
THE DEVELOPMENT OF BORDER REGIONS

TOWARDS A CLASSIFICATION OF TRANSBOUNDARY TOURIST AND RECREATION MESOREGIONS IN THE BALTIC REGION

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Received 29.08.2021

doi: 10.5922/2079-8555-2022-1-5

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In the wake of the Covid-10 pandemic, the Baltic region saw a dramatic reduction in tourist flows in 2000—2021; the decrease was as much as tenfold in some destinations. This study aims to classify the 16 transboundary tourist and recreational mesoregions of the Baltic region according to 2019 tourist flows. The research evaluates, for the first time, the 2020—2021 decline in tourist flows across these regions. The main outcome of this study is grouping the mesoregions into three orders according to the size of 2019 tourist flows. Four mesoregions were assigned to the first order (with over 500,000 arrivals), three of them located in the southwest Baltic region; nine, the second order (from 100,000 to 500,000 arrivals); three, the third order (from 50,000 to 100,000 arrivals). The most substantial fall in tourist flows occurred in 2020—2021 in the mesoregins including Sweden and Russia and the least marked in those involving Denmark, Germany, Finland, Estonia and Latvia. The findings may help track the future restoration of transboundary tourist flows in the countries of the Baltic region.

Keywords:

cross-border region, hierarchy of regions, tourist flow, tourist overnight stays, COVID-19

Introduction

Cross-border tourism, like other types of tourism, faced a severe crisis in 2000—2021 when cross-border travel restrictions were in place to keep the Covid-19 pandemic at bay. In all the cross-border tourism-and-recreation regions

To cite this article: Manakov, A. G., Krasilnikova, I. N., Ivanov, I. A. 2022, Towards a classification of transboundary tourist and recreation mesoregions in the Baltic region, *Balt. Reg.*, Vol. 14, no. 1, p. 75–89.
doi: 10.5922/2079-8555-2022-1-5.

girdling the Baltic Sea, tourist flows decreased dramatically, probably tens of times. Today, it is difficult to answer the question as to how much time will be needed for the cross-border tourism and recreation regions to return to the peak values hit in 2019.

The study region covers, in whole or in part, territories of 11 countries, nine of which border the Baltic Sea directly. Norway and Belarus are also often included in the Baltic region [1, p. 68]. In our case, this addition is called-for because these two states and the 'Baltic region proper' share a border of considerable length [1, p. 74]. Thus, this study looks at the mesolevel cross-border tourism-and-recreation regions (CBTRR) found in the adjacent territories of the nine main countries of the Baltic region and along the external borders of the 'region proper'.

The focus of the study is the size of tourist flows in the Baltic CBTRRs in 2019–2021.

The research aims to produce quantitative criteria for classifying mesolevel CBTRRs in the Baltic region according to the 2019 tourist flow size, as well as to estimate the 2000–2021 tourist flow reduction caused by the Covid-19 pandemic.

To this end, the study achieves several objectives:

- identifying and delineating the borders of the Baltic region; classifying them according to the size of the 2019 tourist flow;
- evaluating cross-border tourism within the mesolevel CBTRRs from mid-2020 to mid-2021;
- grouping CBTRRs according to changes in tourism in 2020–2021 compared to 2019.

The study uses open-access data from the statistical services of the 11 countries (Norway¹, Sweden², Finland³, Denmark⁴, Germany⁵, Poland⁶, Belarus⁷, Rus-

¹ StatBank Norway, 2021, available at: <https://www.ssb.no/en/statbank/> (accessed 14.08.2021).

² Statistical database, 2021, *Statistics Sweden*, available at: <http://www.statistikdatabasen.scb.se/pxweb/en/ssd/> (accessed 14.08.2021).

³ Statistics Service Rudolph, 2021, *Visit Finland*, available at: http://visitfinland.stat.fi/PXWeb/pxweb/en/VisitFinland/VisitFinland__Majoitustilastot/visitfinland_matk_px-t_116n.px/ (accessed 14.08.2021).

