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Cities, hinterlands and disconnected urban-rural development: Perspectives from sparsely populated areas

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ABSTRACT

This article introduces the special issue '*Rural hinterland development in sparsely populated areas (SPAs): new challenges and opportunities arising from urbanisation within the periphery*'. It problematises the relationships between growing cities and hinterland areas in SPAs, such as those commonly found in Arctic, Outback and similar remote resource peripheries of developed countries. Many SPAs are rapidly urbanising, with polarised development becoming an ever-increasing concern for regional planners and policy-makers. This special issue contributes to debates about the impact that urban growth and city-centric development strategies in SPAs might have on the development prospects for small and distant settlements in the hinterland. We first discuss why SPAs are different from other rural contexts when it comes to urban-rural interactions and introduce the idea of regional disconnectedness as a defining feature of SPAs. We then review the papers in this collection, which include perspectives from northern Sweden, Iceland, Finland, Scotland, Alaska, and Australia, and position them according to their contributions to theory, policy and practice. The special issue challenges assumptions that city-centric regional development in SPAs will automatically generate spillover or backwash effects for the hinterland. It emphasises the need to consider diverse mobility flows within SPAs as part of urban-rural interactions. It also raises attention to micro-scale urbanisation within the hinterland, with housing, services, and amenities increasingly concentrating in a few small towns. The final discussion outlines important areas for research into more effective urban-rural partnership building in SPAs and on how to embrace regional disconnectedness for more targeted hinterland development.

1. Introduction

This collection of six papers focuses on the relationships between 'the city' and 'the hinterland' in remote and sparsely populated areas (SPAs) of high-income countries, specifically questioning the impact of urban centres on development prospects for the hinterland. The collection emerged from a series of debates over a number of years about the potential for cities in SPAs to serve as engines for regional development in the hinterland. The SPAs considered in this collection are specifically 'northern', including the northern fringes of Sweden, Iceland, Finland, Scotland, Alaska, and Australia. What these countries have in common is that they are highly polarised between a more densely populated metropolitan core (mostly located in the South) and relatively distant and underdeveloped SPAs (mostly, but not exclusively, located in the North). These SPAs have largely evolved around fragile natural resource economies, relatively unstable populations, and contain in many cases considerable Indigenous minorities. They are characterised by uneven regional development and truncated urban hierarchies dominated by one or two mid-sized cities, while the 'remainder' features numerous small settlements spread over very large geographic areas.

Typically, and over short and long timeframes, the cities have grown faster than the hinterlands, often on the back of large-scale infrastructure projects, a focus on 'new economies' centred around service and knowledge industries, and extensive place marketing targeting external in-migrants and visitors (Müller et al., 2020; Carson and Carson, 2021; Hansen et al., 2013). Meanwhile, the hinterlands have struggled more with population loss, slow economic growth, and declining social services, thus failing to capitalise on the opportunities presented by 'boom

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and bust' cycles common in SPAs. What we have been debating is the extent to which the city and hinterland experiences are connected, such that the development patterns of the cities cause, or are caused by, the development patterns of the hinterlands.

Whether growing cities are a blessing or a curse for their hinterlands is, of course, not a new debate in urban and rural studies (Rodríguez-Pose, 2008; Veneri and Ruiz, 2016; Bosworth and Venhorst, 2018; Tervo, 2009; Partridge et al., 2007; Parr, 1999), but there has not yet been an examination of the issues involved specifically in the context of SPAs. Although largely dismissed during the 1970s, urban 'growth centre' or 'growth pole' strategies have experienced a remarkable revival in regional development policies in recent decades (Benedek et al., 2019), not least in the northern SPAs featuring in this collection. Northern development policy in several Arctic and Australian SPAs has had an increasing focus on cities as drivers of growth (Carson and Carson, 2021; Coates and Holroyd, 2021; Hansen et al., 2013; Huskey and Taylor, 2016; Eikeland et al., 2016). The expectation is usually that this urban focus can help reduce the negative development outcomes associated with the 'resource curse' or 'staples trap', which has plagued so many remote resource peripheries (Barnes et al., 2001; Halseth et al., 2014; Argent, 2013) through stimulating economic diversification and agglomeration of resources. Proponents of this 'growth centre' approach assume that ultimately the strengthening of the city economy will have 'spillover' or 'trickle down' benefits for the hinterland (Westin, 2015; Eikeland et al., 2016). Others, however, fear for a growing urban-rural divide, resulting in negative 'sponge' or 'backwash' effects, which will further entrench relative disadvantage and limited growth opportunities in the hinterlands (Löfving et al., 2021).

The papers in this collection do not ultimately resolve this debate, but they provide a deeper and multi-facetted examination of the interactions and relationships between urban centres and hinterlands in SPAs. They also offer insights that contribute to the development of theories about SPAs as a unique geographic category within rural studies (Le Torneau, 2020), regional development policy for northern and other sparsely populated peripheries (Copus et al., 2022), and inform practice for those trying to address continuing development challenges such as recruitment and retention of skilled labour (Carson et al., 2022) and new opportunities for economic and demographic development in the hinterland (Eimermann et al., 2022; Howe and Huskey, 2022). This editorial summarises why SPAs require a different perspective when it comes to examining the human and economic geographies of these regions, and positions the papers in this collection according to their contributions to the theory, policy and practice of regional development as it impacts on rural and remote hinterlands.

2. Why are SPAs different?

Perceptions that the most sparsely populated fringes of the Western world, such as those commonly found in Arctic, 'Outback' or similar remote and resource-dependent contexts, are different from rural spaces are not new and have been prominent in discussions around regional development in these extreme environments (Bylund, 1960; Hamelin, 1978; Bone, 2003; Lonsdale and Holmes, 1981; Coates, 1994; Huskey, 2005; Keskitalo, 2019). SPAs have historically been portrayed and constructed as a counter-balance to a more developed and civilised urban and metropolitan core – as vast and distant territories that are harsh and inhospitable frontier or wilderness areas, but also as exotic and almost mythical places that are home to 'other' (including Indigenous) cultures and lifestyles (Keskitalo, 2019; Le Tourneau, 2020). While they are generally seen as challenging environments for stable economic and population development, they are also perceived as places with enormous untapped opportunities, mostly in connection with their abundance of natural resources. Scholars have long recognised specific development constraints and opportunities as emerging from the unique geographies, extreme climate, historic settlement patterns, and delicate socio-economic systems found in SPAs. This has led to a number of attempts at developing theories and frameworks that emphasise the difference of remote SPAs when compared to other rural contexts, particularly those dominated by agriculture and located in proximity to larger metropolitan centres (Bylund, 1960; Lonsdale and Holmes, 1981; Huskey, 2005; Petrov, 2007; Carson et al., 2011; Taylor et al., 2016; Keskitalo, 2019; Le Tourneau, 2020).

