

Approaches for studying forest recreation and other cultural forest ecosystem services in Latvia

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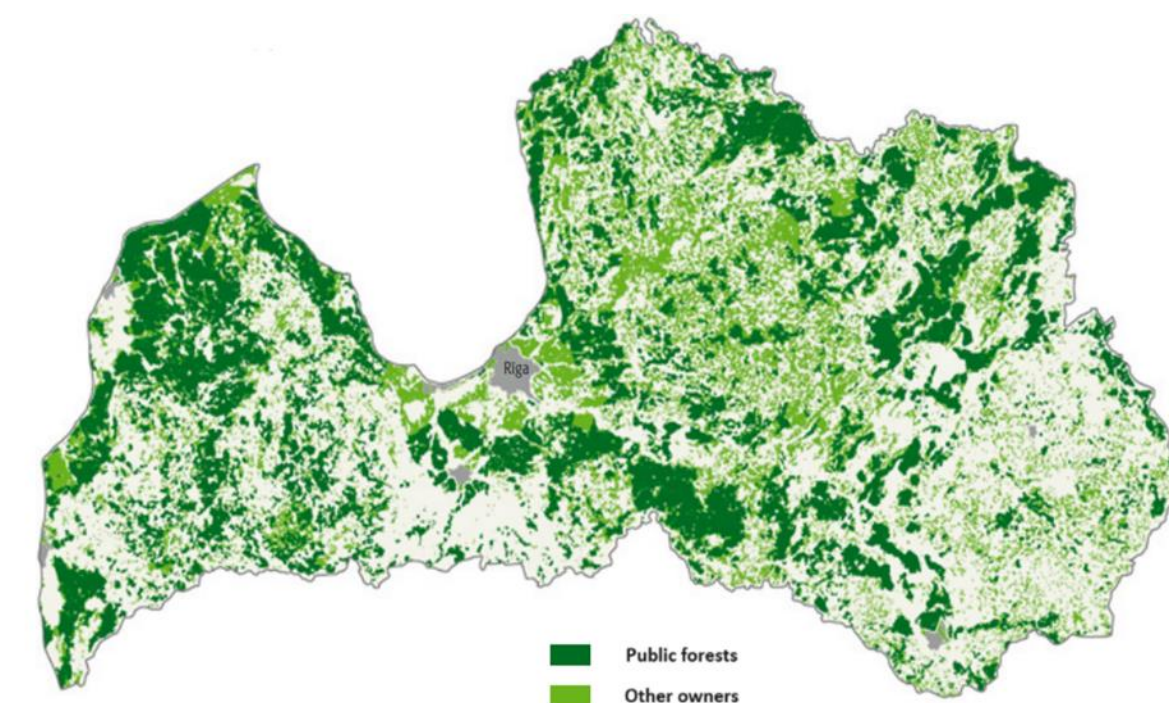
LSFRI «Silava»

PlayFair Webinar, April 10, 2025



Forest in Latvia

- Forests cover **3.4 million ha** of Latvia, or **52%** of the land area.
- Since 1925, the forest area has nearly **doubled**.
- 50% of the forests are **public**, managed by the JSC "Latvia's State Forests". The rest are owned by private individuals, companies, municipalities, church.
- Generally, public and municipality forests are **accessible to the public**. Access to private forests may be restricted, but in such case the owner is required to set up clearly **visible signs**.



