After-LIFE Conservation Plan of the Flying Squirrel LIFE project

Flying Squirrel LIFE,

Co-operation for improving the conservation of the flying squirrel in Europe 2018-2025

LIFE17 NAT/FI/000469
31.3.2025

Photo: Arto Griinari/Vastavalo

After-LIFE Conservation Plan

Introduction to the Flying Squirrel LIFE project's actions and results, and a continuity plan for activities after the project.

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in collaboration with project beneficiaries

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KEYWORDS: ***flying squirrel, endangered species, species protection, land use planning, forest management, monitoring, urban area, conflict of interests, inventory***

Photo: Saara Airaksinen

Content

Part 1. Introduction to the Flying Squirrel LIFE project, the flying squirrel as a species, and to project actions and their results during 08/2018-03/2025. Pages:

Part 2. After-LIFE Conservation Plan

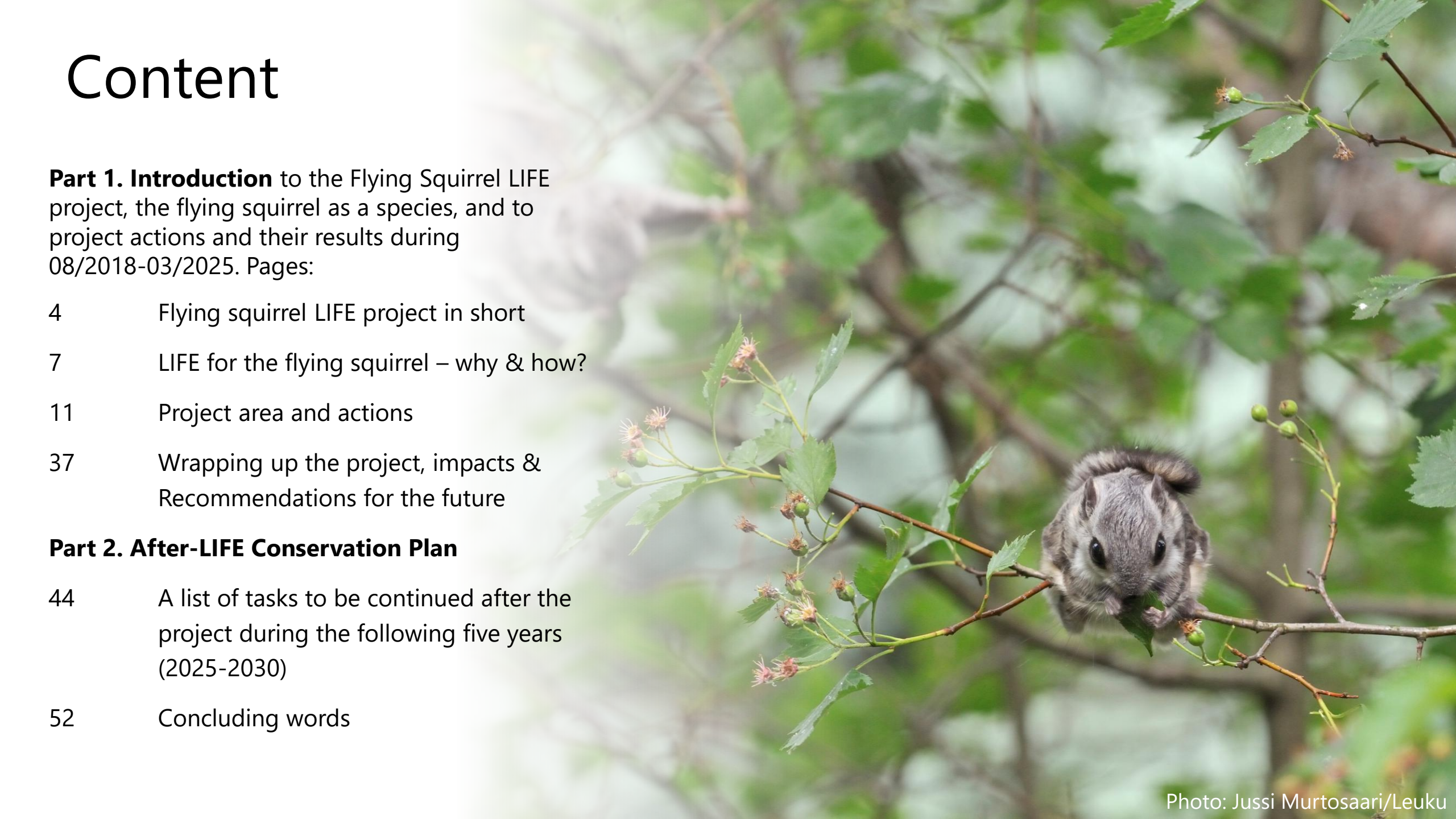


Photo: Jussi Murtosaari/Leuku

Flying Squirrel LIFE project in short

Title: Co-operation for improving the conservation of Siberian flying squirrel (*Pteromys volans)* in Europe
Means: Developing and implementing good practices into everyday work in land use planning

Reference: LIFE17 NAT/FI/000469
Acronym: Flying Squirrel LIFE
Habitat directive: Annexes II and IV(a) of the Habitats Directive

Location: Finland & Estonia
Period: 1.8.2018-31.3.2025
Total budget: 8,886,666 €
EU Contribution (max. 75 %): max. 6,664,999 €
Co-funding: (MoE Fin): 50,000 €

Coordinating Beneficiary: Metsähallitus, Parks and Wildlife Finland
Project manager: Eija Hurme
Associated beneficiaries: 18 organizations
Project website: metsa.fi/project/flying-squirrel-life/

Photo: Saara Airaksinen

Project beneficiaries

During over 6 years, 18 project beneficiaries united forces for one common goal: to gather and provide knowledge about the flying squirrel as a species, its needs and best practices. Beneficiaries represented key stakeholders of conservation and forestry professionals, large cities, nature conservation associations, representatives of landowners, research and museums, as well as conservation authorities.

Please find the list of beneficiaries on the next page, listed with their acronym, native name and English name.

METSÄHALLITUS
ESPOO ESBO
JYVÄSKYLÄ
KUOPIO
KUOPION LUONNONTIETEELLINEN MUSEO
KESKKONNAAMET
LUOMUS LUONNONTIETEELLINEN KESKUSMUSEO
Luke LUONNONVARAKESKUS
MTK
Elinkeino-, liikenne- ja ympäristökeskus
metsäkeskus
Suomen luonnonsuojeluliitto
METSAKORRALDUSE BÜROO
RMK

Flying Squirrel LIFE, project beneficiaries

Acronym	Native name	English name
EEB	Keskkonnaamet	Estonian Environmental Board
ELF	Eestimaa Looduse Fond	Estonian Fund for Nature (as a project partner 2018-2020)
ERAMETS	Eesti Erametsaliit	The Estonian Private Forest Union
ESPOO	Espoon kaupunki	City of Espoo
FANC	Suomen luonnonsuojeluliitto ry	The Finnish Association for Nature Conservation
FMNH	Luonnontieteellinen museo	Finnish Museum of Natural History Luomus – Helsinki University
JYVASKYLA	Jyväskylän kaupunki	City of Jyväskylä
KULUMUS	Kuopion luonnontieteellinen museo	Kuopio Natural History Museum – City of Kuopio
KUOPIO	Kuopion kaupunki	City of Kuopio
LUKE	Luonnonvarakeskus	Natural Resources Institute Finland
MHFORESTRY	Metsähallitus Metsätalous Oy	Metsähallitus Forestry ltd., Finland
MHPWF	Metsähallitus Luontopalvelut	Metsähallitus, Parks and Wildlife Finland
MKB	Metsakorralduse büroo	Forest Survey Bureau of Estonia
MTK	Maa- ja metsätaloustuottajain keskusliitto	Central Union of Agricultural Producers and Forest Owners, Finland
POKELY	Pohjois-Karjalan ELY-keskus	Centre of Economic Development, Transport and the Environment for North Karelia
POSELY	Pohjois-Savon ELY-keskus	Centre of Economic Development, Transport and the Environment for North Savonia
RMK	Riigimetsa Majandamise Keskus	State Forest Management Centre, Estonia
SMK	Suomen metsäkeskus	Finnish Forest Centre
VARELY	Varsinais-Suomen ELY-keskus	Centre of Economic Development, Transport and the Environment for Southwest Finland

LIFE for the flying squirrel – why and how?

The Flying Squirrel LIFE project's main aim in improving conservation of the flying squirrel was to find ways to **ensure the availability of suitable forest habitats** for the species, while acknowledging also other perspectives of land use. Hence, the key idea was to **exchange knowledge and find practical ways** to deal with often rather complicated issues.

Recognized threats for the flying squirrel:

- Habitat loss and fragmentation
- Opposing views and conflicts in land use
- Lack of knowledge in practice

The Flying Squirrel LIFE project's objectives to tackle the threats:

1. Prevent habitat loss and fragmentation
2. Increase co-operation and develop tools for fluent land use planning
3. Improve quality and availability of FS related data
4. Increase exchange on knowledge and approval towards conservation

Strictly protected flying squirrel

Photo: Ari Seppä/Vastavalo

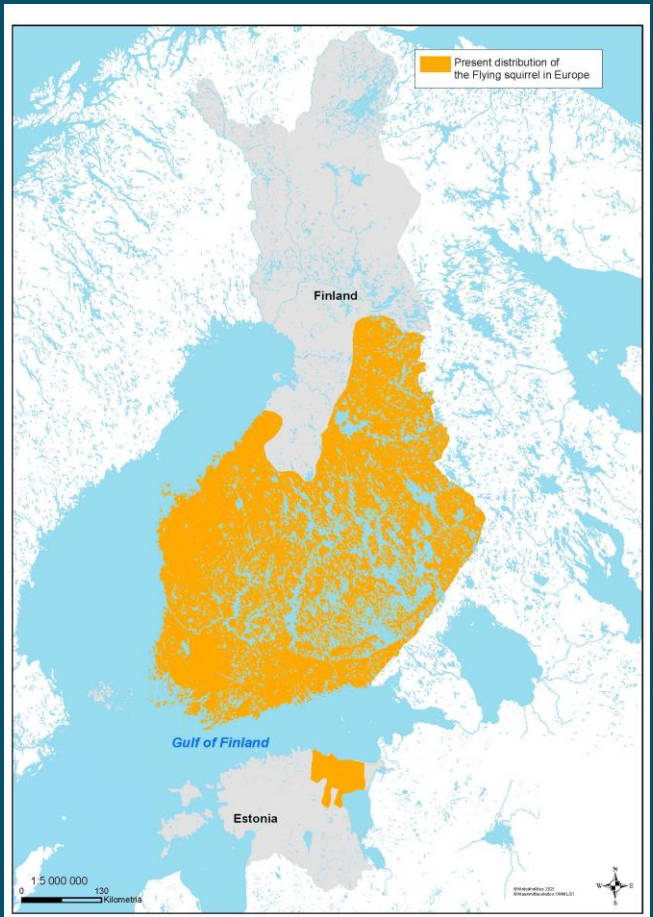
Flying squirrel (*Pteromys volans* L.) is an arboreal rodent species inhabiting only Estonia and Finland in the European Union, and endangered due to habitat loss and fragmentation. Flying squirrels (FS) typically live in mature spruce- or aspen-dominated mixed forests, which have a considerable economical value. Thus, **conflicts of interests** are inevitable. During past decades, the range of the FS has been shrinking in Estonia and its population trend in Finland has been continuously declining.