As recently summarised by Le Tourneau (2020), SPAs cannot simply be considered as extreme cases of rurality, located at the outer edge of a rural hinterland that is functionally, socially and culturally connected to an urban core. Essentially, SPAs are located 'beyond the periphery', as proposed by Carson and colleagues (Carson, 2011; Carson and Carson, 2014; Taylor et al., 2016), where functional networks and conventional core-periphery interdependencies with distant urban centres either do not exist or are inherently fragile. Unlike in rural-agricultural areas, where settlements have historically spread out from urban centres to the hinterland in a continuous and contiguous way (Bylund, 1960; Smailes et al., 2019), settlements in SPAs have more commonly evolved as a result of opportunistic land use, leading to special-purpose settlements built around resource or 'staples' extraction (e.g. mining, forestry, pastoralism, energy) and other national interests, including defence, transport, nature conservation, and Indigenous livelihoods (Holmes, 2010; Huskey, 2005; Bone, 2003; Barnes et al., 2001). This has led to a more erratic pattern of demographic and economic development, resulting in many diverse and dispersed population enclaves that are dependent on highly volatile connections to external investors and decision-makers located in different national or even international centres. Often 'lumped together' into large spatial regions for administration purposes, they tend to be poorly connected when it comes to intra-regional interactions, such as migration exchanges, economic activity, transport connections, and social or cultural ties. It is this idea of 'disconnectedness' (Carson et al., 2021) that is at the heart of differentiating SPAs from other rural (and particularly agricultural) areas that are more integrated as part of functional regions.

Although commonly associated with images of wilderness and vast stretches of uninhabited or unproductive land, SPAs typically contain substantial urban hubs and regional population centres, making it difficult to measure and map them as spatial units (Le Tourneau, 2022). They tend to have very high urban primacy ratios and truncated urban hierarchies, where a few mid-sized cities are home to a large and growing proportion of the regional population (Lonsdale and Holmes, 1981; Carson and Carson, 2021). The remaining population is scattered across small and dispersed settlements, and there are few intermediate cities to act as alternative service centres or as a demographic or economic counter-balance to the main urban hubs (Bjarnason et al., 2021). The few cities are increasingly positioned as vibrant, young, modern, cosmopolitan, innovative, creative, cultural and post-industrial knowledge centres (Nyseth, 2017; Lea, 2014; Müller et al., 2020), at times in an effort to distinguish the cities from nationally entrenched stereotypes of a rough, uncivilised or lagging environment (Eriksson, 2010). Meanwhile, the hinterland largely continues to be portrayed by outsiders as a resource periphery and/or home to disadvantaged populations, dependent on external investment and interventions with limited endogenous development potential. Such internal urban-rural divides are also apparent in the self-identities and lifestyles of people living in the hinterland as they often seek to distance themselves from their urban counterparts and emphasise notions of self-reliance and the ability to survive in isolation rather than depending on their cities (Le Tourneau, 2022).

Cities in SPAs have often emerged through political rather than economic colonisation, being somewhat artificially 'created' by national governments aiming to exert control over Indigenous populations and establish centres for defence and government transactions (Westin, 2015; Huskey and Taylor, 2016). This may partly explain the relatively weak core-periphery structures within SPAs when it comes to internal labour migration (Carson, 2011) and interdependent economic development (Huskey, 2005). In many cases, the flows of goods and people

into and out of the hinterlands bypass the regional capital or main administrative centre and instead favour alternative historical linkages, which may even be reflected in social networks and processes, such as mobility for leisure and tourism or support for particular sports teams and recreational associations (Lundmark and Åberg, 2019).

Despite perceptions of hinterland areas as struggling with socio-economic decline, they are interspersed with isolated pockets of rapid (yet intermittent) growth, usually triggered by large projects in resource, energy or transport (and sometimes even tourism) sectors. These tend to be accompanied by large cohorts of temporary and mobile populations, including seasonal labour migrants and non-resident workforces, which are often sourced from outside the region (Tonts et al., 2016; Storey, 2018; Argent, 2013; Lundmark, 2006; Halseth, 1999). The hinterlands, then, are internally diverse, with hotspots of development concentrated either close to the cities or 'exotically' distant from them. Meanwhile, the more 'boring bits in between' are often forgotten or left behind in regional development agendas and suffer from a chronic lack of political attention and investment (Koster and Carson, 2019; Coates et al., 2014). Also caught in between in many ways are Indigenous populations that are marginalised from meaningful employment in large-scale projects and experience threats from such activities to their traditional livelihoods and subsistence economies (Coombes et al., 2012; Koivurova et al., 2015; Keeling and Sandlos, 2015).

SPAs can, thus, be characterised by a range of extreme contrasts, dichotomies, and contradictions that underscore their internal heterogeneity and disconnectedness – they are at the same time very sparsely populated and highly urbanised; they contain 'boomtown' hotspots and shrinking or forgotten settlements; they have modern post-industrial centres focused on new economies and knowledge industries and traditional communities centred around resource industries or Indigenous livelihoods; they attract temporary and mobile working populations in some places while others are characterised by sticky and immobile populations that are less likely (or able) to move; they need to reconcile a discourse of highly localised growth opportunities with concerns around persistent disadvantage of particular geographic locations or demographic groups. These contrasts appear to create an increasing divide between the 'have and have nots' in SPAs (Taylor et al., 2011) and are likely to reinforce a sense of disconnectedness between different settlements and population groups. While disconnectedness is most extreme between the cities and the hinterland, it may also be a feature of development *within* the hinterland, emerging through processes of 'microurbanisation', as will be discussed below.

3. The (non)effectiveness of city-centric development policy

Globally, cities are increasingly the focus of regional development strategies, but the value of such strategies in SPAs is questioned in this collection by Pugh and Dubois (2021) and Copus et al. (2022). The disconnectedness of places within SPAs challenges the common rhetoric and policy mantra that urban growth will automatically trickle down and benefit the hinterland. This is in line with previous observations in the literature (Henry et al., 1997; Van Leeuwen, 2015; Bosworth and Venhorst, 2018) that regional approaches to rural development are often not successful in areas where few functional urban-rural interactions exist. Copus et al. (2022) describe such city-region policy approaches as a 'zombie idea' that refuses to die despite a persistent lack of evidence for their success (Rodríguez-Pose, 2008). In fact, substantial existing research concludes that positive economic or human capital spillover from urban growth mainly benefits rural areas in close proximity to urban centres or in well-connected high-amenity environments, while in more distant rural areas spillover is often outweighed by negative backwash effects (Partridge et al., 2007, 2008; Veneri and Ruiz, 2016; Bosworth and Venhorst, 2018; Barkley et al., 1996). In SPAs, it may not only be physical distance which limits the potential for spillover, but the lack of economic, cultural, social and functional ties, and this is most likely exacerbated by the lack of infrastructure and service amenities that could stimulate more mobility exchanges with the hinterland.

