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RECEIVED 16 November 2024
ACCEPTED 21 January 2025
PUBLISHED 13 February 2025

CITATION
Calvén A, Beery T, Kristofers H, Johansson M,
Carlbäck M and Wendin K (2025) Outdoor
recreation, nature-based tourism and food:
experiences and adaptations in the hospitality
industry during the COVID-19 pandemic—a
review. *Front. Sustain. Tour.* 4:1529233.
doi: 10.3389/frsut.2025.1529233

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Outdoor recreation, nature-based tourism and food: experiences and adaptations in the hospitality industry during the COVID-19 pandemic—a review

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During the COVID-19 pandemic, participation in outdoor recreation increased in several countries, with nature taking on an expanded role as a social space for meetings and activities with food. This development may have created opportunities for nature-based hospitality providers to navigate the pandemic crisis. This review examines how food and eating were part of outdoor recreation and nature-based tourism during COVID-19, focusing on hospitality providers in rural Sweden. A literature search was performed for research articles, newspapers, and magazine articles. The results show creativity in adapting to new outdoor and nature tourism situations. The main findings that emerged focused on local and national guests, preventing the spread of infection, food as part of the experience in nature, experience packages, comfort, local food, food trucks and takeaway food, and other hospitality industry changes. Trends observed before COVID-19 but accelerating during the pandemic were also highlighted. Further research is needed to improve our understanding of food as part of outdoor recreation and nature-based tourism and how this knowledge can support sustainable thinking in the hospitality sector while contributing to resilient rural development.

KEYWORDS

COVID-19 pandemic, friluftsliv, nature-based outdoor recreation, resilience, rural tourism, Sweden

Introduction

In March 2020, the World Health Organization officially declared the novel coronavirus (COVID-19) outbreak a global pandemic (Cucinotta and Vanelli, 2020). The restrictions imposed during COVID-19 significantly impacted people's daily lives across the globe, forcing people to find ways to adapt to the new situation (Sawicka et al., 2024). For many people, the outdoor environment was perceived as a safer place for activities, and the number of participants in outdoor recreation increased during this period (Hansen et al., 2023; Ferguson et al., 2022; White et al., 2020). At the same time, COVID-19 led to an abrupt halt in international nature-based tourism due to restrictions, lockdowns, and closures of protected areas (Spenceley et al., 2021). The absence of international visitors, in turn, led to a decline in economic activity, affecting millions of people around

the world (Newsome and Perera, 2023). Unlike many other countries, however, Sweden did not impose a general lockdown during the COVID-19 pandemic. Instead, periods of restrictions were implemented, such as recommendations to work from home, keep a social distance, and avoid public transport (Andersson and Aylott, 2020). In response, people found activities and ways of socializing aligned with these guidelines in their daily lives and during their holidays (Östh et al., 2023; Eklund et al., 2022). Not least, the increase in outdoor recreation was accompanied by a growing trend of eating outdoors in natural settings (Hedenborg et al., 2024). In a study by Andersson et al. (2021), almost half of the survey participants stated that their Outdoor Recreation habits had increased during COVID-19. Similar results were noted by Hansen et al. (2023), where people who never or rarely spent time in nature before COVID-19 had extended their stay in nature and stated that these new habits were likely to continue after COVID-19 (Hansen et al., 2023). From a commercial perspective, this development may have allowed hospitality providers operating in the Swedish nature and rural sectors to capitalize on these new trends.

The following review examines the role of food and eating in outdoor recreation and nature-based tourism during COVID-19, with a particular focus on hospitality providers in Sweden. Sweden provides a valuable context given the high level of OR research (e.g., consider the research hub FRILUFTSFORSKNING.SE, an initiative at Mid Sweden University designed to create a national node for knowledge about outdoor life and nature tourism in Sweden), coupled with a highly active OR pandemic era research environment (e.g., Beery, 2020; Beery et al., 2021; Hansen et al., 2023; Hedenborg et al., 2024). Researchers in Sweden responded to the COVID-19 pandemic quickly in hopes of learning from the disruption. Insights into what enabled some hospitality providers to survive or even thrive can support ongoing post-disruption efforts; ultimately, these insights will strengthen resilience to future disruptions in Sweden and other similar contexts. The Background sections of *Outdoor recreation and nature-based tourism, Food as part of the nature experience, Links to sustainable development, and From COVID-19 to sustainable futures* will provide an overview of this investigation into outdoor recreation (OR), nature-based tourism (NBT), and food hospitality and provide a foundation for the review of research.