Photo: Tõnu Laasi

Flying squirrel is classified as **vulnerable (VU) in Finland** and **critically endangered (CR) in Estonia** (IUCN). In the EU, FS is listed in annexes II and IV of the Habitats Directive. Based on the Annex II, FS is a designated species for 456 Natura 2000 areas in Finland and for 12 in Estonia.

From the Annex IV(a) follows that **breeding sites and resting places of the FS are strictly protected and must not be deteriorated or destructed**. In Estonia, there are also limited management zones applied around species protection sites (SPS) delineated for the FS.

Flying squirrel distribution

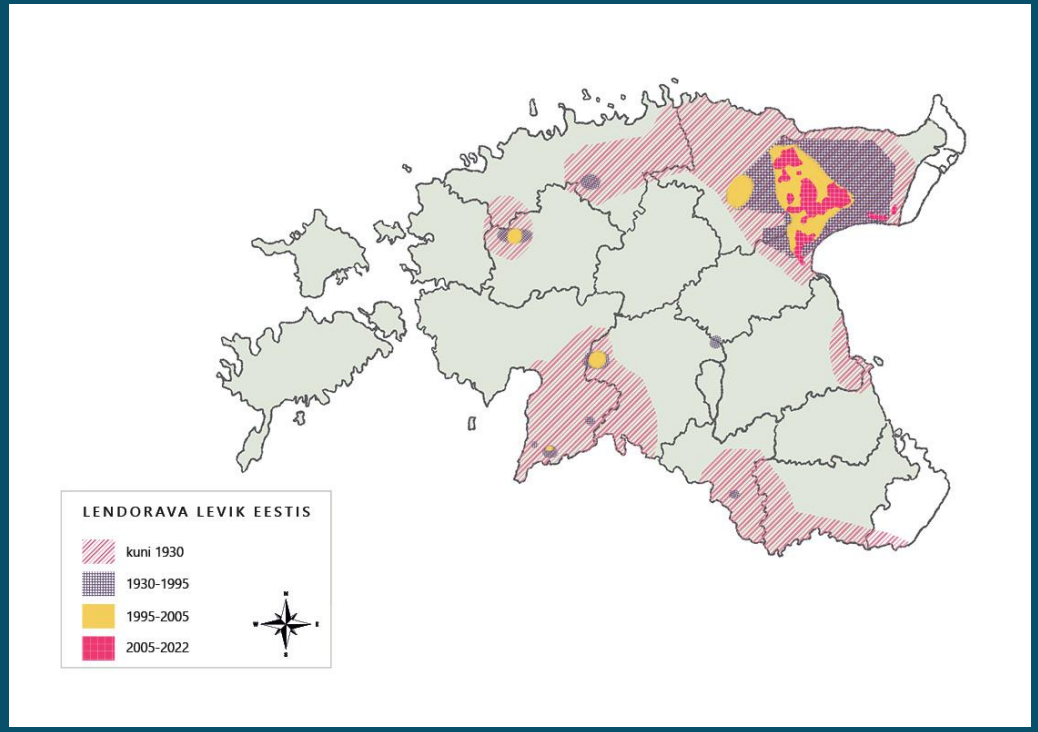


Flying squirrel is a typical taiga-regional species with a global range that extends from the Eastern parts of Europe across the Arctic taiga belt to Japan. The project area focuses on the westernmost borders of it: Finland and Estonia.

In Finland, FS distribution range covers about 2/3 of the country (yellow on the left.) Populations are scattered, though, and **population has been dramatically decreasing for past decades.**

In Estonia, FS **distribution has shrunken rapidly**. Nowadays they are present only in a small area in the Northeastern parts of the country (red on the right).

FS has existed in the Baltic countries in South, Latvia and Lithuania, but it is already extinct there because of fragmentation and loss of habitats.



Arboreal flying squirrel

Flying squirrel prefers mature mixed spruce- or aspen-dominated forests as habitats. Large spruces give shelter and deciduous trees food. Especially aspens offer cavities for safe nesting places. Individuals use many nests the year round.

Flying squirrels move easily in tree canopies, gliding even tens of meters from tree to tree. Their home ranges spread from several to tens of hectares. FS is a species needing a network of suitable habitat patches and forested connections between them.

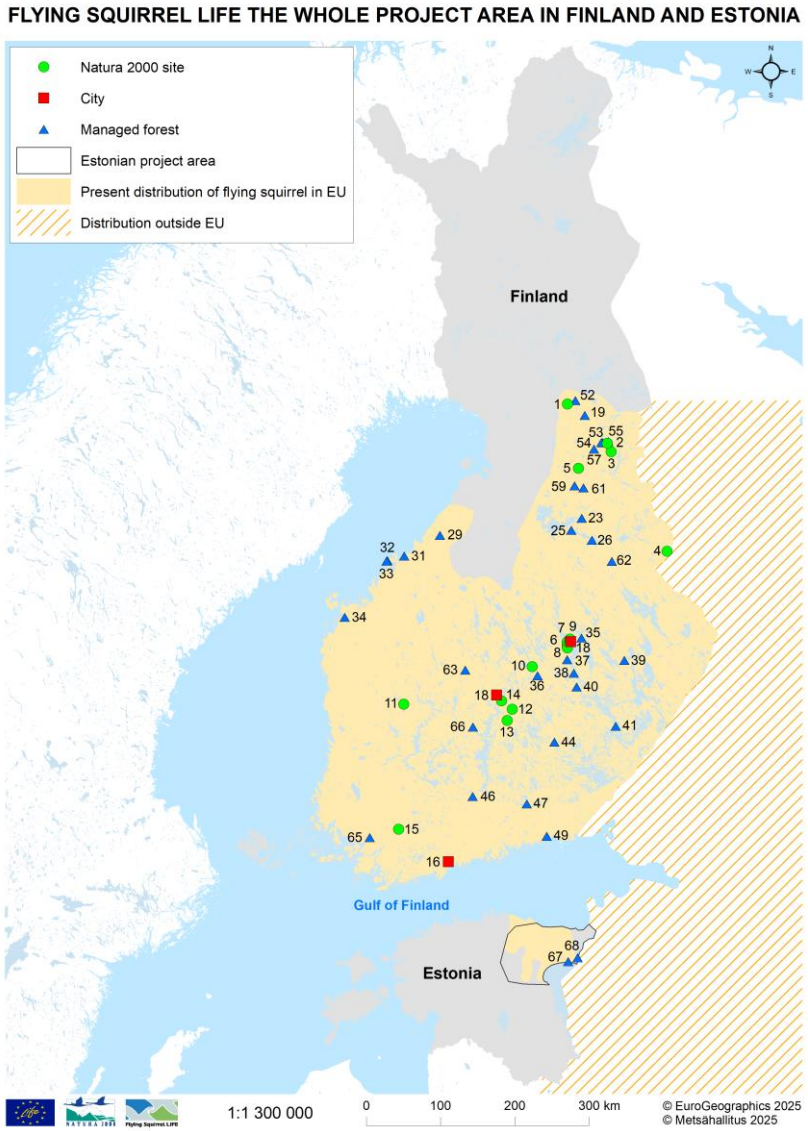
Being a short-lived animal, a typical feature of the FS occupancy pattern at landscape level is the variability of occupied and unoccupied sites between years. Sometimes very good habitats seem to be empty just because a resident has passed away and a new individual has not arrived yet.

Finding yellowish droppings of this nocturnal and silent species from bases of large trees is often the only way to notice its presence. The best chances are in springtime, when snow has melted but the vegetation has not grown yet.

Photo: Benjam Pöntinen

Photo: Saara Airaksinen

Project area and co-operation



Pictured on the left is the whole project area with project sites and the FS distribution. **Project activities targeted on 138 sites.** This included conservation actions at project sites (A5-C1, A6-C2, A8-C3), 3 nature paths (E2, E3) and 6 new protected areas (B1). Of these, 27 were connected with Natura 2000 sites (15 in Finland and 12 in Estonia). Site names are listed on the next page. For practical and sensitivity reasons, all project sites are not shown on the map.

The most important feature of the Flying Squirrel LIFE project was the **co-operation among beneficiaries**, that was both a way and an objective. Most project actions were done together, which increased our understanding about each other's views. Active co-operation enabled active **exchange of knowledge** between professionals representing key stakeholders in Finland and Estonia.

Keeping everyone updated on what is going on and learning from each other, needs a lot of discussions together. For us, this took **over 280 project planning meetings** and a countless number of smaller regular discussions. Collaboration takes time, but all this time has been worth using.

With the LIFE funding, we were able to transfer good practices to real situations across the range of the FS in the EU, as well as try and innovate all-new methods, showing their results now and afterwards.

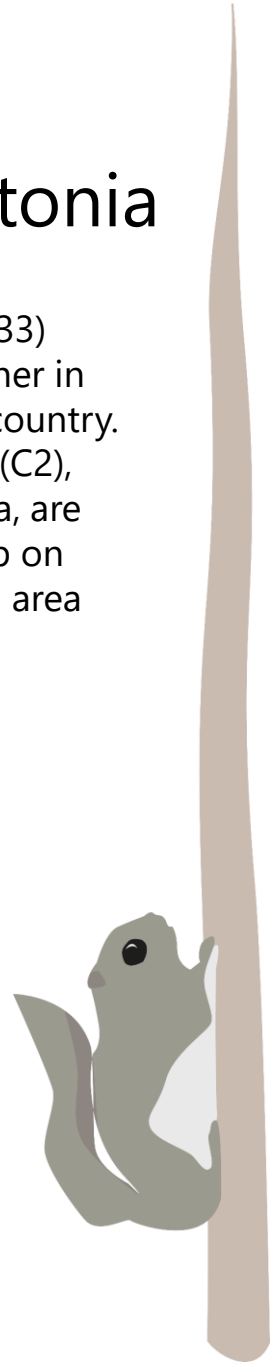
Project sites in Finland

1 N2000 Syöte (C3)
2 N2000 Riuskanselkonen (C3)
3 N2000 Huuhkajanlehto (C3)
4 N2000 Ulvinsalon alue (C3)
5 N2000 Ison Jänisjärven lehto ja letto (C3)
6 N2000 Etelä-Kuopion lehdot ja lammet (C1)
7 N2000 Kolmisoppi-Neulamäki (C1)
8 N2000 Korsunmäki ja Keinälänniemi (C1)
9 N2000 Puijo (C1)
10 N2000 Konnevesi-Kalaja-Niinivuori (C3)
11 N2000 Aurejärvi (C3)
12 N2000 Katajaneva-Vuorilammen alue-Huhtalampi (C3)
13 N2000 Haapasuo-Syysniemi-Rutajärvi-Kivijärvi (C3)
14 N2000 Palstonvuori-Jääskelä (C3)
15 N2000 Rekijokilaakso (A6: 20 sites, E2: 1 site)
16 City of Espoo (C1: 4 sites)
17 City of Jyväskylä (C1: 8 sites, E2: 1 site)
18 City of Kuopio (C1: 9 sites)
19 Private 1 (C2)
23 Private 5 (C2)
25 Private 7 (C2)
26 Private 8 (C2)
29 Private 11 (C2)
31 Private 13 (C2)
32 Private 14 (C2)
34 Private 16 (C2)
35 Private 17 (C2)
36 Private 18 (C2)
37 Private 19 (C2)
38 Private 20 (C2)
39 Private 21 (C2)
40 Private 22 (C2)
41 Private 23 (C2)
44 Private 26 (C2)
46 Private 28 (C2)
47 Private 29 (C2)
49 Private 31 (C2)
52 State 34, Kivilampi (C2, C3)
53 State 35, Hanhivaara (C2, C3)
54 State 36, Hikilehto (C2)
55 State 37, Jänisselkä (C2, C3)
56 State 38, Pata-aho (C3)
57 State 39, Parviaissuo (C2)
58 State 40, Peranganvaara (C2)
59 State 41, Kurikkavaara (C2, C3)
61 State 42, Pöppölä (C2)
62 State 43, Palovaara (C2, C3)
63 State 44, Haavisto (C2)
64 State 45, Syrjävaara (C2)
65 Private 46 (C2)
66 Private 47 (C2)

In addition, 6 sites were protected in Finland (B1).