Copus et al. (2022) illustrate through case studies from Scotland and Finland how urban-centric city-region thinking developed in more densely populated contexts continues to be rolled out in development policies for sparsely populated contexts where it does not necessarily fit (Beel et al., 2020). Their paper provides a thorough review of the emergence and popularity of 'city deal' strategies as a tool for stimulating both urban and regional development. A closer content analysis of such policies revealed that, apart from vague generic assumptions of urban-rural spillover, they in fact contained limited consideration of how exactly city deals are meant to affect rural areas in the hinterland. From our experience, city deals in some northern jurisdictions across Australia and Scandinavia have essentially provided a rationale for 'showy' projects and infrastructure spending and a continuous consolidation of public services in a few larger hubs. They have been linked to large-scale investments in, for example, transport infrastructure (such as international airports, railway or shipping terminals), university campuses and innovation hubs, tourism precincts, signature cultural and leisure infrastructure (such as sports stadium, art centres, waterfront redevelopments), major public service facilities (such as hospitals and other pretentious buildings for government administration), or the hosting of large events. Such projects trigger rapid – albeit temporary – growth in urban construction activity, employment and in-migration, yet with limited evidence that such growth trickles down much beyond the immediate city surroundings or urban local government areas. More critically, perhaps, these investment-intensive city-deals may lead to a certain 'addiction' to big construction projects to maintain growth levels and avoid the negative effects associated with out-migration of temporary workers, as recently observed in northern Australia (Carson and Carson, 2020).

Pugh and Dubois (2021) take a more conceptual-theoretical approach to critiquing regional development research and policies in SPAs. They emphasise how internal polarisation and diversity, particularly between highly modernised city environments and seemingly declining or 'boom and bust' resource peripheries, are difficult to reconcile in both regional studies and regional development strategies. Their discussion points out how urban economies in SPAs are typically approached in both academic and policy circles from opportunity-oriented perspectives (focusing on innovation, creativity, knowledge industries, etc), while the hinterland is commonly treated as the periphery (or a periphery within the periphery) laden with notions of disadvantage and decline (Eriksson, 2010). Such views perpetuate the focus on stereotyped problems and negative discourses in the hinterland, directing attention away from potentially more positive, albeit perhaps smaller and more localised, evolutionary development. Pugh and Dubois (2021) fundamentally question the value of fuzzy concepts of 'periphery' or 'core-periphery' thinking in evolutionary economic geography research concerning SPAs. They argue instead for the use of more precise spatial definitions, and research focusing on 'positive peripheries' where firms, individuals and local socio-economic systems manage to thrive despite or even because of their isolated location (Glückler et al., 2022; Dubois, 2016; Petrov, 2007; Brouder, 2012; Coates and Holroyd, 2021). To account more adequately for regional diversity, they also call for more attention to the role of class, gender, race and traditional minorities (including Indigenous) in peripheral innovation dynamics and economic development (also see Forsberg and Stenbacka, 2013; Udén, 2008), thus moving away from stereotypical conceptualisations of SPAs as homogenous resource peripheries.

Pugh and Dubois (2021) situate their thinking in experiences in northern Sweden, where a series of recent 'mega-projects' relating to green industry transitions (for example, through the establishment of battery factories, green steel production, railway extensions, or wind parks) are widely considered as game changers for the North. These are expected to transform the North into a modern and progressive region able to attract large volumes of in-migrants and skilled labour in

knowledge industries (Coates and Holroyd, 2021). Both public and policy discourses surrounding these developments do not really question or reflect on the spatial concentration of these mega-projects, and how skills and populations will most likely be redistributed within the North as a result. While municipalities and communities in the immediate vicinity of these mega-projects are preparing for increased in-migration and new demands for housing and other support infrastructure (Lundmark et al., 2022), it is less clear how the more distant rural inland areas will be affected, and how they can prepare themselves to (re)connect their local economies with the urban coast and investment hotspots.

4. Urbanisation beyond 'the city'

The papers by Bjarnason et al. (2021) and Eimermann et al. (2022) problematise the processes and outcomes of urbanisation beyond 'the city' in Iceland and Sweden respectively. Bjarnason and colleagues examine the role of Akueyri – the main urban centre in northern Iceland – in mediating population flows between SPAs and the capital city. They consider the extent to which Akureyri has benefited from both urbanisation and counterurbanisation migration flows, as it is often assumed to 'suck in' in-migrants from SPAs looking to move up the urban hierarchy whilst also attracting counterurban migrants from the capital city seeking a more rural lifestyle but with access to essential urban services and amenities. Their findings indicate that, even though Akureyri has received net in-migration from more rural areas, it has registered only a similar net-migration loss towards the Reykjavík capital area. Growth in Akureyri has mostly occurred through natural increase and international migration rather than at the expense of the rural hinterland or spillover from Reykjavík. They argue that Akureyri does not seem to act as a 'stepping stone' for out-migration from the North as observed for other northern cities (Howe et al., 2014; Rehák and Eriksson, 2020), but provides an alternative urban destination for rural out-migrants. Their research is a valuable contribution to rural studies, where smaller towns or 'micropolitan' centres are often overlooked as a distinct settlement category in both academic and policy circles (also see Smailes et al., 2019). Their ambiguous reputation as neither quite rural nor quite urban means that they are a key example of 'in-between' places that are increasingly forgotten in regional development discussions biased towards urban boomtowns on the one hand, and more disadvantaged remote areas on the other hand.

Bjarnason et al. (2021) emphasise the need to consider the multitude of migration flows to, from and within non-metropolitan regions, including urban-bound, counterurban and rural lateral flows at different geographic scales. They introduce the concept of 'microurbanisation' as a lens to study small-scale urbanisation in non-metropolitan areas, suggesting that different flows of urbanisation and counterurbanisation intersect in these micropolitan centres as a result of unique combinations of both rural and urban amenities appealing to different cohorts of people across the urban-rural spectrum. This idea is also picked up by Eimermann et al. (2022), who examine population redistribution within one of Sweden's shrinking northern inland municipalities. Their paper similarly draws on Stockdale's (2016) idea of 'messy migration' to look at how population redistribution at local or municipal level emerges from a complex mix of population flows along a broader migration spectrum, including people from different origins, socio-economic backgrounds, and lifecourse stages who may make multiple upward, downward and lateral (rural-to-rural) moves. The paper combines analysis of secondary population and migration data with local interviews and community workshops, arguing for a better integration of quantitative and qualitative data to understand population change at settlement level in SPAs. Such approaches may uncover important spatial and temporal nuances of population flows that are commonly hidden from broader statistical analyses at regional level (Peters et al., 2018).