Source: National Forest Inventory



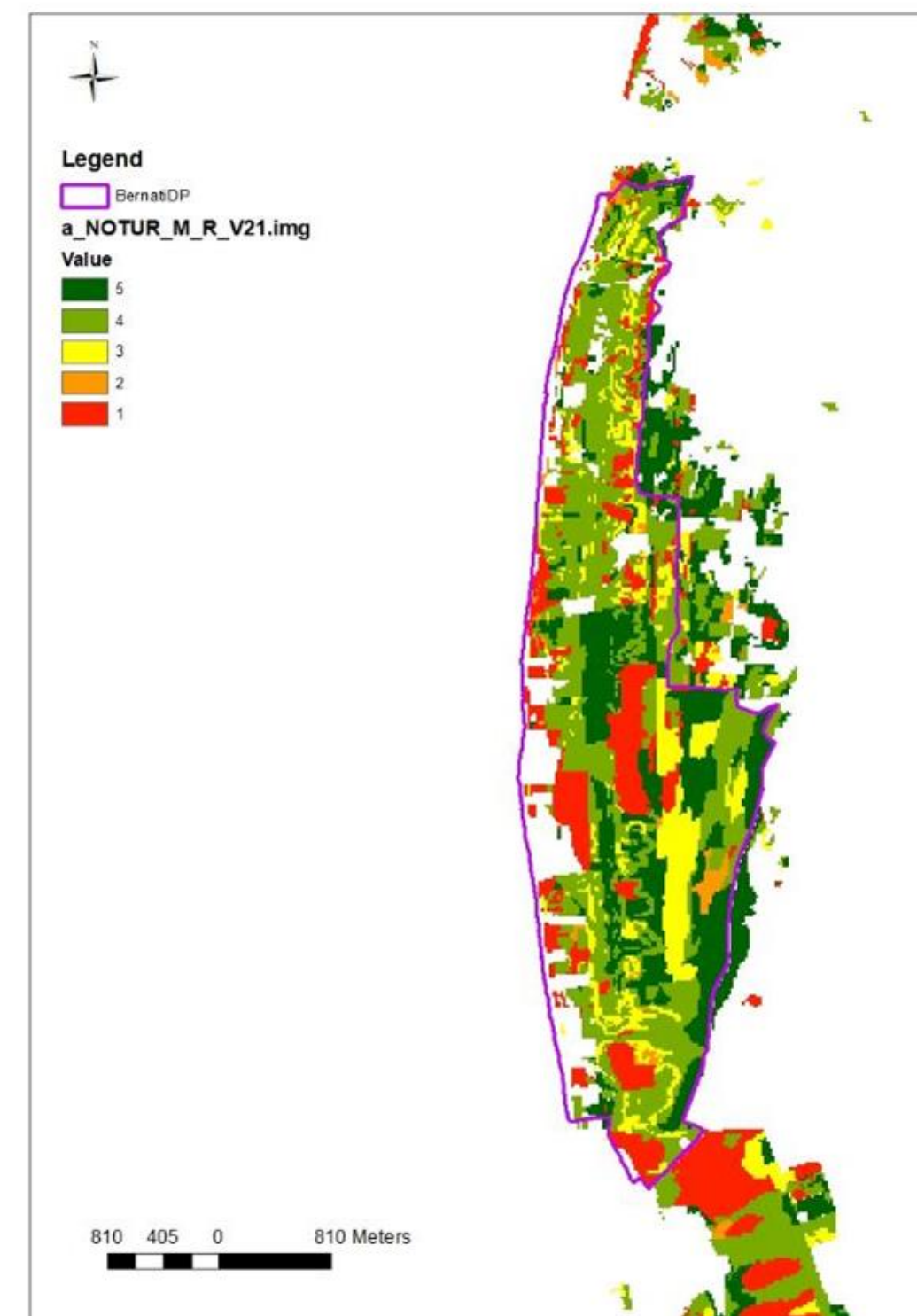
Forest recreation in Latvia

- On average, **35–53%** of the inhabitants of Latvia visit forests **for recreational purposes** (depending on the season).
- In summer weekends, **69%** of respondents have been to the forest at least once.
- **Walking, cycling and mushroom/berry picking** are the most popular forest recreation activities.
- The preferred kind of forest for recreational activities is **sparse, mature pine stand**. People dislike clearfelling areas, especially with logging residues, and young stands with solitary retention trees – retention trees in groups are valued higher.