Project sites in Estonia

All the Estonian project sites (33) were located close to each other in the North-East corner of the country. Only sites for green corridors (C2), 67 Remniku and 68 Permisküla, are marked separately on the map on the previous page. Delineated area was used in modelling (A3).



Project actions in detail

There were 23 project actions (A1-A9, B1, C1-C4, D1-D3, E1-E4, F1-F2) **to decrease threats** to the FS via project objectives, directly or indirectly. Almost all the actions were executed both in Finland and Estonia. They were also designed to assist different phases of land use planning: see a continuous learning cycle "Flying squirrel wheel" on the next page 14.

Project activities were designed first for professional levels to increase guidance and knowledge for better land use management; and second, for other interested people and future generations.

- Descriptions of project actions start from page 15.
- Project publications can be found on the **project website under specific action codes (A1-A9, B1, C1-C4, D1-D3, E1-E4, F1-F2).** No direct links to specific publications are used here, as their location may change in time.

Project objectives:

1. Prevent habitat loss and fragmentation
2. Increase co-operation and develop tools for fluent land use planning
3. Improve quality and availability of FS related data
4. Increase exchange on knowledge and approval towards conservation

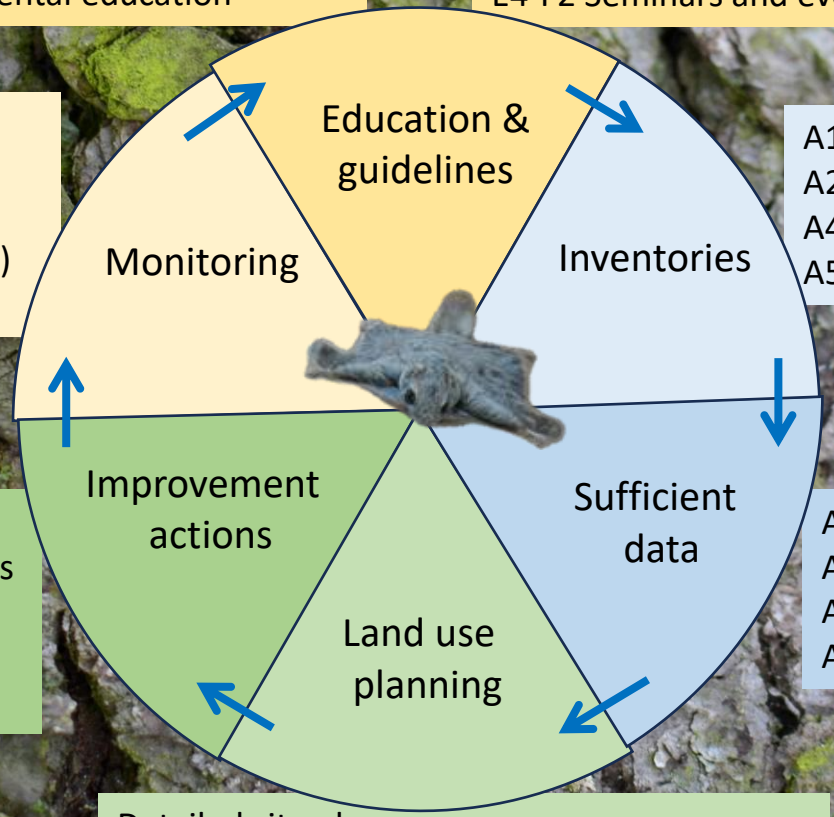
Photo: Saara Airaksinen

"Flying squirrel wheel" of doing better:
Project actions within the continuous learning cycle in land use planning

A2 Guide & events: FS inventory education
A4 Guide: good practices in urban areas
A7 Guides & events: education for managed forests
E3 Guide & events: environmental education

E1-E2: General communication, networking & live-streams
E2 Nature paths, public events & meetings with landowners
E3 FS exhibitions & nature schools
E4-F2 Seminars and events for professionals & excursions

A4 Decision analyses in urban areas
A5 Before-after questionnaires for citizens
D1 Site monitoring and visits (C1-C4)
D2 Socio-economic effects (incl. Questionnaires)
D3 Ecosystem effects (incl. Future scenarios)



A1 FS inventories
A2 Studies with nature detection dogs
A4 Radiotelemetry studies
A5-A6, A8-A9 FS baseline inventories at sites

B1 New conservation areas
C1 Urban improvements and tree plantings
C2 Forest management and connections
C3 Aspen continuity & enclosures
C4 Nest boxes

A1 Data banks and tools
A3 Predictive habitat maps
A5 Habitat network analysis
A5-A6, A8-A9 Project site data

Detailed site plans:
A5 Urban sites & landscape model
A6 Managed forests & joint planning process
A8 Aspen continuity & A9 Nest boxes

Developing availability of data and tools 1/3

A1 Management and availability of the FS occurrence data (FIN). For better availability of FS location data, we developed a FS data service in Laji.fi with a mobile application to assist professional field inventories (FMNH). A **flying squirrel website** was also founded in there: known FS locations, map layer of habitat suitability (A3) and related education materials (e.g., A2, A4, A7, E3) can be found on the same website .

A1 FS inventories (EST). FS inventories are carried out annually in Estonia to some extent, but during the project, search efforts were multiplied in both private and state-owned lands (EEB, RMK). As a result, almost **20 000 hectares of habitats were inventoried** during 2019-2024 and a total of **74 new FS locations** were found (FS location data is sensitive in Estonia).

A1 Descriptions of conservation practices (FIN & EST). A description of the current practices in FS conservation in both countries was prepared together with all beneficiaries. Differences exist not only in the FS population size and state of the endangerment, but also on responsibilities, how site protection is formed, and how forest protection is compensated for landowners, for example. In addition, **2 FS data webinars** with over 460 participants were held in Finland for explaining the existing conservation practices.

Developing availability of data and tools 2/3

A2 Development of inventory methods FIN. A guide for flying squirrel inventory was made, and **17 field training events** in 2019-2023 got almost 300 participants in total (FANC). **8 education webinars** were arranged with over 630 participants 2022-2023 (MHPWF, FANC, SMK).

A2 Nature detection dogs FIN. The skills of trained dogs and humans in FS inventory were evaluated using **a comparative study** (VARELY). We found that dogs can effectively assist the inventories as they notice odors of older FS traces, also during challenging weather conditions. Thus, they may locate important parts of the habitats and moving connections between them which might be difficult for humans to notice.

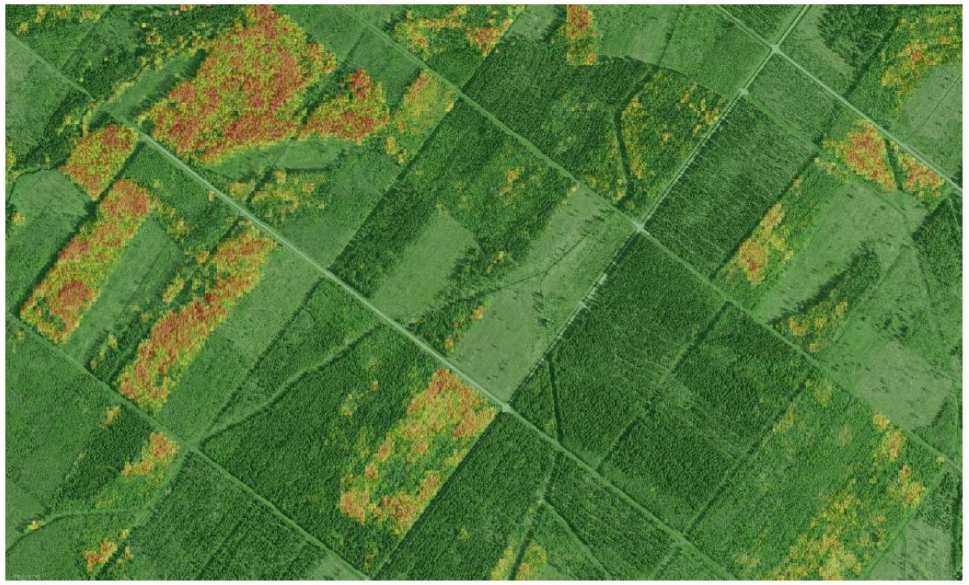
Nature detection dogs can be used as a tool to collect data for land use planning processes. The results were reported, and knowledge was transferred between countries, as the methodology is applied by a dog trainer in Estonia.

Photo: Saara Airaksinen

Developing availability of data and tools 3/3

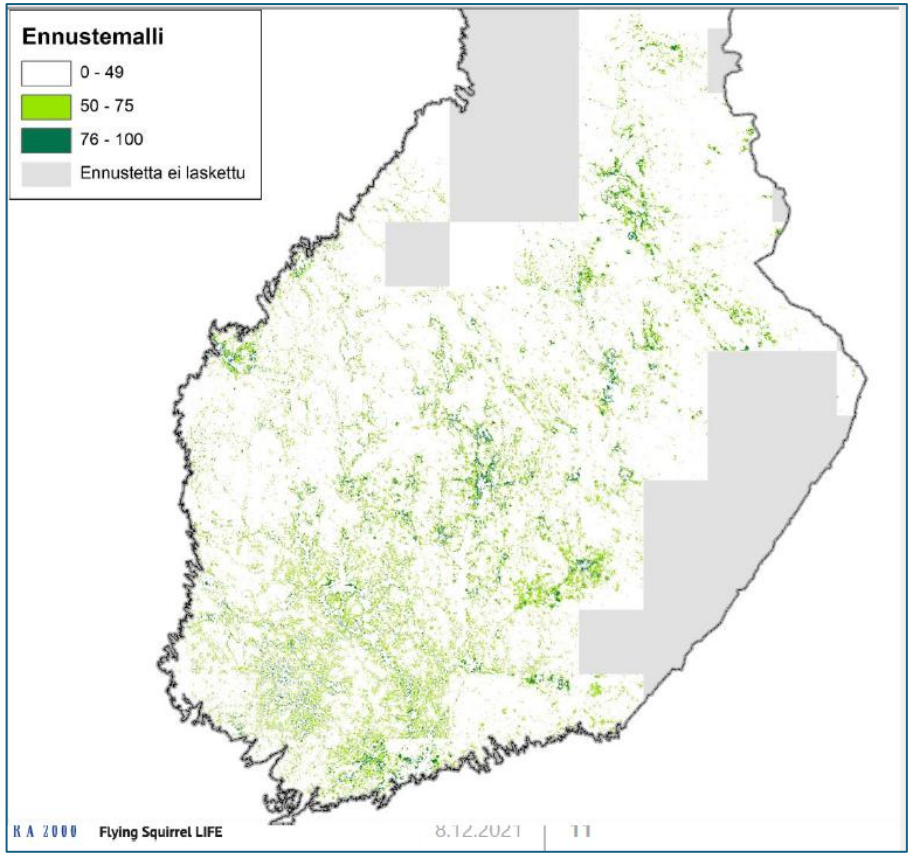
A3 Illustrating the potential habitat network of the FS (FIN, EST). Habitat models were built and updated in both countries using a bit different approaches but reaching about 70 % general accuracy in Finland (LUKE) and in Estonia (EEB). The Finnish predictive map layer can be downloaded to a GIS system both from FMNH website (laji.fi) and Paikkatietoikkuna (the window of map layers published by different organizations). The layers can be used as a reference material for landscape planning.