Eimermann et al. (2022) illustrate how the demographic and migration trajectories of central towns and rural villages within the same municipality can be disconnected, with limited exchange internally, and often different populations of migrants heading to (and away) from the villages compared to the municipal centres. Nevertheless, their qualitative insights show how selection of a village or a central town does not occur in a vacuum, with migrants trading off urban and rural amenities within the region when making their decisions. There is a particular role played by housing (Lundmark, 2020) which can direct migrants to non-preferred destinations due to its style and availability. The increasing focus on urban-style housing investment in municipal centres may, thus, be limiting the attractiveness of SPAs to those more interested in their natural and recreational amenities.

Microurbanisation may offer a new lens to better understand the changing character of urban and rural settlements and their relationships within SPAs, whilst also addressing questions about how such changes are experienced and influenced by different populations and community stakeholders. These include not least local politicians and planners for whom small-scale urbanisation (through concentration of services, housing and in-migration) is more desirable in the face of increasing financial pressures and the perceived difficulties in maintaining services in declining villages with no real hope for recovery (Syssner, 2020; Kokorsch and Benediktsson, 2018). More research is needed to understand local government visions for the future of their non-central villages, and what is being done on local or regional planning levels to change or reinforce settlement hierarchies in SPAs, for example by seemingly arbitrarily prioritising certain settlements through placement of public services or prestige projects.

5. Indigenous mobilities and city-hinterland divides

Much of the research on migration and demographic development in SPAs focuses on migrants to and from external places (Eimermann, 2017; Guimond and Desmeules, 2019; Maertens and Taylor, 2018). Meanwhile, the paper by Howe and Huskey (2022) in this collection emphasises the complexity of ongoing relationships between Indigenous people and urban and rural spaces. Indigenous mobility in SPAs is typically conceptualised as circular or transitory, with people ultimately motivated to 'return home' to their remote home communities (Prout and Howitt, 2009). In some cases, it is even viewed as problematic, with rural-to-urban moves (temporary or long-term) seen as a threat to positive urban development (Carson et al., 2013). Indigenous people, it seems, need not and should not pursue urban amenities – a misconception that has resulted in misdirected service and housing responses in both urban centres and remote communities (Kainz et al., 2012; Habibis, 2011; Koch, 2021).

Howe and Huskey (2022) provide some alternative views through application of an amenity lens to examining migration flows of Native Alaskans between regional centres and remote communities in Arctic Alaska. They examine the role of public goods and urban amenities (such as educational opportunities, health care, better housing, or modern water and sewer systems), along with better employment opportunities, in facilitating migration from remote communities, whilst also considering the importance of specific socio-cultural amenities and lifestyle values (such as subsistence opportunities, family networks, community cohesion, and perceived safety) in reducing rural out-migration. The results emphasise that Native Alaskans are attracted by improved housing, access to education, and economic opportunities, similarly to non-Indigenous migrants in other rural contexts. The study also identifies important place-based amenities and lifestyle values unique to remote Indigenous communities, mostly related to subsistence whaling, safe and dry communities, and cooperative community networks, which influence decisions to stay in or move to more remote communities, and these do not simply follow the classic stepwise pattern of migration from smaller to larger centres. Similar to the argument by Eimermann et al. (2022), then, the paper provides an interesting example of how to consider the mix of urban and rural amenities in shaping migration flows and population redistribution within SPAs. The study also offers

important insights for policy-makers and urban/rural planners responsible for SPAs, calling attention to a long-neglected need for improved public goods and services, better quality housing, and community infrastructure to facilitate new in-migration and population retention in remote communities.

The paper by Howe and Huskey (2022) is a reminder, much like the contribution by Pugh and Dubois (2021), that Indigenous people, communities and livelihoods remain a key feature of many SPAs, and as such should not be marginalised within the broader academic and policy discourse on urbanisation and regional development opportunities. At the same time, we need to be cautious about singling out Indigenous perspectives without considering the broader demographic, economic and socio-cultural diversity that exists in SPAs. While across Alaska, northern Canada and northern Australia, there exist discrete Indigenous spaces and communities that may be identifiable and analysed as such, experiences from northern Europe are vastly different, particularly as the Sámi people comprise a much smaller and dispersed minority, are often invisible from official data records, and are also less confined in space and as discrete settlements (Axelsson and Mienna, 2020). We also need to be careful that we do not automatically limit Indigenous development perspectives to hinterland areas, which has typically been the case in research on Indigenous migration, Indigenous tourism, or Indigenous relationships with resource industries. In fact, most Indigenous people in SPAs live in the cities and larger urban areas (Taylor, 2013), and their views, knowledge and cultural expressions are becoming increasingly prominent as part of urban development and place marketing strategies (Hudson et al., 2019; Müller et al., 2020).

6. The city as mediator of hinterland development and skill supply

The final paper in this collection by Carson et al. (2022) ties many of these themes together through examination of city-hinterland relationships and the 'spillover, sponge or disconnected' model in professional labour migration. More specifically, the paper focuses on the role of 'regionalisation' strategies in helping the hinterland recruit health professionals. The study examines migration patterns of health professionals in northern Australia from a longitudinal perspective to identify whether efforts aimed at educating and training health workers in the North (Worley et al., 2019; Strasser et al., 2016) have had any noticeable impact on redistributing these skills to more sparsely populated areas. The study finds limited evidence of increased migration spillover from the northern cities into the hinterland, but also emphasises that the cities are not necessarily 'spongeing' labour from the hinterland either. This supports previous criticism of the 'sponge city' hypothesis (Argent et al., 2008; Alexander and Mercer, 2007) which has portrayed cities with their expanding education and public service sectors as diverting resources and human capital away from the hinterland. In fact, intra-regional net-migration effects were relatively small, lending support to the idea of regional disconnectedness characterising professional labour migration systems in the North. Instead, the hinterland has had to fill skill shortages in the health workforce increasingly through international, rather than regional or even domestic, in-migration. This suggests that, at least in northern Australia, regionalisation programs have done little to meet regional workforce needs, particularly in times of rapid increases in urban demand, a simultaneous decline in hinterland populations, and the increasing differences in living and working conditions between city and hinterland locations.