⁴ StatBank Denmark, 2021, available at: <https://www.statbank.dk/statbank5a/SelectVarVal/Define.asp?Maintable=TURIST&PLanguage=1> (accessed 14.08.2021).

⁵ *Database of the Federal Statistical Office of Germany*, 2021, available at: <https://www-genesis.destatis.de/genesis/online?operation=sprachwechsel&language=en> (accessed 14.08.2021).

⁶ GUS — Bank Danych Lokalnych, 2021, *Statistics Poland*, available at: <https://bdl.stat.gov.pl/BDL/pomoc/stanzasilenia?active=2#> (accessed 14.08.2021).

⁷ Tourism, 2021, *National Statistical Committee of the Republic of Belarus*, available at: <https://www.belstat.gov.by/ofitsialnaya-statistika/realny-sector-ekonomiki/turizm/> (accessed 14.08.2021) (in Rus.).

sia⁸, Lithuania⁹, Latvia¹⁰ and Estonia¹¹) and the statistical services of three states of Germany: Schleswig—Holstein—Hamburg¹², Mecklenburg-Vorpommern¹³ and Brandenburg—Berlin¹⁴. We analysed regional monthly and quarterly data on international overnight stays or, if none, changes in monthly overnight stays in the country in general. For Belarus, yearly data for 2020 were used since the monthly data were not available.

State of research

An important factor in the integration of regions divided by a state border, cross-border tourism has been extensively studied over the past two decades [2; 3]. Researchers have explored this phenomenon in different parts of the Baltic region. Tourism at the Russian-Finnish border was examined by Antti Honkanen, Kati Pitkänen, Michael C. Hall [4], Svetlana Kondratyeva (née Stepanova) [5–7] and others; at the Finnish-Swedish border, by Eeva—Kaisa Prokkola [8; 9]; in the bordering areas of the Scandinavian countries (Norway, Sweden and Denmark) and Germany, by Leiv Opstad, Randi Hammervold, Johannes Idsø [10], Juliane Große, Christian Fertner and Trine Agervig Carstensen [11]; at the German—Polish border, by Marek Więckowski and Dallen J. Timothy [12]; at the Polish—Belarusian border, by Aliaksandr Cyargeenka [13], at the Polish—Russian border, by Renata Anisiewicz Tadeusz Palmowski [14], Tomasz Studzieniecki, Valentin Korneevets [15] and others.

Many Russian scholars have sought to delimit and investigate from different perspectives CBTRRs located at Russia's borders with Finland [16], Estonia, Latvia [17–19], Belarus [20], Lithuania and Poland [21]. Finally, one cannot

⁸ *EMISS. State statistics of Russia*, 2021, available at: <https://fedstat.ru/> (accessed 14.08.2021).

⁹ Indicators database, 2021, *Lithuania official statistics portal*, available at: <https://osp.stat.gov.lt/statistiniu-rodikliu-analize/> (accessed 14.08.2021).

¹⁰ Latvijas oficiālā statistika, 2021, *Oficiālās statistikas portāls*, available at: https://data.stat.gov.lv/pxweb/en/OSP_PUB/ (accessed 14.08.2021).

¹¹ Statistical database, 2021, *Statistics Estonia*, available at: <https://andmed.stat.ee/en/stat> (accessed 14.08.2021).

¹² Beherbergung im Reiseverkehr in Schleswig—Holstein, 2021, *Statistikamt Nord*, available at: <https://www.statistik-nord.de/zahlen-fakten/handel-tourismus-dienstleistungen/tourismus/dokumentenansicht/product/6304/beherbergung-im-reiseverkehr-in-schleswig-holstein-64?cHash=e5b8bab6e791dc5c9d95544f1e7eec26> (accessed 14.08.2021).

¹³ *Landesamt für innere Verwaltung Statistisches Amt. Mecklenburg-Vorpommern*, 2021, available at: <https://www.laiv-mv.de/Statistik/Zahlen-und-Fakten/Wirtschaftsbereiche/Gastgewerbe-und-Tourismus> (accessed 14.08.2021).

