

Demo sites in Finland- where we stand

Päivi Mäkiranta

LIFE OrgBalt, LIFE18 CCM/LV/001158

EU LIFE Programme project
“Demonstration of climate change mitigation potential
of nutrients rich organic soils in Baltic States and Finland”

Demo sites in Finland

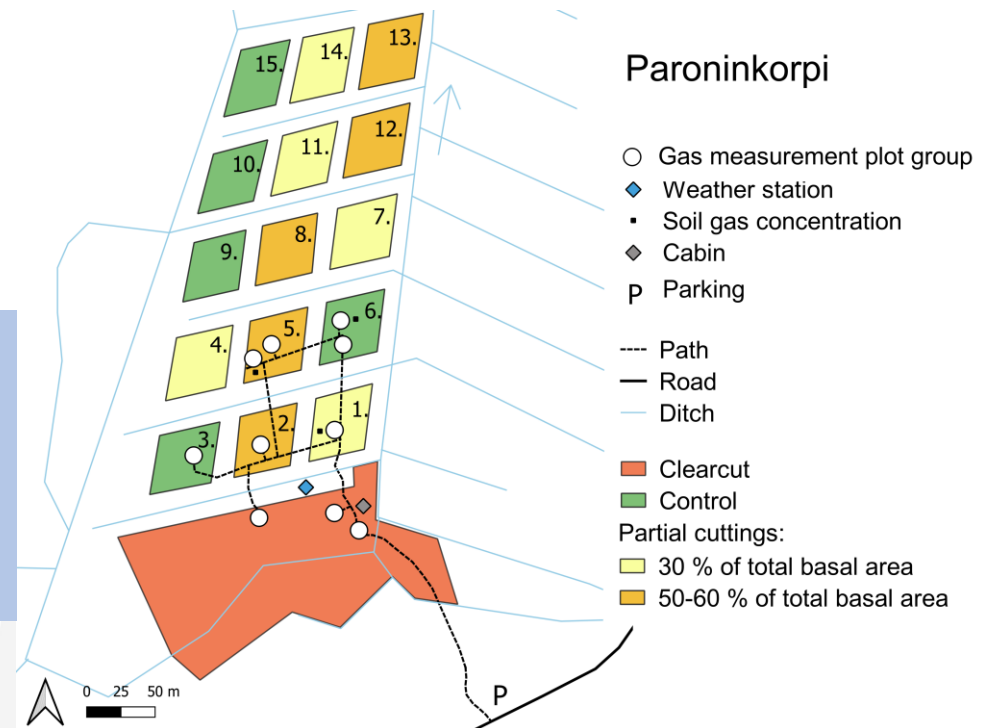
- Continuous forest cover as a forest regeneration method in spruce stands on fertile organic soil to reduce GHG emissions from soil
- Three demo sites
 - Kivalo
 - Paroninkorpi (Janakkala)
 - Lettosuo (Tammela)
- Treatments
 - control stand
 - selective felling
 - clearfelling