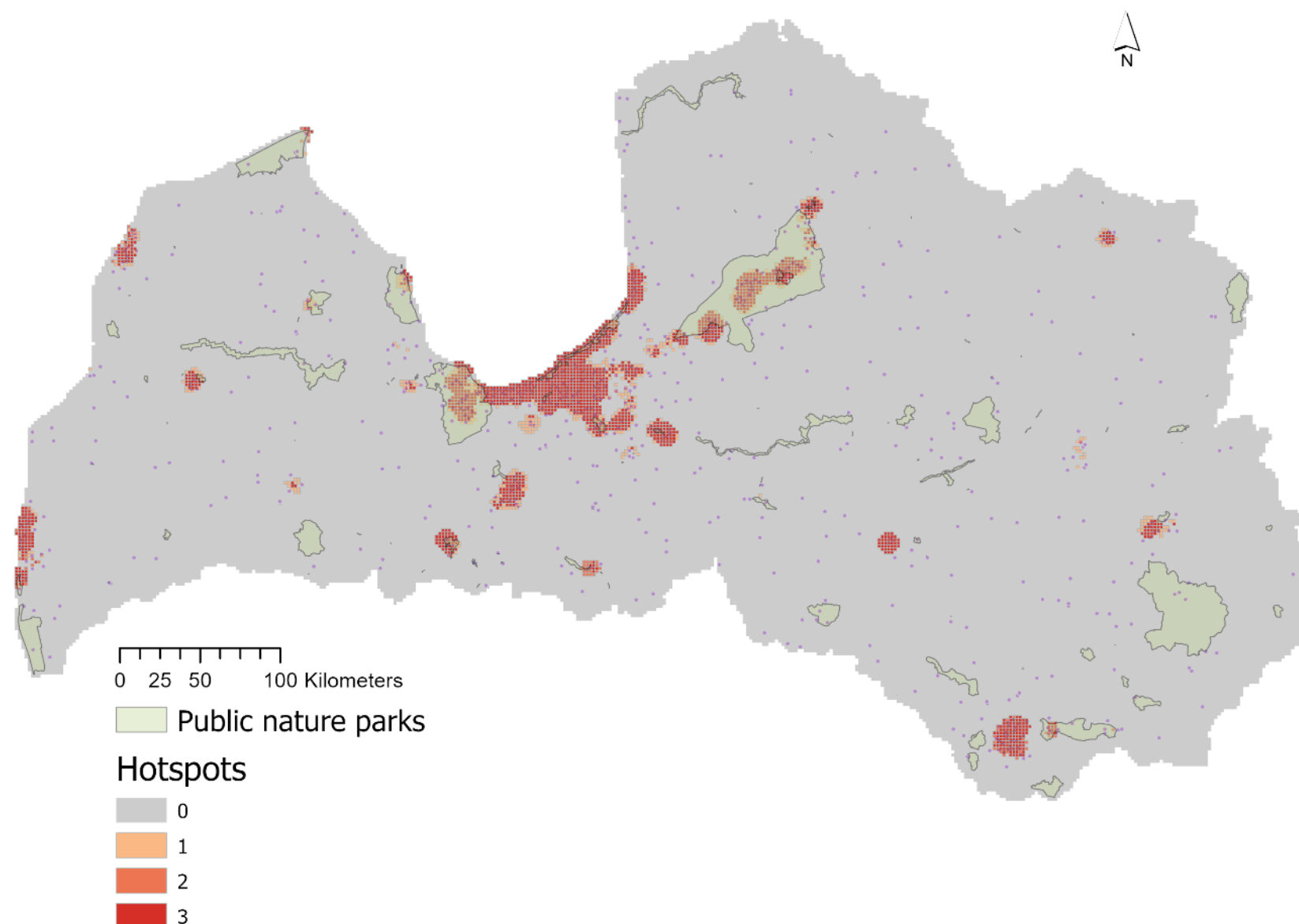
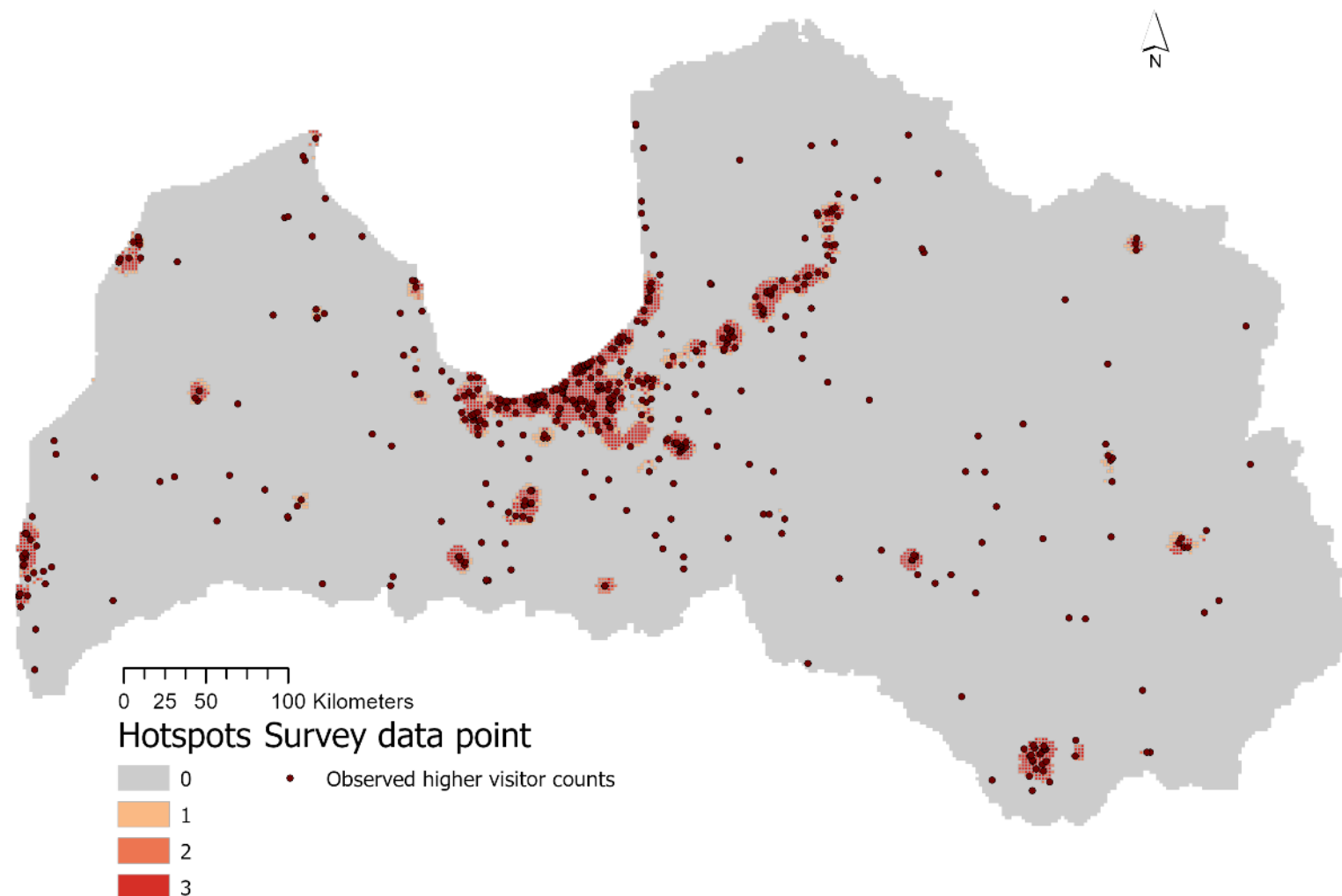
Forest recreation in the context of ecosystem service mapping