The Estonian habitat network model is used by conservation authorities to locate potential habitats and targeting field inventories. It has already proved successful during the project as based on it, tens of new occupied forests were found in inventories (A1).



Habitat model in Finland: darker green refer to more potential habitat (LUKE).

Habitat model in Estonia: darker red/orange refer to more potential habitat (EEB).



Improving habitat network in urban areas 1/2

A4 Evaluation of the best practices for the FS in land use planning. A guide, “Good practices for urban planning” combines practical examples and underlines the importance of careful land use planning (KUOPIO, JYVASKYLA, ESPOO). Background information for the guide was gained from FS monitoring at previously delineated areas and questionnaires for conservation authorities in regional ELY Centres and municipalities.

A4 Radiotelemetry study. In the City of Espoo, 10 individuals were caught and followed using radio transmitters. The followed individuals used even very small forest patches in the Tapiola region, when forested moving connections existed between them. The results were reported and will be used in true land use planning, as Tapiola region is under heavy city planning pressure in the fast growing of the city.


Photo: Laura Ahopelto

Improving habitat network in urban areas 2/2

A5-C1 Supporting habitat network in urban areas. Urban habitat networks were improved in **21 project sites** (ESPOO, JYVASKYLA, KUOPIO) using various methods and covering over 1540 hectares.

On 7 sites, 11 new **moving connections** in total were built by using tree plantings, adding artificial jumping poles to 2 of them. **Aspen continuity** was promoted by planting seedlings in 1 area in Kuopio. Safe nesting places were supported with 96 **nest boxes** in Kuopio and Jyväskylä.

In 3 sites, **conservation of FS and human recreation were combined** (ESPOO, KUOPIO). In the city of Kuopio, "before-and-after" questionnaires for local citizens close to two sites were made to get insights of their wishes for site planning, and to find out whether they found the management activities successful.

A5 Habitat network optimization analysis. In Jyväskylä, a habitat network model was applied to cover 147 km^2 area of Jyväskylä. The model considers both habitats and moving connections in an optimization approach, and it has been used in true land use planning situations in the city.

Photo: Anne Laita

Maintaining habitat network in managed forests 1/4

A6-C2 Maintaining habitat network in managed forests in Finland

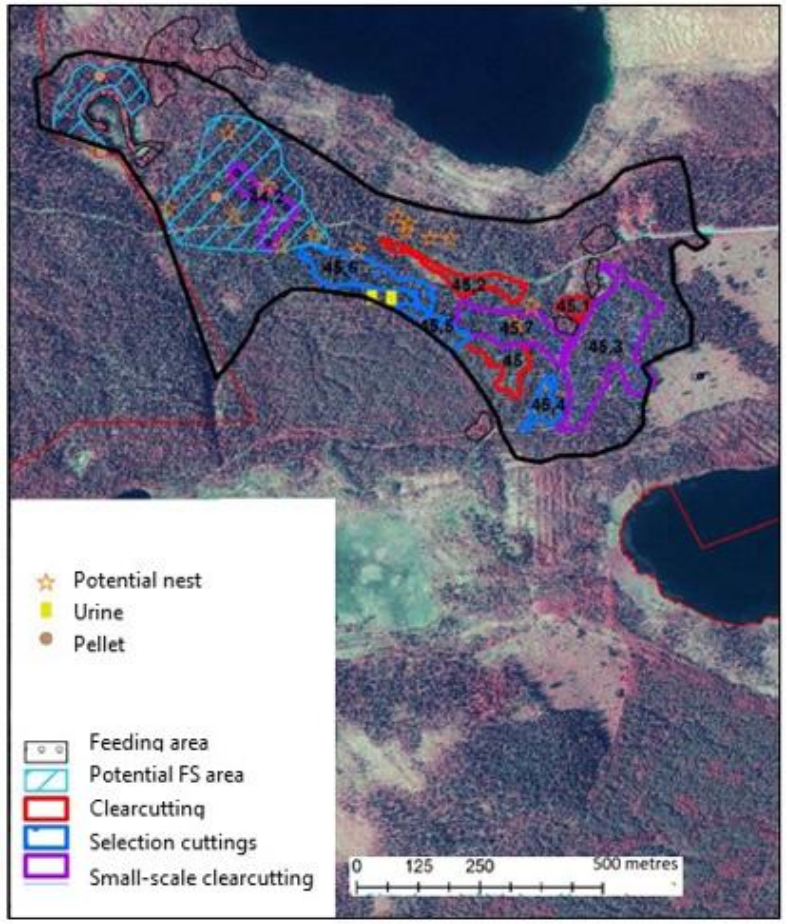
In Finland, securing the FS habitat in private-owned forests is on the responsibility of landowners. As the nature conservation law does not define a minimum area that should always be left for the FS, case-by-case planning for managed forests is often tricky. The aim was to make good examples of true sites where the future of the FS is secured while reaching also landowners' other goals as much as possible.

We applied a novel method, a **joint planning process,** by using the expertise from various fields. Professionals represented expertise in nature conservation (MHPWF), forest management (SMK, MHFORESTRY), representatives of landowners (MTK), association for nature conservation (FANC) as well as authorities of nature conservation (regional ELY Centres).

The joint planning process started with discussing with landowners about their goals, following a detailed FS inventory at project sites locating across the FS range in Finland. Then, forest plans were drafted and worked on together with professionals using an online platform in evaluation. The plans were made during years 2019-2021, with the help of about 60 persons and 30 meetings.

Discussions were a crucial part of the joint planning process: some of them were held at forests sites in question. Photo Anni Koskela.

Maintaining habitat network in managed forests 2/4



Careful cuttings were planned outside important areas for the flying squirrel. Project site Kivilampi, state-owned land, Finland.

A6-C2 Maintaining habitat network in managed forests in Finland

Plans for 37 project sites were made within the joint planning process to 28 private and 9 state-owned forest sites. On most project sites, a combination of goals for both forestry and minding the flying squirrel was found, as careful methods such as selective cuttings were mostly used. 34/37 of the site plans were managed during the project (C2).

Sometimes forests were almost totally used by FS and on such sites, the selected method was “no management”. 6 of these sites were protected. In addition, 2 state-owned managed forest sites which were not needed to the joint planning, were protected afterwards during the project.

In each site the aim was to safeguard at least several hectares of forest to the FS. Although research findings recommend saving at least 4-6 hectares of forest for FS, this is not a rule given by conservation authorities. The project sites may be used as examples in planning other sites.

Overall, the exercise of joint planning process was a true learning experience for all sides. However, it was too laborious to be replicated as such in practice. We still can encourage for finding the will and patience of searching for a common view and acknowledging the expertise of others. The value of discussing and learning other perspectives can be high and rewarding.

Maintaining habitat network in managed forests 3/4

A6 Maintaining habitat network in managed forests in Rekijokilaakso, Finland

Adjacent to the Rekijokilaakso Natura 2000 area (FI0200102), a valuable river valley, **20 forest site plans** to private land combining FS conservation and other goals were made (VARELY, SMK). No C2 action followed, as private landowners will continue management outside the project (most plans are not public).

During discussions within the planning process with landowners, agreements for permanent protection were made for 150 hectares.

The Rekijokilaakso action was a good example of making challenging forest planning easier for the landowners: they felt crucial that an actual person took time to visit and discuss with them, and not just a faceless authority sending notes. This kind of process takes time, but it increases social sustainability of conservation.

The value of the LIFE funding is highlighted here, too: without the project, carrying out many discussions and visits would not have been possible.

Photo: Saara Airaksinen

Maintaining habitat network in managed forests 4/4

A6-C2 Maintaining habitat network in managed forests in Estonia

31 forest site plans within limited management zones surrounding FS habitats were made for private forests (EEB, MKB, ERAMETS). Site plans covered 927 ha together, and careful forestry methods such as selective cuttings were applied without compromising FS conservation. Sites located partly in 12 Natura 2000 areas. During the project, 15/31 site plans were managed (130 ha, C2).

In state-owned lands, no forest management was carried out close to FS habitats because recent analyses revealed that even careful cuttings would not improve their quality. Instead, forested **moving connections** for FS were marked to GIS systems so that FS habitat network can be considered and maintained functional in state-owned lands (RMK).

In addition, **2 green corridors were built by planting trees across a wide-open electric powerline** in 2024 at project sites Remniku and Permisküla, state-owned land (RMK). After trees have grown, these new moving corridors will hopefully improve habitat connectivity in a fragmented region of North-East Estonia.

Photo: Tõnu Laasi

Photo: Ilona Karjalainen

Education for managed forests

A7 Education to maintain the FS in managed forests FIN.
Education package for managed forests included a guidebook and a set of education events (SMK). **A guidebook** *"Liito-orava talousmetsässä"* was built together with key beneficiaries (SMK being responsible), with case examples made in action A6.

- Research findings recommend saving at least 4-6 hectares of forest for FS. However, this is not a strict rule by conservation authorities.

A total of **55 field education events** and **14 webinars** were held by SMK, with over 1500 participants, indicating a strong need of learning more. The webinar recordings and 2 videos remain in use. In addition, a FS learning module was developed specifically for Finnish state-owned forests, which have stricter guidelines to be followed (MHFORESTRY).

A7 Education to maintain the FS in managed forests EST.
Education package in Estonia was divided into two publications:

- *Lendoravaraamat* describes the species and the history of its research in Estonia (EEB).
- *Lendoravametsade majandamine*, a guidebook for managed forests describes how to maintain important habitat characters and plan careful forest management in sites where limitations occur (ERAMETS).

Photo: Riitta Raatikainen

Future habitats, safe nesting places & new protected areas

A8-C3 Supporting continuity of aspen in the long term (FIN). In some regions in Finland, herbivores eat aspen seedlings and regeneration of this important tree for the FS is at risk. **226 ha of growing space for aspen was opened** with various methods at 16 project sites on state-owned lands (of which 10 Natura 2000 areas; 1 site not fully executed). On 7 of these sites, **46 enclosures** were also built to cover aspen seedlings from herbivores.

Photo: Saara Airaksinen

A9-C4 Supporting survival of the FS in the short term: nest boxes (EST). In the fragmented landscape of North-East Estonia, **250 nest boxes** were put up to offer safe nesting places along moving connections between suitable habitats. Locations were decided based on help from the habitat network model (Action A3, EEB). Places for nest boxes are not delineated as project sites. **8 volunteer camps** with over 100 participants were used to build the nest boxes and to put them up (EEB, ELF).