¹⁴ *Statistik Berlin Brandenburg*, 2021, available at: <https://www.statistik-berlin-brandenburg.de/archiv/g-iv-1-m> (accessed 14.08.2021).

but mention the works of Elena Kropinova [22; 23], who described mesolevel CBTRRs throughout the Baltic region. She identified the characteristics of CBTRR formation that this study builds on.

Earlier, we classified mesolevel CBTRRs according to the amount of travel. The classification was tested in the south-eastern Baltic region [24] and the CBTRRs involving Sweden [25]. When exploring the tourist flow geography in Sweden, we investigated the influence of the Covid-19 pandemic on tourism numbers in 2020. A more in-depth analysis of that impact, along with a study of changes in the spatial structure of the tourist flow, was carried out for Finland and Estonia [26].

Works examining the effect of the Covid-19 pandemic on an individual country or region are few (such a study was carried out in Poland in 2020, immediately after the coronavirus outbreak had been confirmed as a pandemic [28]). Therefore, this contribution classifies, for the first time, the mesolevel CBTRRs in the Baltic region according to the tourist flow size and examines the effect of the Covid-19 pandemic on the amount of travel in the CBTRRs in 2020–2021.

Results and discussion

Kropinova [23] proposed a CBTRR hierarchy consisting of three main levels: macro- (the Baltic macroregion), meso- and micro-. Earlier, we proposed a classification of mesolevel CBTRRs according to their maturity measured as a function of the number of border crossings within a CBTRR [24]. The classification employed quantitative criteria: a mesolevel CBTRR with over 500,000 border crossings was considered fully mature, with 100,000–500,000 crossings of above-average maturity and 50,000–100,000 crossings of average maturity. CBTRRs with below 50,000 crossings were assigned to the microlevel category. Overall, we identified six mesolevel CBTRRs [24]. Another six mesoregions identified at Sweden's borders with the other Baltic region states [25] were divided into three levels, or orders, depending on the amount of travel in 2019.

This study focuses on 16 mesolevel CBTRRs in the Baltic region (Table 1). The earlier described 12 mesolevel CBTRRs [24; 25] were supplemented with another two situated at the Russian–Finnish border [16]. A separate Swedish–Norwegian mesoregion was identified within the German–Danish–Swedish CBTRR, and a German–Polish region, not considered before, was added. To compare, Korneevets distinguishes 17 cross-border mesoregions in the Baltic region [29, p. 19], albeit of a very different composition. And Kropinova identifies only eight mesolevel CBTRRs [23, p. 120]. It is worth noting, however, that she concentrated on the eastern part of the Baltic region, describing only one mesolevel CBTRR with Swedish participation.

Table 1

The number of international overnight stays from mid-2020 to mid-2021 in a CBTRR; changes in the number of overnight stays from 2019 to 2020/2021; the order of a mesolevel CBTRR according to the tourist flow size in 2019

Name of a mesolevel CBTRR	International overnight stays, 1,000		Changes in the number of overnight stays from 2019 to 2020—2021, %	Arrivals in 2019 (estimate)	CBTRR; order according to 2019 tourist flow size
	2019	mid-2020 — mid-2021			
Swedish—Norwegian—Finnish	786.5	178.9	-77.2	391.7	2nd
Middle Swedish—Finnish	100.3	23.8	-76.3	50.5	3rd
Middle Swedish—Norwegian	376.3	22.1	-94.1	184.8	2nd
Southern Swedish—Norwegian	764.7	68.1	-91.1	378.3	2nd
South Sweden—Finnish	454.8	45.3	-90.0	214.8	2nd
Swedish—Norwegian—Danish	3383.4	590.0	-82.6	1439.1	1st
German—Danish—Swedish	6386.0	2688.6	-57.9	2089.5	1st
German—Polish	4220.5	1609.6	-61.9	1711.9	1st
Russian—Polish—Lithuanian	291.6	20.5	-93.0	121.1	2nd
Polish—Lithuanian—Belarusian	799.7	98.2	-87.7	356.3	2nd
Estonian—Latvian	318.3	154.0	-51.6	161.6	2nd
Russian—Estonian—Latvian	146.7	28.6	-80.5	70.7	3rd
Estonian—Finnish	1430.9	368.0	-74.3	732	1st
Russian—Estonian	459.5	20.1	-95.6	232.3	2nd
Russian—Finnish Northern	541.5	12.2	-97.7	242.7	2nd
Russian—Finnish Northern	147.1	1.9	-98.7	64.2	3rd

Source: prepared by the authors.

