locust populations
- · Ongoing dialogue with dairies and agricultural and nature conservation stakeholders
- · Development of a herb trail with regular wild herb tours on a demonstration farm



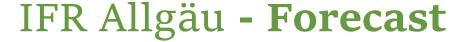














#### Events

- Event on extensive grassland at the Höß demonstration farm
- Regular lectures at agricultural colleges and agricultural high schools
- Contribution to grassland day ARGE Heumilch
- Contribution to Ambassador Day Nagelfluhkette Nature Park
- Workshop for hay milk farmers
- Event on climate and biodiversity with eco-model region
- Blooming Golf Club event
- · Regional fund for sustainable agriculture and insect promotion
  - Further development and institutionalisation to ensure continuation after the end of the project
  - Public relations
- · Ongoing dialogue with dairies and agricultural and nature conservation stakeholders











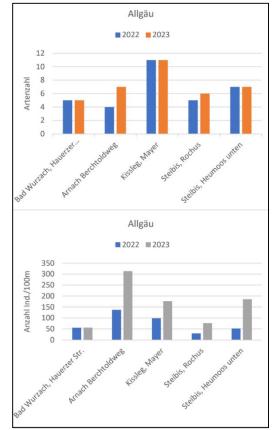


# IFR Allgäu - Key indicator species



Expert monitoring of grasshoppers in old grassland measures and without measures









































Insekten Fördernde  $\mathbf{R}egionen$ 

# IFR Bliesgau



### 9 demonstration companies

- Buchheit
- Schunk
- Erlenbacher Hof
- Hof Waldeck
- Kirchheimer Hof
- Schwartz
- Hassler
- Paltz
- Jakobi

- Perennial flowering areas
- Planting of individual trees/rows of trees
- Undersown crops in cereals
- Wide row in cereals
- Beneficial insect strips in large arable fields
- Maize and runner bean mix
- Lentil and yolk mixture
- Residual areas for beneficial organisms

















- Training courses/workshops:
  - Insect-promoting measures in the agricultural landscape
  - Flowering areas in the agricultural landscape
  - Farmers and wild bees as a team
  - Recognising species-rich grassland
  - Farmer creates diversity
  - Concept of a regionally adapted flowering area measure
  - Insect watching with the app
- **Expert monitoring:** Requisite-orientated observation of wild bees on flowering areas













# IFR Bliesgau - Forecast



- Training /Workshops:
  - Insect watching with the app















## IFR Bliesgau - Key indicator species



Expert monitoring of flower strips with regard to wild bees: Expert monitoring on the perennial flowering strips led to the discovery of 33 wild bee species for the first time in Saarland.























Kronenbitter / GNF

















## IFR Hohenlohe



#### 8 demonstration farms

- Company by Klaus Süpple
- Organic farm Franz
- Organic farm Stapf
- Bodensatz GbR
- D. and O. Weber GbR
- Eberhardt GbR
- Müller Stiftsgrundhof GbR
- Reber Innovative Agriculture

- Agroforestry
- Promotion of beneficial organisms
- Mixed cultivation
- Speciality crop cultivation (camelina, lavender)
- Undersown crops
- Direct sowing
- Perennial flower strips
- Flowering headland

















- Activities in cooperation with NABU and the town of Kirchberg
  - Building yard training + mulching/mowing concept
  - Explanatory sheet of the measures for the public
  - Insect-friendly design of communal areas
- Monitoring of wild bees (spring 2023)
- Training in the field of ammen crops, diversification of maize cultivation and strip-till systems
- **Citizen Science**: iNaturalist App (spring 2023)
- Corn Nasturtium **Field Day** (summer 2023) & Organic Strip-Till **Field Day** (summer/autumn 2023)
- Online lecture on climate-resilient pasture management systems (spring 2024)
- Training courses (2) Agricultural vocational school (conventional and organic) (spring 2024)
- Lecture on light pollution (spring 2024)

















- **Field day/training on** insect-friendly mowing (summer 2024) & species-rich grassland (2024)
- Insect monitoring with the Schwäbisch Hall commercial school in the TinyForest project
- Preservation and restoration of orchard avenues in Hohenlohe

















