



Millised mustreid loeb välja maastikutulekahju ja tuleohukaardilt Lõuna-Eestis?

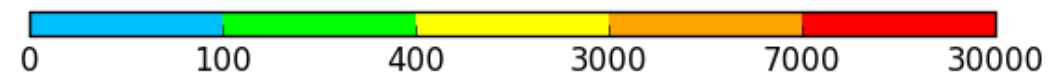
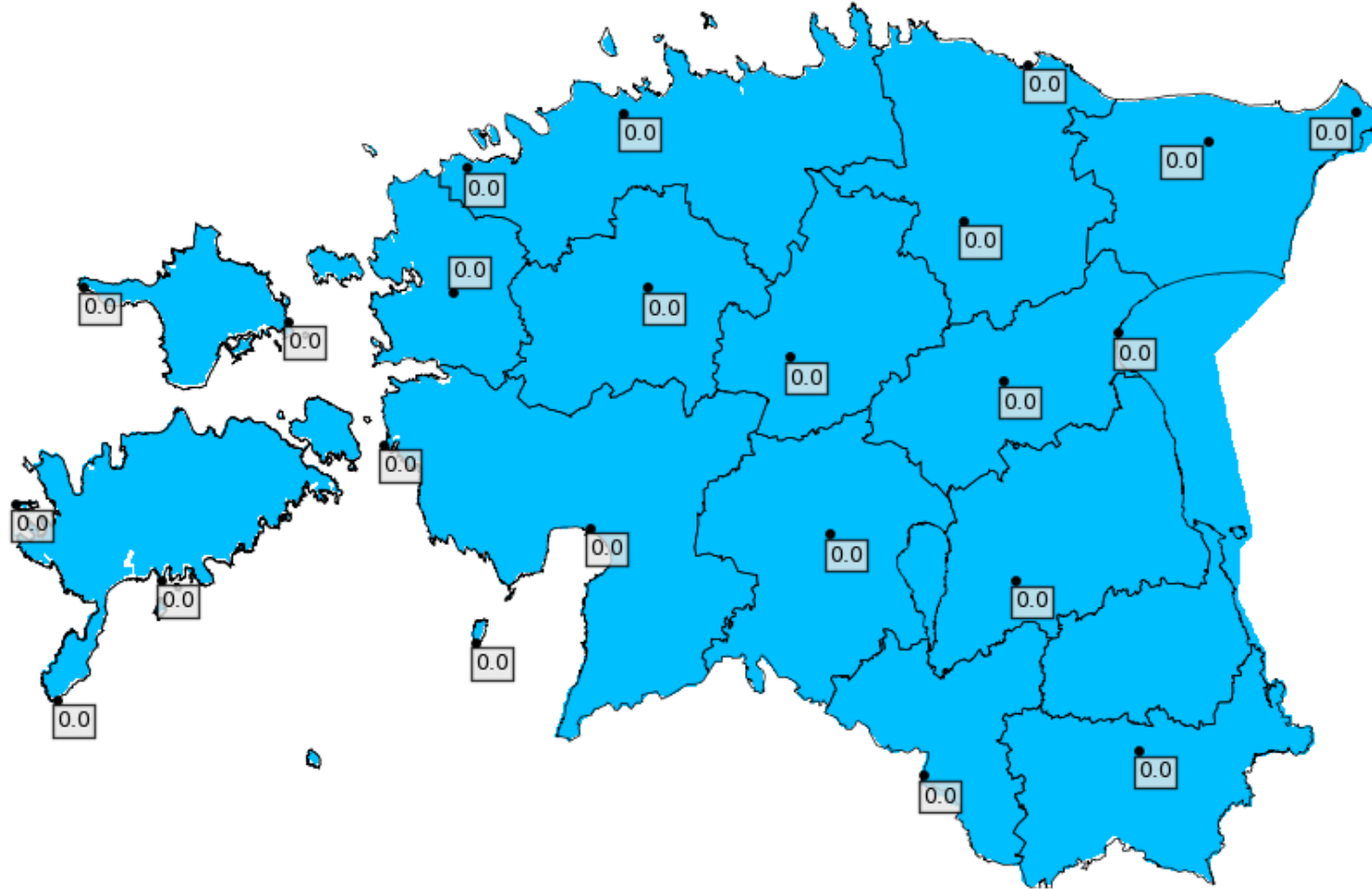
LIFE-SIP project AdaptEst „Implementation of national climate change adaptation activities in Estonia” (2023-2032)

29.11.2023



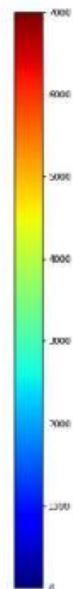
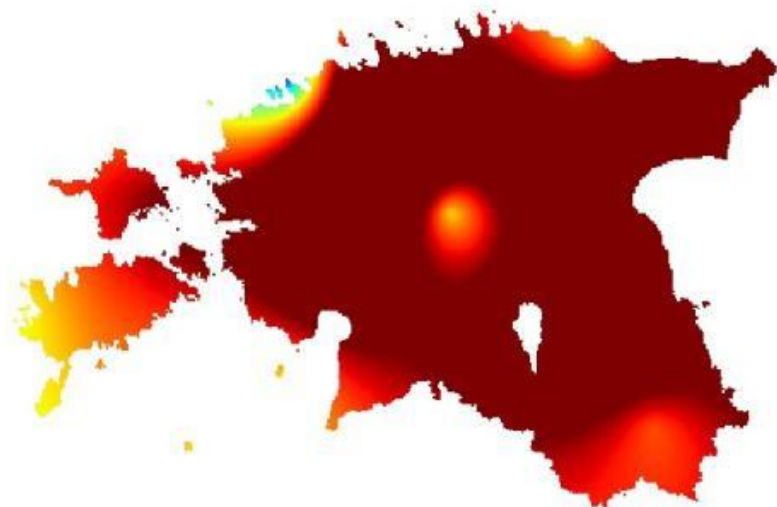
- Kliimamuutused
- Tuleoht
- RITA
- Life AdaptEst
- Lõuna-Eesti

Tuleohu indeks 29.11.2023



05.06.2018

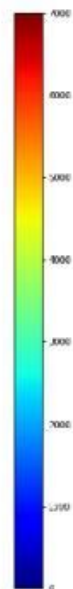
Integreeritud tuleohu indeks (GMI), 2018-06-05



Kuuline tuleohu indeks (klassid), 2018-06-05

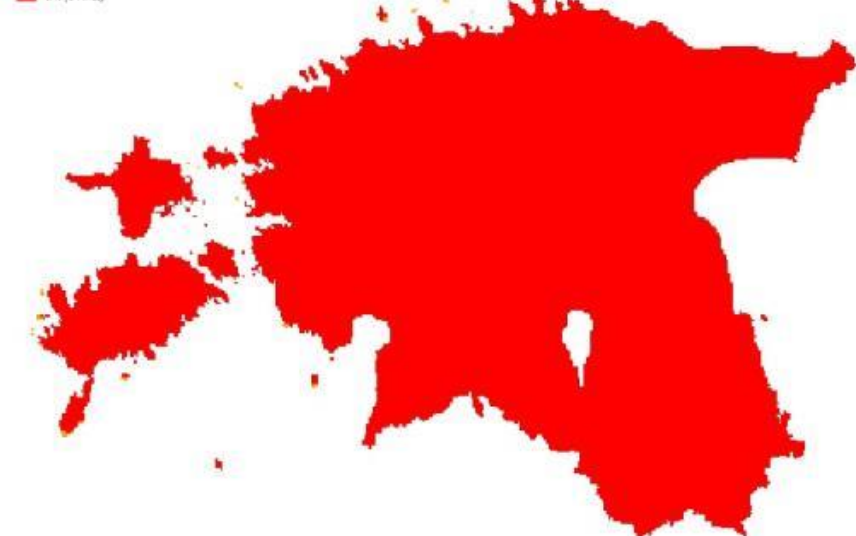


Kuuline tuleohu indeks, 2018-06-06

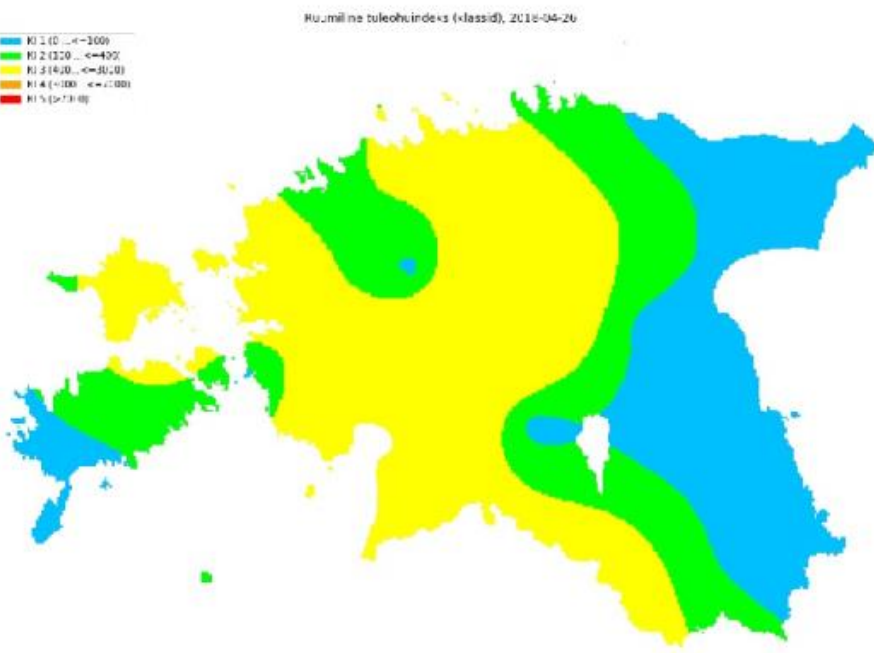
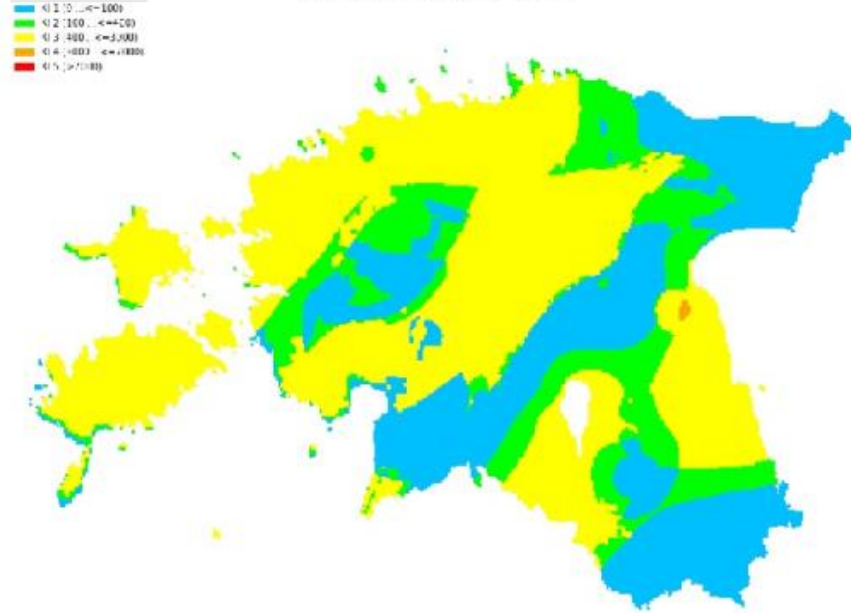
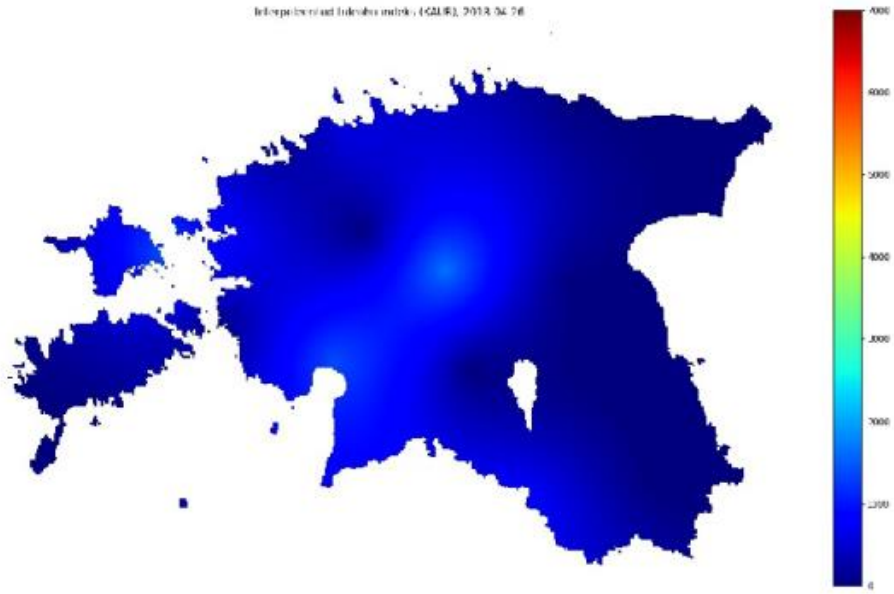
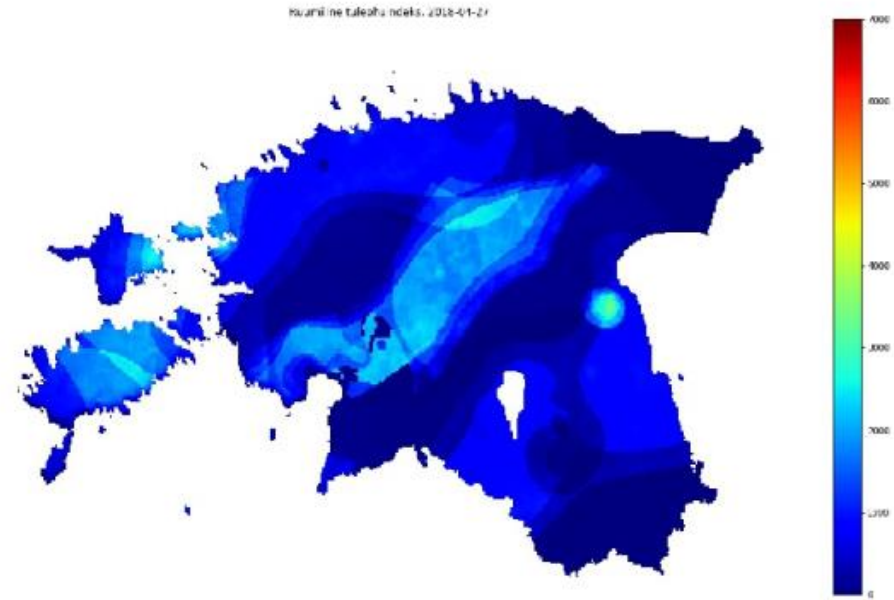