PARONINKORPI

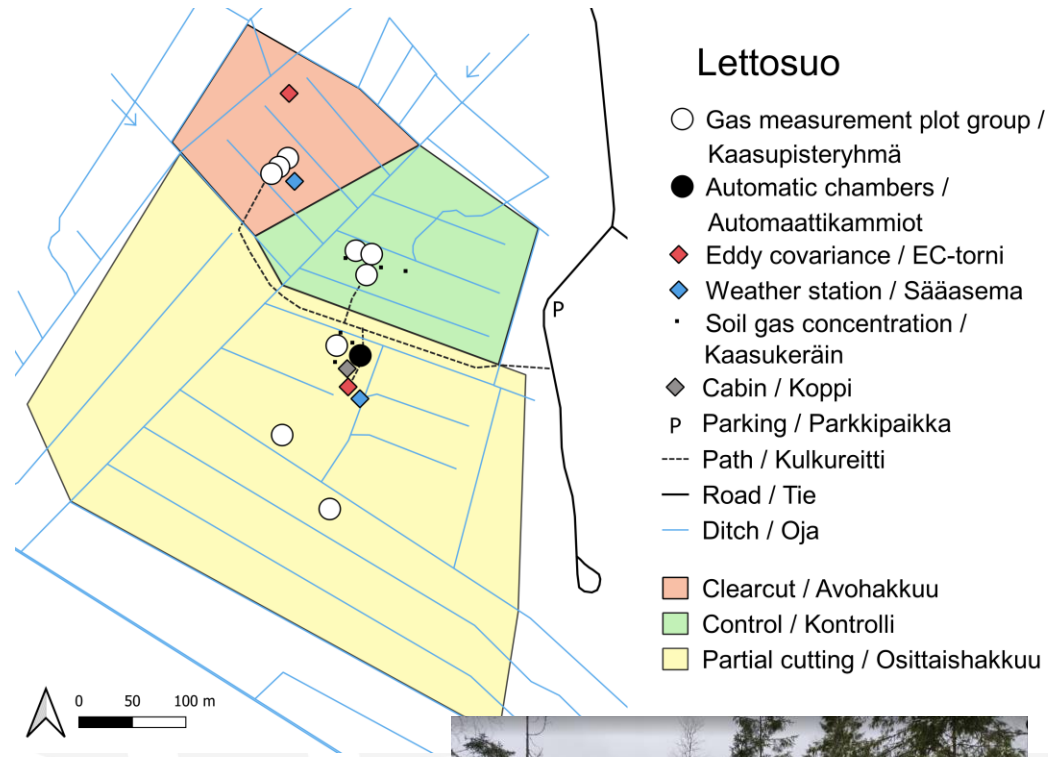
Continuous forest cover without full ditch network maintenance in spruce stands using selective felling. Comparison of soil emissions in demo plots with emissions in conventional forestry practice plots.

- Stand management February 2017
- Tree stand measurements 2016, 2020
- GHG measurements
 - N₂O and CH₄, 2017 ->
 - Heterotrophic soil respiration:
 - Control and Selective cutting 2017 ->
 - Clear-felling 2019 ->, +2020 **LIFE-OrgBalt**
 - WT, soil temperature 2017 ->
 - Ground vegetation coverage 2017 ->
 - Ground vegetation biomass and moss production 2020 **LIFE-OrgBalt**
 - Aboveground litter 2019 ->
 - Soil sampling (nutrient analysis and total root biomass) 2020 **LIFE-OrgBalt**
 - Root production, ingrowth cores set 2018 ->, harvested 2020 **LIFE-OrgBalt**
 - Decomposition study spring 2021 **LIFE-OrgBalt**



LETTOSUO

Continuous forest cover (utilization of existing spruce understorey) as a forest regeneration method in originally mixed forest dominated by Scots pine. Comparison of emissions in demo plot with emissions in conventional forestry practice plots.