The 2019 tourist flow statistics for neighbouring countries were used to draw up a list of administrative units comprising the CBTRRs. After delineating the borders of the CBTRRs, we calculated the amount of cross-border travel within the confines of the region. The computation, however, was complicated by variance in the measures used in the tourist statistics of different countries. Not all

states keep track of arrivals by region, country of origin and month. Thus, statistics from different countries were compared based on data on overnight stays, which is more consistent. To put these measures on a single scale, we empirically calculated the factor of conversion of overnight stays into arrivals. There are enormous national differences (Table 2), but the average for the Baltic region was 2.65.

Table 2

**Factor of conversion of international overnight stays into arrivals
for Baltic region states**

Baltic region states	Factor of conversion of international overnight stays into arrivals
Estonia	1.94
Latvia	1.98
Lithuania	2.14
Poland	2.5
Germany	2.27
Denmark	4.04
Sweden	2.3
Norway	1.82
Finland	2.14
Russia	3.72
Belarus	4.33
Average for the Baltic region	2.65

Some countries do not publish sufficient statistics on overnight stays. Polish and Lithuanian regional statistics lack data on monthly changes in overnight stays and arrivals by country of origin (only the total number of international tourists is available). And the number of overnight stays was calculated for these two states, using relevant national monthly data. Since no monthly statistics were available for Belarus, the 2020 data were used instead for July 2020—2021. Nevertheless, the insignificant number of arrivals from Poland and Latvia makes this inaccuracy non-critical. Russian statistics on tourist accommodations do not differentiate according to country of origin, and only the total number of international tourists is available. The contributions of countries were computed using the measure ‘the number of tourists received’. The data on international tourist arrivals from the second quarter of 2020 suggest that the tourist flow from the study countries was next to zero at the time: the pandemic-related international entry restrictions were in place, and entry for tourism was forbidden altogether. Thus, the tourist flow to Russia in the study period is assumed to be zero.

This way, we estimated the number of arrivals for each of the 16 CBTRRs, using the 2019 data. Based on the estimate, the CBTRRs were assigned to three orders according to the above criteria: 1) first-order mesoregions with over 500,000 arrivals; 2) second-order mesoregions with 100,000—500,000 arrivals;

3) third-order mesoregions with 50,000–100,000 arrivals. The first-order category of mesoregions included four CBTRRs, three in the south-west of the Baltic region (with Danish and German participation) and one in the east (the Estonian–Finnish CBTRR). Three CBTRRs with a relatively low number of arrivals (Middle Swedish–Finnish, Russian–Finnish northern and Russian–Estonian–Latvian) were classified as third-order mesoregions. All the other CBTRRs were assigned to the second-order category (Fig. 1).