Kuuline tuleohu indeks (klassid), 2018-06-06

Klassid



Fire risk index interpolated by square km compared to standard so far way



Taust

RITA PROGRAMM „VALDKONDLIKU TEADUS- JA ARENDUSTEGEVUSE TUGEVDAMINE TEGEVUSE 1“ STRATEEGILISE TEADUS- JA ARENDUSTEGEVUSE TOETAMINE

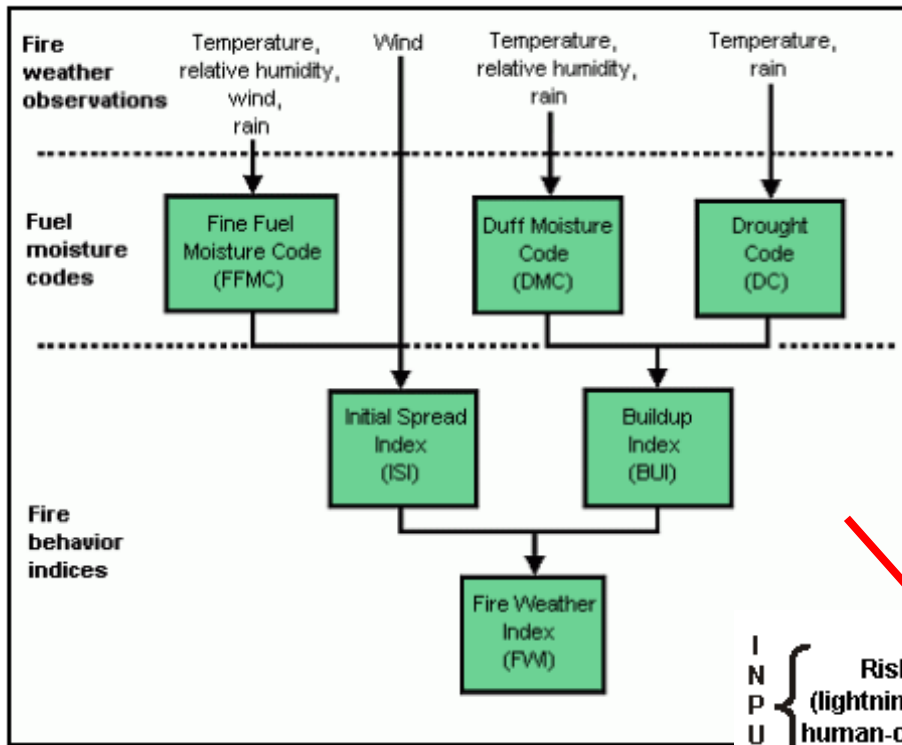
TEENUSE OSUTAMISE LEPING nr 7.8-3/18/17

01.01.2019-31.12.2020

RITA Kaugseire Maastikupõlengud

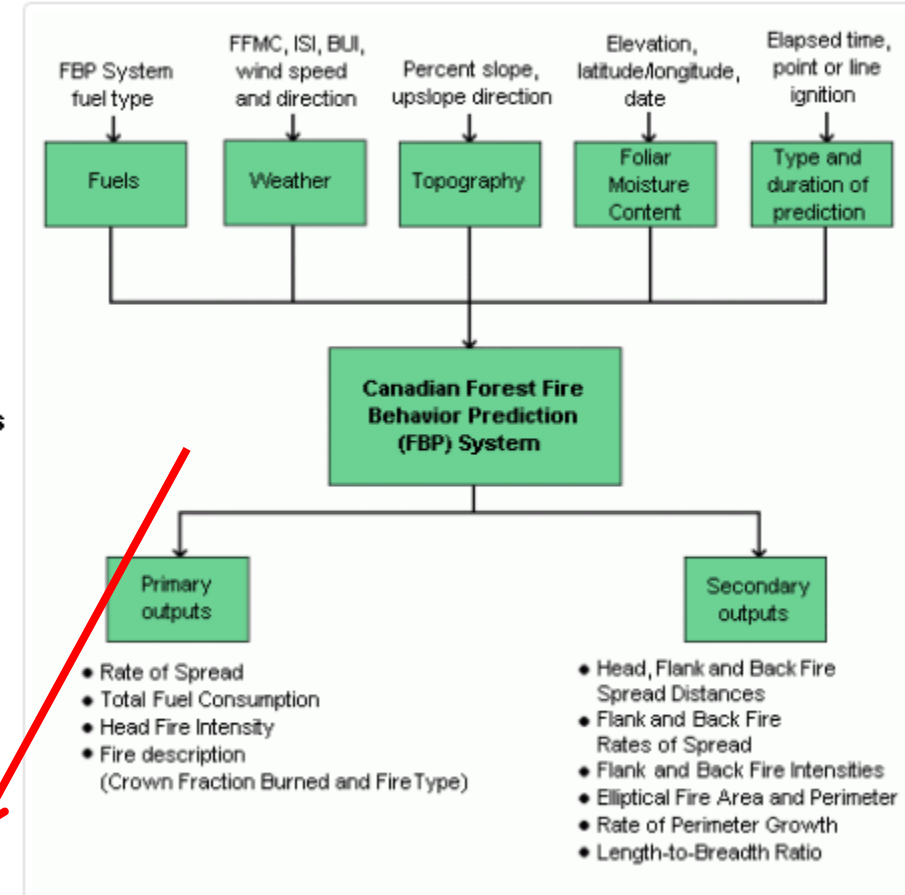
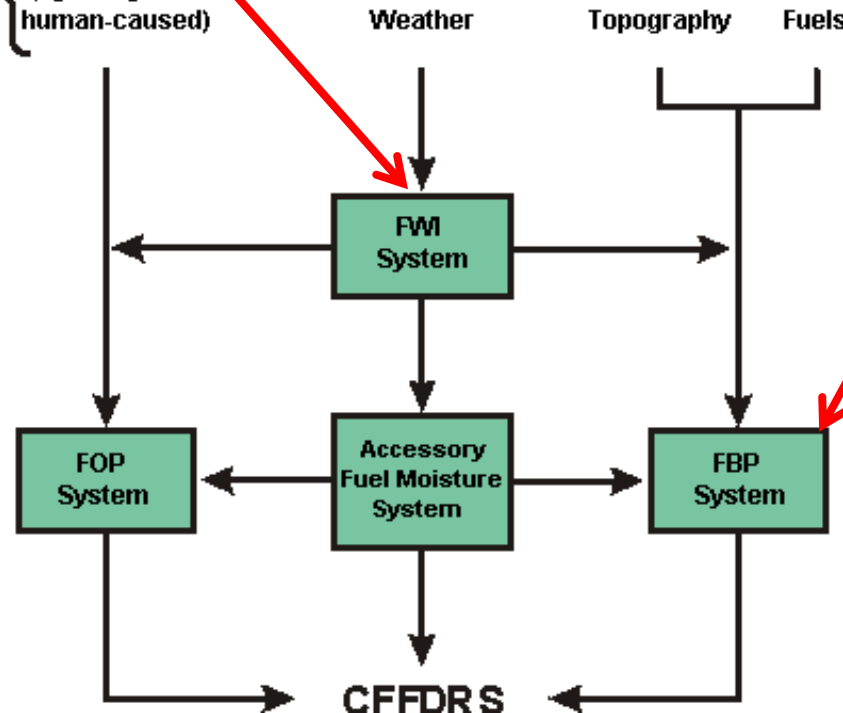


• „Canadian“ model



INPUTS
Risk (lightning and human-caused)

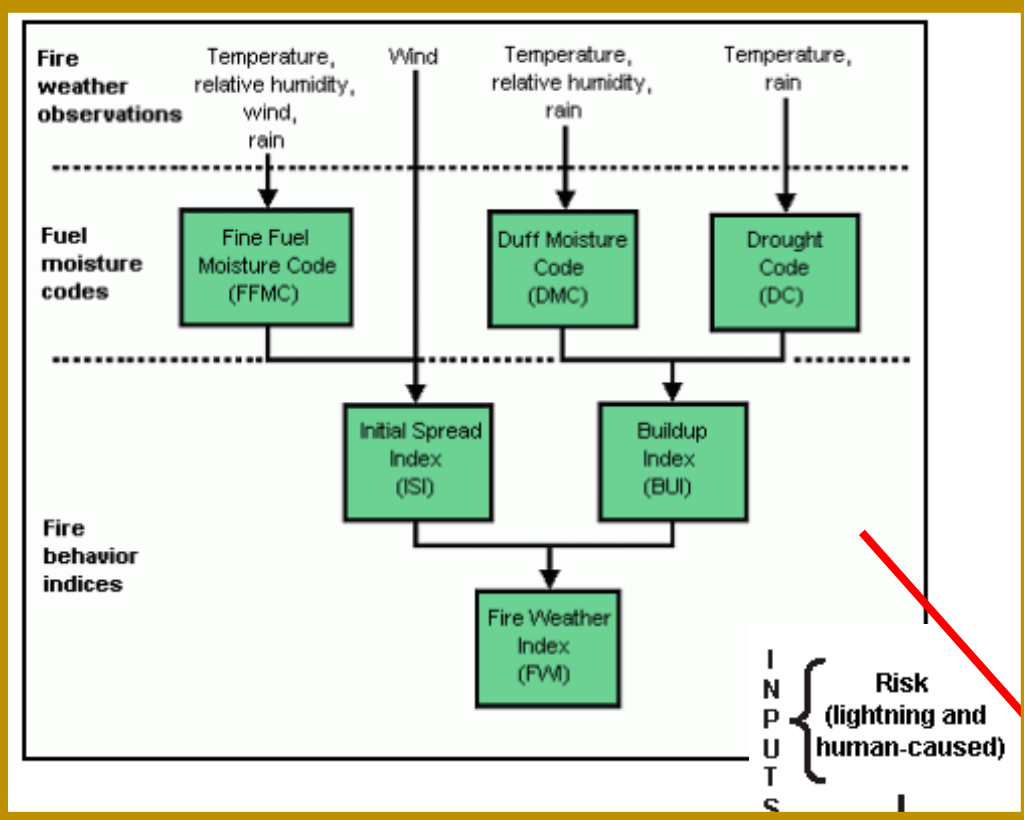
FWI 1984 (4. edition)