In line with the analysis by Copus et al. (2022) and Pugh and Dubois (2021), this empirical research by Carson et al. (2022) suggests that city-centric development strategies are poorly suited to the contexts of SPAs. It addresses important questions about the extent to which the cities and the more sparsely populated hinterland compete for narrow pools of skilled workers. The policy argument has been that education and training programs aiming to train people *from the North* and *for the North* produce a more sticky workforce that is less likely to leave than externally recruited labour (Nord and Weller, 2002; Morrison, 2014; Bjarnason and Edvardsson, 2017; Rehák and Eriksson, 2020). However, little research has examined the redistribution of skilled and professional labour within SPAs. A study in northern Iceland (Bjarnason and Edvardsson, 2017) noted that graduates staying in the North are mostly concentrating in the main city rather than moving to rural areas. Similarly, our own work in northern Australia suggests very limited urban-rural exchanges and spillover of university-qualified labour from the cities into the hinterland (Carson et al., 2021). Somewhat different experiences were noted in northern Sweden, with some small but important spillover effects across a range of sectors, but there is no clear explanation of why that may have occurred, and whether regional labour migration systems are perhaps less disconnected than in other SPAs.

7. Conclusion

The papers in this collection have in various ways highlighted the extreme contrasts, development polarisation and urban-rural divides that exist within the most sparsely populated jurisdictions across northern Europe, northern Australia and North America. They have provided examples of how ideas of internal disconnectedness and diversity (Carson and Carson, 2014) are key to understanding the possibilities of city-hinterland (or urban-rural) relationships in SPAs. With growth seemingly focused on urban centres, and even more so on one or perhaps two dominant regional cities, a continuous key question for policy-makers in these regions is how urban growth can be harnessed for development in hinterland areas that have traditionally shared few economic, socio-cultural and mobility relationships with those centres. This collection has sought to address this topic through a number of perspectives, including a mix of theoretical debates, policy analysis, empirical studies on urban-rural migration flows, and local-level case studies. Summing up, the special issue proposes several key learnings:

First, it critiques urban growth-centre models and existing regional development policies as largely inappropriate for SPAs where functional city-regions are small, and where explicit strategies for urban-rural partnerships either do not exist (Copus et al., 2022; Pugh and Dubois, 2021) or fail to generate desired outcomes in terms of regionalisation and redistribution of human capital (Carson et al., 2022). Secondly, it emphasises the need to better understand the diversity of migration flows of people and human capital within SPAs to uncover the extent of urban-rural 'spillover, spongeing or disconnectedness', along with considerations of how these flows affect different settlement categories along the urban-rural spectrum (Bjarnason et al., 2021; Eimermann et al., 2022; Howe and Huskey, 2022; Carson et al., 2022). Thirdly, it raises attention to an increasing urbanising of the hinterland, also referred to as microurbanisation, as a result of ongoing service concentrations in smaller towns, along with provisions of housing, public goods and other recreational amenities. This process appears to generate different migration flows to local service centres and smaller village settlements (Eimermann et al., 2022; Bjarnason et al., 2021; Howe and Huskey, 2022), and may inadvertently replicate urban-rural divides and internal disconnectedness further down the urban hierarchy.

There is still a great deal to learn about disconnectedness as a defining feature of human and economic geographies in SPAs, and the extent to which experiences of disconnectedness are shared across different SPAs, and in the context of different mobilities. The papers in this collection have emphasised that the common growth-centre rhetoric, and related spillover-sponge expectations, are largely inappropriate in SPAs, particularly when looking primarily at residential migration and commuter flows, which has dominated most of that literature in other city-hinterland contexts (Partridge et al., 2007, 2008; Veneri and Ruiz, 2016; Bosworth and Venhorst, 2018). With SPAs renowned for their highly mobile populations, there is perhaps an opportunity to broaden the mobility spectrum (Hall, 2005; Bell and Ward, 2000) and harness more temporary mobilities for urban-rural

partnership building, for example through consideration of second home mobility, various forms of tourism (business, leisure, visiting friends and relatives), seasonal labour, and continuous transient lifestyles and multi-locale living. Such mobilities have often been excluded from discussions about urban-rural development relationships in SPAs – either because they are considered as undesirable, as in the case of rural-to-urban Indigenous mobility (Carson et al., 2013), or as not prestigious enough, as in the case of northern city residents being ignored as potential tourist markets for the hinterland (Müller et al., 2020; Lundmark and Åberg, 2019). What might be needed is a shift away from overly negative stereotypes of cities as 'sponges' towards more positive and nuanced views of cities as both sending and receiving regions for multiple mobilities that could build or strengthen economic and socio-cultural interactions within SPAs.

How such mobility patterns are changing in the wake of the Covid-19 pandemic remains an important question for future research, along with considerations of how such changes affect urban-rural divides and processes of urbanisation, counterurbanisation and microurbanisation. While there has been much speculation about pandemic-driven 'rural migration turnarounds' and increasing second home mobility in other rural contexts (McManus, 2022; Seraphin and Dosquet, 2020), it is not at all clear how hinterland areas in SPAs will be affected in the medium to longer term. Apart from a few amenity-rich 'zoom towns' (Sodja, 2021), many hinterland areas may remain cut off from national counter-urbanisation and telecommuting trends due to the broader lack of services and more limited Internet and transport connectivity. Whether internal counterurban or rural amenity migration within SPAs is set to increase as a result of the pandemic is also unknown, particularly as the cities in SPAs have historically played a limited role in generating counterurbanisation. Many cities in Arctic or Outback regions are themselves quite 'rural' in the eyes of their residents and externally recruited labour, not least when it comes to opportunities for accessing nature and signature outdoor activities (Müller et al., 2020; Bjarnason et al., 2022). This may well stifle any emerging sentiments of urban escapism and a rural migration turnaround within SPAs. Also recent efforts to attract more regional tourist markets through 'staycation' deals during the pandemic may turn out to be little more than temporary gap fillers, particularly as many remote tourism industries are scrambling to reattract external (and international) markets.

There is a pressing need for further research on whether and how regional disconnectedness can be overcome through more targeted urban-rural partnership building, and whether particular solutions identified in other city-hinterland contexts (Van Leeuwen, 2015; Kawka et al., 2012; Knieling et al., 2017; Hjalager, 2017) offer any potential in SPAs where traditional functional relationship structures have been weak or do not exit. This could include strategies aimed at harnessing the few growing cities as regional markets (as in the example of tourism above, but also for primary production and manufacturing), the stimulation of increased urban-rural mobility exchanges through improved transport, technology and amenity provisions in the hinterland, as well as increased incentives for the production and exchange of knowledge and skills within SPAs. Alternatively, researchers and practitioners responsible for regional planning and development in SPAs need to face questions around how future hinterland development can be supported independently of urban growth dynamics in the cities, particularly if attempts at urban-rural partnership building continue to fail or underperform. As indicated by Pugh and Dubois (2021), regional disconnectedness may as well signify an opportunity for the hinterland if development policies promote more independent local innovation systems in the hinterland that can bypass city-centric institutions and rigid administrative frameworks whilst taking advantage of more flexible translocal networks for knowledge and capital transfer (Dubois, 2016).

