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# Following Pollen Mobilities

Martin Trandberg Jensen nd Kaya Barry

Staying proximate with: Methodological approach:	Encounters in every breath you take. Through critical reflexivity and awareness of how human–pollen encounters are conditioned by nature as well as by culture, technology, and architecture.
Main concepts:	mobilities, more-than-human thinking relationality
Tips for future research:	Breathe carefully (you never know what you inhale). Remember to pack antihistamines, face masks, and sunglasses and check the daily pollen and weather forecasts at your chosen destination.

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© The Author(s) 2024 O. Rantala et al. (eds.), *Researching with Proximity*, Arctic Encounters, https://doi.org/10.1007/978-3-031-39500-0\_8 Spring; my second least favorite season Hay fever, runny nose and sneezing is my reason The moment flowers begin to bloom Kicks off my discomfort and overall gloom Everyone else sees the beauty of this season I only see my body's treacherous treason Flowers bloom, sneeze, sneeze, sneeze Head so stuffy I can barely think, Morning dew, fresh cut grass, afternoon breeze Sneeze, sneeze, sneeze, they always come in threes

Title: Hayfever, online forum, 2015

This opening account presents two contrasting yet associated attitudes towards nature. The verses describe the beauty of spring's arrival and the joy felt by many as nature blooms, but they also vividly describe the author's own problematic coexistence with the microgametophytes of plants. Her embodied recalling of pollen as a 'treacherous' health concern is juxtaposed with the sensation of spring's morning dew, blooming flowers, and freshly cut grass. This lyrical recital of an allergic body likely resonates with the millions of people suffering from pollen hypersensitivity (Jensen 2016). Allergies to pollen and many other 'natural' substances are a growing global health issue. The World Health Organization estimates that globally 300 million people have asthma, and respiratory allergies are even more prevalent, often serving as triggers that exacerbate the condition (Shea et al. 2008). Allergens come in many forms, including in many naturally occurring substances, foods, and additives, which can trigger mild to moderate allergic responses and, in some instances, life-threatening asthma or anaphylaxis, an extreme allergic reaction (Allergy and Anaphylaxis Australia 2019). Pollen allergies have increasing and far-reaching impacts, and recent evidence indicates that pollen-based allergies in Europe have increased in the past decades (D'amato et al. 2007). Scientists have shown that, in Switzerland, over a 40-year period global warming has caused the flowering of allergenic

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plants to start earlier; there is a trend towards higher pollen concentrations during peak season, and changing biodiversity may lead to the invasion of new allergic plants (Frei and Gassner 2008). In the northern hemisphere, and particularly Arctic regions where biodiversity is rapidly changing due to new seasonal extremes and global warming, symptoms increasingly appear earlier in the year—and more intensively—such that people suffering from pollen allergies face new unaccustomed challenges.

Building on this background and inspired by more-than-human thinking (e.g. Gibson et al. 2015; Searle and Turnbull 2020; Tsing 2015; Whatmore 2013), we discuss human-pollen relations in the context of climate change and set within the designed infrastructures of tourism. Tourism research has seen a growing interest in scholarship focusing on embodiment, corporeality, and the role of the sensuous in tourism encounters. These contributions have nuanced the occularcentric dominance in tourism research by providing insights into multisensory tourist experiences (Edensor and Falconer 2011; Jensen et al. 2015; van Hoven 2011), yet sensuous disruptions from pollen hypersensitivity remain an under-researched topic, and so we use this chapter to expand upon it as a more-than-human encounter shaped by the built environment of the tourism industry.

Inspired by multi-sited ethnography and 'follow-the-thing' approaches (Appadurai 1988; Marcus 1995), we speculate on three contexts through which we discuss the role and effects of pollen mobilities: summer thunderstorms, the aircraft cabin, and the hotel room. The first case teases out a global perspective on the effects of the Anthropocene, aiming to make visible the complex meteorological relations that shape pollen encounters. The latter cases 'zoom in' on two conspicuous and, for most, very familiar contexts of tourism consumption that are increasingly being engineered to reduce human-pollen proximities. To write out these stories, the two authors draw on their own embodied knowledges and coping strategies during travel (as two hypersensitive, allergic bodies). Next, we 'follow' the directions and contexts in which 'pollen' and 'aerial concerns' are presented and described in various travel writings, on hotel websites, and online airline fora. This methodical approach makes it possible for us as researchers to follow pollen-an entity that is invisible or unfelt for the non-allergic body-through embodied travel accounts and by exploring the different ways it emerges as an object of increasing scrutiny and politicisation in aviation regulations and hotel protocols. Through these three short cases, we tease out the relations between nature and