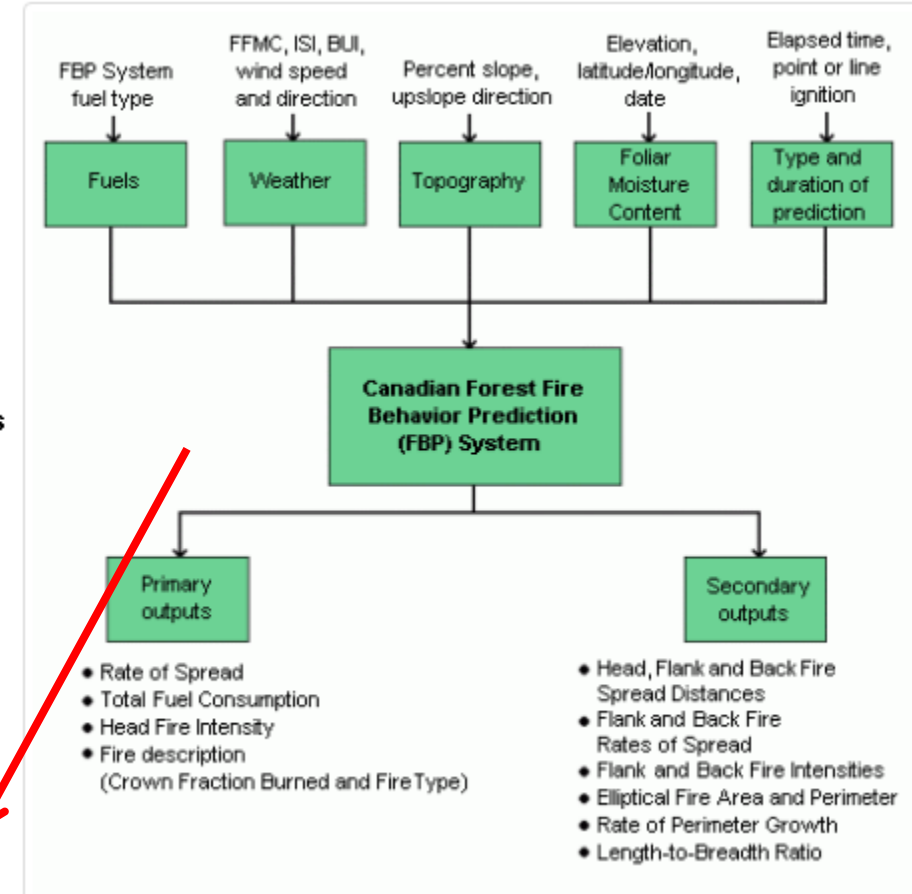
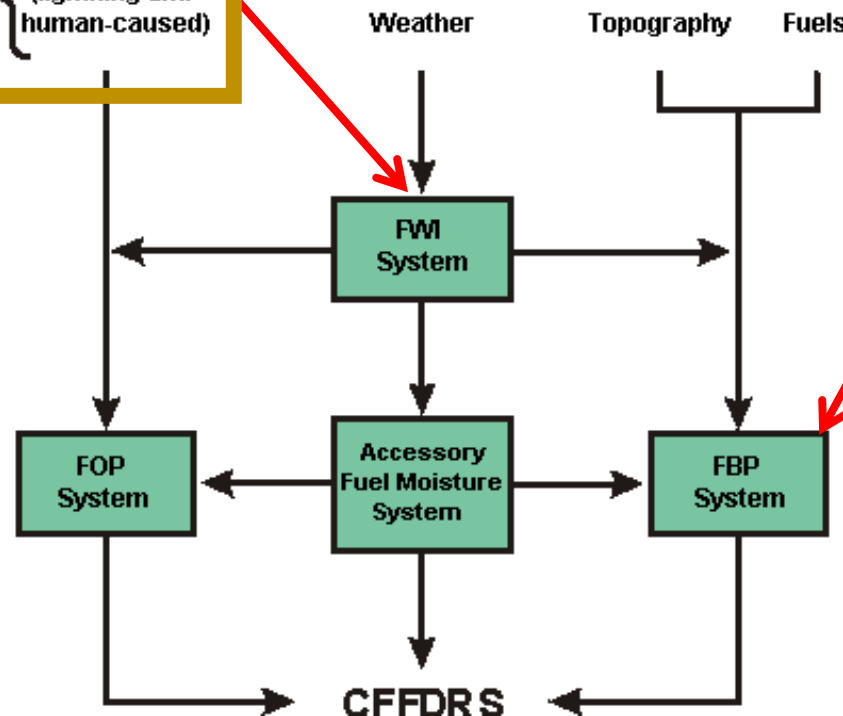
FBP 1992

- Uue tuleohukaardi rakendamine Eestis
- 2023 – 2024
- Nesterovi asemel Kanada mudel
- Paremad lähteandmed

• „Canadian“ model

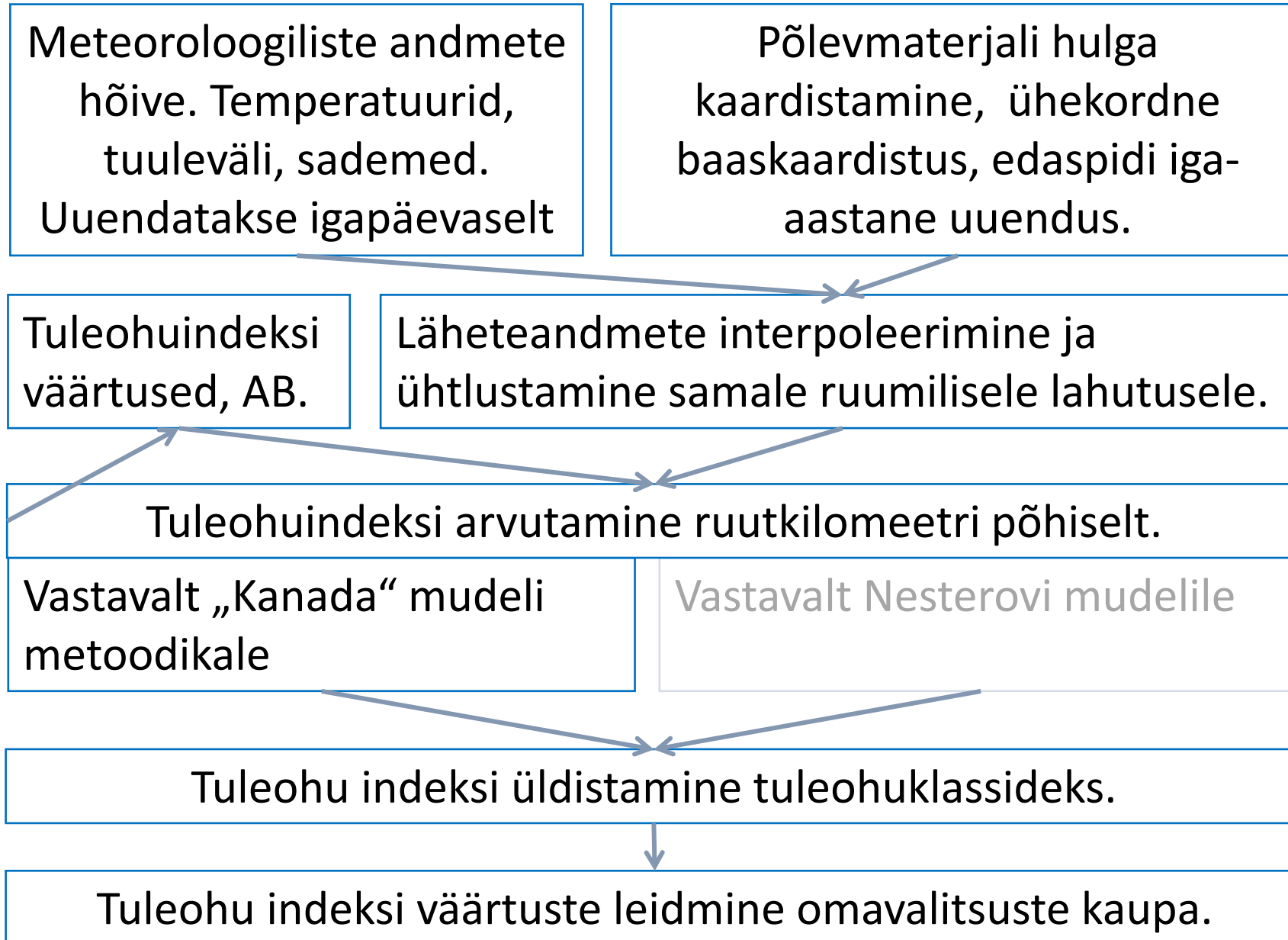


FWI 1984 (4. edition)



FBP 1992

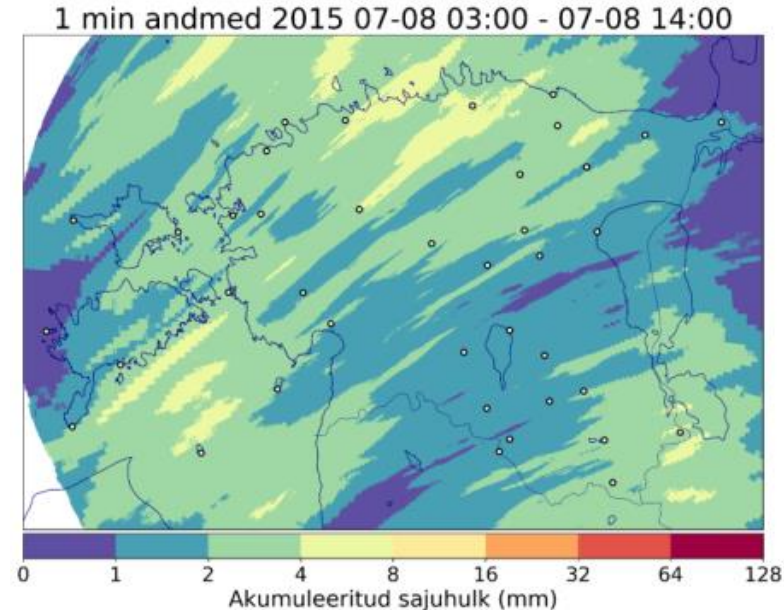
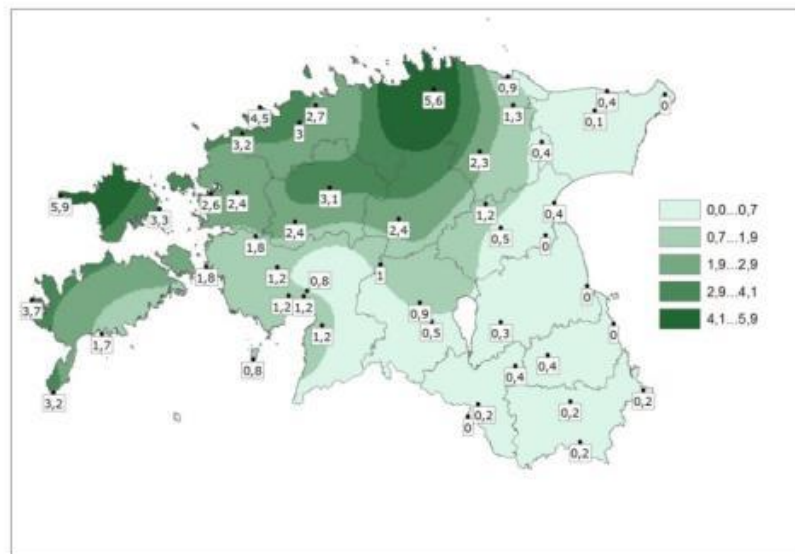
Soovitav metoodika tuleohu kaardi arvutamiseks



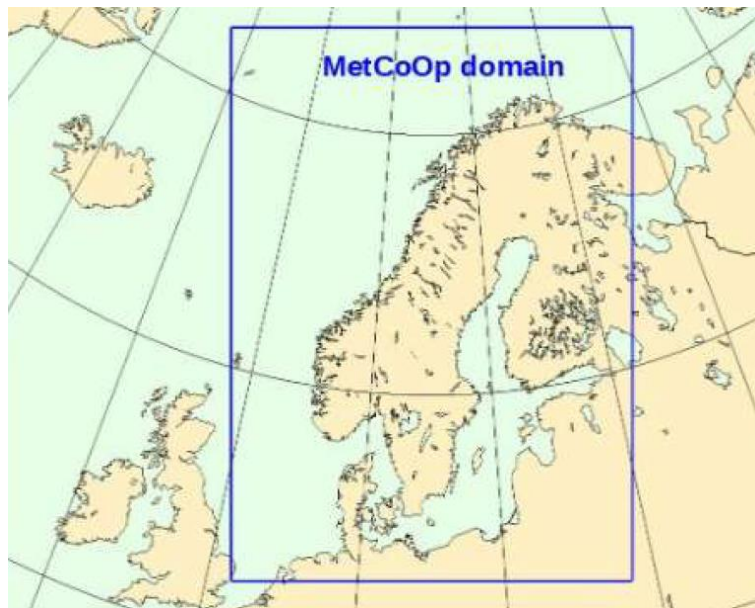
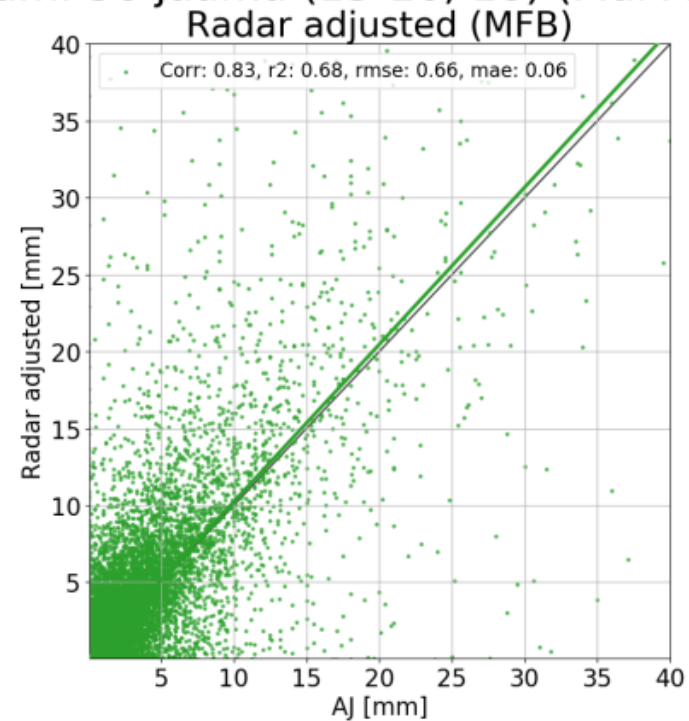
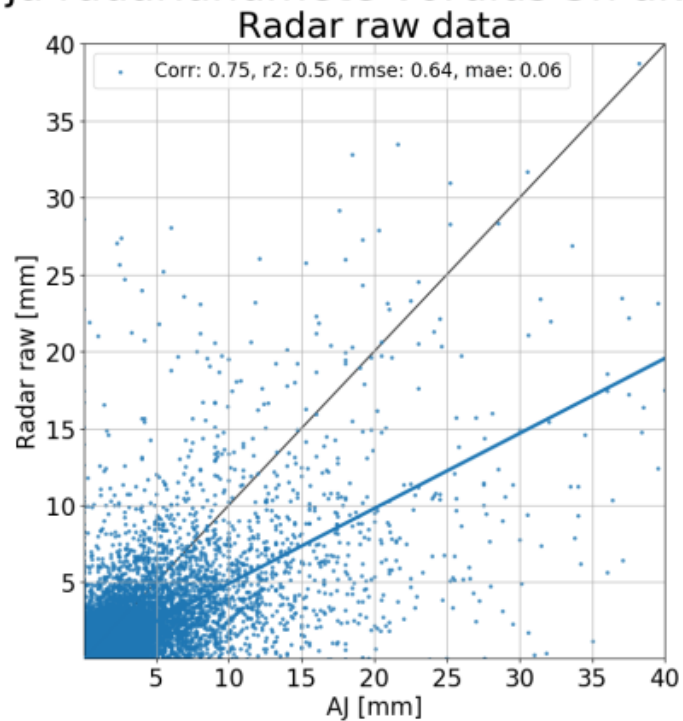
Erinevused soovitusliku metoodika ja seni kasutatava metoodika vahel.