- Equations for calculating
 - **recreational suitability** of the stand (based on forest stand inventory data, proximity to settlements, waterbodies etc.);
 - **visual aesthetic quality** of the stand (based on forest stand inventory data and type of landscape view – open/closed).
 - **forest ecosystem resilience** to recreational pressure (based on forest stand inventory data and terrain indices)
- Estimation of forest area **suitability for hunting** as recreational activity (based on habitat suitability for game species, presence of hunting infrastructure and accessibility).



Recreational pressure spatial study

- Conception during/shortly after Covid-19. **Increase** of nature area visits during lockdowns.
- Need for more concrete data and observations.
- **Public participatory GIS** + electronical survey questionnaire.
- Map integrated inside the survey as a hard-coded element – click on a nature area (approximately) that you prefer as your favorite.



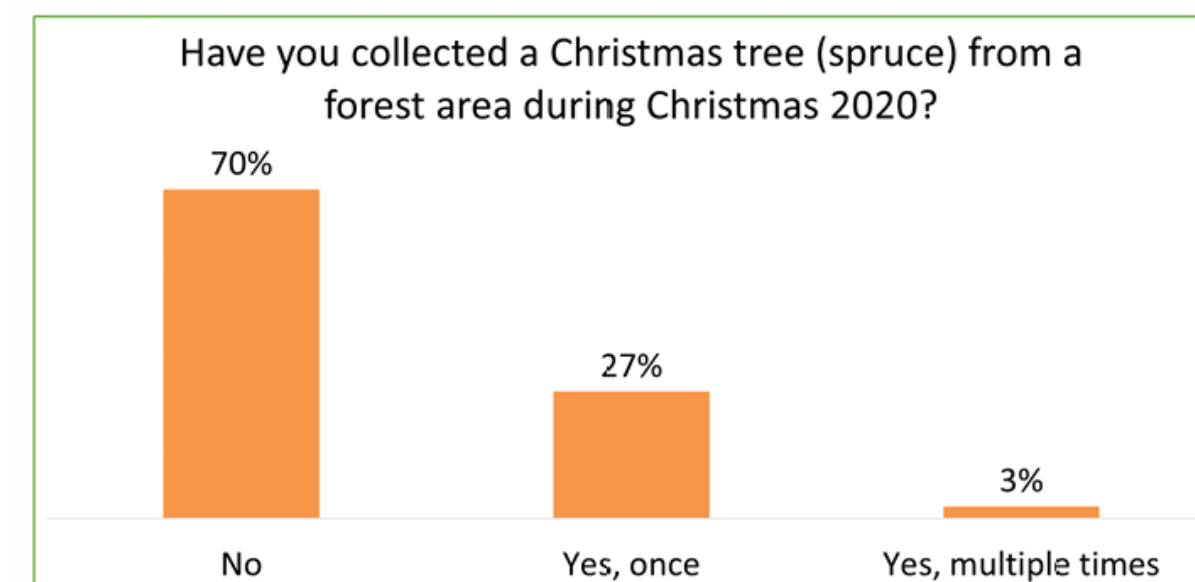
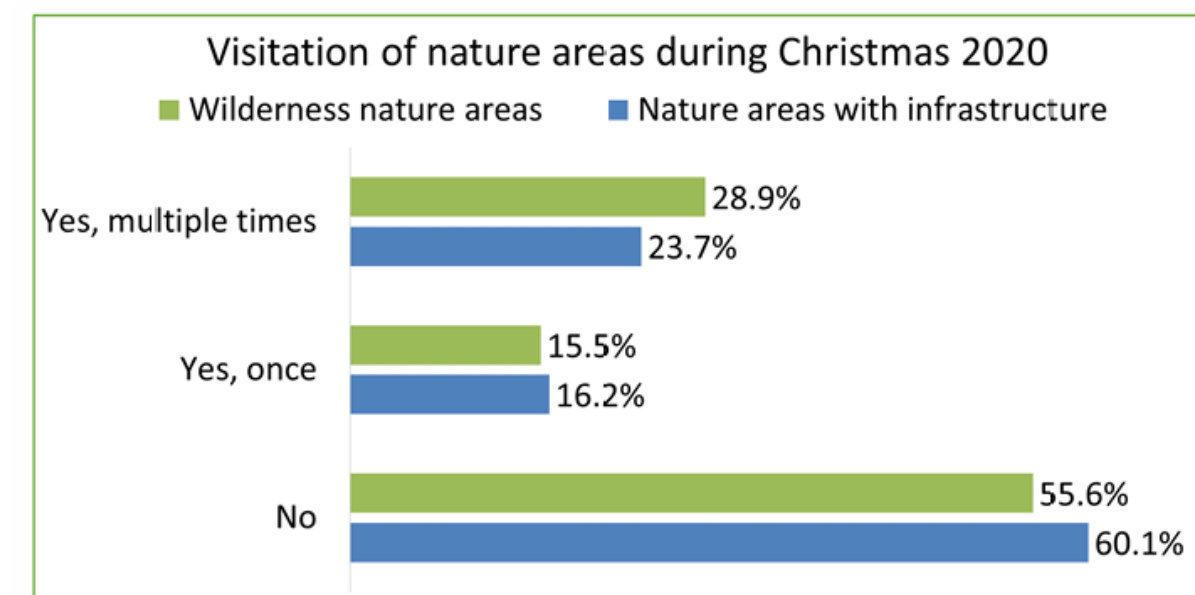
Jūrmalis, E., Lībiete, Z. and Bārdule, A., 2022. Outdoor recreation habits of people in Latvia: General trends, and changes during the COVID-19 pandemic. *Sustainability*, 14(14), p.8478.