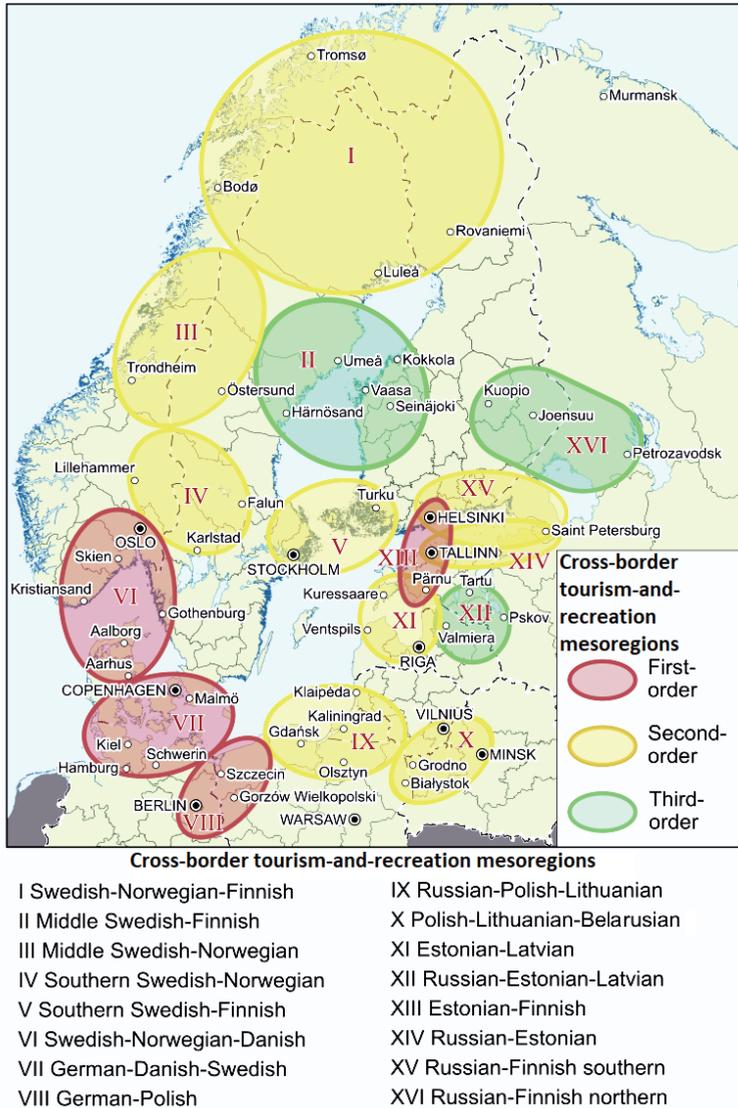


Fig. 1. Classification of mesolevel CBTRRs according to 2019 tourist flows

Source: prepared by I. A. Ivanov.

According to arrivals, the most numerous second-order category of mesoregions can be divided into two groups: 1) from 300,000 to 500,000 arrivals; 2) from 100,000 to 300,000. The first one includes three CBTRRs: Swedish—Norwegian—Finnish, Southern Swedish—Norwegian and Polish—Lithuanian—Belarusian. The two former are located westward of the Baltic Sea, the latter eastward. In all of them, tourism transpires only across the land borders. And the second group brings together the other six second-order CBTRRs.

All the 16 mesolevel CBTRRs within the Baltic region will be characterised below.

I. The Swedish—Norwegian—Finnish second-order mesoregion (390,000 in 2019) includes Norrbotten (Sweden), Lapland (Finland), Troms and Finnmark (Norway) and the northern part of Nordland (Norway). In the structure of the cross-border tourist flow, Norwegians account for 56 per cent of arrivals, Swedes and Finns 22 per cent each. Most visitors travel from Norway to Sweden (Norwegians account for 47 per cent of all overnight stays in Sweden's Norrbotten). The CBTRR is the northernmost and the largest by area in the Baltic region. It specialises in shopping tourism (prices in Norway are higher than in Sweden and Finland), cultural and educational travel and sports tourism (ski resorts in Lapland).

II. The Middle Swedish—Finnish third-order mesoregion (50,000 arrivals in 2019) consists of the eastern part of Sweden's Westerbotten and the Finnish provinces of Ostrobothnia, Central Ostrobothnia, South Ostrobothnia and Satakunta. Finns account for 58 per cent of the cross-border tourist flow, Swedes for 42 per cent. The region is divided by the Kvarken Strait in the Gulf of Bothnia; there are many ferry connections. Swedish is widely spoken in the Finnish part of the region. The specialisation of the CBTRR is cultural and educational tourism.

III. The Middle Swedish—Norwegian second-order mesoregion (185,000 arrivals in 2019) includes Sweden's Jämtland and western Västerbotten (Sweden) and Norway's Tryndelag and southern Nordland. Norwegians comprise 80 per cent of the cross-border tourism, Swedes 20 per cent. The specialisation of the region is shopping tourism.