Background

Outdoor recreation and nature-based tourism

Sweden offers a uniquely favorable context for nature experiences through the right of public access, known as *Allemansrätten*, which gives visitors relatively unrestricted access to nature without specific area restrictions or entrance fees (Sandell and Fredman, 2010). This access is deeply rooted in Sweden's long tradition of OR (*friluftsliv*), which the Swedish Environmental Protection Agency (SEPA) describes as being characterized by *simplicity, focusing on being outdoors in natural and cultural landscapes for well-being and nature experiences without the expectation of competition* (2023). OR can include a range of contexts and experiences with nature, ranging from



urban green spaces to remote and less developed wildlands, and everyday experiences to high adventure. In brief, OR is based on the interaction between people and nature, creating individual experiences and different values for different people (Himes et al., 2024; Swedish Environmental Protection Agency [SEPA], 2023). Similar to OR, nature-based tourism (NBT) is a rather broad concept with many different definitions (Mandić and Walia, 2023), but it usually refers to a type of tourism that takes place in a natural environment and focuses on experiencing natural attractions (Mandić and Walia, 2023; Fredman and Tyrväinen, 2010). Buckley and Coghlan (2012) use it to describe both consumptive and non-consumptive adventure activities potentially inclusive of ecotourism and conservation tourism. The concepts of OR and NBT are commonly interlinked, and NBT activities are often based on OR that has historically been provided for free or at low cost (Tangeland, 2011). In a recent study by Margaryan and Fredman (2017), the commercialization of OR is described as an ever-growing and diversifying process, observed both in Nordic countries and globally.

It should be noted, however, that NBT is occasionally used as a synonym for ecotourism, adventure tourism, and wilderness tourism, among others (Dawson, 2001; Mandić and Walia, 2023). To summarize, the characteristics of NBT are not always straightforward to describe. In this review, however, we conceptualize NBT as the link between tourism, OR, and natural settings (Figure 1). In addition, we refer to a definition provided by the Swedish organizations The NBT Entrepreneurs, The Swedish Tourism (STF), and Vista (2018), describing NBT as *displaced consumption in the form of activities, places to stay, meals and other tourism services where the nature experience itself is at the centre*.

Food as part of the nature experience

Another behavioral change observed during COVID-19 was increased eating outdoors, with the natural environment providing an important place for socializing around meals (Hedenborg et al., 2024). However, research on food within the context of OR and NBT is limited and generally concentrates on energy and nutrition for extended hikes or physically demanding activities (Weiss et al., 2023; Hesterberg and Johnson, 2013; Beery et al., 2021). Nevertheless, previous research has described food as essential to the tourism system. Food is vital because tourists must eat and because food is a central part of their experience (Hall and Sharples, 2004; Mossberg and Eide, 2018). Mossberg and Lindberg (2021) highlight that meals consumed during extraordinary nature-based experiences can significantly impact the consumer's perception of and immersion in the trip, thus contributing to the overall experience. Therefore, the design of meals should be prioritized for their functional necessity and as a contrast to the challenging journey. In addition, food can contribute an element beyond the nature-based activity itself, adding a dimension that is experienced through all the senses (Visit Halland, 2021).

Links to sustainable development

The intersection of food and NBT provides a tremendous opportunity to consider sustainability from numerous perspectives; for example, COVID-19 was a stark reminder of the importance of nature experiences and OR for human wellbeing. Regular OR and physical activity in nature may contribute to disease and illness prevention and promote health and learning, generating socio-economic benefits (Faskunger, 2020). Moreover, OR can positively impact local and regional economies through tourism, which creates local and regional job opportunities both on its own and in cooperation with other actors, with the potential to develop sustainable destinations (Swedish Environmental Protection Agency [SEPA], 2021). Furthermore, OR as part of NBT fits well within a wide range of natural and cultural preservation efforts, from the conservation of biodiversity to the importance of OR and tourism economies in their role of promoting community wellbeing (Beery, 2019; Beery and Jönsson, 2017; Cerveny et al., 2022; Winter et al., 2019). From a Swedish perspective, The Swedish Tourism Association (STF) is a leader in promoting sustainable NBT practices (Ewigleben, 2020).

Another source of sustainability inspiration for the combination of food and NBT is the work of UNESCO Biosphere Reserves. Biosphere Reserves aim to model sustainability and biodiversity in place-specific ways (Pollock, 2009). Regarding NBT, we see a range of efforts combining food, NBT, and sustainability in Biosphere Reserve programs and research. For example, research from the Bačko Podunavlje Biosphere Reserve in Serbia indicated that local residents were positive about sustainability efforts and that these efforts included a focus on food (Cvetković et al., 2023; Trišić et al., 2021). Another example is the efforts to support food diversity and security in concert with responsible tourism in Thailand's Chiang Dao Mountain Biosphere Reserve (Amloy et al., 2024). A wealth of other NBT/food and sustainability linkages can be found in the scientific literature on Biosphere Reserves over the

past 20 years (e.g., Brenner et al., 2008; Mondino and Beery, 2019; Thao et al., 2023).

International goals are yet another aspect of UNESCO's work that is directly relevant to the sustainability of this intersection of NBT, food, and COVID-19. The 17 Sustainable Development Goals of Agenda 2030 are important in shaping policy agendas for sustainable tourism development (Hall, 2021), particularly in creating positive economic, environmental, and socio-cultural synergies. Of relevance here are the specific Sustainable Development Goals (SDGs) of #3 Good health and wellbeing, SDG #8 Decent work and economic growth, SDG #11 Sustainable cities and communities, SDG #12 Sustainable consumption and production, SDG #13 Climate action, and SDG #15 Life on land (United Nations, 2021). However, sustainable tourism development relies on the active involvement of all relevant stakeholders, supported by strong political leadership, to encourage broad participation and build consensus [The United Nations Environment Programme (UNEP), 2005]. It is an ongoing process that includes identifying potential environmental and social impacts and developing strategies to manage them. It also requires basic knowledge about visitors, such as their experiences, reasons for visiting, and activities undertaken (Newsome et al., 2012).