<https://doi.org/10.3390/su14148478>

Tradition-oriented forest (winter) recreation

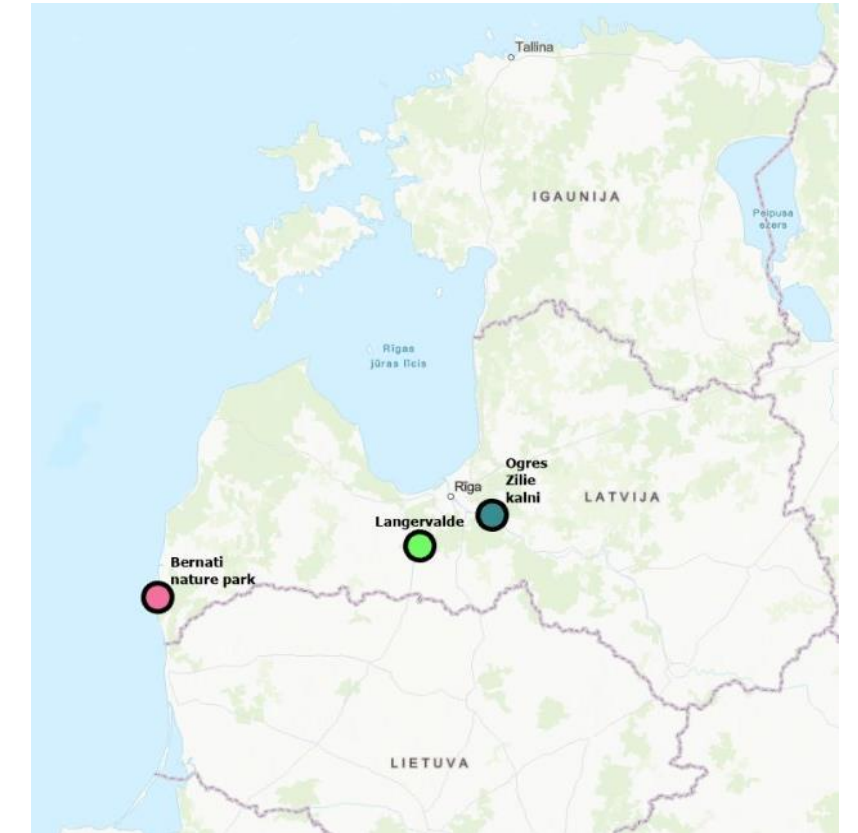
Winter recreation activities, with COVID-19 perspective.
Recreational activities, frequency, observed changes

- Outdoor recreation in forest was popular also in wintertime, and **areas without specific recreational amenities** seemed to be visited by slightly higher number of people.
- There was evidence of **increased forest visits**, and outdoor forest areas served not only as "green spaces" but also as "social spaces", providing opportunities to meet people and to socialize during lockdown.
- Observed positive changes were related to **improved recreational infrastructure** and **cleanliness**. Neutral changes mostly referred to the **increased number of visitors**. Negative comments were mostly related to **forest felling** and **littering**.