1. Täpsemad ja ruumiliselt oluliselt detailsemad meteoroloogilised lähteandmed, sh sademete hulk ning selle jaotus üle Eesti, mis on tuleohuindeksi väärtust enim mõjutav tegur.
2. Detailsemad põlevmaterjali hulga ja struktuuri andmed, mis võimaldavad paremini hinnata nii tule tekkimise tõenäosusi kui tule võimaliku leviku kiirust.
3. Tuleohu indeksi arvutamine rastripõhiselt, ei interpoleerita mitte kompleksnäitajat, mis on arvutatud ilmajaamades üle Eesti, vaid interpoleeritakse lähteandmed ning indeks leitakse väljana iga rastripikslis jaoks eraldi.
4. Nesterovi asemel nn Kanada mudel

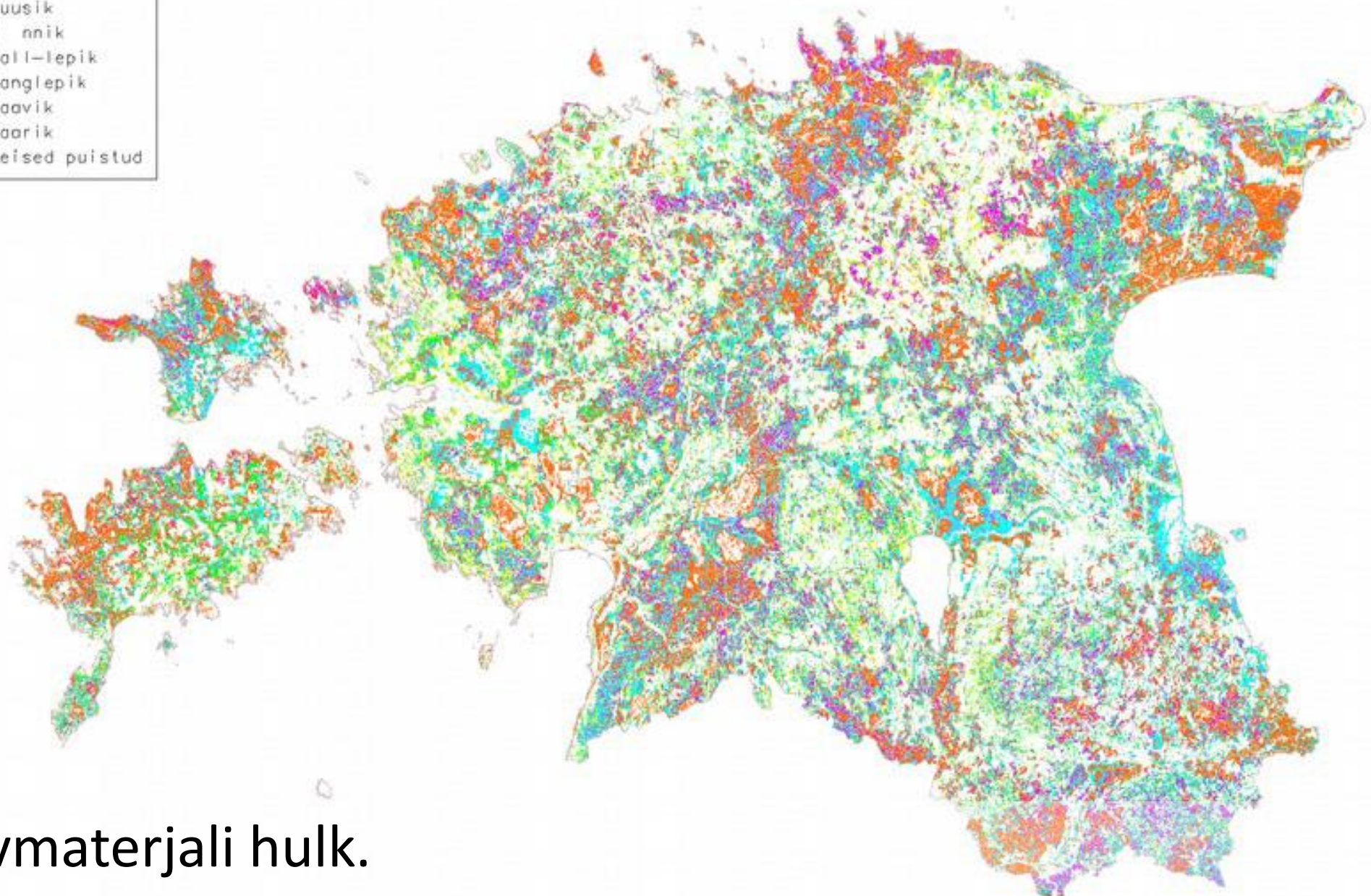
Meteoroloogilised andmed,
temperatuur ja tuule kiirus
METCOOP HARMONIE
mudel,
Sademed ilmaradarist



Aj ja radariandmete võrdlus 3h akum. 36 jaama (13-16, 18) (Mai-Aug)

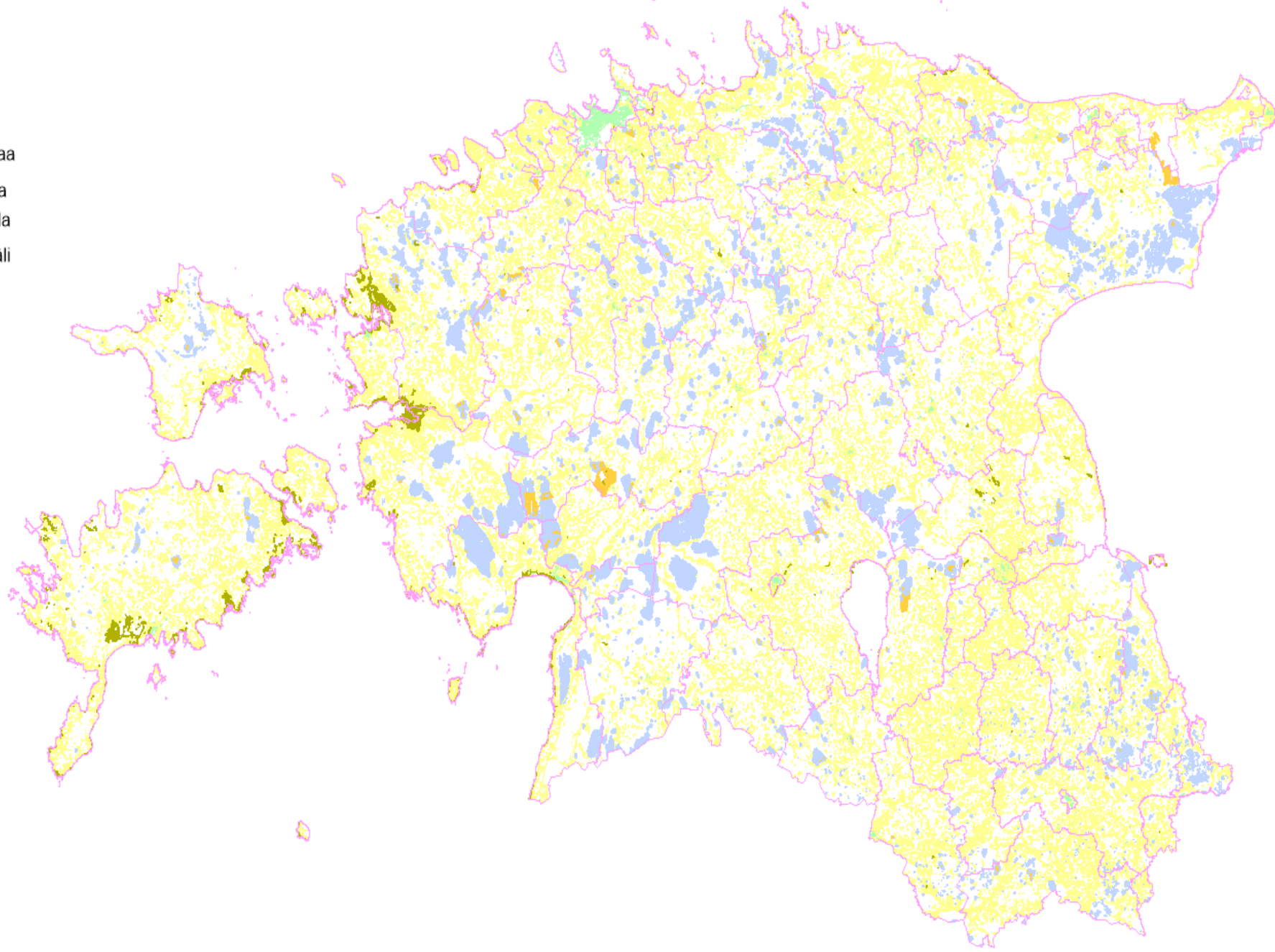


Puistuplaan, Lang jt 2018.

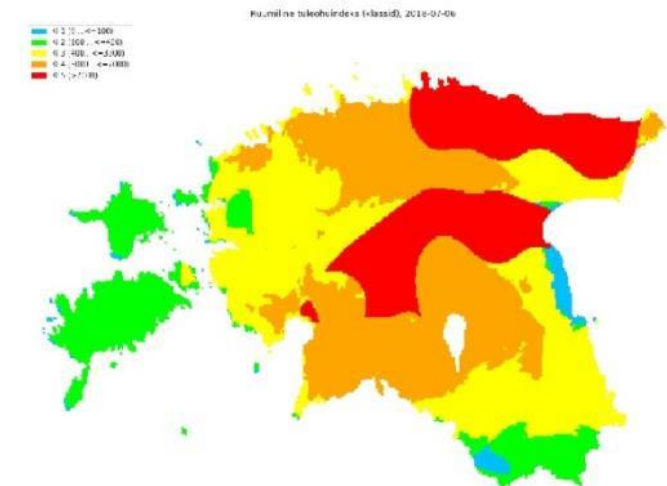
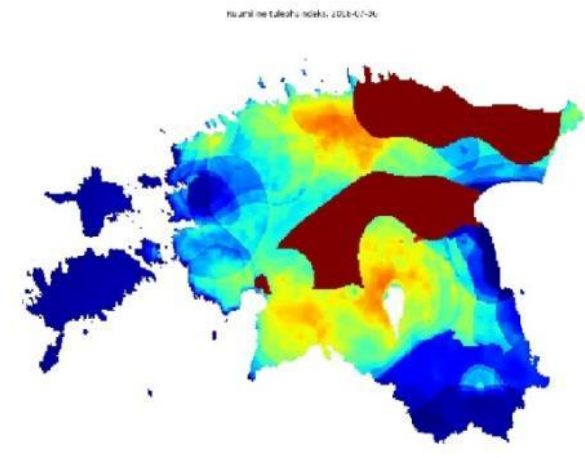
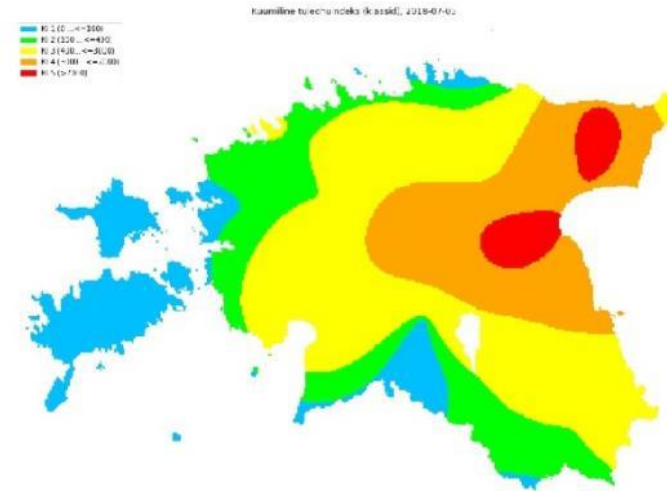
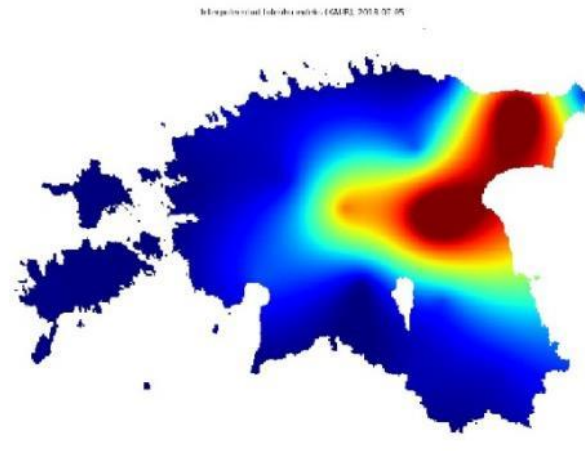


Põlevmaterjali hulk.