IV. The Southern Swedish—Norwegian second-order mesoregion (about 380,000 arrivals in 2019) consists of Dalarna, Värmland (Sweden) and the eastern part of Inlandet (Norway). Norwegians account for 75 per cent of the travel in the CBTRR, Swedes for 25 per cent. The region specialises in shopping tourism.

V. The Southern Swedish—Finnish second-order mesoregion (215,000 arrivals in 2019) brings together Stockholm and Uppsala Counties (Sweden), as well as the provinces of Åland and Varsinais—Suomi (Finland). Finns account for 55 per cent of the cross-border travel, Swedes for 45 per cent. The region, whose constituents of the CBTRR are linked by ferry, specialises in cultural and educational travel and cruises.

VI. The Swedish—Norwegian—Danish first-order mesoregion (over 1.4 m arrivals) includes Västra Götaland (Sweden), North Jutland, Central Jutland (Denmark), Oslo County, Vestfold and Telemark, Agder and the eastern part of Viken County (Norway). Norwegians comprise 60 per cent of the tourism flow, Swedes 24 per cent and Danes 16 per cent. The visitors travel across the Kattegat and Skagerrak by ferry. The specialisations of the region are cultural and educational travel, cruises and beach tourism.

VII. The German—Danish—Swedish first-order mesoregion (over 2 m arrivals) consists of Hovedstaden (the Capital Region), Zealand, Southern Denmark (Denmark), Skåne County (Sweden), Schleswig—Holstein, Hamburg and Mecklenburg—Vorpommern (Germany). Germans comprise 49 per cent of the cross-border travel, Swedes 26 per cent, Danes 25 per cent. The CBTRR specialises in cultural and educational, as well as beach, tourism.

VIII. The German—Polish first-order mesoregion (above 1.7 m arrivals) consists of the German states of Berlin and Brandenburg and Poland's Western Pomerania and Lubusz. Germans account for 86 per cent of the tourist flow, Poles for 14 per cent. The specialisations of the region are cultural and educational travel and beach tourism.

IX. The Russian—Polish—Lithuanian second-order mesoregion 'South-eastern Baltic' (120,000 arrivals) consists of Russia's Kaliningrad region, Poland's Pomeranian and Warmian—Masurian Voivodeships and Lithuania's Klaipėda, Tauragė and Marijampolė Counties. In the CBTRR, Russians account for 68 per cent of the travel, Lithuanians for 18 per cent, Poles for 14 per cent. The region specialises in shopping tourism, as well as cultural and educational travel.

X. The Polish—Lithuanian—Belarusian second-order mesoregion (over 350,000 arrivals) includes Podlasie Voivodship (Poland), Grodno, Minsk, parts of the Minsk and Brest regions (Belarus) and Vilnius and Alytus Counties (Lithuania). Belarusians account for 57 per cent of the tourist flow, Poles for 36 per cent, Lithuanians for 7 per cent. The CBTRR specialises in shopping tourism and cultural and educational travel.

XI. The Estonian—Latvian second-order mesoregion (160,000 arrivals) includes Latvia's Riga, Riga region and Ventspils, Estonia's Saaremaa and Pärnumaa Counties. Estonians account for 73 per cent of the cross-border travel, Latvians for 27 per cent. The island of Saaremaa is linked to mainland Estonia by ferry. The Ventspils—Saaremaa ferry line operated until 2008. The region specialises in cultural and educational travel, as well as beach tourism.

XII. The Russian—Estonian—Latvian third-order mesoregion (70,000 arrivals) comprises the Pskov region (Russia), the Vidzeme region, the town of Sigulda (Latvia) and Tartumaa, Põlva, Võru and Valga Counties (Estonia). Latvians account for 46 per cent of the tourist flow, Russians for 44 per cent, Estonians for 10 per cent. The specialisations of the region are cultural and educational tourism.

