Fugleværnsfonden
for fugle, for folk, for fremtiden

Outline:

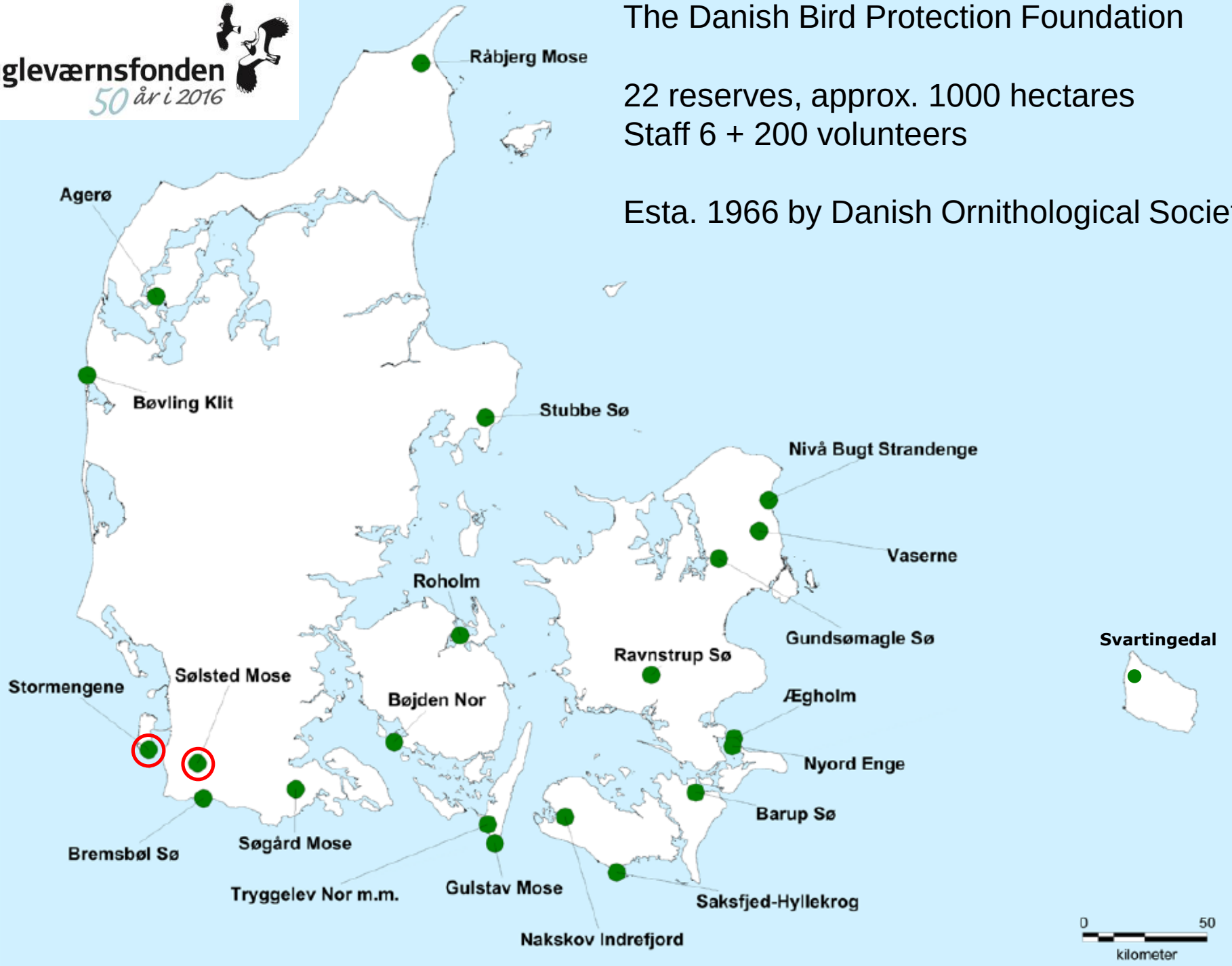
- The Danish Bird Protection Foundation
- Overview of EU LIFE SMOOTH project
- Examples of measures against invasive species
  - Sølsted mose
  - Stormengene - Maria