culture as manifested through pollen controversies. These more-thanhuman accounts take the reader through tales that cut across traditional binaries within tourism research, such as local–global and nature–culture, to illustrate how proximities are assembled through social, natural, technological, and political contexts and practices. By crystalising the ongoing and vital mobilities of pollen grains, we outline a more dynamic and critical way of thinking about proximities that also takes into account the way the tourism industry is responding to 'air controversies' (e.g. the airborne movements of pollen and the consumer 'right' to clean and safe air) through specific design practices and technological responses to ensure proper air quality. Seen as such, the attempt to 'stay proximate'—as the central ethos of this book—can also be framed as a 'staged' relationship: in many tourism contexts, it is a conditioned, scripted, and designed relation framed by the intentions of the built environments of tourism.

# Pollen Mobilities in the Changing Climate

Pollen-producing plants require vectors to move pollen. These vectors include wind, water, birds, insects, butterflies, bats, and so on, which connect and assist the reproduction of plant species. In this chapter, we focus on plants described as anemophilous (literally 'wind-loving'), such as trees, weeds, and grasses, and how these pollens are mobilised specifically in the air. However, with climate change, the consistencies in how pollen is carried in the air and what it interacts with during such travels mean that pollen is interwoven with other kinds of elemental mobilities related to climate and weather. As such, pollen traverses the highs and lows of pressure systems, seasonal transitions, and more frequent and extreme weather events and disasters that the Anthropocene is bringing. It is a cyclic process, as biodiversity loss has reached scales once unimaginable, homogenising the kinds of pollen that is still flourishing; and vet as the climate warms, pollutants produced by human mobilities mix with atmospheric conditions to produce even more severe and unpredictable forms of weather. As Barry et al. describe, our everyday mobilities further exacerbate this cyclic process:

Transport fumes create haze and pollutants, aeroplanes alter wind corridors, and the food we eat involves intensive water and soil use that exacerbates drought and fire conditions. Awareness of weather conditions initiates anticipation, planning and practice. (2021, 2)

These mobilities of pollen in the Anthropocene can be best grasped by the recent phenomenon known as 'thunderstorm asthma,' a weather condition that is now forecasted by meteorological departments and ties the mobilities of flame tree pollen and other grasses directly to the particles, dust, and pollutants that are swept up during extreme thunderstorm events. This 'uncommon combination' (Asthma Australia 2021) has occurred several times at various locations around the world. This type of asthma is most documented in Melbourne, Australia, where the first recorded event in 2016 saw almost 2000 emergency calls for medical assistance for asthma attacks during a severe thunderstorm (AAP 2016). In this first globally recorded event of thunderstorm asthma, five people died, and the majority of people who experienced severe asthma attacks had little or no medical history of asthma (AAP 2016). The event has since been studied and adapted into weather forecasting and allergy plans internationally (Asthma Australia 2021). As pollution and pollen levels change due to variances and extreme fluctuations in seasons, incidents of thunderstorm asthma are expected to increase (Luschkova et al. 2022, 114; Price et al. 2021). Areas that are at the forefront of extreme climate changes, such as the Arctic, are expected to see increases of similar environmentally induced asthma events. The need for attention to not only one's own medical health plans but also the weather forecast and season is where pollen mobilities reveal their more-than-human potency.

Incidents of thunderstorm asthma are likely elsewhere as pollen and pollutant levels, in combination with increased thunderstorm events globally, are ever more likely to collide. The intensification of pollen mobilities, however, not only represents an increasing health risk and stands as a potent reminder of climate change in the Anthropocene but also poses a number of challenges—and fuels responses—within the designed spaces of the global tourism and travel sector, a topic that the following section expands upon.