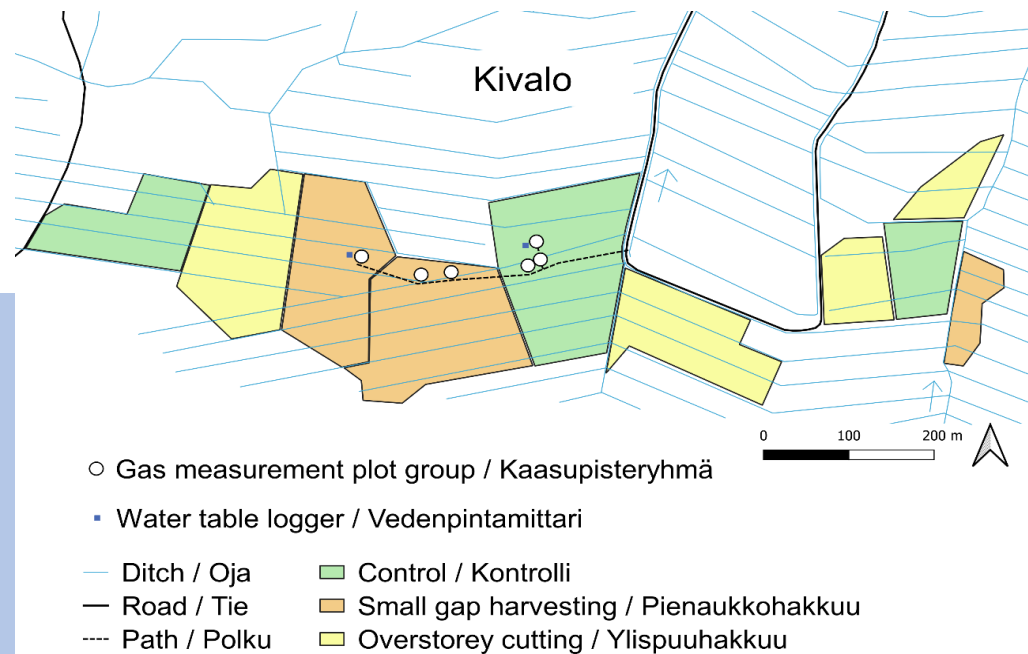
ICOS associate ecosystem site

- Stand management March 2016
- GHG measurements:
 - EC tower 2009 -> Automatic chambers 2010 ->
 - Heterotrophic soil respiration 2020-> LIFE-OrgBalt
- WT, soil temperature 2009 ->
- Tree stand measurements 2016, 2020 LIFE-OrgBalt
- Ground vegetation coverage 2009 -> pitää
- Ground vegetation biomass and moss production: previous datasets ->, +2020 LIFE-OrgBalt
- Above ground litter: previous datasets ->, +2020 LIFE-OrgBalt
- Soil sampling (nutrient analysis and total root biomass) 2020 LIFE-OrgBalt
- Root production, ingrowth cores: 2009 – 2012 (before harvest), Incubation 2015 - 2017 (after CCF)

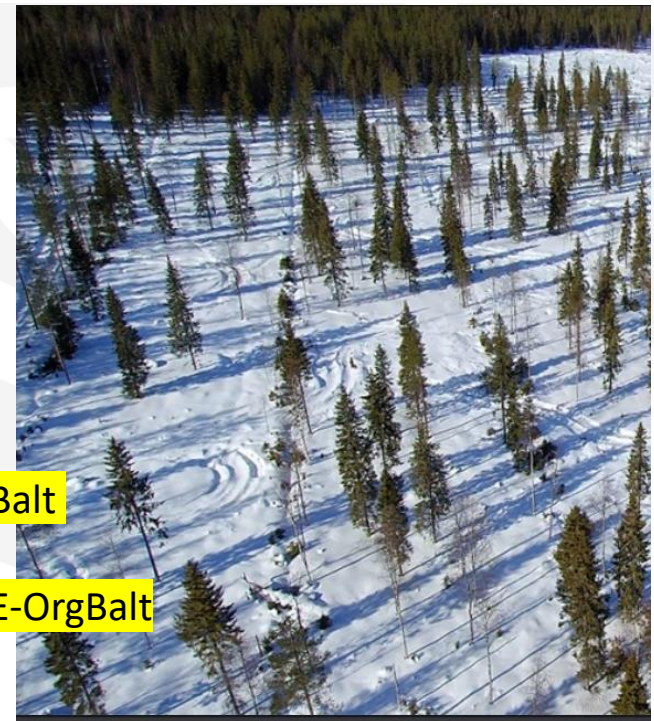


KIVALO

Continuous forest cover (small gaps) as a forest regeneration method in mixed stands on fertile organic soil to reduce CO₂ emissions from soil. Comparison of emissions in demo plot with emissions in conventional forestry practice plots.



- Stand management winter 2018
- Tree stand measurements 2016, 2020
- GHG measurements
- N₂O and CH₄, 2017 ->
 - Heterotrophic soil respiration (Control and Selective cutting) 2020 -> LIFE-OrgBalt
- WT, soil temperature 2017->
- Ground vegetation coverage 2016 -> ,+2020 LIFE-OrgBalt
- Ground vegetation biomass and moss production 2020 LIFE-OrgBalt
- Above ground litter 2020 -> LIFE-OrgBalt
- Soil sampling (nutrient analysis and total root biomass) 2020 LIFE-OrgBalt
- Root production (ingrowth cores installed) 2020 LIFE-OrgBalt
- Decomposition study spring 2021 LIFE-OrgBalt



KIITOS!



KONEEN SÄÄTIÖ



LIFE17 IPC/FI/000002
LIFE-IP CANEMURE

LIFE OrgBalt, LIFE18 CCM/LV/001158

EU LIFE Programme project
“Demonstration of climate change mitigation potential
of nutrients rich organic soils in Baltic States and Finland”