From COVID-19 to sustainable futures

In response to the challenges brought by the outbreak of COVID-19, there has been great creativity and innovative thinking in the hospitality industry crisis (Dahlke et al., 2021; Höga Kusten [The High Coast of Sweden], 2020; Von Essen, 2021). However, a practical overview of adaptations is missing. Professionals working with rural OR and NBT in combination of food during COVID-19 may have unique experiences and perspectives that can be useful for the future of the hospitality industry. For example, when OR managers were interviewed about their experience as managers during COVID-19, professionals in southern Sweden had numerous creative ideas for moving forward from disruption, i.e., using the disruption experience to support future OR resilience from a natural resource management perspective (Beery et al., 2021). In this spirit of looking forward, this current literature review was conducted to explore what else has been learned during COVID-19 in hopes of further contributing to societal resilience, i.e., how can the hospitality industry bounce forward from disruption to a stronger state of operation. Simply stated, this review aims to provide a systematic overview of COVID-19 response outcomes in hopes of supporting a more resilient future for the intersection of OR and hospitality.

This literature review is intended to provide an overview of the role of food and eating in OR and NBT during COVID-19. A particular focus will be given to hospitality providers in Sweden. The review is part of the project *Outdoor recreation, nature-based tourism, and food: From COVID-19 to sustainable futures for hospitality and rural development*. The project aims to analyze how the combined experiences of OR, NBT, and the hospitality industry, primarily food, during COVID-19 can contribute to sustainable transitions in the rural hospitality industry. This review provides a foundation for other parts of the overall project.

Methodology

Literature search

A literature search of research articles, reports, newspapers, and magazine articles inspired by a systematic scoping review methodology was conducted to provide a picture of the relatively unexplored area of rural OR, NBT, and food during COVID-19. Scoping reviews are commonly used to provide an exploratory overview of a topic and are suited when an area is complex or has yet to be thoroughly reviewed. Moreover, scoping reviews usually consider different study designs to establish the range of available data regardless of their quality (Arksey and O'Malley, 2005; Peters et al., 2015). This scoping review followed the steps suggested by

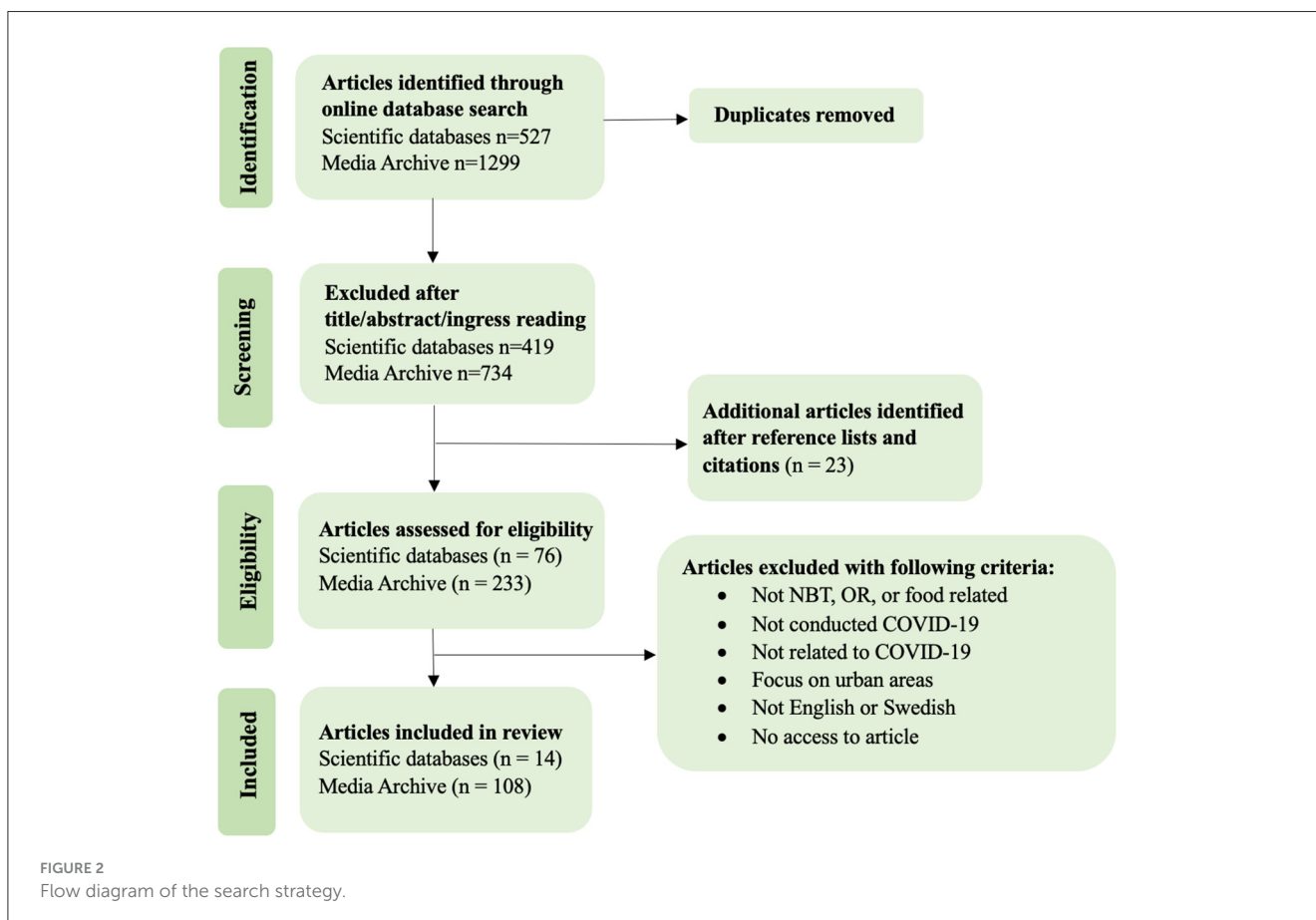
Arksey and O'Malley (2005): (1) identifying the research question, (2) identifying relevant literature, (3) study selection, (4) charting the data, (5) collating, summarizing, and reporting the results.