### ON POLLEN MOBILITIES AND AIR TRAVEL

One of the most conspicuous and central constituents of tourism is global aviation. How do particulate matters, such as bacteria, viruses, or pollen thrive in airplane cabins? High-efficiency particulate air filters have purified the air on many international airline fleets since the late 1990s, and air quality aboard modern aircraft is generally perceived as very safe. The cabin air is exchanged every 3–4 minutes, and about

50% of recirculated air is mixed with exterior fresh air, which is free of microorganisms at cruising altitude. As a result of the global COVID-19 pandemic, the European Aviation Safety Association (EASA) recently released a safety guidance bulletin which addresses cabin air filtration. This safety information bulletin (SIB)-a collaborative effort between EASA, the World Health Organization (WHO), the International Civil Aviation Organization (ICAO), and the European Centre for Disease Prevention and Control (ECDC)-provides detailed safety information for airlines and their flight crews on how to reduce the spread of COVID-19. This geopolitical 'push' towards technologically standardised 'aerial environments' onboard airplanes involves interest groups, health organisations, research institutions, and industry actors from around the world. The pandemic thus works as a catalyst showing how '[...] the air is becoming controversial as the three-dimensional and volumetric space around us' (Jensen 2021, 69). In this process, 'pollen,' together with other unwanted particles-such as virus, dander, dust, and smog-is framed as unwanted particles in the attempt to minimise health risks and potential contamination during aeromobility.

## The Hotel Room as a Designed Environment of Tourism

Meanwhile, back on land, the pollen grains that find their way into cities and circulate through windy urban corridors are likely to be caught in spatial and technological politics. The exclusion of pollen in many service and leisure contexts is the product of carefully choreographed design intentions. As pollen grains are led by the wind through the windows and reception hallways of modern hotels, they are met by either air filtration technologies or adaptive ventilation systems. In the aftermath of the COVID-19 pandemic, many hotel and service operators have responded by designing—and marketing—indoor 'experience spaces' that cater to sensuous—respiratory—concerns and afford clean air as a basic service expectancy. For pollen grains, the modern hypoallergenic hotel room represents a hostile environment, where medical-grade air purification systems are used to cleanse their air and vacuum-cleaning with high efficiency particulate air filters ensures that particles as small as 2.5 micrometres, including pollen, are excluded from the space.

Framed around the notions of proximity and more-than-human thinking, we may ponder what kinds of hosts we are to pollen. In opposition to calls for elucidating care-full proximity as a commitment to caring and learning from more-than-human relations, these concrete examples show quite differently how the tourism and leisure industry, society, and public authorities are framing pollen as an 'untidy guest' (Veijola et al. 2014) and an airborne pathogen non grata. This designation is also exemplified on a much greater scale within Nordic urban planning. To counteract the spread of birch pollen, new urban pollen policies are being implemented to minimise pollen-intensive plants and trees, birch among them, in development projects. The council in Aarhus, Denmark's second-largest city, says the move could reduce the amount of pollen in the air by between 10 and 30%, the Danish Broadcasting Corporation reports: 'Not planting birches along roadsides and in parks should reduce the nuisance to some extent, and provide relief to city dwellers with pollen allergies,' according to Peter Sogaard, a biologist on the city council (DR 2015). Thus, while it is well-documented that urban green spaces improve human health and well-being (Aerts et al. 2021), there is a growing awareness of health risks associated with birch pollen, providing a new important public health agenda for such spaces (Eisenman et al. 2019).

Drawing from this background, we see that the attempt to design out pollen encounters is not only an element within the material architecture of hotel rooms and the global aviation infrastructure but also permeates urban planning principles. The examples presented herein mostly demonstrate 'pollen politics' in action as they derive from international contexts, but they are nevertheless relevant to the changing Arctic environment in the Anthropocene. In relation to global pollen politics, there may very well be a global asymmetry, and pollen concerns may still be a discourse raised mostly by privileged individuals with the resources and knowledge to cope with such issues. Nevertheless, it would be worthwhile to speculate on what kinds of travel stories may unfold if we attend to the stories of pollen encounters as multispecies protagonists (Höckert 2020; Valtonen and Rantala 2020). What kind of controversies, affects, atmospheres, and stories of power and culture can be teased out by understanding more richly and in a more situated way the diverse global expressions and experiences of pollen encounters in global tourism?