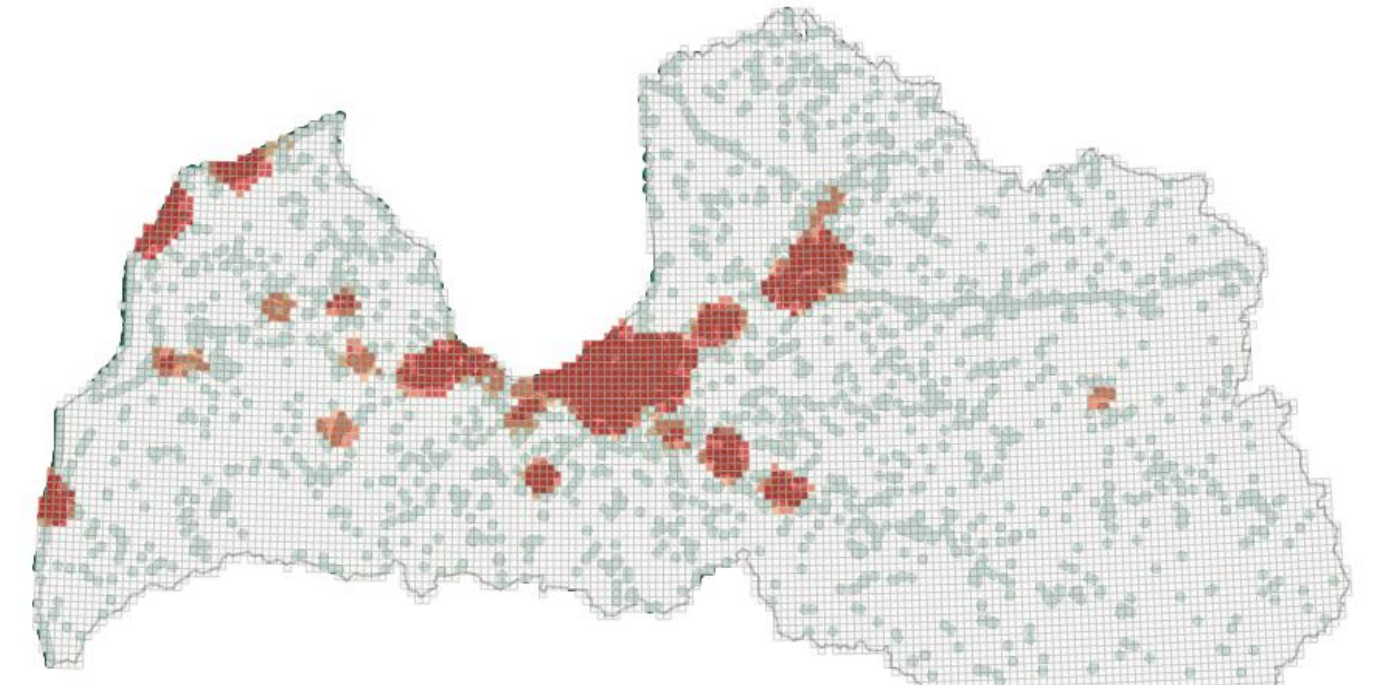
Recreational pressure in urban/peri urban forests

- 3 case study areas
- Recreational use (visitor counter data, surveys/interviews AND **social media (VGI)** analysis)
- Vegetation response and erosion
- Management challenges and conflicts (collaboration with area managers)



Potential use of geocaching

- Geocaching can be promising tool in twofold ways – from a **manager** view and a **visitor** view.
- Managers can use curated input of geocache visits (cache log entries) to monitor and gain alerts of **unfavourable conditions** (littering, broken infrastructure, accessibility issues).
- Organizations and stakeholders can leverage geocaches (physical or virtual) for **educational purposes** and to "**steer**" **visitor flows**.
- Log entries can be paragraphs length or short sentences, with pictures.
- Visitors gain a **gamified experience** of a nature area visit, and in the case of puzzle themed geocaches, **test their trivia knowledge** and **gain education** on environmental topics (for example).



👤 28/06/2022 By [Stitch u Co](#) (Found=15814 Hidden=73, as of 12/10/2022)
On our roadtrip through the baltic states we like to see a lot of the several countries. After we visited Riga, we now like to see something of the countryside of Latvia. We chose this beautiful trail along the Amata so we can hike and see much of the nature! The boxes (caches) we found well and we even swam in the Amata river, it is so hot outside that the temperature of the river is excellent! We liked it very much to hike and swim here in this beautiful part of Latvia, we had a lot of fun!