The Scopus and Science Direct databases were selected to support a rigorous review of the available academic scholarship on this topic. For newspaper and magazine articles, The Media Archive (Mediearkivet) was used, a digital Nordic news archive. This archive is comprised of a database containing material from Swedish newspapers, magazines, news reports and broadcasts, both print and web-based, which was the result of a project initiated by the National Library of Sweden with the intent to digitalize all Swedish print media. Note, the use of The Media Archive supported a fresh understanding of the complex nature of the adaptations to the pandemic made by outdoor recreation and food hospitality professionals (Schweinsberg et al., 2017).

Two critical criteria were used for the inclusion of research articles and reports: the investigation was conducted during the time COVID-19 was officially classified as a pandemic in Sweden (1 February 2020–1 April 2022), and all articles and reports were focused on rural OR or NBT coupled with food. The article search period was limited to 6 months after COVID-19 was no longer classified as a threat to Swedish public health and a danger to Swedish society. In addition, the research articles had no geographical limitation, but the newspaper and magazine articles were all related to Sweden. The literature search was conducted in October 2022, with follow-up searches of the research databases in October 2023 and September 2024. The final search terms selected

TABLE 1 Search terms selected for literature search in the research databases and the Media Archive.

Research databases	Media Archive
("outdoor recreation*" OR "nature-based tourism*" OR "extraordinary experience*" OR "nature-based experience*" OR "adventure tourism*" OR hiking* OR ecotourism* OR "rural tourism*") AND (food* OR meal* OR restaurant* OR café* OR picnic*) (2020–2024, Title, abstract, keywords, research articles, review articles).	(food* OR meal* OR café* OR restaurant* OR foodtruck*) AND (natur-based tourism OR friluftsliv OR nature-based experiences*) AND (pandemic OR COVID-19 OR corona) (1 February 2020–1 October 2022 Swedish, printed press, web).



after exploratory searches using different keywords are presented in [Table 1](#). In addition, the search also included reading reference lists and tracking suggestions made by the databases ([Wohlin, 2014](#)). The literature was searched and screened using Excel 365 and Endnote version 20. An overview of the literature search is described in [Figure 2](#).

Analysis

The search produced 527 studies in the research databases and 1,299 articles in the Media Archive, of which 14 and 108, respectively, were included in the review. The main results of each study and the findings relevant to this literature review were organized in an Excel spreadsheet ([Table 2](#)). Findings from the articles in the media archive that were relevant to this research were also organized in Excel. The findings were processed using [Braun and Clarke's \(2006\)](#) thematic analysis process. This first involved familiarization with the findings, from which initial codes, which were directly linked to OR, NBT and food during COVID-19, were generated and recorded on Microsoft Excel. These codes were then reviewed and grouped into relevant themes.

From the research database:

1. *The importance of a safe experience*
2. *Meeting the different preferences of visitors*

From the Media Archive:

1. *Local and national guests*
2. *Preventing the spread of infection*
3. *Food as part of outdoor activities in nature*
4. *Experience packages and service/comfort*
5. *Local food*
6. *Food trucks and take away-food*
7. *Other changes in the hospitality industry*

To manage researcher bias the researcher kept a well-defined and concise inclusion and exclusion criteria based on the research objectives. The researcher also selected data from a wide range of sources, i.e., scientific articles, and traditional print media, in order avoid selecting sources based on the personal preferences or assumptions.

Results

Research databases

Overall, the interaction between rural OR, NBT, and food during COVID-19 remains a relatively unexplored area of research. A summary of the articles is presented in [Table 2](#). Main findings focus on the importance of a safe and secure experience during COVID-19 and how to meet the different preferences of visitors.

The importance of a safe experience

Several studies highlighted nature as an opportunity for safe experiences during COVID-19 ([Ertuna et al., 2023](#); [Hedenborg et al., 2024](#); [Hansen et al., 2023](#); [Humagain and Singleton, 2021a](#)). However, having COVID-19 practices in destinations and following COVID-19-related public health guidelines was essential for overall satisfaction and perceived value, which was also crucial for the hospitality industry around the destination, such as the accommodation and food sectors ([Humagain and Singleton, 2021b](#)).

2021a). However, having COVID-19 practices in destinations and following COVID-19-related public health guidelines was essential for overall satisfaction and perceived value, which was also crucial for the hospitality industry around the destination, such as the accommodation and food sectors ([Humagain and Singleton, 2021b](#)).