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References

Alexander, S., Mercer, D., 2007. Internal migration in victoria, Australia: testing the 'sponge city' model. Urban Pol. Res. 25 (2), 229–255.
Argent, N., 2013. Reinterpreting core and periphery in Australia's mineral and energy resources boom: an Innisian perspective on the Pilbara. Aust. Geogr. 44 (3), 323–340.
Argent, N., Rolley, F., Walmsley, J., 2008. The sponge city hypothesis: does it hold water? Aust. Geogr. 39 (2), 109–130.
Axelsson, P., Mienna, C.S., 2020. The challenge of Indigenous data in Sweden. In: Walter, M., et al. (Eds.), Indigenous Data Sovereignty and Policy. Routledge, London, pp. 99–111.
Barkley, D.L., Henry, M.S., Bao, S., 1996. Identifying 'spread' versus 'backwash' effects in regional economic areas: a density functions approach. Land Econ. 72 (3), 336–357.
Barnes, T.J., Hayter, R., Hay, E., 2001. Stormy weather: cyclones, harold innis, and port alberni, BC. Environ. Plann. 33 (12), 2127–2147.
Beel, D., Jones, M., Plows, A., 2020. Urban growth strategies in rural regions: building the North Wales Growth Deal. Reg. Stud. 54 (5), 719–731.
Bell, M., Ward, G., 2000. Comparing temporary mobility with permanent migration. Tourism Geogr. 2 (1), 87–107.
Benedek, J., Varvari, Ş., Litan, C.M., 2019. Urban growth pole policy and regional development: old wine in new bottles? In: Lang, T., Görmar, F. (Eds.), Regional and Local Development in Times of Polarisation. Palgrave Macmillan, Singapore, pp. 173–195.
Bjarnason, T., Edvardsson, I.R., 2017. University pathways of urban and rural migration in Iceland. J. Rural Stud. 54, 244–254.
Bjarnason, T., Stockdale, A., Shuttleworth, I., Eimermann, M., Shucksmith, M., 2021. At the intersection of urbanisation and counterurbanisation in rural space: microurbanisation in Northern Iceland. J. Rural Stud. 87, 404–414.
Bone, R.M., 2003. The Geography of the Canadian North: Issues and Challenges. Oxford University Press, Toronto.
Bosworth, G., Venhorst, V., 2018. Economic linkages between urban and rural regions–what's in it for the rural? Reg. Stud. 52 (8), 1075–1085.
Brouder, P., 2012. Creative outposts: tourism's place in rural innovation. Tour. Plann. Develop. 9 (4), 383–396.
Bylund, E., 1960. Theoretical considerations regarding the distribution of settlement in inner north Sweden. Geogr. Ann. 42 (4), 225–231.
Carson, D.A., Carson, D.B., 2020. Opportunities and barriers for degrowth in remote tourism destinations: overcoming regional inequalities? In: Hall, C.M., Lundmark, L., Zhang, J. (Eds.), Degrowth and Tourism: New Perspectives on Tourism Entrepreneurship, Destinations and Policy. Routledge, London, pp. 100–115.
Carson, D.A., Carson, D.B., Lundström, L., 2021. Northern cities and urban–rural migration of university-qualified labour in Australia and Sweden: spillovers, sponges, or disconnected city–hinterland geographies? Geogr. Res. 59 (3), 424–438.
Carson, D.B., 2011. Skilled labour migration flows to Australia's northern territory 2001-2006: beyond periphery? Aust. J. Lab. Econ. 14 (1), 15.
Carson, D.B., Carson, D.A., 2021. Demographic instability as a barrier to remote economic development in the north: are cities the answer? Sustainability 13 (15), 8566.
Carson, D.B., Carson, D.A., 2014. Local economies of mobility in sparsely populated areas: cases from Australia's spine. J. Rural Stud. 36, 340–349.
Carson, D.B., Carson, D.A., Taylor, A., 2013. Indigenous long grassers: itinerants or problem tourists? Ann. Tourism Res. 42, 1–21.
Carson, D.B., McGrail, M., Sahay, A., 2022. Regionalisation and general practitioner and nurse workforce development in regional northern Australia: insights from 30 years of census migration data. J. Rural Stud. 91, 98–107.
Carson, D.B., Rasmussen, R.O., Ensign, P., Huskey, L., Taylor, A. (Eds.), 2011. Demography at the Edge: Remote Human Populations in Developed Nations. Ashgate, Farnham.
Coates, K., 1994. The discovery of the north: towards a conceptual framework for the study of northern/remote regions. N. Rev. 12/13, 15–43.
Coates, K., Holroyd, C., 2021. Northern Sweden and economic development. J. Northern Stud. 15 (1).
Coates, K., Holroyd, C., Leader, J., 2014. Managing the forgotten North: governance structures and administrative operations of Canada's provincial norths. N. Rev. 38, 6–54.
Coombes, B., Johnson, J.T., Howitt, R., 2012. Indigenous geographies I: mere resource conflicts? The complexities in Indigenous land and environmental claims. Prog. Hum. Geogr. 36 (6), 810–821.
Copus, A., Kahila, P., Fritsch, M., 2022. City region thinking, a zombie idea in regional and rural development? Scotland and Finland compared. J. Rural Stud. 89, 348–356.
Dubois, A., 2016. Transnationalising entrepreneurship in a peripheral region: the translocal embeddedness paradigm. J. Rural Stud. 46, 1–11.
Eikeland, S., Nilsen, T., Taylor, A., 2016. Re-evolution of growth pole settlements in northern peripheries? Reflecting the emergence of an LNG hub in Northern Australia with experiences from Northern Norway. In: Taylor, A., et al. (Eds.), Settlements at the Edge: Remote Human Settlements in Developed Nations. Edward Elgar, Cheltenham.