Fugleværnsfonden
50 år i 2016

The Danish Bird Protection Foundation

22 reserves, approx. 1000 hectares
Staff 6 + 200 volunteers

Esta. 1966 by Danish Ornithological Society



LAYMAN'S REPORT

Restoring Sølsted Mose

-a contribution to the network of Danish raised bogs in favourable conservation status

TØNDER KOMMUNE

Fugleværnsfonden

Miljø- og Fødevareministeriet

LIFE10 NAT/DK/000099

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EU LIFE – SMOOTH

sept. 2011 – june 2016
LIFE10 NAT/DK/000099

Restoration of *raised bog* &
helping the *European weatherfish*

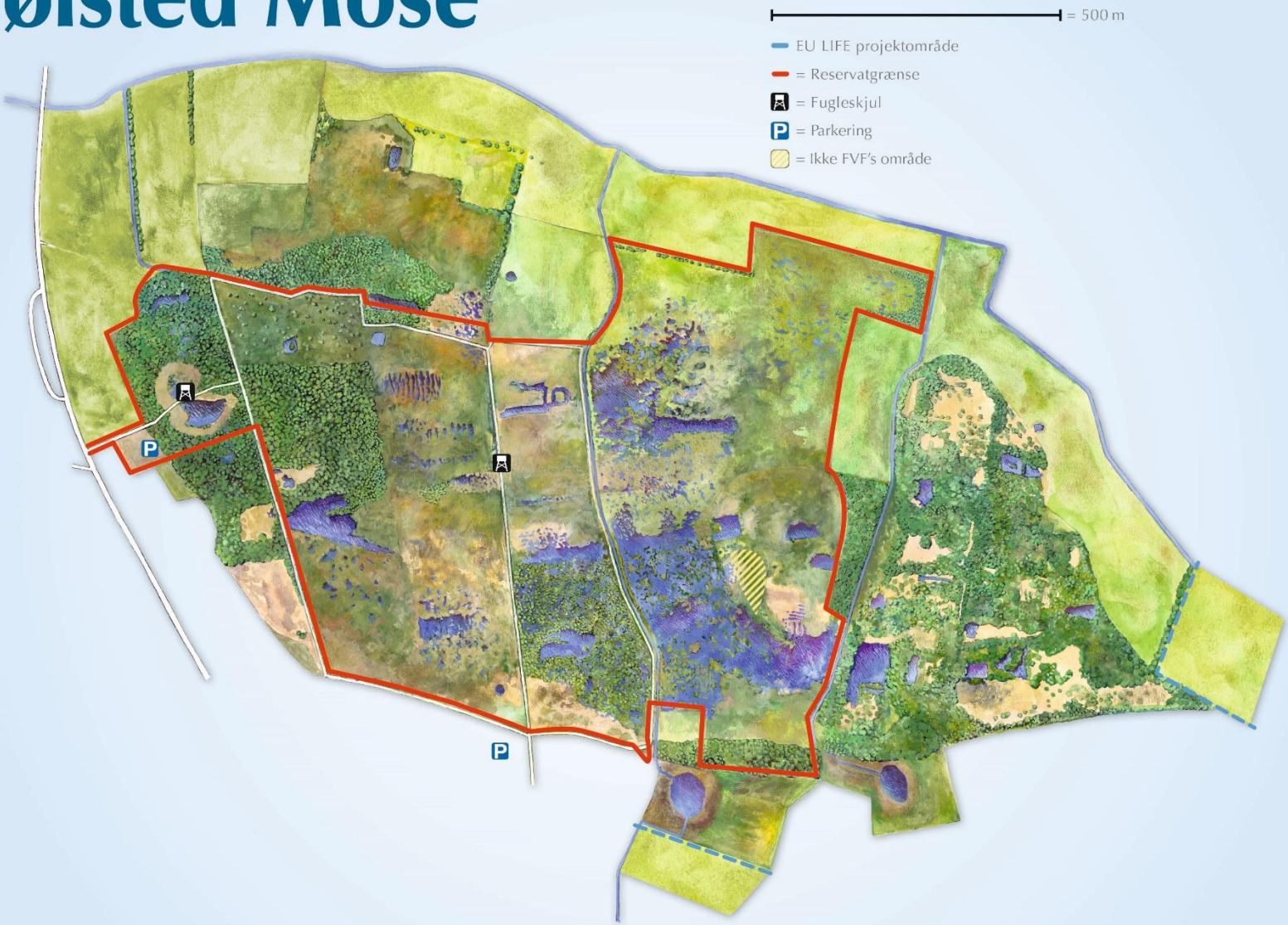
Sølsted Mose – Southern Jutland, Denmark
240 hectares
Budget: 1,9 million €