Meeting the different preferences of visitors

[Ajuhari et al. \(2023\)](#) found that visitors had different motivations for visiting a national park during COVID-19. Repeat visitors were more likely to engage in nature-related activities, while first-time visitors mainly traveled with family and friends, with hiking and picnicking being the main activities. [Ertuna et al. \(2023\)](#) highlighted different dimensions of travelers' preferences for NBT experiences, with the majority stating that nature was the primary motive; however, interest in the rural lifestyle and experiencing local food and culture was also mentioned by almost 35% of respondents. The activity component was also emphasized, where learning experiences such as cooking or yoga classes could be incorporated. Destinations should, therefore, develop activities that meet the preferences of different groups to enhance the recreational experience ([Ajuhari et al., 2023](#)) and develop trail infrastructure and tourism facilities to attract diverse visitors ([Lukoseviciute et al., 2023](#)). [Cheng et al. \(2022\)](#) suggest improvements by providing more varied and affordable food and interactive activities. In turn, highlight the need for food and accommodation packages, but with appropriate measures for physical distances.

The Media Archive

[Table 3](#) presents the themes that emerged from the analysis of the newspaper and magazine articles. The following results sections provide a summary and examples of these different themes.

Local and national guests

Due to lockdowns and restrictions implemented during COVID-19 and the loss of international customers, companies focused on adapting their businesses to local and national customer groups. Experience packages were adapted to target Swedish tourists, as well as marketing strategies and websites. The concept of "staying at home" was emphasized, meaning staying at home and exploring one's surroundings as a tourist, but also referring to holidays in one's own country. COVID-19 was a challenging period for many businesses in the NBT sector. Many lost international customers and had to adapt to the new situation, sometimes even closing parts of their business and laying off staff. Meanwhile, some businesses benefited from the increased interest from national and local visitors and reported that their business focus was on track. The following quote from the [Ystads Allehanda \(2020\)](#) illustrates how the pandemic affected an entrepreneur who offers combined hiking and cooking experiences to her guests:

TABLE 2 Summary of the reviewed studies (n = 14).

Article	Aim/objectives
Ajuhari et al. (2023). Characteristics of attached visitors in ecotourism destination. <i>Journal of Outdoor Recreation and Tourism</i> .	To understand the travel motivation and behavior of visitors with different levels of place attachment in Penang National Park.
Brune et al. (2023). Family farms’ resilience under the COVID-19 crisis: Challenges and opportunities with agritourism. <i>Land Use Policy</i> .	To examine family farms evolving challenges and coping strategies to COVID-19 in North Carolina, US
Cheng et al. (2022). Visitor satisfaction and behavioral intentions in nature-based tourism during the COVID-19 pandemic: A case study from Zhangjiajie National Forest Park, China. <i>International Journal of Geoheritage and Parks</i> .	To provide insight into visitor satisfaction at Zhangjiajie National Forest Park (ZNFP) during COVID-19 and understand how environmentally-responsible behavior intentions can be influenced by a park visit.
Chin and Pehin Dato Musa (2021). Agritourism resilience against Covid-19: Impacts and management strategies. <i>Cogent Social Sciences</i> .	To assess the impacts and management strategies of agritourism in Brunei in the context Covid-19.
Ertuna et al. (2023). <i>A critical inquiry into the Sustainability of NBT: Responsibility of the traveller</i> . In <i>The Routledge Handbook of Nature Based Tourism Development</i> .	To critically investigate travelers’ demographics, travel patterns and preferences, motivations, and sustainability perceptions to identify possible threats of NBT to destinations and communities.
Hansen et al. (2023). Outdoor recreation in Sweden during and after the Covid-19 pandemic—management and policy implications. <i>Journal of environmental planning and management</i> .	To analyze the development of outdoor recreation during and after COVID-19. Consider the implications for the management of areas for OR and related policy work.
Hedenborg et al. (2024). Outdoorification of sports and recreation: a leisure transformation under the COVID-19 pandemic in Sweden. <i>Annals of Leisure Research</i> .	To demonstrate how COVID-19 led to transitions and transformations of typical indoor sports activities to OR, or an “outdoorification” process of sports and recreation, and how changes were perceived by the population.
Hsiao and Tuan (2023). How recreational farm operators use dynamic capabilities to respond to COVID-19 pandemic. <i>Journal of Outdoor Recreation and Tourism</i> .	To investigate how recreational farm operators apply dynamic competency thinking to respond to changes in the post-epidemic market environment.
Humagain and Singleton (2021a). Examining relationships between COVID-19 destination practices, value, satisfaction and behavioral intentions for tourists’ outdoor recreation trips. <i>Journal of Destination Marketing and Management</i> .	To examining relationships between COVID-19 destination practices, value, satisfaction and behavioral intentions for tourists’ outdoor recreation trips.
Humagain and Singleton (2021b). Exploring tourists’ motivations, constraints, and negotiations regarding outdoor recreation trips during COVID-19 through a focus group study. <i>Journal of Outdoor Recreation and Tourism</i> .	To illuminate tourists’ motivations, perceived constraints, and negotiation strategies to participate in outdoor recreation trips, within the current COVID-19 context.
Lu et al. (2024). Exploration of new outdoor leisure activities (glamping) during the post-pandemic era. <i>Tourism Recreation Research</i> .	To examine how different forms of glamping affect consumer choice, as well as contribute to a better understanding of consumers and assists glamping companies in developing diverse camping styles.
Ostrowska-Tryzno and Pawlikowska-Piechotka (2022). Gastronomy tourism and the COVID-19 pandemic crisis. <i>Sport and Tourism Central European Journal</i> .	To consider a sector of cultural tourism: gastronomy tourism (food tourism, culinary tourism) in the context of COVID-19
Schirpke et al. (2021). Recreational ecosystem services of mountain lakes in the European Alps: Preferences, visitor groups and management implications. <i>Journal of Outdoor Recreation and Tourism</i> .	Aims at assessing people’s preferences with a focus on recreational activities, accessibility, and touristic facilities.
Wojcieszak-Zbierska et al. (2020). Agritourism in the era of the coronavirus (COVID-19): A rapid assessment from Poland. <i>Agriculture</i> .	To present results of survey research concerning the tourist plans of the Polish people in the era of the COVID-19 pandemic, in particular holidays on agritourism farms.