XIII. The Estonian—Finnish first-order mesoregion (730,000 arrivals) includes Finland's Uusimaa and Estonia's Harju, Lääne, Rapla and Pärnu Counties. Finns comprise 92 per cent of the tourist flow, Estonians 8 per cent. The Estonian and Finnish parts of the CBTRR are connected by air and ferry services. The specialisations of the region are cultural and educational travel and shopping tourism.

XIV. The Russian—Estonian second-order mesoregion (230,000 arrivals) consists of St Petersburg, part of the Leningrad region (Russia), Ida—Viru, Lääne—Viru and Harju Counties (Estonia). Russians account for 96 per cent of the tourist flow, Estonians for 4 per cent. The region specialises in cultural and educational travel, as well shopping tourism.

XV. The Russian—Finnish southern second-order mesoregion (240,000 arrivals) includes St Petersburg, part of the Leningrad region (Russia), South Karelia, Kymenlaakso, Päijät—Häme, Uusimaa and South Savo (Finland). Russians comprise 90 per cent of the tourist flow, Finns 10 per cent. The specialisations of the region are cultural and educational travel and shopping tourism.

XVI. The Russian—Finnish northern third-order mesoregion (about 65,000 arrivals) comprises the southern part of the Republic of Karelia (Russia), North Karelia, Northern Savo and the northern part of Southern Savo (Finland). Russians account for 84 per cent of the tourist flow, Finns for 16 per cent. The specialisations of the region are shopping tourism and cultural and educational travel.

These characteristics illuminate a striking feature of mesolevel CBTRRs — the asymmetry in arrivals from the neighbouring country. This disparity is often due to differences in the populations of countries comprising a CBTRR. Almost all CBTRRs are asymmetric to a degree, but, in some areas, the imbalance is extravagant. These are the Russian—Estonian and Russian—Finnish southern second-order and the Estonian—Finnish first-order mesoregion. In the former, the balance is tilted towards Finland; in the latter two, towards Russia.

To quantify the effect of the Covid-19 pandemic on the tourist flows in the CBTRRs, we compared changes in travel in the Baltic region in January—December 2019 and July 2020—June 2021. These intervals were selected because of the trends in 2020 tourist flows and their structure: from January to March, the values were very similar to 2019 (although travel declined as early as March 2020, its structure remained almost the same as before); from April to June, lockdowns were in effect in most countries; only in June 2020, some of the restrictions were lifted to allow travel from selected states at the discretion of the authorities of the country of destination.

The most precipitous decline was observed in the CBTRRs with Swedish and Russian participation (Fig. 2). Russians could not enter the EU freely, particularly for tourism, whilst the entry of Swedish citizens to many parts of the Union was restricted because of the Nordic state's refusal to impose a lockdown and a high morbidity rate in that country. The mesolevel regions with the highest rate of

tourist flow decline (above 95 per cent) in 2020–2021 compared to 2019 were the Russian–Estonian and two Russian–Finnish CBTRRs. A 90–95 per cent reduction was observed in the Russian–Polish–Lithuanian, Southern Swedish–Finnish, the Middle and Southern Swedish–Norwegian CBTRRs. The decrease ranged from 80 to 90 per cent in the Swedish–Norwegian–Danish, Polish–Lithuanian–Belarusian and Russian–Estonian–Latvian CBTRRs.