Expert monitoring of grasshoppers in unmown grass verges Measures







































# IFR Northern Upper Rhine



### 9 demonstration farms

- Boxheimer arable farm
- Hartmann GbR arable farm
- Welk arable farm (accident, therefore unfortunately excluded from the project)
- Organic farm Schleinkhofer
- Grenzhof
- Rotthof
- Winery Markus Hafner
- Haghof
- Filsinger fruit farm

- Agroforestry
- Flowering tramlines
- Anchor plants in viticulture
- Beneficial insect strips
- Perennial flower strips













## IFR Northern Upper Rhine - Review



- Press relations (ongoing)
  - Specialist article on the commitment of the companies
  - Information for the general public
  - Citizens' article on concrete options for action in private gardens
- **Tree planting** in grassland
- Planting anchor plants in the vineyard (media tour)
- IFR Dinner/Harvest Thanksgiving  $\rightarrow$  The company's own products produced in the region were savoured at a communal dinner
- Practical days for agricultural students
- **Training** for forestry and building yard employees
- Planning for area upgrades in public spaces













# IFR Northern Upper Rhine - Forecast



- Citizen Science Workshop
- Implementation of measures for the ecological enhancement of grassland and special crops
- Closing event with demo farms, regional working group and representatives of producer organisations

















LIFE19 GIE/EN/000785

Expert monitoring of flower strips with regard to wild bees Expert reports have been able to detect 44 species of gymnosperms on beneficial flowering strips.

Monitoring of Aculeata in beneficial insect strips Heidelberg-Wieblingen (Grenzhof) 2022:

44 species of aculeata were identified:

24 species of wild bees

13 species of spheciformes

3 species of vespidae

2 species of spider wasps and one cuckoo wasp and one flower wasp species each



critically endangered hedychrum nobile







































#### 10 demonstration farms

- Englhof-Alexander Agethle
- Hausergut-Andreas Hauser
- Sockerhof-Anna Folie
- Sonnhöfl-Christine Viertler
- Gröbnerhof-Karl Raich
- Kartheingut-Elisabeth Tappeiner
- Building yard-Philipp Linser
- Telserhof -Werner Santer
- Theodor Niederfriniger
- Elmar Dietl

- Planting hedges
- Anchor plants
- Flower strips
- Flowering catch crops
- Flower strips in the fruit rows
- Natural pond

















- First information event in February 2023
- First AG meeting May 2023
- First training courses on flower strips in fruit cultivation in August 2023
- Networking meeting on autochthonous wild plant seeds with the district community
- Start of Alperia cooperation in January 2024
- Distribution of autochthonous anchor and hedge plants of the forestry station in May 2024
- Distribution of seeds for the flower strips in June 2024
- Creation of natural pond with training in June 2024
- First mowed material transfer on the Alperia area in July 2024

















- Monitoring of grasshoppers and butterflies on grassland sites
  - → Intensively used and extensively used with old grass strips: begins 2024
- Monitoring of wild bees and hoverflies at four apple tree sites
  - → IP with/without flower strips, organic with/without flower strips: also starts in 2024







































## IFR Wendland



#### 8 demonstration farms

- Cord Günther Schulz
- T. Mennerich
- R & S GbR
- Schulze Rosche GbR
- Udo von der Höden
- Andreas Barge
- Hof Wenhold GbR
- Willi Schulz

- Fallow land for self-greening
- Annual flowering areas
- Planting of individual trees/rows of trees
- Winter catch crops
- Beneficial insect strips and beneficial insect areas
- Old grass strips
- Perennial flowering areas
- Wide row in cereals

















- Training for farmers on the species enrichment of grassland
  - 2 training courses on the identification of species-rich grassland in 2023
  - 2 further training courses on species-rich grassland in 2024
- **Citizen science** events to identify insects and plants in the field with the use of iNaturalist (2 in 2023, 2 in 2024)
- Monitoring:
  - **Expert monitoring** of beneficial insects **in beneficial insect strips** in parsley. Detection of ladybirds, hoverflies and lacewings using landing nets and yellow traps. Investigating whether the establishment of beneficial insect strips can reduce the use of pesticides.

