Municipality of Tønder, The Danish Bird protection Foundation & Danish Nature Agency - Wadden Sea

Bog-mosses in Sølsted Mose 2016.
(Foto: Claus Paludan)

European Weatherfish.
(Archive foto)

Sølsted Mose



Fugleværnsfonden

Vesterbrogade 138-140, 1620 København V
Tlf. 3328 3839, E-mail: fvf@dof.dk
www.fuglevaernsfonden.dk

A.P. Møller og Hustru Chastine Mc-Kinney Møllers Fond til almene Formaal & 15. Juni Fonden har støttet EU LIFE Projektet.

Tegninger: Carl Christian Tofte

Actions

- Land purchase, land swaps – reserve increase by 25%, permanent grassland in the lag and wider rim-zone around the raised bog
- Clearing the degraded secondary raised bog surfaces: 55 ha
- Increasing the water table +½ to 1 m
- Reduce nutrient content in nutrient rich stream/drain water running through the bog
- Ensuring nutrient rich stream/drain water continues to run *through* the bog

Clearings


Clearing of unwanted vegetation autumn 2014.
(Foto: Kurt Gabs)
16

Improving hydrology

Spreading spaghnum mosses

Dams in the streams ensure a higher water level.
(Foto: Hanne Havemose)

After completion of the project, the water table in the streams is near ground level.
(Foto: Søren Ring)

Collecting bog-mosses from an old peat cutting. The mosses are to be used for grafting.
(Foto: Conny Brandt)

HELPING THE BOG-MOSSES TO GROW

Grafting with bog-mosses has been practised in Sølsted Mose to increase the surface area of the mosses more quickly than would be the case with natural immigration. Bog-mosses for grafting were collected in old peat cuttings in the bog, where species grow that are relatively tolerant with regard to dessication and a slightly increased nutrient content.

Grafting was carried out in the autumn of 2015 on three test sites where willow had been cleared and where the water level is expected to be favourable for the growth of bog-mosses. The grafting was carried out quite simply by spreading small pieces of bog-moss over the test sites.

The bog-mosses are divided finely before being spread out over the test sites.
(Foto: Conny Brandt)

Grafting is carried out by spreading the bog-mosses over the test sites.
(Foto: Martine Minter)

More actions

- Improved spread of *European Weatherfish* by connection of 3 main channels, and 15+ "riffle and pools" (Danish: "STRYG")
- Grazing facilities and Grazing with 55+ cattle and 25 goats on the cleared land and increasing bog surfaces – minimum for 5 years
- Grafting spots with *Spaghnum* species
- Boardwalk, new information materials, boards, tours, homepage, media efforts etc.
- Carbon storage in the making

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Brief results in numbers…

- 55 ha of secondary degraded raised bog cleared of trees
- 120 ha of cleared and open bog and moors grazed
- 199 ha with better hydrology
- 15+ riffles
- 2 lakes
- 2-3 km connection channels for weatherfish
- *Spaghnum* graft sites

- ***Main results: 155 ha of raised bog (7110*) on increased water table and more weatherfish***

Issues going forward

- Managing regrowth and adjusting grazing on the cleared land and increasing bog surfaces – a difficult balance
- Monitoring and ensuring *Spaghnum* species increases in coverage and more raised bog are build
- Monitoring and ensuring *European Weatherfish* is on the increase and thriving
- Controlling the few invasive species to zero