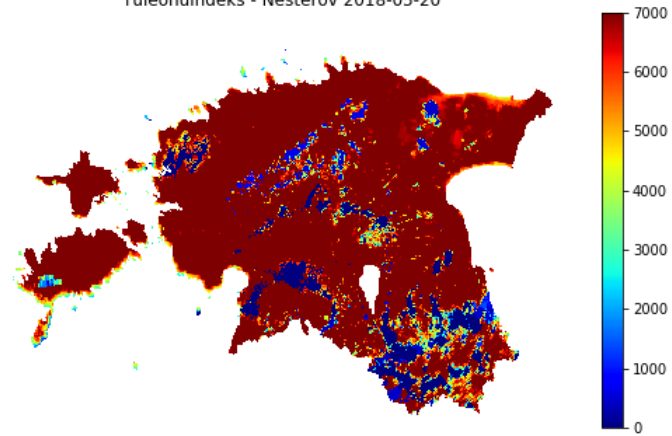
- Roostik
- Raba
- Rohumaa
- Jäätmaa
- Haljasala
- Turbaväli



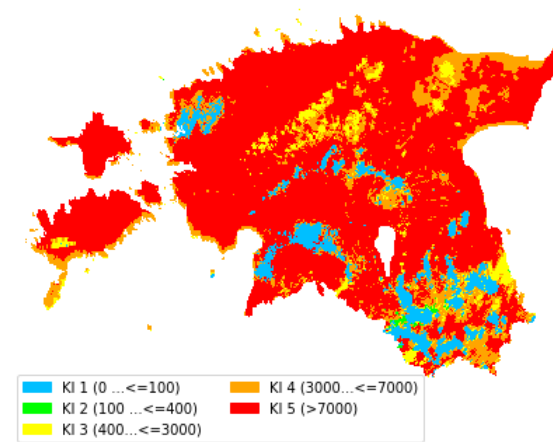
Mille poolest parem



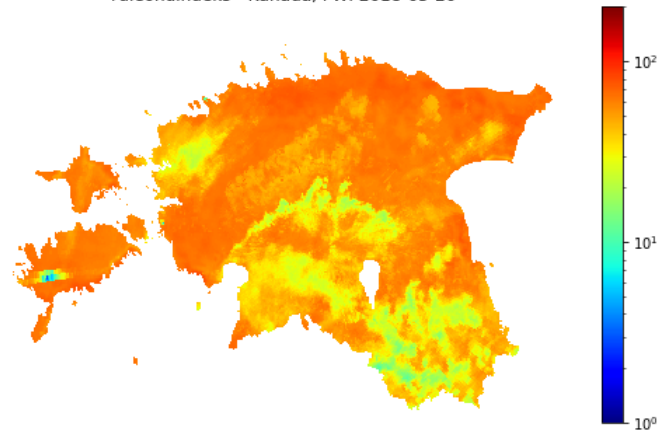
Tuleohuindeks - Nesterov 2018-05-20



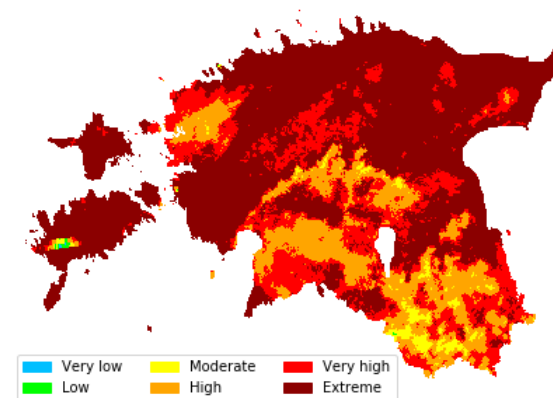
Tuleohuindeksi klassid, 2018-05-20



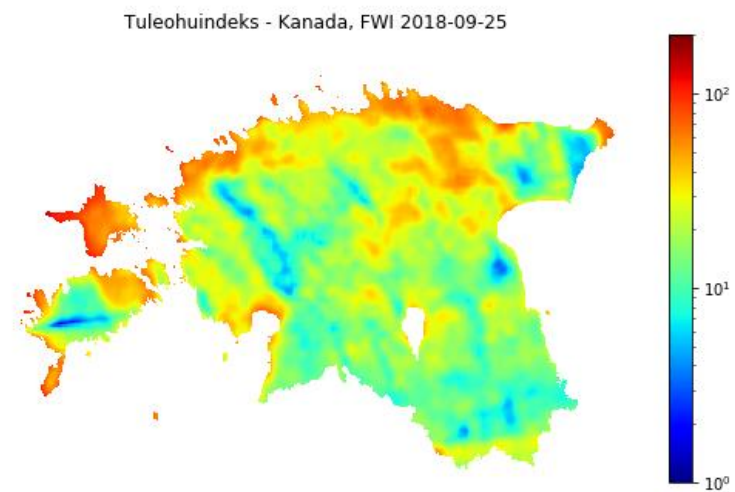
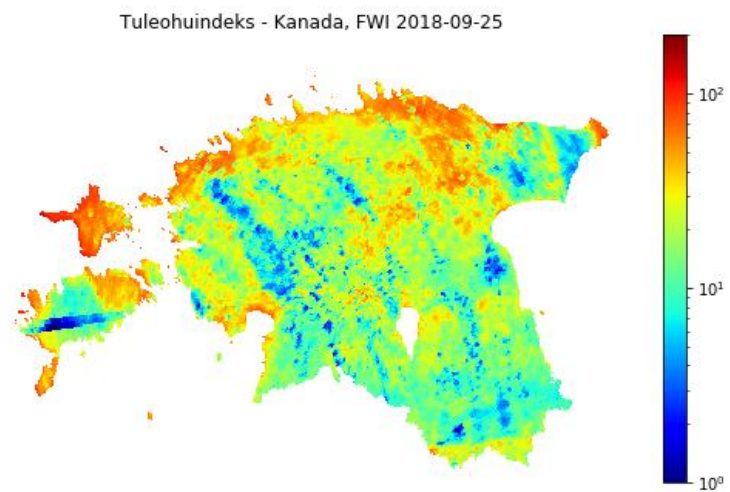
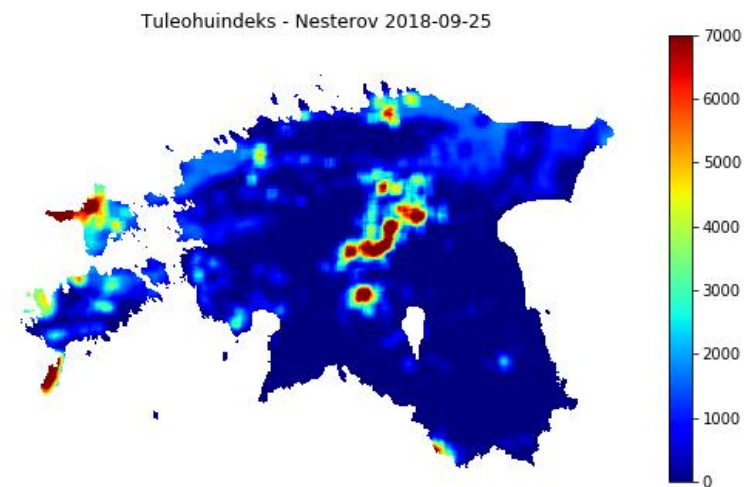
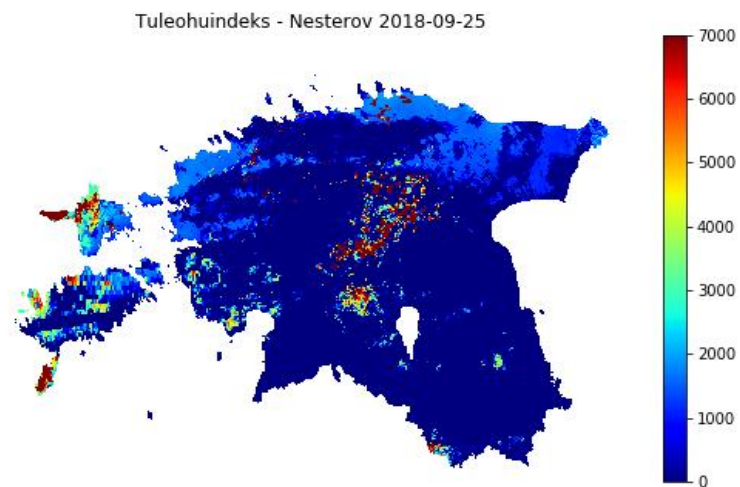
Tuleohuindeks - Kanada, FWI 2018-05-20



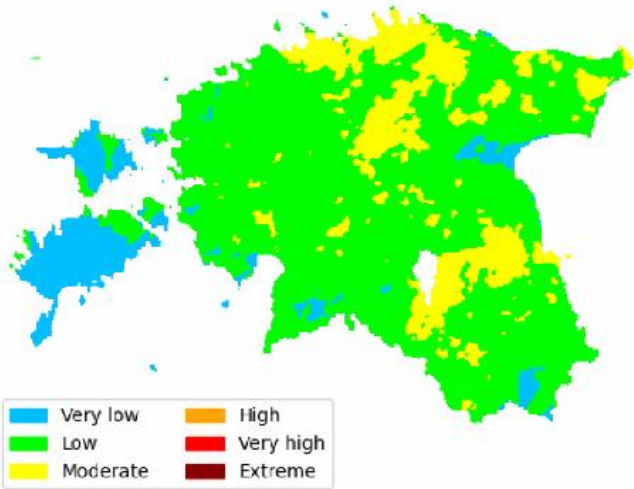
Tuleohuindeksi klassid, 2018-05-20



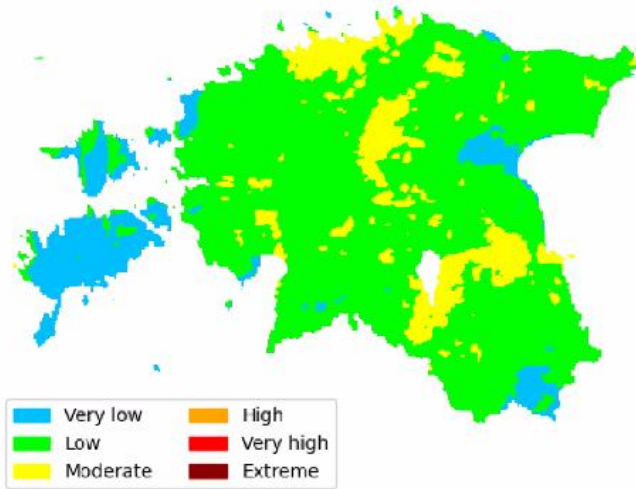
Üldistatud tulemused, filtri suurus 7 x 7 piksli. Vasakul indeksi algväärtused, paremal üldistatud väärtused.