## • Second beneficial insect monitoring and final report 2024



Common Lagoon Fly (Eristalinus sepulchralis)



Batman Hoverfly (Myiathropa florea)



Thick-legged Hoverfly (Syritta pipiens)

Fotos: Gerrit Öhm/ GNF













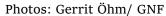
# IFR Wendland - Key indicator species



Expert monitoring of beneficial insect strips with regard to hoverflies, ladybirds and lacewings













(C) O. Peters/ GNF

































## **IFR: Lake Constance**



#### 8 demonstration farms

- Altschorenhof
- Berghof Tengen
- Buchhaldehof
- Fuchshof
- Highland Cattle Bodensee
- Moosfeld Gemüse GmbH
- Arnold fruit farm
- Meersburg State Winery

- Flowering undersow
- · Corn and bean mixture
- Perennial flower strips
- Species-rich tramlines
- Extensive grassland
- Grassland with old grass strips
- Extensive grazing
- Insect-friendly shrubs, rock piles, deadwood piles, anchor plants, nesting aids

















- **More insect diversity** in arable farming (online)
- **Regional food** with added value for nature (online)
- Seminar 'Insect-promoting region of Lake Constance' as part of the Nature Conservation Days at Lake Constance 2023
- 5 Citizen Science workshops
- Field days
  - o More insect diversity in viticulture species-rich tramlines
  - o Corn and runner bean mixture (for a vocational school class)
  - Undersown corn













## IFR Lake Constance - Outlook



- **Event** for municipalities on extensive grazing
- Citizen Science Workshop
- **Field day** (topic still open)
- Exchange with producer organisations















# IFR Lake Constance - Key indicator species

### **Expert monitoring:**

**2022**: Grasshoppers and butterflies on a flowering strip, five strips of old grassland and in species-rich, flowering tramlines in the vineyard as well as in unvegetated tramlines

**2023:** Wild bees in species-rich, flowering tramlines in the vineyard and in neighbouring, sown flowering areas

**2024:** Repetition of all mapping

→ In and around the vineyard, 50 species of wild bee species were detected in and around the vineyard, including 4 species on the Red List!











































# IFR Südpfalz



### 7 demonstration farms

- Company Heid GbR
- Company K- Heid
- Company Jung
- Fohlenhof Fried
- Schick company
- Operation Eichenlaub
- Operation Mittenbühler

- Perennial flowering areas
- Annual beneficial insect strips
- Perennial beneficial insect strips
- Residual areas for beneficial organisms
- Maize and runner bean mixture
- Undersown crops in cereals
- Wide row in cereals













# IFR Südpfalz - Review



- Included in the project as a transfer region in February 2022
- In 2023, 90 wild bee species were documented













# IFR Südpfalz - Forecast



• Wild bee monitoring: further surveys planned for 2024

















Expert monitoring of flower strips with regard to wild bees.

 $\rightarrow$  90 bee species were counted in 2022 and 2023. The surveys will be continued in 2024.













































- 21.01.2024 → Online event: Climate-resilient pasture management systems and biodiversity
- 13.03.2024 → Free online course: Ways to near-natural urban greenery species-rich meadows: Creation, enhancement, maintenance and cost savings
- 06.05.2024 → Lecture on the topic of light pollution in the Rittersaal at Kirchberg Castle
- 06.05.2024 → Workshop: Recognising species-rich grassland in IFR Wendland
- 27.05.2024 → Ecoland field day in cooperation with IFR Hohenlohe: Insect-friendly mowing
- 04.06.2024 → Ecoland field day in cooperation with IFR Hohenlohe: Species-rich permanent grassland identification exercise, procedure and funding opportunities
- 07.06.2024 → Citizen science workshop for the BUND youth group in Gottmadingen
- 10.06.2024 → Day workshop for agricultural students Saarbrücken: Farmer creates diversity
- 11.06.2024 → Information event: Support programmes for species-rich grassland ÖR 5 and GN 5 for farmers who manage species-rich meadows and pastures
- 11.06.2024 → Workshop: Recognising species-rich grassland in the Wendland IFR

















- 11.06.2024 → Citizen science workshop at the vocational school centre in Radolfzell
- 19.06.2024 → Citizen science workshop for the city beautifiers of Überlingen
- 22.06.2024 → Citizen science workshop for Naturefriends Radolfzell
- 09.08.2024  $\rightarrow$  Insect identification with the app: Insect summer in the Bliesgau

## **Further highlights**

- Video report in the ARD media centre about a training course on insect observation with apps in the Bliesgau: <u>Link to the video</u>
- Presentation of the project at the main agricultural festival in Stuttgart
- Presentation of the project at the Week of the Environment