The Corona crisis has not affected her business too much. In times of the virus, many people seem to appreciate the combination of eating locally produced food, being out in nature and enjoying her lectures and stories about all sorts of things during the walk. – I lost the long-distance bookings early on. But people from Skåne booked instead, so it was still a busy time.

larger spaces, sitting separately during meals, using hand disinfectant, and activities with only small groups of people. Other solutions included food delivered directly to the cabins, takeaway food, and sharing rooms/houses/tents only with the co-traveler. The following quote is taken from an entrepreneur who offered combined hiking and outdoor cooking during COVID-19:

Preventing the spread of infection

Restrictions to prevent the spread of COVID-19 led to adaptations in activities, such as keeping distance, using

Because it’s the year 2020, there are pump bottles of hand disinfectant everywhere, and participants are instructed to keep their distance – which isn’t hard to do in the nature. (Ystads Allehanda, 2020)

TABLE 3 Descriptions of the various teams identified through analysis of newspapers and magazines.

Themes	Description
Local and national guests	Absence of international visitors and adaptation to the increased number of local and national visitors.
Preventing the spread of infection	Nature as a safe place during COVID-19 and adaptations to minimize the spread of the virus.
Food as part of outdoor activities in nature	Food integrated as part of the overall nature experience and activities.
Experience packages and comfort	Offering packaged experiences including outdoor activities, food and accommodation.
Local food	Local food from destination as part of the experience
Other hospitality industry changes	The increased interest in spending time in nature also became an opportunity for non-NBT and OR companies.

Food as part of outdoor activities in nature

Food was part of the experience, shown through activities in nature, such as cycling, walking, skiing, hiking, running, canoeing, farm tours, and forest bathing. The food could be served ready to eat during the activity. It could also be cooked together or delivered in picnic baskets with ingredients for a meal you prepare yourself. Other examples of food experiences in nature include wilderness guiding, where you learn to cook over an open fire, or nature guiding with a focus on edible mushrooms, plants, and fishing. In addition, there were companies offering meals at tables in various nature settings, where the chef prepared the food or where the guests were involved in the cooking, illustrated in the following quote about/from a restaurant owner who began cooking outdoors during COVID-19:

When the pandemic wiped out all the jobs, he took action and started his own business. "I want to make the wilderness accessible to everyone," he says. . . . The tours include cooking over an open fire, with lots of vegetables, fish and game in the spirit of nature. There are also courses and events where people can experience wilderness life, such as making a fire in different ways, or building a shelter. (Sala Allehanda, 2021)

Experience packages and service/comfort

During COVID-19, there was a clear focus on experience packages and service/comfort, i.e., packages that included different outdoor experiences, food, and accommodation. Examples of such packages were canoe rentals with meals and tents, winter horseback riding with cabin accommodation and meals over an open fire, and hiking packages that included accommodation, meals, route description, baggage transport, and adventure accommodation in the forest in tree-built cabins with meals. Glamping was another way of creating comfort during the hike. Glamping involves staying in luxuriously furnished tents or cabins in the forest, sometimes combined with various courses or guided tours, such as how to live in nature or how to cook in the forest.

Collaboration was highlighted as an important part of the package experience. For example, destinations and communities have worked with businesses to offer small and large packages, including accommodation, food, and different nature experiences. The following quote provides insight into the combination of activity with food during the COVID-19 pandemic in the rural town of Vimmerby:

If you want to run it commercially, you can't just have a nature experience and hire out a canoe, there will never be any money, just more volunteer work. But if you are able to provide food and accommodation, then the whole thing can be profitable. (Vimmerby Tidning, 2021)

Local food

Locally produced food and seasonal ingredients were emphasized in the nature experience. For example, food/ingredients were sourced directly from the farm or garden, from the sea, or picked by the guest from the forest or field (as part of the experience). Meeting the people who raised the animals, grew the vegetables, or brewed the beverages was also described as a valuable part of the experience. In addition to the focus on local food, there has also been a growing interest in farm shops. The following quote is taken from an article that illustrated the favorable situation the rural area of Hässleholm experienced during the COVID-19 pandemic, specifically focusing on the Glada Get dairy farm and café:

It has been a really good season for Glada Geten Gårdsmejeri in Lilla Oberöd. . . . The local population has become more aware of the destination. There has been an increase in the number of new types of hikers who have stopped for a coffee and shopped in the farm shop more often than others. (Mynewsdesk, 2020)

Other changes in the hospitality industry

During the COVID-19 pandemic, the hospitality industry was affected in various ways, and some businesses that were not usually working with OR or NBT saw an opportunity in the increased number of people visiting nature sites and the growing demand for outdoor activities. For example, some companies that worked with conferences changed their focus to package experiences with forest/nature experiences and food. Some changed completely, while others kept the conferences but moved the activities outdoors in nature. Other examples of adaptation include a catering company switching to picnic canoeing and a bed and breakfast company focusing on glamping packages for the Swedish market. In addition, local events in communities that conflicted with COVID-19 restrictions were redesigned into nature experiences. For example, the National Day celebration became a food tour by bike, with beautiful natural experiences along the way, and the Literature Tour was moved outdoors, where people biked to large garden areas with access to lunch and coffee. The following

quote was taken from an article about the success experienced during COVID-19 by Loka Brunn Hotel:

Like many businesses with a large income from meetings and conferences, Loka Brunn was affected by the pandemic... But Loka Brunn quickly found a way to reorganise its business, focusing on trying to reach more customers in the local area, for example by highlighting Bergslagen's nature experiences, hiking and outdoor dining as a safe homestay experience. (Filipstadstidningen, 2020)

Discussion

This review investigates food hospitality with OR and NBT during COVID-19, focusing on companies and actors working in this field in Sweden. The following section discusses the key findings of the results, both in relation to previous research and from a sustainability and resilience perspective.

Adapting to COVID-19

Adaptations from international to local and national guests, combined with efforts to comply with restrictions, appear to have formed how businesses, destinations, communities, and organizations in the OR and NBT sectors operated during COVID-19. Compared to other parts of the hospitality industry, the NBT sector had ample outdoor space, which was described as a favorable factor in attracting more people during the outbreak and maintaining resilience. However, the increased interest in spending time in nature during COVID-19 did not automatically benefit all businesses working with OR or NBT, and those that succeeded probably had a resilience-oriented focus from the beginning or adapted well during COVID-19 (Farsari and Persson-Fischier, 2022). Other potential success factors included favorable geographical locations or preconditions that attracted visitors (Tveteraas et al., 2024). This success may also be related to the fact that non-essential travel within Sweden was discouraged during parts of COVID-19 (Andersson and Aylott, 2020; Kuhlmann et al., 2021), which meant that businesses in more densely populated regions with shorter travel distances for the local population fared better than those in sparsely populated regions that were dependent on long-distance visitors.

Despite a reduction in the total number of customers, participants emphasized that COVID-19 contributed to crisis-driven innovation in NBT, for example, developing new concepts and innovations and that this creativity benefited businesses, which Tveteraas et al. (2024) referred to as a “change agency.” Thus, while crises can be unsettling and problematic, they can also serve as important catalysts for creative action and innovative outcomes (Beghetto, 2021; Dahlke et al., 2021). Some examples found in this review include canoe adventures with local food, new collaborations between different hospitality providers, food delivered by rope in a natural setting, changes in marketing adapted to local visitors, and outdoor conferences.

The increased interest in nature during COVID-19 has also contributed to the diversity of today's visitors to natural areas, ranging from experienced to novice NBT travelers (Newsome and Perera, 2023). This development challenges organizations in the sector to meet customers' different needs and demands. According to Adam et al. (2021), understanding travelers' preferences and behaviors is crucial for product development and service management. Furthermore, Fossgard and Fredman (2019) highlight that NBT businesses need to meet different expectations, for example, by offering a mix of accommodation, meals, transport, souvenirs, guidance, information, and various outdoor activities (Stensland et al., 2021). Additionally, Gyimóthy et al. (2022) suggest that domestic tourists should be retained as a target group and encourage stakeholders to capitalize on the opportunities this new tourism offers as an economic activity. These proposals are consistent with our review's findings, particularly in meeting the demands of national and local visitors while also increasing resilience and managing the disruptions caused by COVID-19, especially the loss of international visitors.

Food as part of the nature experience during COVID-19

During COVID-19, food was integrated into nature experiences in various ways. Sometimes, in more organized ways, such as “experience packages” that include nature experiences, accommodations, and food, but also in simpler contexts, such as visiting a park and buying food from a food truck. Restrictions and recommendations to maintain distance, especially when delivering, serving, and consuming food, were common COVID-19-related changes. This can be related to creating a sense of security, which might affect the overall experience, including the perception of the meal. The meal experience, coupled with a sense of security, aligns with previous research showing that the entire context of a meal is important for its acceptance and consumption, not just the food itself (Gustafsson et al., 2006).