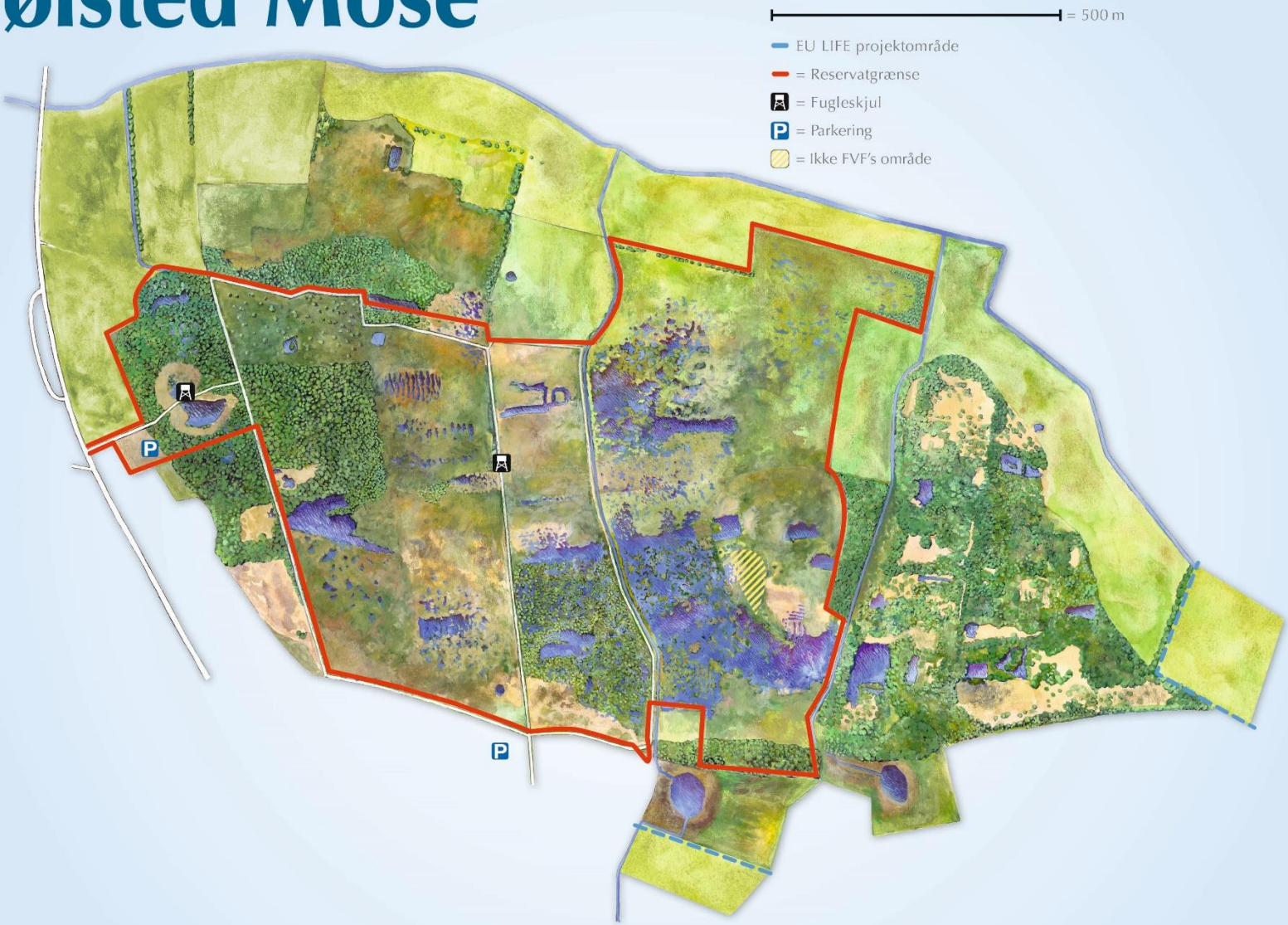
Issues going forward

- In the longer run…
  - Getting the intensive farmland and nutrient surplus further away by expanding the reserve and getting a complete forested lagg zone, and possible small rewilding area
  - Raising water table further
  - More natural grazing regime; red deer, roe deer, fewer cattle and maybe wild horses

Example of controlling invasive species

- Wild black cherry/mountain cherry (*Prunus serotina*) several smaller subpopulations
  - Controlled by volunteers so far
  - Initial large effort in 2010, larger trees of 6-8 meters height were cut down, resproutning from stems – but controlled
  - Each individual is either cut down before 5-6 years of age or cut and covered by heavy plastic for at least 5 years
  - Diminished but still here, drought in 2018 and new water regime are changing the spread
  - New areas with the species within inaccessible areas have been discovered
  - Problems; neighbors are not combating the species, too large a task for the few volunteers (older pensionaires)
  - Japanese knotweed (*Fallopia japonica*) in very small numbers. Getting dug up by volunteers

Sølsted Mose



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More info at project website

www.soelstedmose.dk