Photo: Kadri Aller

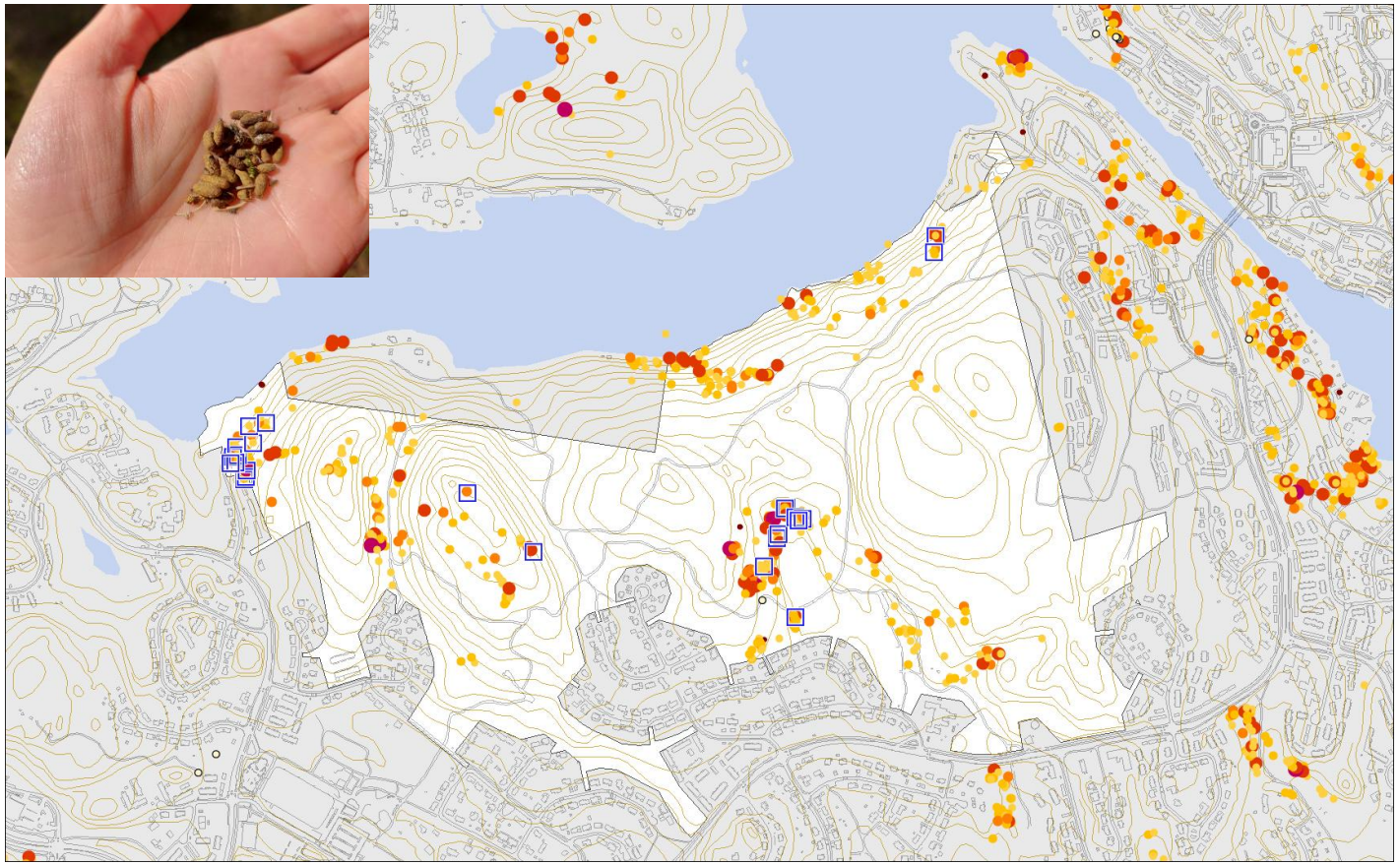
B1 One-off compensation payment (FIN). Permanent protection is the most certain way to ensure habitat continuity. In Finland, **33 hectares of forests was protected** for the FS in 6 areas (POKELY, POSELY, VARELY).

Monitoring flying squirrel occurrence

In the Flying Squirrel LIFE project, the presence and absence of the FS in sites was monitored in spring based on a pellet search, where an experienced person searches for typical droppings under bases of large trees in forests.

The fluctuation of the presence and absence is a typical feature for the FS, as it is a site-tenacious and short-lived animal that uses many nesting places. Likely, the best quality habitats are often occupied, whereas low quality habitats may be more often empty. Even seldomly occupied forests are still very important parts within the local network of habitats.

As years differ, it is **encouraged to follow the flying squirrel occurrence for several years** before planning any management. Better understanding of how FS uses the area over the years likely improve the land use planning of the area.



Pictured above are all observations of FS droppings during the project 2019-2024 from site Jynkänvuori, City of Kuopio (Kalle Ruokolainen). The darker the color, the more droppings were found on that spot.

- Observations in 2022 are marked with blue squares. During “an empty year”, many areas which are often used by the FS may not be noticed.

Monitoring project effects – D1 Project sites

The presence of flying squirrel can be found in different directions. Photo by Anni Koskela.

D1 Monitoring the conservation actions at project sites (C1-C4).

Monitoring was targeted to activities carried out:

- FS occupancy in forest sites & possible storm damages
- the use of nest boxes & condition of jumping poles
- condition of planted young trees & their care
- growth of aspen seedlings & condition of enclosures.

In addition, visits to sites with project personnel were arranged to see how conservation actions looked and to learn from various management methods.

During the monitoring years, FS occupancy varied at sites as expected. Some nest boxes were used. Young trees and aspen seedlings are growing well, and enclosures put up around them have remained in good condition. Along new green corridors, some young trees had died but new saplings were planted to replace them. No storm damage was observed in sites.

The monitoring data will be further analyzed after the project.

Monitoring project effects – D1 Nest boxes

Safe nesting places for FS were supported with **346 nest boxes**: 96 nest boxes in urban forests in Kuopio and Jyväskylä (C2), Finland, and 250 nest boxes in state-owned lands in Estonia (C4).

In Kuopio, about 20 % of the nest boxes were used at least once by flying squirrels during the monitoring years but over 40% in Jyväskylä. 3 different box types were used in Kuopio, but the type of the box did not affect much the flying squirrels' preference.

In Estonia, game cameras only caught sightings of individuals visiting the boxes briefly, although some even regularly. Time will tell whether Estonian flying squirrels accept them later. Different bird species and even bees used the boxes, so they are useful for other species anyway.

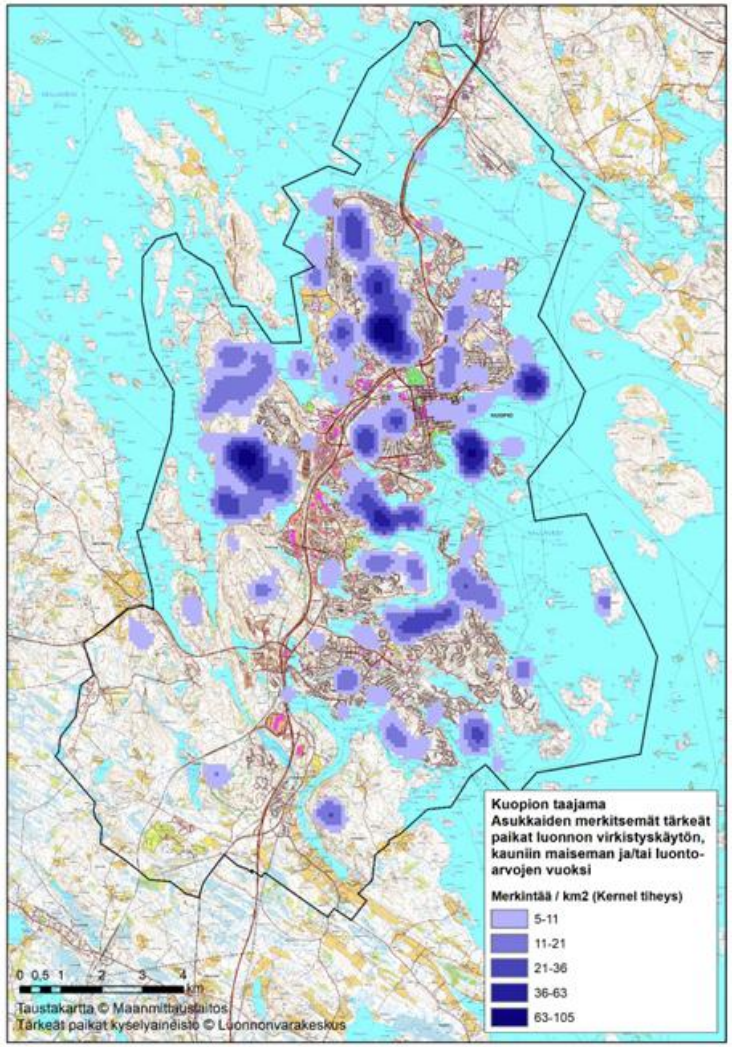
A flying squirrel nest box. Photo by Anni Koskela.

Adjusting a game camera in Estonia. Photo by Tõnu Laasi.

Based on these experiences, nest boxes may sometimes help flying squirrels a bit. Setting up a nest box always needs a permit from the landowner.

A much better way to help flying squirrels is to secure suitable forest habitats and ensure their functionality with moving connections.

Monitoring project effects – D2 Socio-economic impacts



D2 Socio-economic impacts were analyzed in many ways (LUKE, EEB), but with different methods between Finland and Estonia as their situations differ. In both countries attitudes towards FS by public and forest owners were surveyed, and variation was observed. Public opinion seemed to be often neutral or positive towards the FS conservation.

In both countries, **forest owners' attitudes towards FS were not often positive**. This was seen especially with owners having large forest estates. Negative attitude was mostly due to restrictions of forest use and unfair experiences of compensation, not the importance of conservation as such.

D2 Social value and a conflict map FIN. Citizens of Espoo, Jyväskylä and Kuopio were asked to point their recreation places on a map, after which they were analyzed against potential FS habitats (LUKE). Small signs of overlapping suggest a need for further search for potential co-benefits.

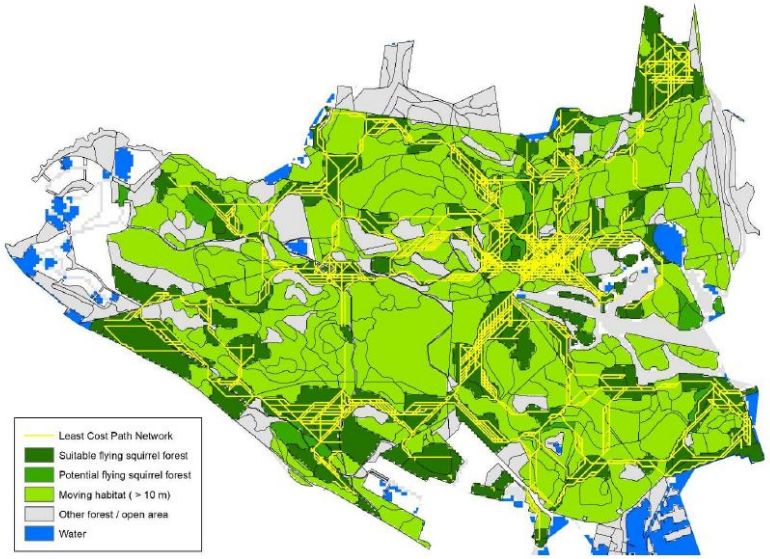
Picture: Important recreation areas which citizen pointed out in Kuopio.