Local food was a focus for several businesses and organizers during COVID-19. Recent research has shown that actors in the food supply chain occasionally have different views on the meaning of “local food” in production, processing, raw materials, and distance (Granvik et al., 2017). This review mentions local food in connection with ingredients from the environment and surroundings where the activity occurs, that coincides with the term “locally sourced” (Wani et al., 2024). The results align with a study by Haukeland et al. (2023), which shows that powerful commercial trends in NBT in Norway and Sweden include “experiencing local culture and locally produced products, food, etc.” Results are further explained by people's interest in seeking authentic place-based experiences such as local culture, heritage, locally produced food and drink, and distinctive rural areas (Apak and Guerbuez, 2023). In addition, the value of Scandinavian design and authentic, environmentally friendly experiences was highlighted, along with an awareness that business income contributes to local and rural development. Accordingly, there is a search for authentic natural and cultural experiences that connect people to nature and the local community to create

a sense of attachment or belonging (Clemetsen et al., 2021). Connecting this to post COVID-19 resilience, Fountain (2022) concludes that pandemic era restrictions gave many people a greater appreciation of their environment, the importance of the primary sector, and a robust local food system. Food tourism could, therefore, provide a chance to enhance our connection with nature and deepen our understanding of it while simultaneously supporting the wellbeing of both people and the ecosystems that sustain it.

Balance between tourism and environment

Given the importance of tourism for economic development in many countries, the extent to which sustainability can be achieved in NBT destinations is controversial. This sustainability challenge depends largely on how natural resources and environmental quality can be balanced with socio-economic tourism development (Yu-Fai et al., 2018 in Seremet et al., 2023). For a more sustainable future, taking responsibility for the negative impacts of tourism will be essential (UNWTO, 2005). During COVID-19, increased wear and tear and waste in nature was observed in Sweden (Naturvårdsverket, 2023). Various measures have been considered to slow this trend, such as educating people, improving access to garbage bins, and limiting the pressure on overcrowded areas (Beery et al., 2021). One municipality in Sweden, concerned about the increased wear and tear on nature reserves during COVID-19, responded by focusing on attracting people to other locations via an application (app). The initiative was part of a project to maintain and increase tourism while reducing its environmental impact (Beery et al., 2021).

Moreover, the effort to attract people to new places can also be an economic opportunity for rural businesses around the new destinations. Even if the stay in nature itself may not include a paid experience, it could lead to a visit to the rural area, a stop at a local restaurant or café, or a purchase in the farm shop. This strategy aligns with McGinlay et al. (2020), who highlight three lessons to be learned from COVID-19, including the use of careful spatial planning to manage visitor numbers to avoid overcrowding, the introduction of educational campaigns, especially for a new visitor profile and promotion of sustainable tourism models that do not depend on large numbers of visitors. In addition, Pröbstl-Haider et al. (2023) highlight that traveling to nearby places can be seen as a positive effect in the context of climate change and sustainable and resilient development of rural areas. The positive assessment comes from tourists' higher and long-term appreciation of nature, green spaces, and natural destinations.

Limitations

One general limitation of this review is the exclusive focus on Sweden. The experience of COVID-19 was unique from country to country; thus, the transfer of valuable outcomes of this study will depend upon careful consideration of its value for other national contexts. It can be argued that Sweden had one of the least restrictive approaches in Western Europe (Andersson

and Aylott, 2020; Kuhlmann et al., 2021). Thus, Sweden may provide insight into one end of the scale of the response to COVID-19. While this is a limitation in certain respects, herein lies an opportunity for this research to contribute; as the world continues to evaluate COVID-19 responses across various scales of restrictions and other government responses (e.g., Bendavid and Patel, 2024), Sweden provides insight into the outcomes of low-level restriction and response (Georgieva et al., 2021). This insight may help inform future actions in the face of global disruption.

In addition, the scientific quality of the review can be questioned, as the results include news and magazine articles. Although this approach can be criticized, the flexibility of these sources during a uniquely dynamic time was helpful in a timely response. These additional sources provide a valuable picture of the situation during COVID-19, as the number of research studies in this area is limited. It should be noted, however, that the articles from the Media Archive on business start-ups, projects, and investments are not all described as a direct consequence of COVID-19. However, as they were implemented during COVID-19, they are included in the results.

Conclusion

The findings in this literature review provide an insight into the role food and eating had within OR and NBT during the COVID-19 pandemic, and the results show flexibility and creativity in adapting to the challenges faced by operators in OR and NBT. Adaptations focused on national and local consumer groups, adapting to restrictions, and preventing the spread of infection. Trends observed prior to and accelerated during COVID-19 were also highlighted. This review is one step toward further developing our understanding of how the combination of OR, NBT, and food can support sustainable thinking in the hospitality and tourism sectors while contributing to rural development. The flexibility, creativity, and resilience that emerged within the OR and NBT industries during COVID-19, apparent in this review, may provide insight into navigating future challenges and societal disruptions.

Author contributions

AC: Conceptualization, Writing – original draft, Writing – review & editing, Data curation, Formal analysis, Methodology. TB: Conceptualization, Funding acquisition, Project administration, Supervision, Writing – original draft, Writing – review & editing. HK: Formal analysis, Writing – original draft, Writing – review & editing. MJ: Writing – review & editing. MC: Writing – review & editing. KW: Conceptualization, Funding acquisition, Project administration, Resources, Supervision, Writing – original draft, Writing – review & editing.

Funding

The author(s) declare financial support was received for the research, authorship, and/or publication of this

article. This study was supported by the Kamprad Family Foundation for Entrepreneurship, Research & Charity (Grant No. 20220098).

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

The author(s) declared that they were an editorial board member of *Frontiers*, at the time of submission. This had no impact on the peer review process and the final decision.

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