## LIVING-WITH-POLLEN: ON CONTROVERSIAL PROXIMITIES

This chapter has briefly addressed the under-researched role of pollen as an influential non-human actor in tourism and mobilities contexts. In light of the COVID-19 pandemic, a new public awareness and concern about the 'air between us' has emerged (Jensen 2021). For many allergic and hypersensitive tourist bodies, air is more than a molecular environment for human experiences: it is a significant volumetric space, conceived of and embodied, reactive, and experienced through each weighed breath of air; through each sneeze; through itchy, red, and watery eyes. The circulation of air, in this sense, is the vector that gives pollen its ability to interact-to 'speak back.' This ability reminds us that air-as an agentic substance-is a constant aerial canvas through which human experiences, meaning-making, and perception are shaped. We are thus required to rethink the traditional dichotomic binaries often hailed in tourism research, such as the host-guest or nature-culture divides, by seeing the phenomenology of hypersensitive travel as ongoing assemblages that draw out issues related to culture, architecture, power, and human and non-human interdependencies in the Anthropocene.

In tourism settings, this mission has meant expanding the focus from human hosts and guests to questions of well-being within multispecies communities (Höckert et al. 2022; Gren and Huijbens 2014). As lifegiving as pollen is, it is also potentially destructive for many. This tension raises pertinent questions in relation to the contested nature of being proximate, illustrating the dilemmas of unwanted proximities existing as part of everyday life. Staying proximate with pollen, for many hypersensitive bodies, is not a moment of vitality, but a draining—even life-threatening—situation. Thus, while 'staying proximate' in more-thanhuman encounters may be understood as an epistemological opening for appreciation, vitality, and a new ethical orientation towards others, proximity should also be addressed as something pre-cognitive, non-rational, and contested. This requires us to theorise differently about proximity and to unpack, also, the controversial and potentially erosive effects of proximities between human and nature.

We have used this chapter to exemplify how 'follow-the-thing' (Appadurai 1988; Marcus 1995) as a specific method allows researchers to account for the spatio-temporal and ever-changing proximities in pollen encounters. This method allows researchers to nuance the essential dichotomy between 'nearness' and 'farness' that is traditionally conceived

of when thinking through the notion of proximate tourism. Proximity tourism often refers to human-centric accounts of travelling in close or home environments (Rantala et al. 2020). However, with our unpacking of more-than-human relations between pollen and allergic tourist bodies and environments, we seek to nuance the ways we may think through the lens of proximity in the Anthropocene.

Furthermore, while proximities are felt and embodied and may thus be experienced in profound ways (so proximity tourism tells us), they are also very often conditioned by the specific material intentions of places. This chapter has sought to more explicitly link the biological and phenomenological elaborations of proximity tourism to questions of power by seeing proximities as assemblages shaped and conditioned by technologies and designed material environments in tourism. While proximity tourism and emergent discussions on multispecies communities promote new ethical and equal relations between human and non-human actors, there is a dominant human supremacy in the ongoing development of multispecies environments for certain forms and preferences of life.

#### TOURING WITH POLLEN: WHERE NEXT?

This book asks the core question: How might tourism be studied by staying proximate? We have used this chapter to shed light on three cases related to processes of staying proximate in tourism and beyond. First, we caution against idealising proximity. Through the adaption of the 'follow-thething' method, we have used this chapter to underline the politics and controversies of proximity, as seen through pollen encounters. If staying proximate rests on ideas of sensitivity towards affective and embodied modes of knowing-and an underlining commitment to caring for the other-we must be open to unpacking the disruptions, discomforts, challenges, injustices, and asymmetries posed by proximities. This recognition poses an ethical responsibility to 'us' as researchers to constantly reflect on whether it is possible, or desirable, for (relatively) able-bodied researchers to articulate a set of 'proximate methodologies' in tourism. Given the many diverse, multifaceted, and fragile ways that different bodies relate and respond to their surroundings in tourism and beyond, there is the risk that we are complicit in the objectification of proximity.

Second, there is dearth of research theorising proximity as a precognitive, non-rational, contested, and ongoing issue. For hypersensitive bodies, living-with-pollen is best understood not in terms of spatial proximities but as ongoing processes of adaption, orientation, and familiarisation. Finally, by zooming in on the extensive effects of pollen mobilities, giving 'voice' to pollen as an agentic substance, we have rendered visible how multispecies relations influence hypersensitive travellers. Within the confinements of this chapter, we have tried to demonstrate the value of more-than-human writing in research within the Anthropocene. This methodical approach is not limited to the empirical foci of this chapter but can also be expanded and applied to other contexts (e.g. encounters with fungi, viruses, and other particles that we do not see but may react strongly to). For future accounts, we urge the use of creative writing, multimodal material, and arts-based approaches to open up new ways of presenting and knowing through the rich and vital expressions of staying proximate as researchers and individual travellers in tourism and beyond.

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