



## RESEARCH PROJECT

<b>Project title:</b>	Practical measures to increase biodiversity on golf courses
<b>Project start date:</b> May 2020	<b>Project completion date:</b> June 2024
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	Project funding (kSEK)								
	2016	2017	2018	2019	2020	2021	2022	2023	Total
STERF					0	0	0	0	0
Other sources					790	390	197	200	1577*
<b>Total</b>					<b>790</b>	<b>390</b>	<b>197</b>	<b>200</b>	<b>1577*</b>

\*50% in SEK and 50% in in-kind funding

### Project objectives

- To create a model for local collaboration between golf clubs, municipalities and other actors in the community with the aim of creating rich plant and animal life.
- To improve biodiversity on golf courses through increased knowledge of how different measures and maintenance routines on the golf course can contribute to creating rich plant and animal life.
- To study the effects of different care routines to increase the number of pollinating insects and the playability of golf course roughs.
- To evaluate how different care routines benefit specific insect species.
- To spread knowledge and experience to golf clubs, municipalities and other organisations in society nationally and internationally.

### Project summary and status January 2024

Biodiversity loss and ecosystem collapse are among the greatest threats humanity faces in the next decade. The EU Biodiversity Strategy for 2030 proposes a more holistic approach to biodiversity policy. Protecting and restoring nature cannot be solely imposed by regulation and must include all relevant actors in the peri-urban and rural landscape. Golf courses could contribute to production of biological diversity, conservation of natural and cultural environments and retention and expansion of ecosystem services in peri-urban environments and the cultivated landscape. The project tested several measures to promote biodiversity, adapted to each golf club's conditions. Measures to benefit insects involved creating flower-rich soils with exposed sand. The selection of measures and maintenance efforts tested can be adapted to a golf course anywhere in the municipality, region or country. The goal is that the final inventories for 2023 will show improved flora and insect diversity on the golf courses.

Individual action plans have been drawn up for five golf courses: Falkenbergs GC, Ullared Flädje GC, Harabäckens GC, Hofgårds GC and Vinbergs GC. These action plans describe what, where and when measures for biological diversity can take place on each individual course and include an assessment of the time required and costs.

A dialogue has been held with the Golf Federation and golf course staff to make sure that the action proposals can be coordinated with the golf game itself. Work has started on summarising the experiment and writing a project report, manuals and checklists for different biotopes. The following activities were conducted on the golf courses in 2023:

- During the growing season, individual plans were implemented in practice. In autumn, each facility was visited, the season was reviewed and the individual care plans for 2023 were adjusted.
- Grass surfaces were burned off on some courses.
- Grass surfaces were cut and the material was removed. A challenge encountered, and which will be a problem when these measures are implemented on a larger scale, is to get rid of this grass material in an economically and environmentally correct way.
- Sand areas were produced by excavating and/or supplying sand to support seed and establish new meadow plants that have a good function for pollinating insects.
- Release of larger solitary trees and brow environments (thinning and clearing).
- Parts of bunkers are managed and executed so that certain insects will find a place to live in edge zones.
- Information material, such as signs etc., has been placed at different habitat types (10 (A3) signs per course) on the courses and a larger information board has been placed at each clubhouse.