Thanks for making this trail and
many greetings
Stitch & Co

Code	Waypoint Name	Km	Placed By	Placed	Last GPX	Last Found	Container	Diff	Term	Last Log	DNF Date	Created	Found
GC7YAK3	Juglas meža	205.85 E	M.Meisvika	28/09/2019	04/12/2019	30/11/2019	1	2.0	2.0	30/11/2019		03/12/2019	
GC8JUDY	Meža pie Puteļu	149.01 E	FamilyAkaris	01/12/2019	05/12/2019	01/12/2019	1	1.5	2.0	01/12/2019		03/12/2019	
GC7P8H4	Oguru meža un dzimokļu/Og...	281.04 NE	sarkangalvite	06/05/2019	05/12/2019	17/11/2019	1	1.5	2.5	17/11/2019		03/12/2019	
GC8DYH5	Vienkāršs meža	208.44 E	davids321	22/09/2019	04/12/2019	04/12/2019	1	1.5	2.0	04/12/2019		03/12/2019	
GC78EKE	Dzīvnieku ezers un tā meža	270.63 E	Wireless2002	05/07/2017	05/12/2019	01/12/2019	1	1.5	2.0	01/12/2019		03/12/2019	
GC8YDCA	Eglu meža - MPE #10	222.15 E	Kaspis	29/06/2015	04/12/2019	02/06/2019	1	1.5	3.0	17/11/2019		03/12/2019	
GC7Z4Y2	Smeča meža	204.29 E	davids321 EMISS Sneak	17/10/2019	04/12/2019	25/11/2019	1	1.5	1.5	25/11/2019		03/12/2019	
GC82BZC	Galeozas meža	205.06 E	Mugers	02/01/2019	04/12/2019	01/12/2019	1	2.0	2.0	01/12/2019		03/12/2019	
GC7Z8PK	Suāksis Meža	203.45 E	VehaR	15/03/2017	04/12/2019	01/12/2019	1	2.5	1.5	01/12/2019		03/12/2019	
GC7YW2E	Meža	204.77 E	Mugers	09/12/2017	04/12/2019	19/11/2019	1	2.0	2.0	19/11/2019		03/12/2019	

Subst: Name Search 15 Shown (out of 4077) 0.4% 0

Centre point = home Counts: 15

GC7FW2E Meža

Type: Traditional | Size: Regular | Difficulty: ★★ | Terrain: ★★

By: [Mugers](#) (Found=59 Hidden=10, as of 05/12/2019) | Hide Date: 09/12/2017 | Status: Available

Country: Latvia

Coordinates: N56° 58.368 E24° 14.878 | Last updated: 04/12/2019 | Fav points: 0

Meža ir ekosistēma, kura domējoja augu forma ir koki, arī krūmi. Meža ekosistēma ietilpst arī pamežs un zemesdēze, ka arī tiem raksturīgi noteikti meža dzīvnieki. Lielā loma ir arī meža augšējā daļā esošajām bakterijām, aļģiem un zemenēm. Starp šiem organismiem pastāv komplicētas karības ķēdes.

Mežu kopplatība pasaule ir aptuveni 40 miljoni km² jeb 30,8 % no visas pasaules sauszemes platības, bet Latvija — ap 33 000km² (54 % no valsts teritorijas). Meži ir reģionos, kuros ir pietiekams gada nokrišņu daudzums, ka arī siltākajā gada mēnesī gaisa temperatūra ir vismaz +10 °C. Visvairāk mežu ir alpuos ēkatoram (mīklā tropu mež), kur sēdus un gaisa temperatūra neierobežo mežu augšanu. Citos biotopos tieši šie divi faktori ietekmē mežu lielumu, produktivitāti un bioloģisko daudzveidību.

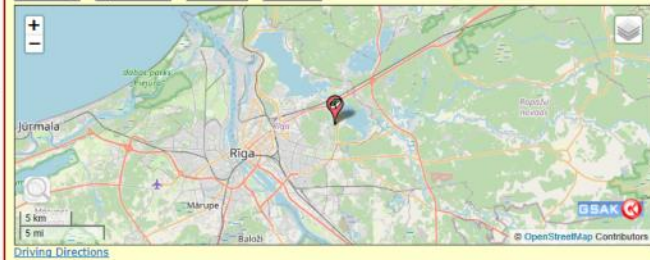
Custom URLs

[Add cache to watch list](#)

[Log your visit](#)

[Picture Gallery](#)