Eimermann, M., 2017. Flying Dutchmen? Return reasoning among Dutch lifestyle migrants in rural Sweden. Mobilities 12 (1), 116–135.
Eimermann, M., Adjei, E.K., Bjarnason, T., Lundmark, L., 2022. Exploring population redistribution at sub-municipal levels: microurbanisation and messy migration in Sweden's high North. J. Rural Stud. 90, 93–103.
Eriksson, M., 2010. *(Re)producing a Periphery: Popular Representations of the Swedish North* Doctoral Dissertation, Kulturgeografiska Institutionen. Umeå universitet.
Forsberg, G., Stenbacka, S., 2013. Mapping gendered ruralities. Eur. Countrys. 5 (1), 1–20.
Glückler, J., Shearmur, R., Martinus, K., 2022. From liability to opportunity: reconceptualizing the role of periphery in innovation. SPACES online 17 (1). http://www.spaces-online.com/index_2022.php.
Guimond, L., Desmeules, A., 2019. Choosing the northern periphery: paradoxes in the ways of dwelling of new residents of eastern minganie (north shore, québec, Canada). Popul. Space Place 25 (6), e2226.
Habibis, D., 2011. A framework for reimagining Indigenous mobility and homelessness. Urban Pol. Res. 29 (4), 401–414.
Hall, C.M., 2005. Tourism: Rethinking the Social Science of Mobility. Pearson Education, Harlow.
Halseth, G., 1999. We came for the work": situating employment migration in BC's small, resource-based, communities. Can. Geogr. 43 (4), 363–381.
Halseth, G., Ryser, L., Markey, S., Martin, A., 2014. Emergence, transition, and continuity: resource commodity production pathways in northeastern British Columbia, Canada. J. Rural Stud. 36, 350–361.
Hamelin, L.E., 1978. Canadian Nordicity: It's Your North Too. Harvest House, Montreal.
Hansen, K.G., Rasmussen, R.O., Weber, R. (Eds.), 2013. Proceedings from the First International Conference on Urbanisation in the Arctic. Conference 28-30 August 2012, Ilimmarfik, Nuuk, Greenland. Nordregio, Stockholm. Nordregio Working Papers, No. 6.
Henry, M.S., Barkley, D.L., Bao, S., 1997. The hinterland's stake in metropolitan growth: evidence from selected southern regions. J. Reg. Sci. 37 (3), 479–501.
Hjalager, A.M., 2017. Rural–urban business partnerships: towards a new trans-territorial logic. Local Econ. 32 (1), 34–54.
Holmes, J., 2010. The multifunctional transition in Australia's tropical savannas: the emergence of consumption, protection and indigenous values. Geogr. Res. 48 (3), 265–280.
Howe, E.L., Huskey, L., 2022. Crossing Frozen Ground: tiebout, local public goods, place amenities, and rural-to-rural migration in the Arctic. J. Rural Stud. 89, 130–139.
Howe, E.L., Huskey, L., Berman, M.D., 2014. Migration in Arctic Alaska: empirical evidence of the stepping stones hypothesis. Migrat. Stud. 2 (1), 97–123.
Hudson, C., Nyseth, T., Pedersen, P., 2019. Dealing with difference: contested place identities in two northern Scandinavian cities. City 23 (4–5), 564–579.
Huskey, L., 2005. Challenges to economic development: dimensions of "remoteness" in the North. Polar Geogr. 29 (2), 119–125.
Huskey, L., Taylor, A., 2016. The dynamic history of government settlements at the edge. In: Taylor, A., et al. (Eds.), Settlements at the Edge: Remote Human Settlements in Developed Nations. Edward Elgar, Cheltenham, pp. 25–48.
Kainz, T., Schmallegger, D., Carson, D.B., 2012. Temporary Indigenous mobility in remote South Australia: understanding the challenges for urban based health and social service delivery. J. Rural. Commun. Develop. 7 (1).
Kawka, R., Artmann, J., Huttenloher, C., Scholze, J., 2012. Partnership for sustainable rural-urban development: existing evidences. In: Report for European Commission DG Regio, Rurban Project (2011.CE.16.0.AT.017). Retrieved from: http://ec.europa.eu/regional_policy/sources/what/cohesion/urban_rural/doc/rurban_study_long.doc.
Keeling, A., Sandlos, J., 2015. Mining and Communities in Northern Canada: History, Politics, and Memory. University of Calgary Press, Calgary.
Keskitalo, E.C.H. (Ed.), 2019. The Politics of Arctic Resources: Change and Continuity in the" Old North" of Northern Europe. Routledge, London.
Knieling, J., Jacuniak-Suda, M., Obersteg, A., 2017. Urban-rural partnerships and governance of peri-urban areas in a European perspective. Towards regenerative regions. In: Colucci, A., Magoni, M., Menoni, S. (Eds.), Peri-urban Areas and Food-Energy-Water Nexus. Springer, Cham, pp. 31–37.
Koch, K., 2021. Nordicity and its relevance for northern Canadian infrastructure development. Polar Geogr. 44 (4), 255–281.
Koivurova, T., Masloboev, V., Hossain, K., Nygaard, V., Petrétei, A., Vinogradova, S., 2015. Legal protection of Sami traditional livelihoods from the adverse impacts of mining: a comparison of the level of protection enjoyed by Sami in their four home states. Arct. Rev. 6 (1), 11–51.
Kokorsch, M., Benediktsson, K., 2018. Prosper or perish? The development of Icelandic fishing villages after the privatisation of fishing rights. Maritime Stud. 17 (1), 69–83.
Koster, R.L., Carson, D.A. (Eds.), 2019. Perspectives on Rural Tourism Geographies: Case Studies from Developed Nations on the Exotic, the Fringe and the Boring Bits in between. Springer, Cham.
Le Tourneau, F.M., 2020. Sparsely populated regions as a specific geographical environment. J. Rural Stud. 75, 70–79.
Le Tourneau, F.M., 2022. It's not for everybody": life in Arizona's sparsely populated areas. Ann. Assoc. Am. Geogr. 1–18.
Lea, T., 2014. Darwin. NewSouth Publishing, Sydney.
Löfving, L., Kamuf, V., Heleniak, T., Weck, S., Norlén, G., 2021. Can digitalization be a tool to overcome spatial injustice in sparsely populated regions? The cases of Digital Västerbotten (Sweden) and Smart Country Side (Germany). Eur. Plann. Stud. 1–18.
Lonsdale, R.E., Holmes, J.H., 1981. Settlement Systems in Sparsely Populated Regions: the United States and Australia. Pergamon, New York.
Lundmark, L., 2006. Mobility, migration and seasonal tourism employment: evidence from Swedish mountain municipalities. Scand. J. Hospit. Tourism 6 (3), 197–213.
Lundmark, L., 2020. Housing in SPAs: too much of nothing or too much for 'free. In: Lundmark, L., Carson, D.B., Eimermann, M. (Eds.), Dipping in to the North: Living, Working and Traveling in Sparsely Populated Areas. Palgrave Macmillan, Singapore, pp. 89–106.