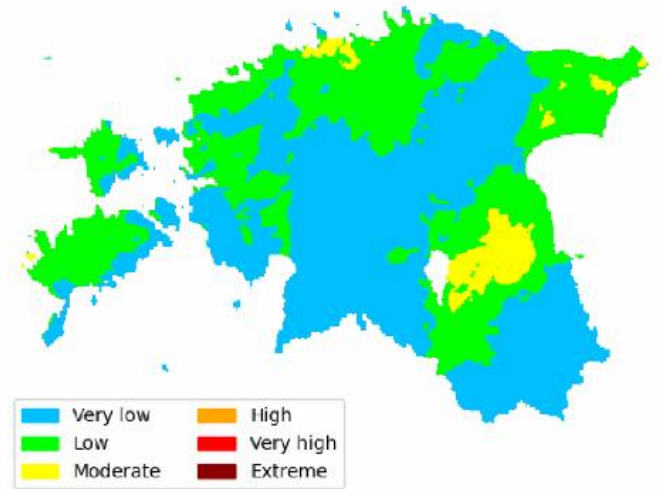
Tuleohuindeks - Kanada, FWI 2023080709_2023080709



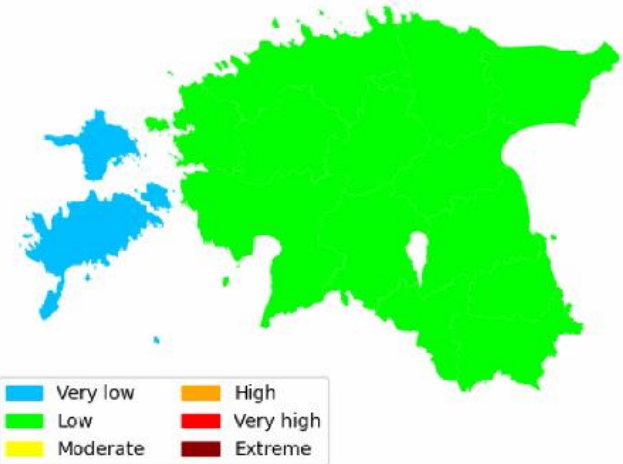
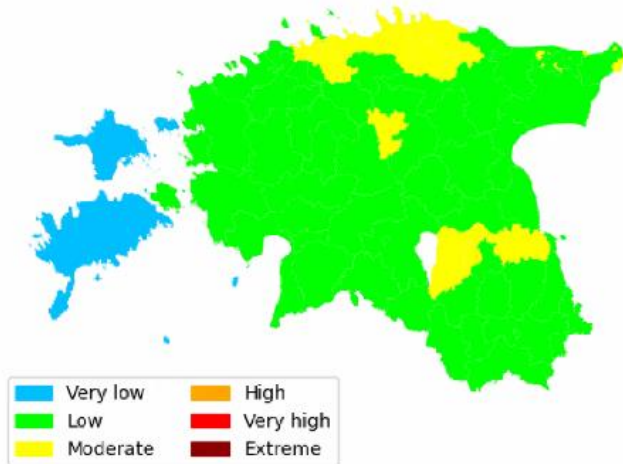
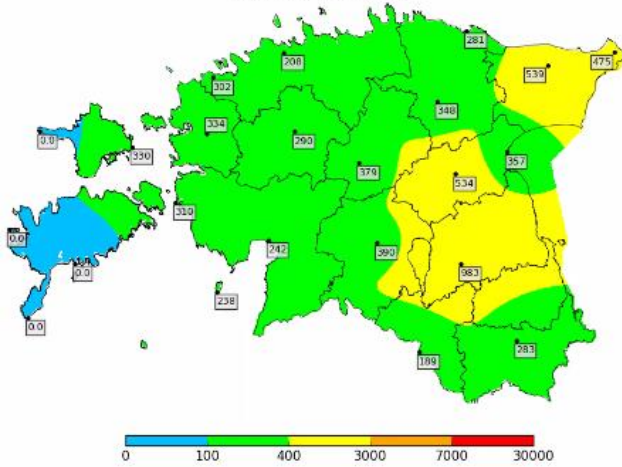
Tuleohuindeks - Kanada, FWI 2023080609_2023080709



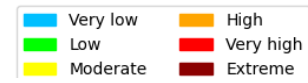
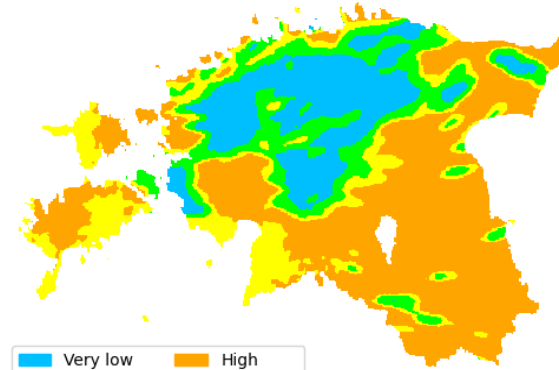
Tuleohuindeks - Kanada, FWI 2023080509_2023080709



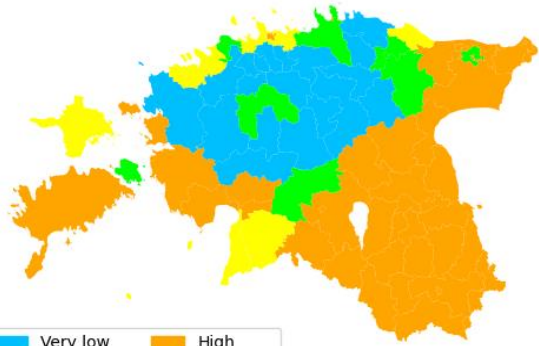
Tuleohu indeks 07.08.2023



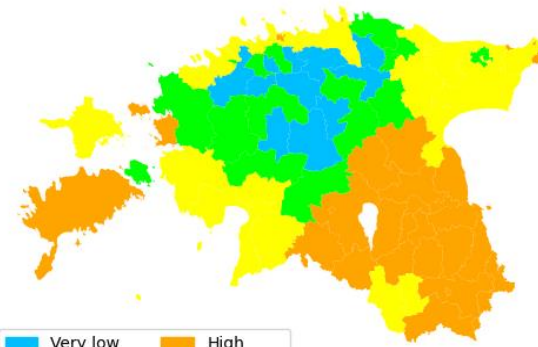
Tuleohuindeks - Kanada, FWI 2023071309_2023071509



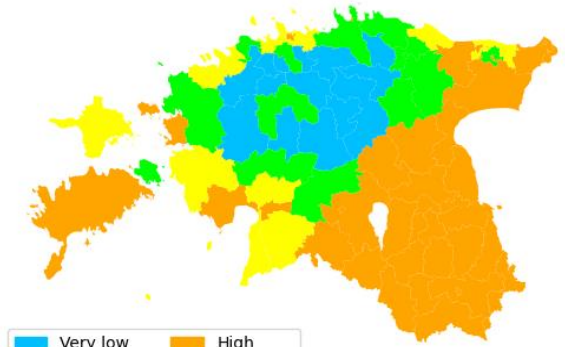
Most common



Average



50% percentile





COPERNICUS
Emergency Management Service



European Commission > JRC EU Science Hub > DRM > Copernicus EMS > EFFIS > Applications > Current Situation Viewer

[user guide] ↑

Map Options

COUNTRY BOUNDARIES ⓘ

Fire Danger Forecast

FIRE DANGER FORECAST ⓘ

Source: ECMWF (8 km res.) ▾

Index: Fire Weather Index (FWI) ▾

Date: 03 Jun 2019

Rapid Damage Assessment

Select a date-range

Last 1 Day Last 7 Days Last 30 Days

Fire Season

From: 02 Jun 2019 To: 03 Jun 2019

ACTIVE FIRES ⓘ

MODIS VIIRS

BURNT AREAS ⓘ

MODIS (supervised) VIIRS

Fire Severity

Burnt Area Locator

FUELS ⓘ

FUELS

Analysis Tools

Seasonal trend EFFIS Estimates per Country



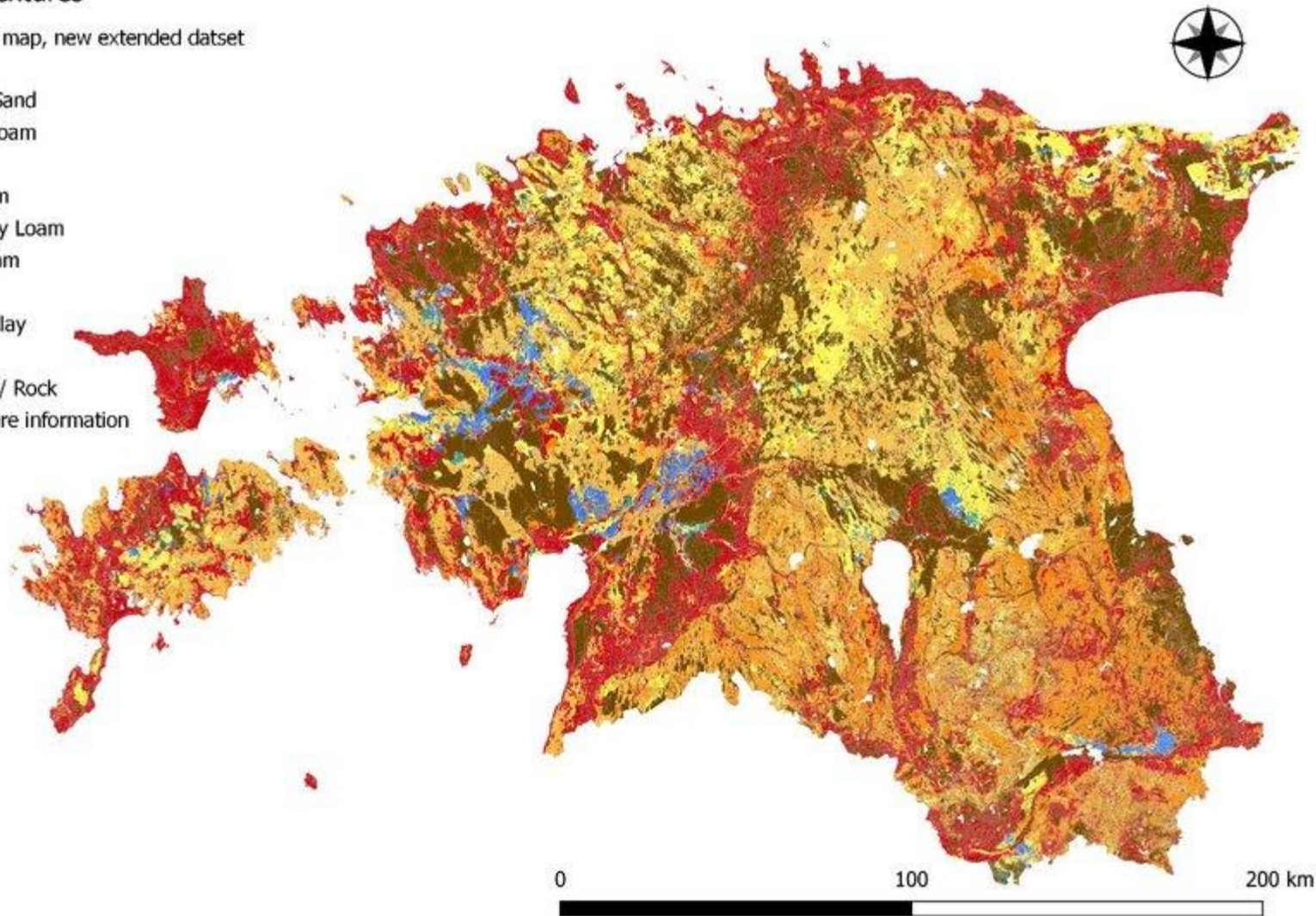
Map navigation controls including zoom in (+), zoom out (-), home, full screen, and search icons.

National Soil Map of Estonia.