Monitoring project effects – D3 Ecosystem impacts

D3 Ecosystem function restoration. As forest use is the main way to affect FS habitat conditions outside conservation areas, ecosystem effects were analyzed using future scenarios (LUKE). **Forestry decisions are made case-by-case, but their effects accumulate to larger scales**. Thus, it is important what aims are targeted and guided.

In Finland, three example landscapes with several forest management scenarios were modelled over 30 years (LUKE). The findings suggest that sometimes network of FS habitats and moving connections may be reached without severe monetary losses.

In Estonia, future availability of FS habitats was estimated using present understanding of the forest age classes as well as the habitat network model (EEB). Maintenance of young aspen-rich mixed forests and forested connections between them can enable habitat availability for the future.



Map 4: A SFS suitability map of ULTIMATE management scenario, year 30. This management scenario ensures that SFS population will survive and even thrive in the landscape. In this management scenario (ULTIMATE) there are 140.3 hectares suitable for SFS while in BAU there are only 87.2 hectares - the increase is substantial (61%). Total forest area is 559 hectares.

Potential habitats and moving connections can be used as targets at the landscape level in modelling future scenarios for forest use. Example of site Laajavuori (D3).

Communication and exchange of knowledge 1/4

E1 Dissemination plan and execution

Flying squirrel info and awareness was spread in many ways, e.g.

- Website, project brochures & videos, Lendoravaraamat and Laymans' Report introducing the project and the FS
- Over 30 own press releases, almost 200 articles referring the project & over 30 networking visits

The president of Estonia, Kersti Kaljulaid, visited a flying squirrel forest in 2020.

A screenshot from an animated project video guiding to safeguard flying squirrels. Illustration by Tussitaikurit.

Communication and exchange of knowledge 2/4

E2 Engaging general public and landowners with…

- **Over 100 counselling meetings** for forest owners (personal visits and online discussions) in Finland and Estonia reaching over 1000 people (SMK, EEB)
- **2 live streams** following flying squirrel life, recordings in YouTube (FANC & KULUMUS)
- **4 flying squirrel documents** by the Osoon TV, Estonia (EEB)
- **Over 130 various public events** (family events, nest box building days, flying squirrel walks, FS photo/art exhibitions) with over 6300 participants (KULUMUS, MHPWF/Haltia, JYVASKYLA, EEB)
- **2 nature paths** Rekijokilaakso (VARELY) & Jyväskylä (JYVASKYLA)
- **Final Seminars** in Estonia & Finland with over 260 participants

Photo: Jarkko Niskanen

Photo: Erkka Luutonen

Communication and exchange of knowledge 3/4

E3 Improving visitor services and environmental education with…

- **An environmental education guide “Liito-oravan jäljillä”** (KULUMUS, MHPWF/Haltia, JYVASKYLA)
- **Flying squirrel ambassador** visited circa 200 school classes reaching over 3400 pupils & teachers (KULUMUS)
- **Over 70 nature school events** with FS program reaching almost 1500 pupils & teachers (MHPWF/Haltia)
- **4 flying squirrel exhibitions** (over 250 000 visitors already)
  - Kuopio Natural History Museum: permanent & loanable
  - Finnish Nature Center Haltia: FS exhibition (2020-2021)
  - Iisaku Hill, Estonia: FS exhibition along a nature path (EEB)

Photos: Mari Wikholm, Niko Nevalainen, Ilona Karjalainen, Heidi Rosenström

Communication and exchange of knowledge 4/4

E4 Engaging the key stakeholders and transferring the lessons learnt

Seminars and workshops were arranged mainly for professionals to exchange of knowledge, reaching over 650 participants:

- **Urban seminar**/FIN (2021)
- **Dog Workshop 1**/FIN (2022: recordings in YouTube)
- **Dog Workshop 2**/EST (2023)
- **Nordic-Baltic LIFE Platform**/FIN (2023)
- **Managed forest seminar**/FIN (2024)
- **4 Managed forest seminars**/EST (2022-2024)

Photos: Saara Airaksinen

Project management

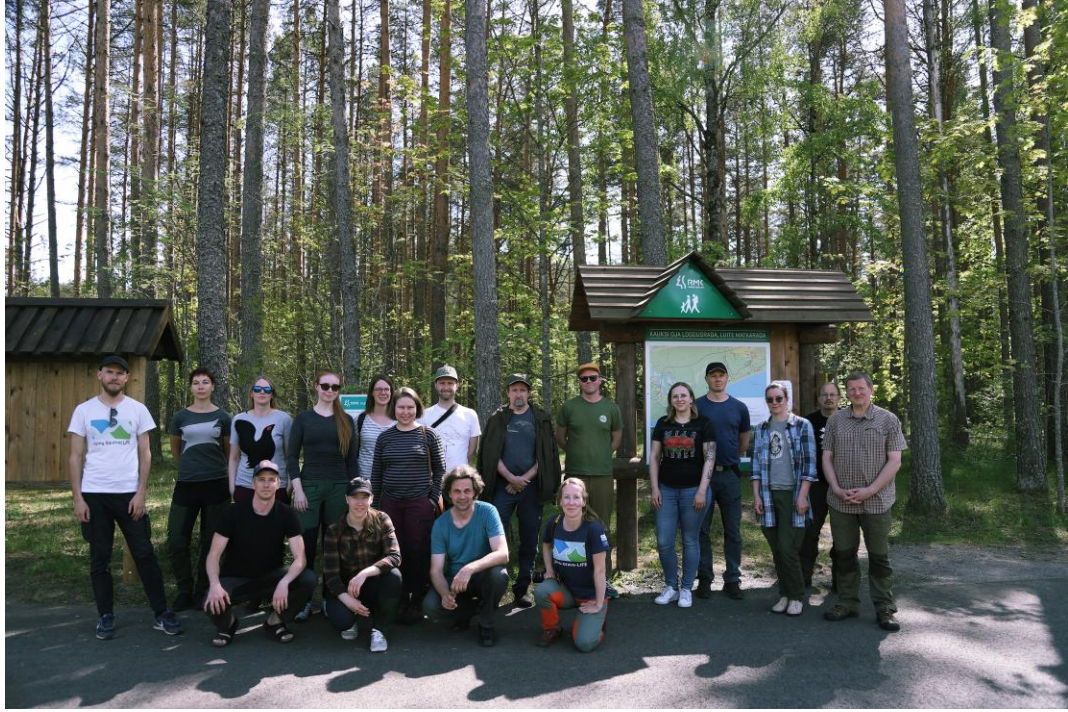
F1 Management of the project is presented via official events in the table below. In annual Monitor visits, the technical and financial situation of the project was shown to a representative of the EU Commission (the CINEA/EASME and Elmen-EEIG/NEEMO), and field visits to project sites were included when possible. This After-LIFE Conservation Plan with a continuity plan after the project (page 42-) is a part of the project management.

Management task Year	Life reports (5)	Monitor visits (6)	Amendments in grant agreement (2)
2019	Progress report 1	In Finland	-
2020	-	Online (due to covid-19)	-
2021	Mid-term report	Online (due to covid-19)	1st amendment
2022	Progress report 2	In Estonia	-
2023	Progress report 3	In Finland	-
2024	-	In Estonia, final visit A	2nd amendment
2025	Final report	In Finland, final visit B	-

Project steering groups

F2 Project steering groups consisted of different sectors:

- Project steering group Finland (10 meetings)
- Project steering group Estonia (5 meetings)
- Communication group Finland (17 meetings)
- Technical group for practical issues with all beneficiaries in Finland and Estonia (21 meetings)
    - Within the technical group, **6 field excursions** to project sites were arranged in 2022-2024 (3 excursions in Finland and 3 in Estonia: photos on the right from two of them)
- The FIN-EST coordination between project manager (MHPWF) and Estonian coordinator (EEB) was regular with online discussions from the beginning till the end of the project.



Photos: Saara Airaksinen

Good (best) practice character of the project

Based on our long experience with FS, we were able to apply and develop good practices within the project actions. We prefer the term “good” practices instead “the best” ones, as situations may vary and planning decisions need to be made carefully.

FS inventory training (A2)

With trainings by experts, increased FS inventory skills will directly increase findings of important forest areas for FS.

Best practices in urban areas (A4, A5)

Large cities have found sustainable ways to combine FS conservation with other goals in city planning. Various improvements to habitat networks and participation of citizen were evolved even further in the project.

Education of the forestry professionals and landowners (A7)

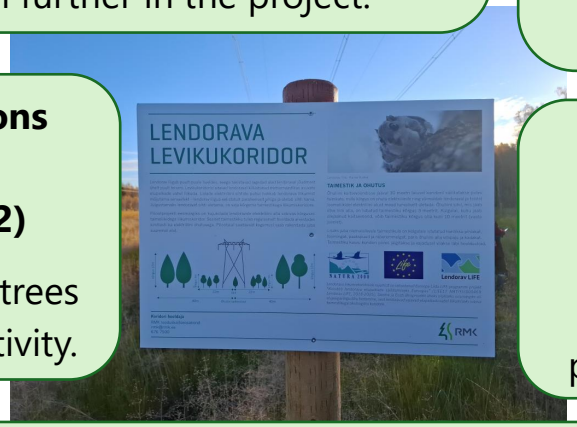
High-quality of guides and numerous education events in the field and online was based on exchange of knowledge between many professionals.

FS Habitat models (A3)

With a solid knowhow in estimating FS habitats with models, predictive habitat maps can be applied as tools to illustrate habitat potential.

Novel: moving connections across wide electrical powerline in Estonia (C2)

Green corridors by planting trees will improve habitat connectivity.



Socio-economic analyses (D2)

The complex field of FS related issues can be understood better via a set of analyses, which may enlighten various perspectives of key stakeholder groups.

Conservation actions (B1, C1-C4)

Concrete conservation actions directly safeguard FS via protection and habitat improvements, and maintenance of connectivity in forest areas.

Developing events for visitors, visitor services and environmental education (E2, E3)

Plain knowledge is not often enough to make a change. When feelings are included, even difficult issues can be understood deeply that may lead to better behavior and actions directly or indirectly. Offering inspiring nature experiences to visitors and to future generations, exchanging knowledge about FS and other related nature biodiversity issues forms a solid base for a better future.

Novel demonstration character of the project

The LIFE funding enabled us to apply novel demonstrations at a larger scale than before.

A joint planning process (A6), participation of citizen (A5) and discussions with forest owners (A6, E2)

Group or personal meetings and questionnaires take time but are essential in understanding various views better. The need for human contacts is highlighted in exchanging knowledge and in challenging planning situations.

Assistance of nature detection dogs in FS inventories (A2)

Dogs bring additional value in finding very small traces of FS, also in challenging weather conditions. They can be an important help in difficult sites, besides traditional FS inventories made by humans in several years.

Future scenarios: habitat potential after different management strategies (D3)

Network of suitable habitats and forested connections between them are essential for arboreal flying squirrel. Scenarios may increase understanding of the cumulative effects of today's decisions at spatial and temporal scales in the future.

Project impacts and future perspectives

Photo: Saara Airaksinen

Since the beginning of the project, it was clear that no fast solution for making the situation of the FS better exist. For example, no official guidance or changes in legislation were not possible to do during the project.