Hide Map | Splitscreen | Browser | Refresh




425 Logs: 422 1 1 1








Potential use of geocaching


- At the end of 2024 we created a geocache dedicated to **Life Goodwater IP project** and demonstration objects on-site.
- Looking after **log entries, pictures** and **statistics** over time.
- Potential ideas about hosting **Geocaching events** in this location (guided tour style) with focus group surveys in different seasons. 🗣️ 🌐 📺

sarkangalvite
Premium Member

👤 11427

👤 Found it 20.12.2024
{FTF} @ 10:10 20.10.24.
Izglītojošā un interesanta informācija par ūdens resursiem.
Paspēju visu izstaigāt/izbraukt starp lietavām. Kā jau autors minēja aprakstā, gumijas zābaki *must have* šajā periodā. Un vēlāms nekur nenobraukt no LVM ceļiem, lai pēc tam nebūtu jāiet pēc traktora. Ceļi pēc atkušņa pilnīgi šķidri, pirmais ko izdarīju iebraucot pilsētā - nomazgāju auto, citādi izskatījās kā pēc rallija Amazonas selvā lietus periodā :D:D
Vērtības skaidrās un nepārprotamas, LMT sakari ļāva bez problēmām iezāģināt čakeri un slēpņa paņemšana tālāk bija tīri tehnisks jautājums :)
Ar nožēlu secināju ka kreisais gumijas zābaks atkal ir caurs, būs jāapmeklē DEPO :D
Paldies par foršu pastaigu un muļķiku!
Izņemu ceļotāju.

P.S. Rakstot viesugrāmatu lkm aizmirsu ielikt kabatā savu rapitogrāfu, man liekas palika turpat pie slēpņa uz zemes vai kastē. Nākamais apmeklētājs var to paturēt sev!

 Sedimentarais dikis
 Age
 Finals!
 Ūdenskritums uz sedimentara dika
 Daba pret dabas taku!

 Great story (2)  Helpful

[View Log](#)



Zinātne Toras un Aģes upju krastos

A cache by shevijs [Message this owner](#) Hidden : 17.12.2024


Difficulty: ★★★★★
Terrain: ★★★★★

Size:  (small)

♥ 6 Favorites ▼

N 57° 24.207 E 024° 32.819 ✎
UTM: 35V E 352620 N 6364956

In Latvia
▲ N 59.3 km from your home location

 Print: [No Logs](#) [5 Logs](#) [10 Logs](#)  [Driving Directions](#)
 [Download GPX](#)

⚠ Please note Use of geocaching.com services is subject to the terms and conditions in our disclaimer.

Personal cache note






[Click to enter a note](#)

Geocache Description:






[LV] Lai uzlabotu virszemes ūdens stāvokli Latvijā, kopš 2020. gada tiek realizēts [Life Goodwater IP](#) projekts. Projekta aktivitātes tiek ieviestas 6 upēs un 3 ezeros, viena no tām ir Aģe un tās sateces baseins. Šī slēpņa ietvaros aicinu apmeklēt vairākas no šīm vietām un uzzināt par realizētajiem zilās un zaļās infrastruktūras pasākumiem dabā.

GCB1CX2 ▼

Log geocache

 [View all logs \(18\)](#)
 [View gallery \(11\)](#)
 [Watchers \(1\)](#)
 [Add to List](#) ✦
 [Ignore](#) ✦

Admin Tools

 [Update Coordinates](#)
 [Edit](#)
 [Upload Images](#)
 [Archive](#)
 [Disable](#)

Attributes



[What are Attributes?](#)

Other aspects of cultural ecosystem services from forests

- **Inspiration-related services** – art, cinema, literature (folklore).
- **Visual representation in marketing** (rural hospitality businesses)
- **Forest education-related services** – formal and informal education.

Pauliņa, I. and Libiete, Z., 2019. Analysis of landscape paintings to highlight the importance of forest ecosystem services in Latvia. In: *Research for Rural Development: Proceedings of the International Scientific Conference*, Vol. 1, pp.82-88. <https://doi.org/10.15544/RD.2023.039>

Lībiēte, Z., Jūrmālis, E., Pauliņa, I., Bārdule, A. and Gerra-Inohosa, L., 2023. Discussing indicators for some less studied cultural ecosystem services provided by forests: example from Latvia. In *Rural Development: Proceedings of the International Scientific Conference* (pp. 188-197).



1. 20 years ago (1965).
Ģederts Eliass, Zemgale



2. Sunny day in the forest (1962).
Kārlis Miesnieks, Vidzeme



3. Autumn (1976). Rūdolfs Pinnis, Vidzeme



4. Autumn (1968). Jāzeps Pīgoznis, Latgale



Guesthouse "Retumi" in the forest



Holiday house "Brīvdienu namiņš" in the forest



Guesthouse "Vecmuiža" in immediate vicinity of the forest



Hotel "Usmas SPA" in immediate vicinity of the forest



Camping "Apalkalns", no forest



Guesthouse "ID Camping Guest House" no forest

Thank you!



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