Top soil textures

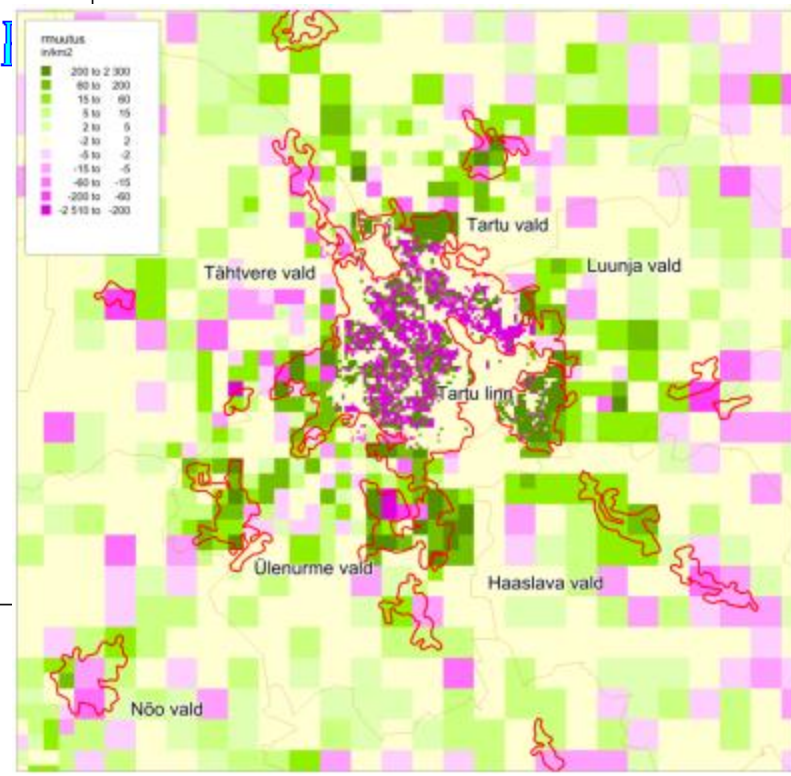
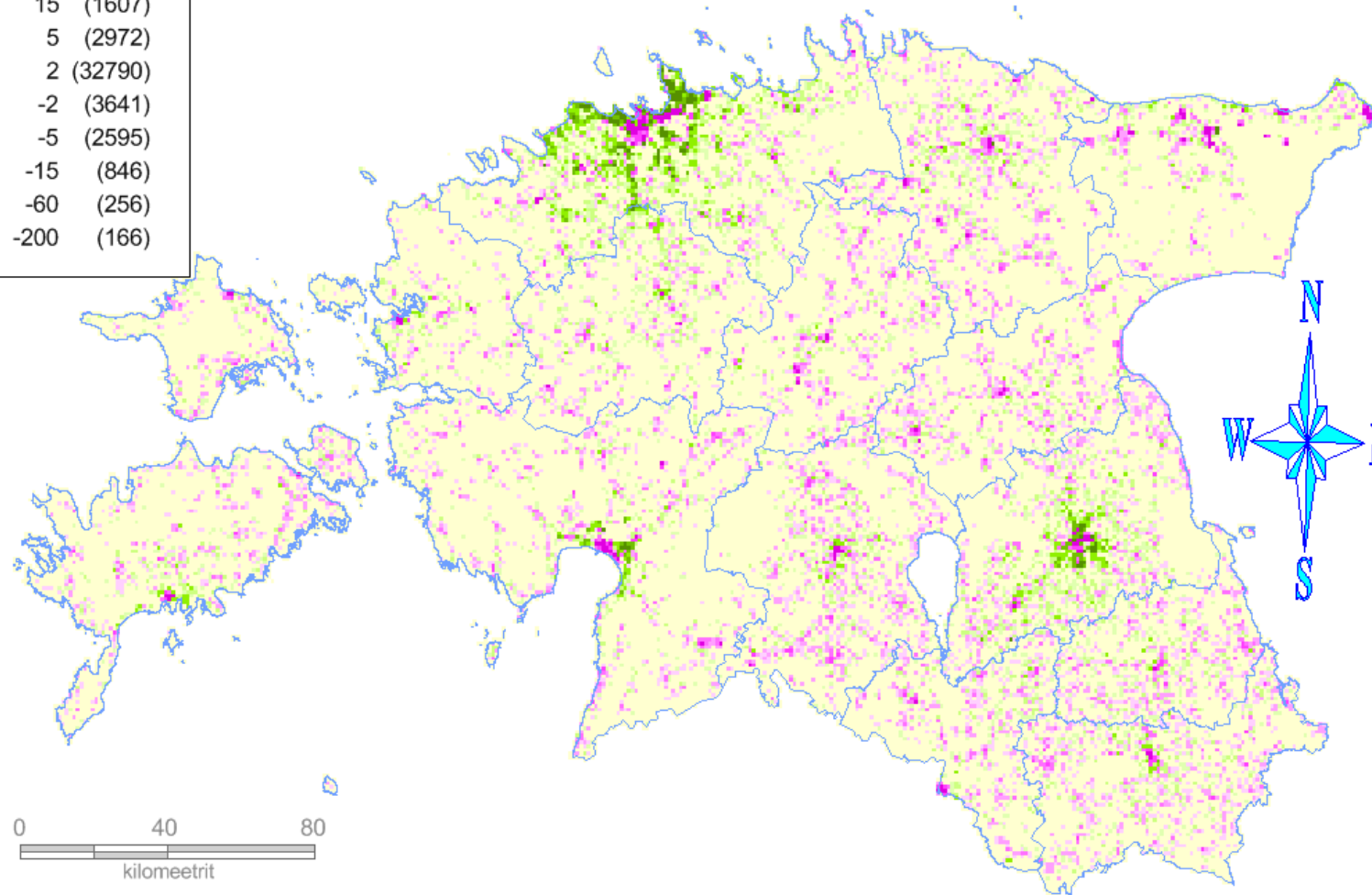
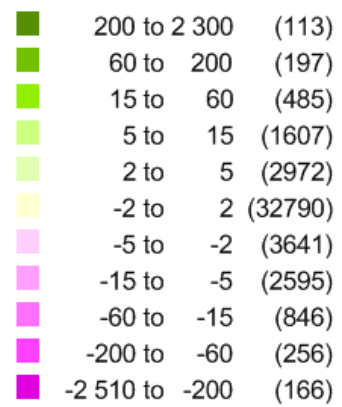
Estonian soil map, new extended dataset

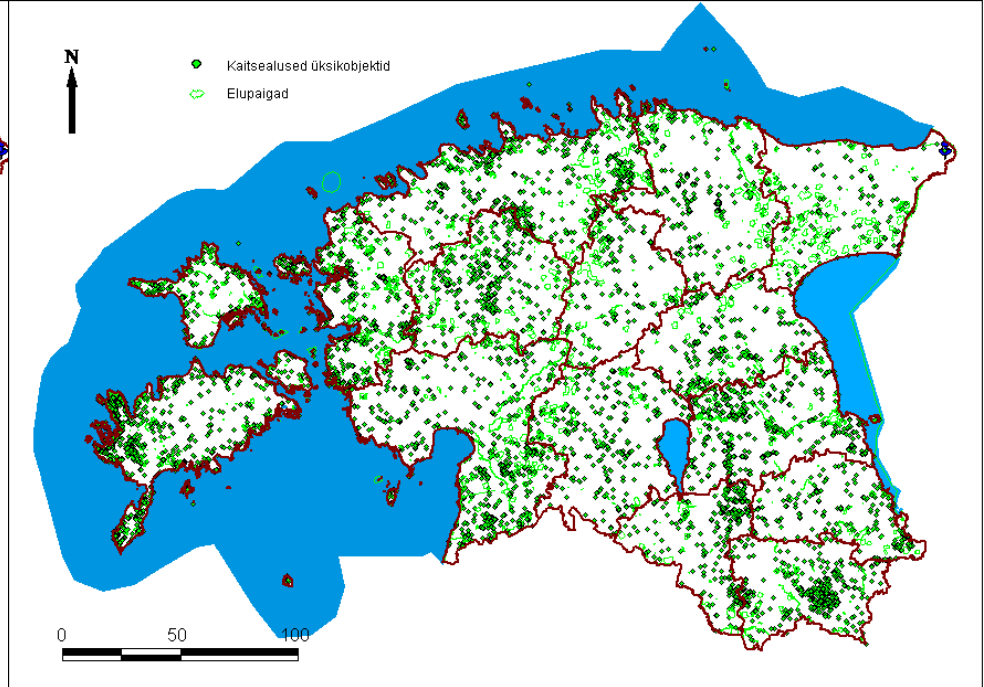
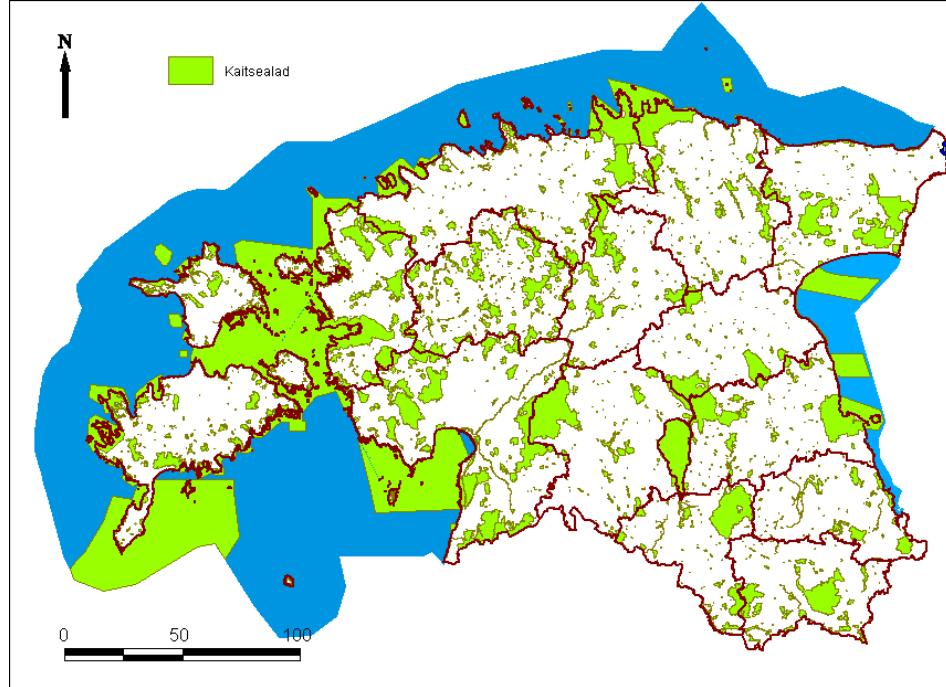
- Sand
- Loamy Sand
- Sandy Loam
- Loam
- Silt Loam
- Silty Clay Loam
- Clay Loam
- Clay
- Heavy Clay
- Peat
- Gravels / Rock
no texture information



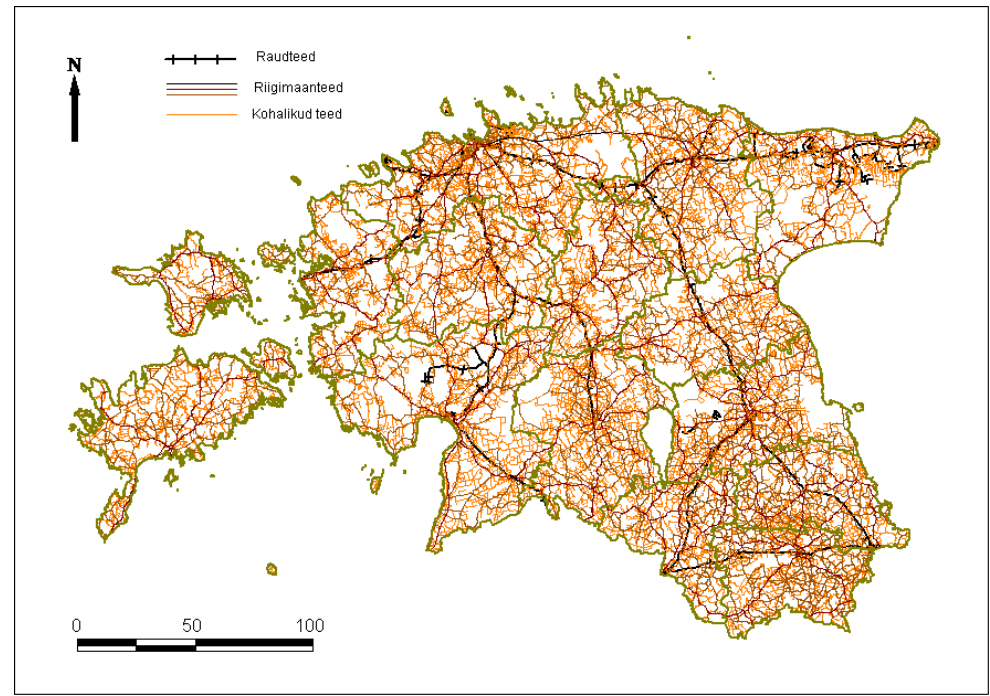
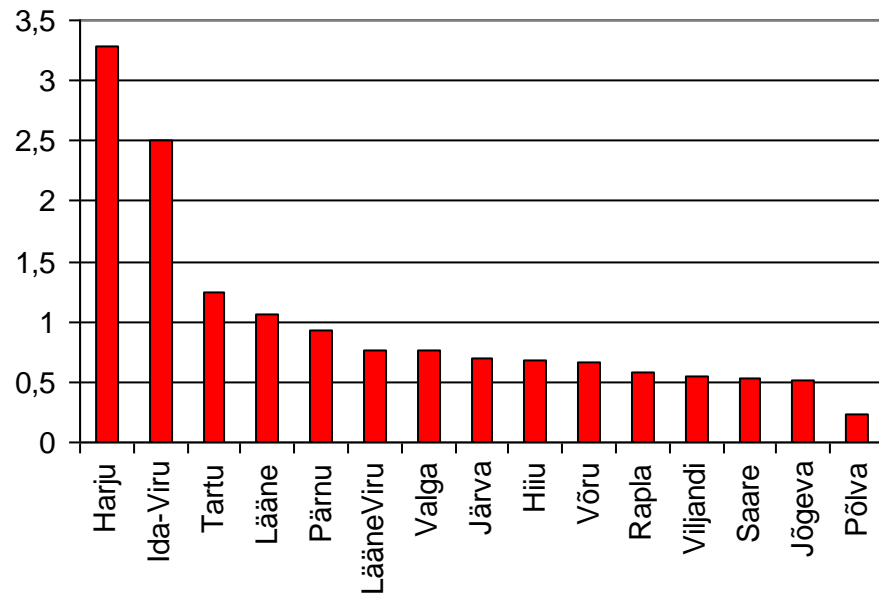
EstSoil-EH v1.0: An eco-hydrological modelling parameters dataset derived from the Soil Map of Estonia Knoch et al. 2019