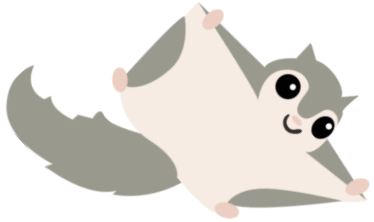
Within the project, we had regular discussions about project impacts. This was important to increase common understanding, but also to ensure benefits and cost-efficiency of investments, as well as a positive handprint of the project. Some of our key lessons can be highlighted as examples to be applied:

Replicability & Transferability:

- Concrete co-operation with stakeholders within the project
- Personal discussions with landowners in land use planning
- Use of habitat models to illustrate potential of the habitat network
- Assistance of nature detection dogs in inventories
- Planting green corridors to support connectivity of forest habitat network
- Environmental education materials to promote more outdoor teaching

Sustainability: After-LIFE Conservation Plan

- Maintaining conservation activities at project sites
- Continuing communication and exchange of knowledge on FS issues
- Spreading knowledge on guide materials and education events



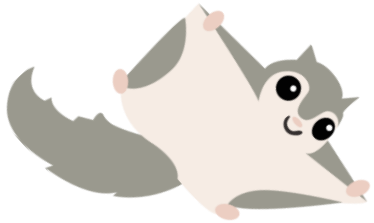
Main project impacts 1/2

Environment

- Direct improvements made to over 100 project sites created examples of good ways to safeguard the flying squirrel and habitat network
- Saved FS habitats promote forest biodiversity also for other species
- Guides and education materials offer learning to better safeguard the flying squirrel across its range
- Data banks, dog assistance, and habitat models can be applied in practice
- Building green corridors by planting trees is a practical way to increase habitat connectivity
- Exhibitions and environmental education for everyone increase knowledge of FS and social acceptance of nature conservation

Socio-economy

- Improved data management and quality, as well as better guidance increase efficiency of the work
- Personal discussions held with forest owners increased exchange of knowledge and social acceptance of conservation
- Questionnaires and related analyses increased understanding of attitudes of key stakeholders
- Exhibitions and environmental education increase time spent in nature that has positive impacts for physical and mental health
- Employment opportunities directly created via project activities with over 1.4 M euros
- Chances for entepreneurs to gain special expertise in FS friendly forest planning



Main project impacts 2/2

Legislation & directives

- National data aggregation and open national services (A1) can be used to creation and updating of regional regulations, policies and even national legislation
- Guides for forestry (A7) and for urban areas (A4) with project sites as examples demonstrate how directives can be implemented in forestry and in municipality level
- Demonstration of the use of habitat models (A3, D3) can be applied in national plans for species conservation to illustrate potential of the habitat network in both space and time
- Discussions about conflicts between the nature conservation law and practices in forestry led to making Recommendations for the FS future

Policy & procedures

- Benefits of co-operation demonstrated in the project encourage for communication and use of expertise on various fields
- Personal discussions with forest owners (A6, E2), participation of citizen into urban forest planning (A5), and questionnaires to key stakeholders (D2) increase transparency and openness
- Good practices introduced within guides to inventory, forestry and municipalities, and environmental education remain available and are open to be applied in practice
- Planting trees support moving connections and improving aspen continuity directly enhance also forest biodiversity
- FS knowledge was included in the National Action Plan for the FS in Estonia 2023
- Recommendations made for Estonia and Finland 2025, also delivered to the responsible ministries, can be applied to develop better future for the flying squirrel

Recommendations for the future

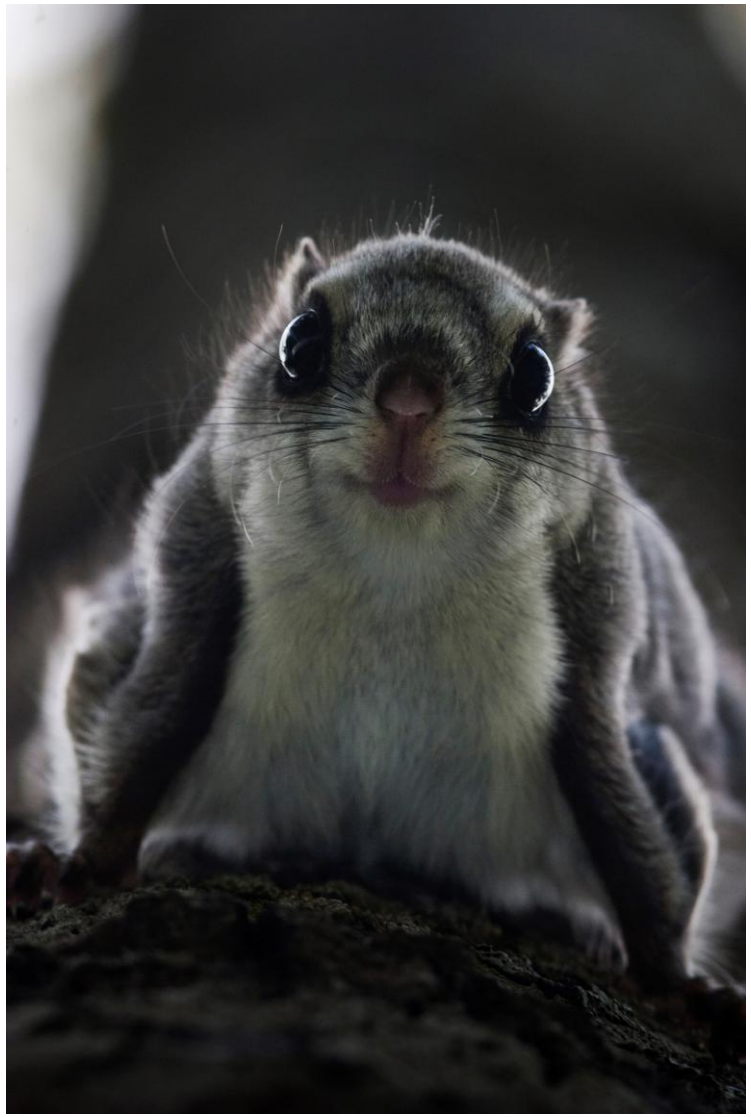


Photo: Veli-Pekka Katajamäki/Vastavalo

Even though many steps towards a better future for the flying squirrel have been taken during the project, continuous efforts to stop habitat loss and fragmentation are needed. The dilemma between valuable forests and strong property rights with a shortage for monetary compensation is not an easy task to solve in practice.

Based on known challenges and our experiences during the project, we formulated **Recommendations for the better future of the flying squirrel in Estonia and in Finland**.

The main goal of the Recommendations is to stop habitat loss and fragmentation and better safeguard the existence of the flying squirrel. They aim to improve the consideration of the species in land use management, so that networks of habitats and moving connections between them are maintained and improved.

Recommendations are listed shortly on the next page 43. They have also been introduced to the Ministry of Environment in Finland and to the Ministry of Climate in Estonia, being the main nature conservation authorities in these only countries having the species in the EU.

Recommendations for the future

Recommendations to Finland (7):	Recommendations to Estonia (8):
Updating existing "official" guidelines	Proposal to the conservation law to safeguard flying squirrel nesting areas
Improving guidance to maintain breeding sites and resting places in practice	Promoting the development of future habitats by supporting forest owners
Ensuring better knowledge and continuous learning	Establishing conservation easements (volunteer conservation)
Increasing landscape-scale approach, also across ownership and municipality borders	Promoting innovative funding opportunities
Developing conservation practices, FS monitoring, and research approaches	Promoting landscape-scale planning
Improving practical arrangements for forest owners	Development of a genetic monitoring method for assessing the status of the flying squirrel population
Increasing environmental education	Public involvement and awareness-raising
-	Continuing international co-operation

After-LIFE Conservation plan

In this section, the actual After-LIFE Conservation plan, we describe the tasks which are planned to be continued after the project during the following five years (2025-2030).

All the tasks and investments are listed on the following pages 45-51 in the detailed After-LIFE table. In the descriptions, acronyms of beneficiaries (see page 6) and the flying squirrel (FS) are used.

Estimated funding requirements are shown with categories of € symbols:

€ = <10,000 €
€€ = 10,000 – EUR 99,999 €
€€€ = 100,000 – 499,999 €
€€€€ = >1,000,000 €

Estimated funding source is described as following:

Own = Organization's own cost
Project = Another project needed
Not sure = Funding source not sure yet

Photo: Ari Seppä/Vastavalo

Table: After-LIFE Conservation Plan for the continuity of project actions during 2025-2030

Code	Action	Continuity: Actions that will be replicated / transferred / continued after the project	Responsible organization	Funding 2025-2030
A1	Management and availability of the FS occurrence data	Maintaining, updating, and sharing information of flying squirrel database (Observation management system FinBIF) remain in use and will be developed to serve for its purpose. Website will be open for easy access to guides made in the project and related FS materials.	FMNH	€€ Own
A1	Management and availability of the FS occurrence data	FS inventories are continued annually and when needed on state-owned and private lands. Inventories of the woodland key habitats (VEP) in habitats suitable for the flying squirrel are organized.	EEB, RMK	€€ Own
A2	Development of FS inventory methods	Sharing information about the Guide for FS Inventory. Maintaining and updating the guide if needed. Inventory trainings will be continued to some extent.	FANC	€ Own
A2	Development of FS inventory methods	Published report on the use of nature detection dogs for FS remains available, and advice of the method is actively shared. Inventories by nature charting dogs for conservation purposes will be continued by specialized entrepreneurs.	VARELY	€ Own
A2	Development of FS inventory methods	Development of an education program and a certificate for new nature detection dogs.	VARELY	€€ Own
A2	Development of FS inventory methods	Opportunities for a genetic study of the entire Estonian FS population are searched.	EEB	€€€ Project

Code	Action	Continuity: Actions that will be replicated / transferred / continued after the project	Responsible organization	Funding 2025-2030
A3	Illustrating the potential habitat network of the FS	Knowledge on predictive models built in the project for FS and the modelling method in general will be actively shared for transferability.	LUKE	€ Own
A3	Illustrating the potential habitat network of the FS	Models for habitats and moving connections are updated regularly and used in national habitat network planning in Estonia. Models will be used to direct species inventories.	EEB, RMK	€€ Own
A4	Evaluation of best practices for the FS in land use planning	Knowledge of the Guide for Good Practices in Land Use Planning is actively shared. Maintaining and updating the guide if needed. Urban land use planning will continue using best practices in everyday work: cities are responsible to maintain viable FS populations within their areas in the long term.	KUOPIO, ESPOO, JYVÄSKYLÄ	€ Own
A4	Evaluation of best practices for the FS in land use planning	Results from a radiotelemetry study will be actively used, applied, and shared in land use planning. New studies will be planned if needed.	ESPOO	€ Own
A5	Preparation of plans to support habitat networks in urban areas	Habitat network analysis will be used and updated.	JYVASKYLA	€ Own
A5-C1	Preparation of plans to support habitat networks in urban area	Participance of the citizens to land use planning processes of the city of Kuopio will be continued. Questionnaires relating to forest use will be replicated when relevant.	KUOPIO	€ Own