Lundmark, L., Åberg, K.G., 2019. How modest tourism development becomes successful: the complementarity of tourism in Malå municipality. In: Koster, R.L., Carson, D.A. (Eds.), Perspectives on Rural Tourism Geographies: Case Studies from Developed Nations on the Exotic, the Fringe and the Boring Bits in between. Springer, Cham, pp. 221–241.
Lundmark, L., Eimermann, M., Carson, D.A., 2022. Spillover, path-dependence, and giga-investments in the North: forget 'the rural', 'Right-size' where you can and invest for urban growth?. In: Paper Presented at the Nordic Geographers Meeting 2022 Fennia Special Issue Workshop 'Depopulation and Shrinkage in a Northern Context: Perspectives, Processes, and Policies', 25 March.
Maertens, A., Taylor, A., 2018. Improving population retention in northern Australia: clues from German-born Territorians. Aust. Popul. Stud. 1, 39–51.
McManus, P., 2022. Counterurbanisation, demographic change and discourses of rural revival in Australia during COVID-19. Aust. Geogr. 1–16.
Morrison, W.R., 2014. In the north, for the north: post-secondary education in the provincial north. N. Rev. 38, 55–64.
Müller, D.K., Carson, D.A., de la Barre, S., et al., 2020. Arctic Tourism in Times of Change: Dimensions of Urban Tourism. Nordic Council of Ministers, Copenhagen.
Nord, D.C., Weller, G.R. (Eds.), 2002. Higher Education across the Circumpolar North: A Circle of Learning. Palgrave, New York.
Nyseth, T., 2017. Arctic urbanization: modernity without cities. In: Körber, L.-A., MacKenzie, S., Westerstahl Stenport, A. (Eds.), Arctic Environmental Modernities: from the Age of Polar Exploration to the Era of the Anthropocene. Palgrave Macmillan, Cham, pp. 59–70.
Parr, J.B., 1999. Growth-pole strategies in regional economic planning: a retrospective view: Part 1. Origins and advocacy. Urban Stud. 36 (7), 1195–1215.
Partridge, M.D., Rickman, D.S., Ali, K., Olfert, M.R., 2008. Lost in space: population growth in the American hinterlands and small cities. J. Econ. Geogr. 8 (6), 727–757.
Partridge, M.D., Bollman, R.D., Olfert, M.R., Alasia, A., 2007. Riding the wave of urban growth in the countryside: spread, backwash, or stagnation? Land Econ. 83 (2), 128–152.
Peters, P., Carson, D.B., Porter, R., Vuin, A., Carson, D.A., Ensign, P., 2018. My village is dying? Integrating methods from the inside out. Can. Rev. Sociol. 55 (3), 451–475.
Petrov, A.N., 2007. A look beyond metropolis: exploring creative class in the Canadian periphery. Can. J. Reg. Sci. 30 (3), 451–474.
Prout, S., Howitt, R., 2009. Frontier imaginings and subversive Indigenous spatialities. J. Rural Stud. 25 (4), 396–403.
Pugh, R., Dubois, A., 2021. Peripheries within economic geography: four "problems" and the road ahead of us. J. Rural Stud. 87, 267–275.
Rehák, Š., Eriksson, R., 2020. Migration of university graduates and structural aspects of regional higher education. Eur. Plann. Stud. 28 (10), 1941–1959.
Rodríguez-Pose, A., 2008. The rise of the "city-region" concept and its development policy implications. Eur. Plann. Stud. 16 (8), 1025–1046.
Seraphin, H., Dosquet, F., 2020. Mountain tourism and second home tourism as post COVID-19 lockdown placebo? Worldwide Hospital. Tour. Theme. 12 (4), 485–500.
Smailes, P., Griffin, T., Argent, N., 2019. Regional Cities and City Regions in Rural Australia: A Long-Term Demographic Perspective. Springer, Singapore.
Sodja, E., 2021. Boom town: amenity migration in the rural west and the rise of the" zoom town. The GNAR Initiative: Boomtown Series Summary. Retrieved from: https://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=3181&context=extension_curall.
Stockdale, A., 2016. Contemporary and 'messy' rural in-migration processes: comparing counterurban and lateral rural migration. Popul. Space Place 22 (6), 599–616.
Storey, K., 2018. From 'new town 'to 'no town' to 'source', 'host' and 'hub' communities: the evolution of the resource community in an era of increased labour mobility. J. Rural. Commun. Develop. 13 (3). https://journals.brandonu.ca/jrcd/article/view/1576.
Strasser, R., Couper, I., Wynn-Jones, J., Rourke, J., Chater, A.B., Reid, S., 2016. Education for rural practice in rural practice. Educ. Prim. Care 27 (1), 10–14.
Syssner, J., 2020. Pathways to Demographic Adaptation: Perspectives on Policy and Planning in Depopulating Areas in Northern Europe. Springer Nature, Cham.
Taylor, A., Carson, D.B., Ensign, P.C., Huskey, L., Rasmussen, R.O. (Eds.), 2016. Settlements at the Edge: Remote Human Settlements in Developed Nations. Edward Elgar, Cheltenham.
Taylor, A., Larson, S., Stoeckl, N., Carson, D.B., 2011. The haves and have nots in Australia's tropical north–new perspectives on a persisting problem. Geogr. Res. 49 (1), 13–22.
Taylor, J., 2013. Indigenous urbanization in Australia. In: Peters, E.J., Andersen, C. (Eds.), Indigenous in the City: Contemporary Identities and Cultural Innovation. UBC Press, Vancouver, pp. 237–255.
Tervo, H., 2009. Centres and peripheries in Finland: granger causality tests using panel data. Spatial Econ. Anal. 4 (4), 377–390.
Tonts, M., McKenzie, F.H., Plummer, P., 2016. The resource 'super-cycle' and Australia's remote cities. Built. Environ. 42 (1), 174–188.
Udén, M., 2008. Indigenous women as entrepreneurs in global front line innovation systems. J. Enterprising Communities People Places Glob. Econ. 2 (3), 225–239.
Van Leeuwen, E., 2015. Urban-rural synergies: an explorative study at the NUTS3 Level. Appl. Spat. Anal. Pol. 8 (3), 273–289.

Veneri, P., Ruiz, V., 2016. Urban-to-rural population growth linkages: evidence from OECD TI3 regions. J. Reg. Sci. 56 (1), 3–24.
Westin, L., 2015. Establishing urbanity in a region abundant with natural resources: the case of Umeå, Sweden. In: Ishikawa, T. (Ed.), Firms' Location Selections and Regional Policy in the Global Economy. Springer, Tokyo, pp. 203–221.
Worley, P., Lowe, M., Notaras, L., Strasser, S., Kidd, M., Slee, M., et al., 2019. The northern territory medical program-growing our own in the NT. Rural Rem. Health 19 (2).