elanike arvu muutus km2

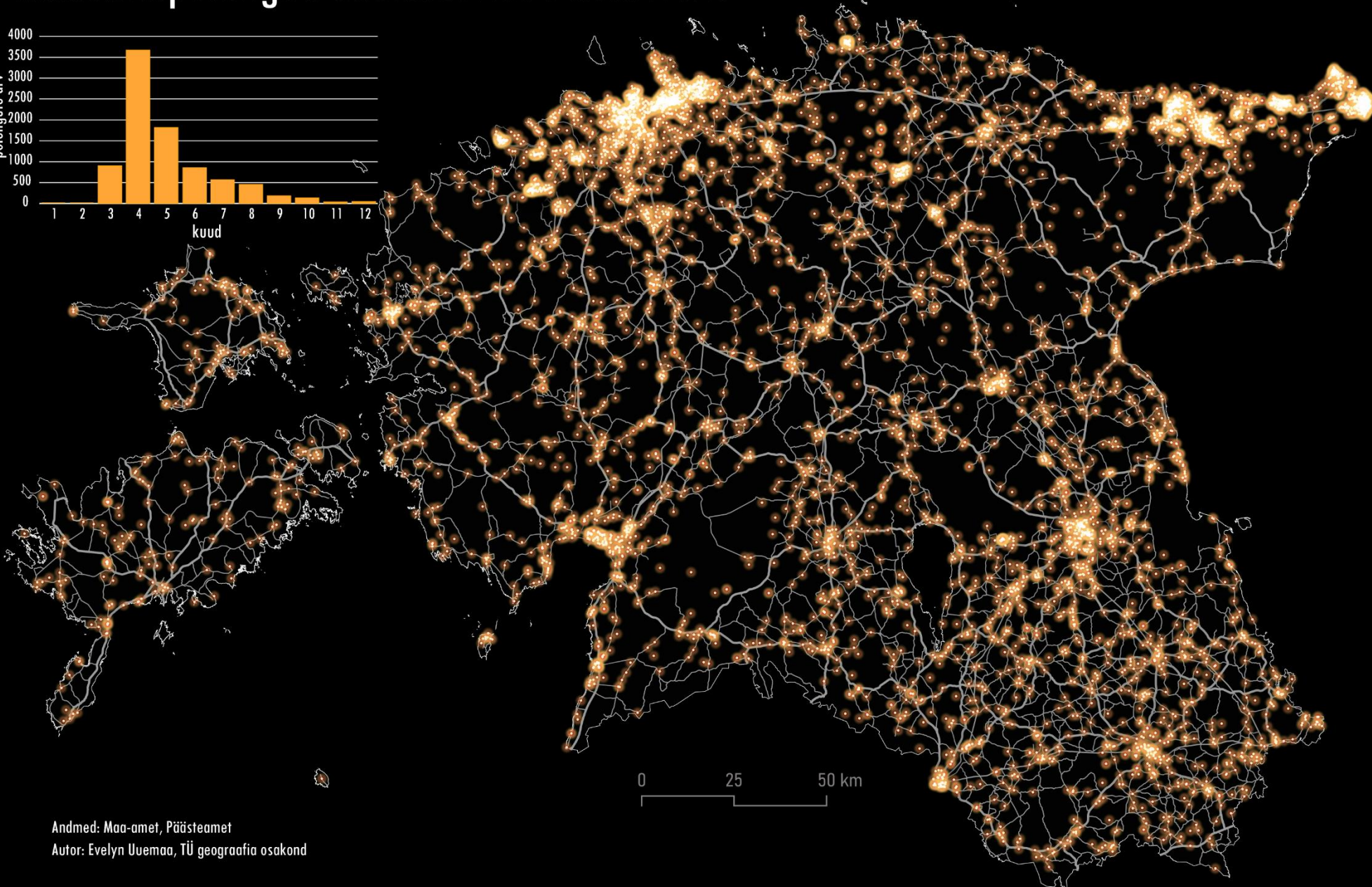
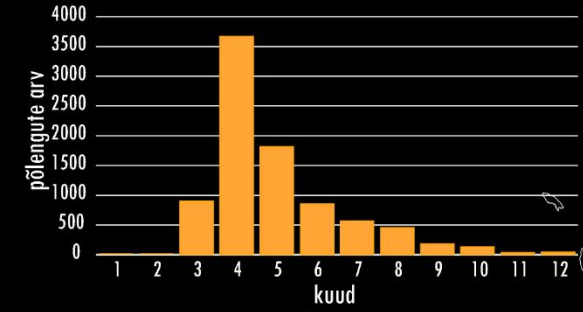




Taust – väärtuste ja inimsurve ruumiline jaotus.



Maastikupõlengud aastatel 2014 kuni 2020



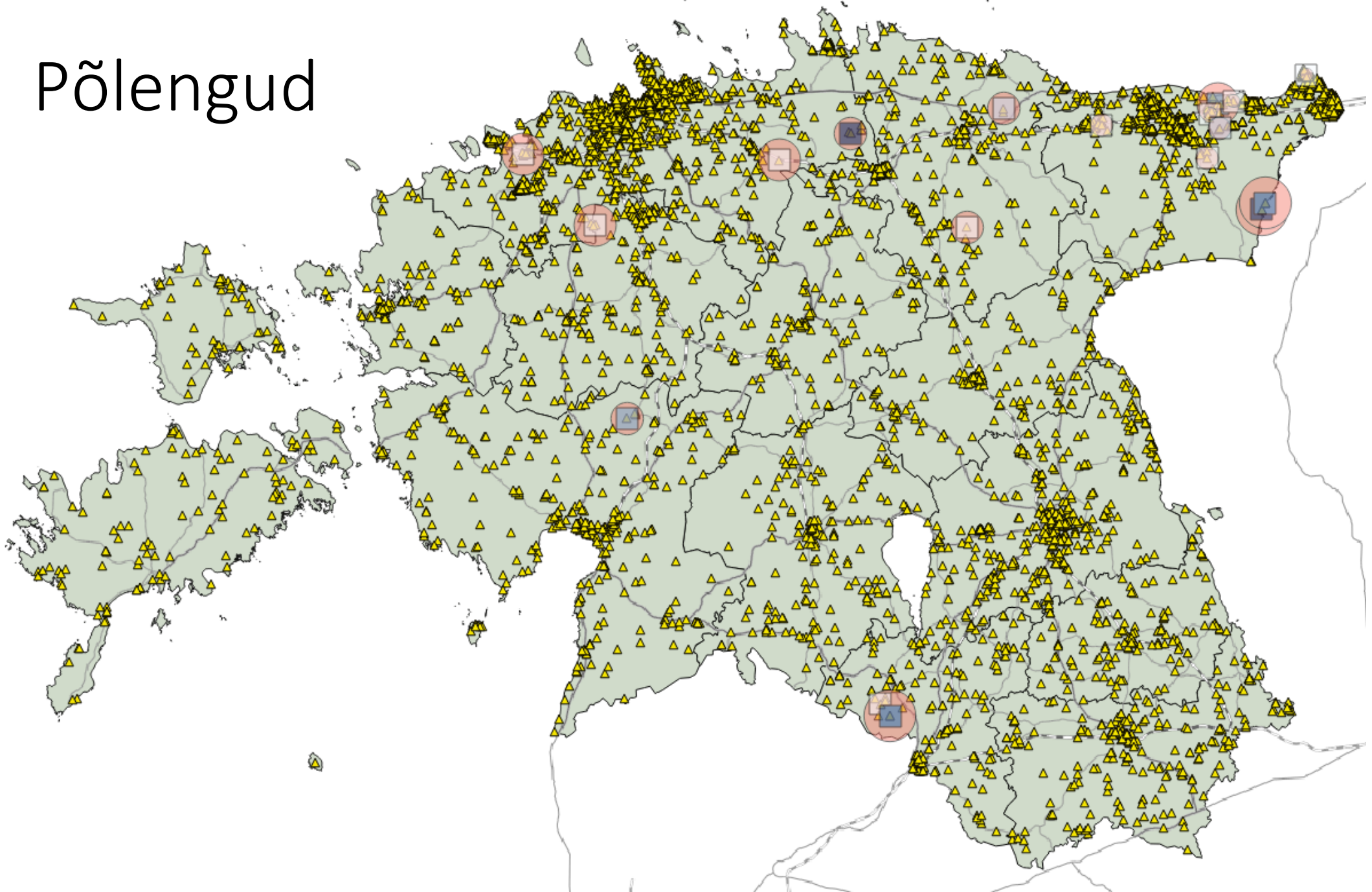
Päästeameti
andmed

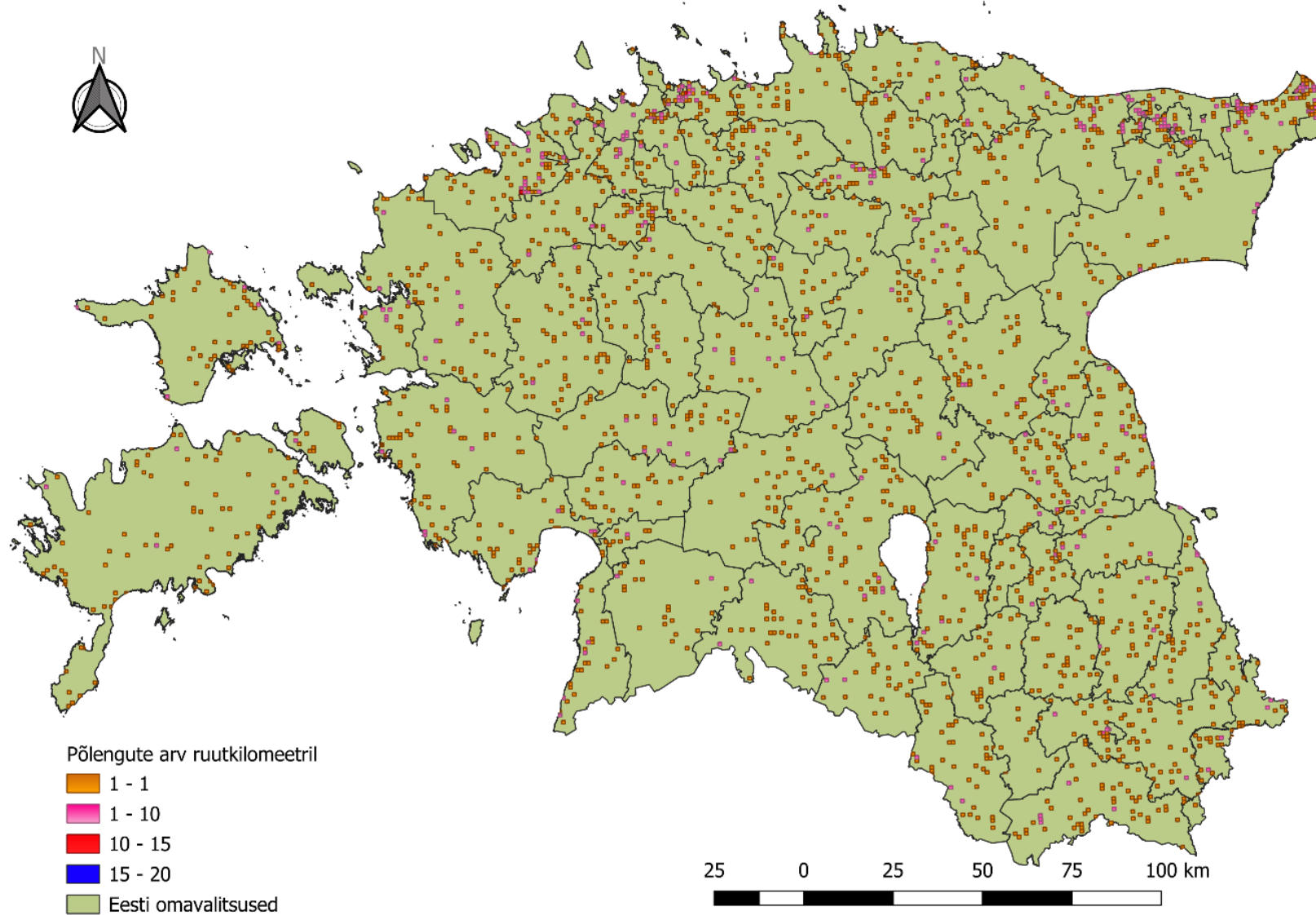
Maastikupõlengud
2014 – 2020

Kaart: Evelyn
Uuema

Andmed: Maa-amet, Päästeamet
Autor: Evelyn Uuema, TÜ geograafia osakond

Põlengud





- Piirkondades, kus on vähem kui 22 inimest ruutkilomeetri kohta aprill-oktoober
- Valimis 2972 põlengut
- Risto Merdenson, BSc töö (valmimisel)