Code	Action	Continuity: Actions that will be replicated / transferred / continued after the project	Responsible organization	Funding 2025-2030
A5-C1	Preparation of plans to support habitat networks in urban areas (followed by D1)	Maintenance of concrete conservation investments built during the project in urban areas continue (safeguarding planted trees and aspen seedlings, repairing nest boxes and jumping poles when needed). Experience from the project will be used when developing new moving connections for FS.	KUOPIO, ESPOO, JYVASKYLA	€€ Own
A6-C2	Preparation of plans to maintain habitat network within managed forests (followed by D1)	Maintenance of concrete conservation investments for breeding sites and resting places of the FS according to the nature conservation legislation. Good practices will be used in Finland to maintain habitat networks for FS. The knowledge will be transferred to other stakeholders.	SMK, MHFORESTRY, MTK	€ Own
A6	Preparation of plans to maintain habitat network within managed forests (followed by D1)	Regional planning to support Rekijokilaakso Natura 2000 area (FI0200102) will continue at some level. Good experiences of this regional planning approach will be shared, and co-operation in advising landowners will be continued, in relation to the available resources.	VARELY	€ Own
A6-C2	Preparation of plans to maintain habitat network within managed forests	Maintenance of concrete conservation investments for breeding sites and resting places of the FS according to the nature conservation legislation.	EEB	€ Own
A6-C2	Preparation of plans to maintain habitat network within managed forests	Two moving corridors across wide powerline will be monitored and repaired when needed. Experiences from the corridors to improve functional connectivity of the habitat network will be actively shared.	RMK	€ Own

Code	Action	Continuity: Actions that will be replicated / transferred / continued after the project	Responsible organization	Funding 2025-2030
A6	Preparation of plans to maintain habitat network within managed forests	Official guidance for practical details will be continued at sites where plans were prepared. In the existing protected areas, forest management notifications are coordinated.	EEB	€ Own
A6	Preparation of plans to maintain habitat network within managed forests	Good practices for the FS will be applied in forest planning.	RMK, MKB, ERAMETS	€ Own
A6	Preparation of plans to maintain habitat network within managed forests	Creation of restoration plan for conservation zones of FS strict protection sites to improve the habitat quality will be continued (including implementation when possible).	EEB, RMK	€€ Own
A7	Education to maintain FS in managed forests	Liito-orava talousmetsässä guide, an education package for privately owned managed forests, will be maintained available and updated when needed. SMK's web service metsaan.fi reaches over 630t landowners and forest professionals.	SMK	€ Own
A7	Education to maintain FS in managed forests	FS module in an online education package Ahjo for state-owned managed forests will be maintained available and updated when needed	MHFORESTRY	€ Own
A7	Education to maintain FS in managed forests	A guide for managed forests in Estonia will be maintained available and updated when needed. Education and advice will be offered.	EEB, ERAMETS	€ Own

Code	Action	Continuity: Actions that will be replicated / transferred / continued after the project	Responsible organization	Funding 2025-2030
A8-C3	Preparation of plans to support continuity of aspen in the long term (followed by D1)	Maintenance of concrete conservation investments for aspen continuity actions and enclosures: monitoring, maintenance and repairing on state-owned lands.	MHPWF, MHFORESTRY	€€ Own
A9-C4	Preparation of plans to support survival of the FS in short term (followed by D1)	Maintenance of concrete conservation investments of nest boxes: monitoring, maintenance, repairing when needed.	EEB	€ Own
B1	One-off compensation payment	Management of new nature conservation areas, protected by one-off compensation for land or purchased.	MHPWF, VARELY	€€ Own
B1	One-off compensation payment	ELY-centres continue informing about METSO volunteer conservation program and other official aspects related to the FS and land use for the possibilities for protecting more land for conservation purposes.	POKELY POSELY VARELY	€€ Own
B1	One-off compensation payment	Proposals of the formation of new conservation areas for FS, if needed.	MHPWF, MHFORESTRY	€ Own
D1	Monitoring the conservation actions	The responsible beneficiaries will continue monitoring the project investments at relevant intervals. This includes the occupancy at the FS sites, growth of planted trees and aspen seedlings, state of forest growth at management sites, and condition of nest boxes and jumping poles.	MHPWF, MHFORESTRY, ESPOO, KUOPIO, JYVASKYLA, EEB, RMK	€€€ Own

Code	Action	Continuity: Actions that will be replicated / transferred / continued after the project	Responsible organization	Funding 2025-2030
D1	Monitoring the conservation actions	FS monitoring data gathered from Finnish managed forest sites (A6-C2) during the project period will be analyzed further in scientific research.	MHPWF, LUKE, FMNH, SMK	€€€ Own
D2	Socio-economic impacts	Exchange of knowledge of reports and methods will be continued. Reports will be available and if possible, their use in developments of general guidelines and strategies for forest and land use planning is encouraged.	LUKE, EEB, MHPWF	€ Own
D2	Socio-economic impacts	Questionnaire for landowners no 2. A questionnaire in the project revealed that a part of landowners had a negative attitude towards the FS conservation. After educational materials in the project are transferred, a second survey after a few years may reveal changes in attitudes (if any).	LUKE	€ Own
D3	Ecosystem function restoration	Exchange of knowledge of reports and methods will be continued. Reports will be available and if possible, their use in developments of general guidelines and strategies for forest and land use planning is encouraged.	LUKE, EEB, MHPWF	€€ Own
E1	Dissemination plan and execution	Maintenance of the Flying Squirrel LIFE project's main website in Metsähallitus' homepage metsa.fi. Maintenance of important links for laji.fi and guide materials will remain available also in websites of FMNH and SMK.	MHPWF, FMNH, SMK	€ Own
E1	Dissemination plan and execution	General media work relating to exchange of knowledge and networking continues with relevant visits and other connections.	ALL BENEFICIARIES	€€ Own

Code	Action	Continuity: Actions that will be replicated / transferred / continued after the project	Responsible organization	Funding 2025-2030
E2	Engaging general public and landowners	Engaging stakeholders such as landowners and residents, will continue to some extent as everyday work by all responsible beneficiaries.	SMK, VARELY	€ Own
E2	Engaging general public and landowners	Nature paths will be maintained, updated, and repaired when needed.	JYVASKYLA, VARELY	€ Own/ project
E3	Improving visitor services and environmental education	FS exhibitions in the Finnish Nature Centre Haltia, and Kuopio Natural History Museum will be open, maintained, updated, and repaired when needed. Exhibitions and environmental education will be continuously developed to reach visitors and especially new generations with nature experiences. Nature school program with FS topic continues.	MHPWF, KULUMUS	€€ Own/ Project
E3	Improving visitor services and environmental education	Liito-oravan jäljillä guide for environmental education will be maintained and updated if needed. Knowledge will be shared with schools, and co-operation continued with nature associations. Possibilities of replicating a nature ambassador concept, an educator visiting schools and supporting teachers, will be explored.	KULUMUS	€ Own
E3	Improving visitor services and environmental education	FS exhibitions in Iisaku will be open, maintained, updated, and repaired when needed. Exhibitions and environmental education will be continuously developed to reach visitors and especially new generations with nature experiences. A FS-themed educational program for school kids will be initiated.	EEB, RMK	€€ Own

Conclusions and future wishes

The main goal of the Flying Squirrel LIFE project was to improve conservation of the flying squirrel in Europe together.

During the project, many guidebooks representing good practices and reports were published, tens of example sites and education events were arranged. Professionals, future generations and other people were inspired via various events, environmental education and exhibitions.

However, flying squirrel is still endangered in Finland and Estonia, and the threat of habitat loss remains.

We wish that good practices are applied throughout the range of the flying squirrel to secure its future.

When ecologically functional networks of suitable habitats and moving connections between them are safeguarded, there are chances that the future of the flying squirrel can look much better than now.

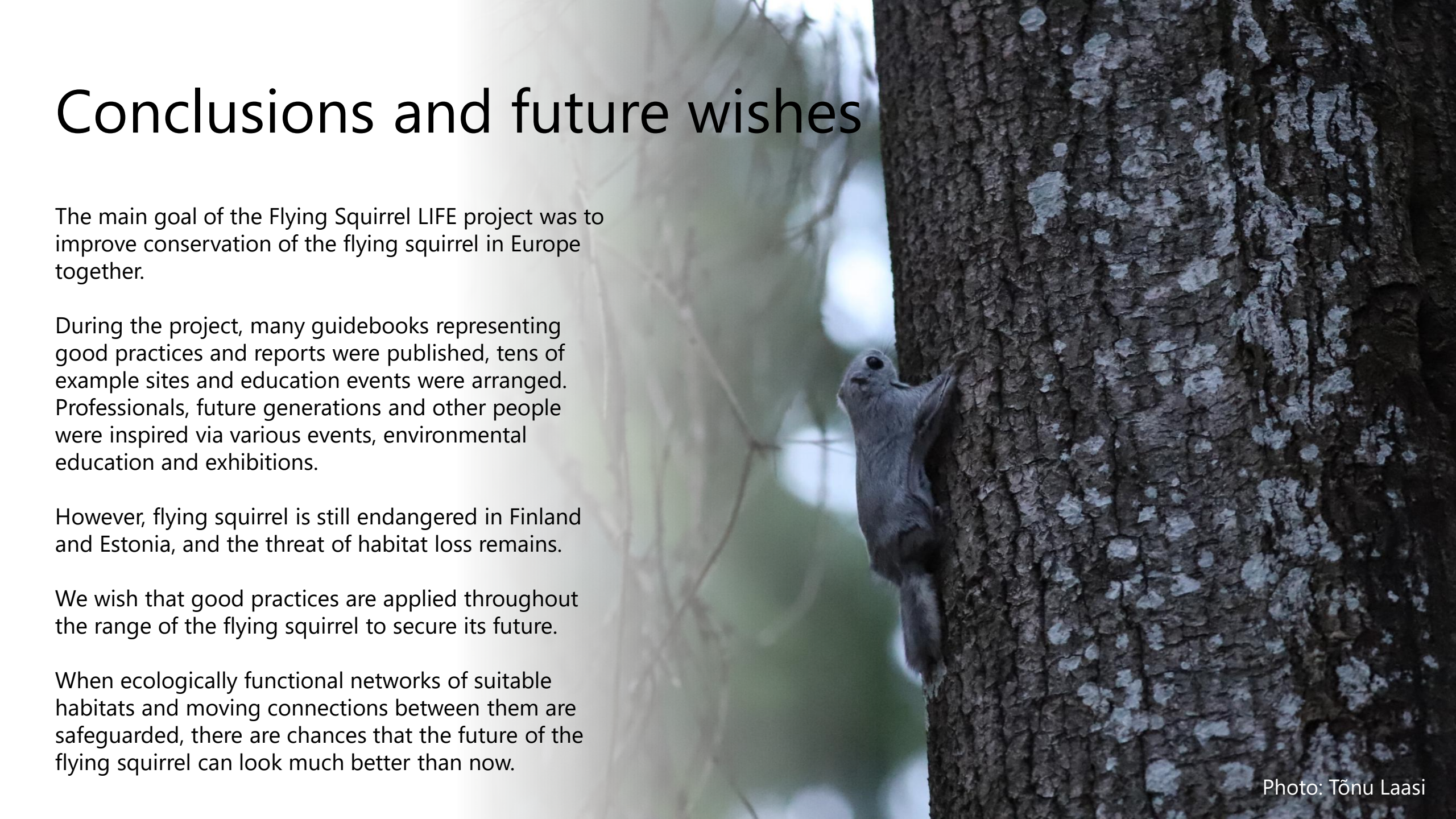


Photo: Tõnu Laasi

Flying squirrel LIFE – networks and co-operation

metsa.fi/flying-squirrel-life

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