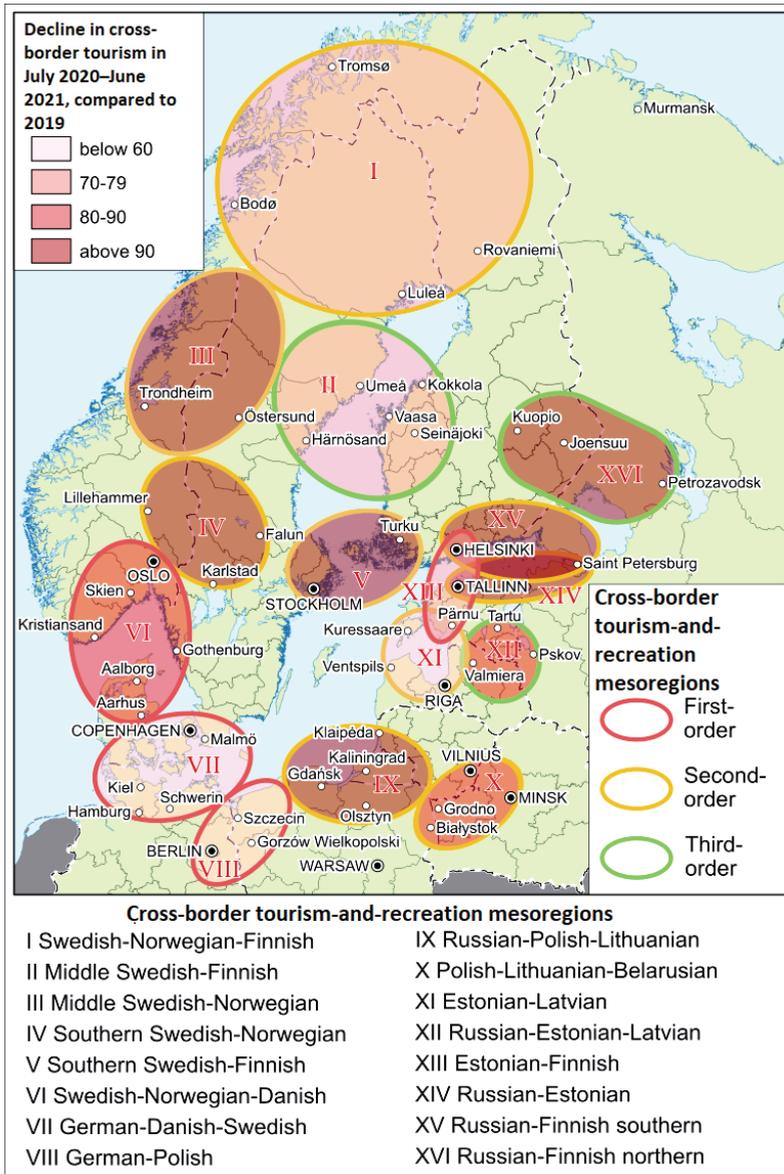


Fig. 2. Mesolevel CBTRRs grouped according to the tourist flow decline in July 2020–June 2021, compared to 2019

Source: prepared by I. A. Ivanov.

During the COVID-19 pandemic, the travel in the Estonian—Finnish, Swedish—Norwegian—Finnish and Middle Swedish—Finnish CBTRRs fell by about three-thirds. The Estonian—Latvian and German—Danish—Swedish CBTRRs saw a one-third reduction on the normal travel.

The tourist flow decline was the gentlest in the CBTRRs involving Denmark, Germany, Latvia, Estonia and Finland. The latter three countries participated in the experiment dubbed the Baltic Bubble, which allowed free travel across several states without the need to self-isolate. At first, the Bubble involved only the Baltics, joined later by Finland and Poland.

Conclusion

The study has described 16 cross-border tourism-and-recreation mesoregions in the Baltic region and, using the 2019 data, estimated the number of arrivals from the neighbouring countries. The mesolevel CBTRRs were assigned to three orders based on the results obtained. The first-order category of mesoregions with over 500,000 arrivals includes four CBTRRs, three in the south-west of the Baltic region (with Danish and German participation) and one in the east (the Estonian—Finnish CBTRR). The most numerous category comprises second-order mesoregions with 100,000—500,000 arrivals. It consists of nine CBTRRs. Three CBTRRs (Middle Swedish—Finnish, Russian—Finnish northern and Russian—Estonian—Latvian) make up the third-order category (50,000—100,000 arrivals). Changes in tourism within the CBTRRs between January—December 2019 and July 2020—June 2021 were analysed to quantify the effect of the Covid-19 pandemic on travel in the regions. The CBTRRs involving Sweden and Russia saw the most precipitous decline, whilst the decrease was the slightest in the CBTRRs with Danish, German, Latvian, Estonian and Finnish participation. The latter three countries, Lithuania and Poland, joined the Baltic Bubble experiment, which allowed free travel across the five states without self-isolating

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