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Alien Plants between Practices and Representations: The Cases of European Spruce and Beach Rose in Finland

PLANT PERSPECTIVES
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ABSTRACT

In Finland, the European spruce (*Picea abies*) and the beach rose (*Rosa rugosa*) have very different cultural resonances and ramifications, but they also have many similarities. In this study, we examine these species through the concept of 'plantiness' to reveal the political ecology behind the categories of native and alien, demonstrating the national and biological belonging of said species. We ask why people want to protect certain species and not others – which ultimately amounts to deciding which plants are permitted to exist and which are not. Acknowledging that natural changes occur constantly, we also ask how people come to decide what counts as the 'status quo' that should be protected. We create a synthesis from our disciplines: palaeoecology, which focuses on the ecology of the past; cultural history and ethnology, which explore historical and contemporary times; and linguistics, which focuses on a long time period from prehistoric to contemporary times.

KEYWORDS

European spruce, beach rose, plantiness, belonging, non-belonging

INTRODUCTION

In this paper, we explore the political ecology of belonging by analysing the notions of alienness and nativeness through the concept of 'plantiness'. We selected two plants for our study: the European spruce or spruce (*Picea abies*) and the beach rose (*Rosa rugosa*), also known as the Japanese rose.

The beach rose is deemed non-native to Finland. In contrast, the European spruce is widely considered a native, though it arrived in Finland relatively late, if a longer-term perspective is applied. Their different itineraries offer a fruitful perspective on the question of alien species: the spruce has inhabited Finland longer, resulting in the fact that the Finnish word for it has existed in the language for a long time. The domestication of the beach rose has been much more rapid: compared to the spruce, it is a newcomer both geographically and linguistically. In addition, the beach rose has aroused strong emotions as an alien species that has to be eradicated and it is

on the list of 'worst' (sic) alien species in Europe, according to Nentwig et al.[1]

The European spruce and the beach rose therefore have very different cultural resonances and ramifications, but they also have many similarities. For instance, their presence in Finland and the ability to cause changes in their environment has been contested. In this study, we examine these species through the concept of plantiness in order to reveal the political ecology behind the categories of native and alien, demonstrating the national and biological belonging of said species. We understand belonging and non-belonging as culturally defined umbrella terms for more natural science-based categories such as alien/native/invasive. In this paper, we ask why people want to protect certain species and not others – which ultimately amounts to deciding which plants are permitted to exist and which are not. Acknowledging that natural changes occur constantly, we also ask how people come to decide what counts as the 'status quo' that should be protected.

The use of the native–alien dichotomy and its connotations has traditionally been relevant in the natural sciences, but has also, to some extent, been scrutinised within the fields of social sciences, cultural geography, history and ecolinguistics.[2] However, more research is needed.

This paper proposes a transdisciplinary approach, as it combines ethnology, cultural history, palaeoecology and linguistics. We argue that the study of 'alien' plants requires transdisciplinary work: a parallel analysis of both cultural and ecological processes (that are in continuous flux). We proceed in thematic sections integrating all disciplines as we aim at instigating and nurturing a richer dialogue among our fields.[3] This is necessary to understand the full complexity of the matter. Our goal is to show that parallel analysis reveals new insights about the tensions between alien and native, belonging and non-belonging, and about human–plant relations in general.

Since our disciplines have different time scopes – palaeoecology focuses on the ecology of the past, linguistics looks at the lengthy period from prehistoric to contemporary times, and cultural history and

1 Nentwig et al. (2018).

2 See e.g., Jones and Cloke 2002; Coates 2007; Rotherdam and Lambert 2011; Uusitalo and Suomalainen 2023; and Stibbe 2015 on ecolinguistics.

3 For a similar approach see e.g., Rautio et al. 2022.

ethnology explore historical and contemporary times – we are able first to focus on the profound environmental changes since prehistoric times (i.e., plant lives as a realm of practices), and second to emphasise the perceptions, attitudes and affections for plants that have been formulated and have changed over time (i.e., plant lives as a realm of representations). Our research is based on methodological and theoretical reflection, but we also draw on examples from a wide range of different materials: pollen data, etymological data, historical texts and Internet discussions.

In this paper, we first introduce the reader to our multidisciplinary research material and analysis frameworks, following with sections discussing, first, the European spruce and, second, the beach rose. We end our paper with a concluding discussion. Even though our focus in this paper is on Finland, we encourage scholars to consider similar cooperation, no matter where they or their interests are situated geographically.

METHODOLOGICAL AND THEORETICAL FRAMEWORK

Data

Being transdisciplinary, our research involves several methodological points of departure, from contemporary literature, media content and linguistic analysis to the palaeoecological analysis of pollen data.

The spruce has a long history that exceeds the reach of written texts. Such history, as well as the migratory dynamics of other tree species, can be studied from lake sediments and bogs, as trees produce abundant pollen grains that are well preserved in anaerobic conditions. Dating such sediments using the radiocarbon method provides a chronology, which makes it possible to reconstruct the timing and character of the spread of a species.

Digitised newspaper collections offer a plethora of material on both the spruce and the beach rose. The National Library of Finland digitised all published works in Finland up to the late 1930s.[4] The post-war period is by no means completely digitised, but the amount of material is sufficient for content analysis. Besides newspaper articles, we also

4 https://digi.kansalliskirjasto.fi/etusivu?set_language=en (accessed 21 February 2024).

used some contemporary literature (such as non-fiction books on alien plants written by biologists) and material provided by international and national officials on this topic. Our exploration was based on thematic reading of both newspaper and contemporary literature references to both the spruce and the beach rose, especially on how their supposed nativeness or non-nativeness was expressed. We interpreted these references in their historical contexts.

The Finnish word for spruce, *kuusi*, also has another meaning: the number six. The digital extraction of newspaper references was therefore difficult, and care was needed to avoid including a wrong word in the data. The case of beach rose was completely different: there were far fewer references, and they were easy to identify. The first mention of the Finnish word *kurtturuusu* appeared in 1954. Its scientific name, *Rosa rugosa*, could be found as early as 1885.

In language, lexical and grammatical choices may reveal impressions and perceptions toward plants.[5] In addition to the thematic reading of references to the spruce and beach rose, we drew on linguistic analysis. While this was partly based on the aforementioned data from the National Library, we also used an online discussion corpus, which is presented later in this paper. Etymology, too, is an advantageous perspective in transdisciplinary studies of the past. Words can tell us much about cultural or natural changes. Sometimes a new word appearing in a language is an indicator showing what happened in the speaker's culture or environment.[6]

Analysis framework

As a multidisciplinary theoretical framework, political ecology offers us tools to analyse our data. Political ecology can be seen as being derived from the traditions of human geography and anthropology and ethnology. In 1970s and 1980s, political ecology mainly focused on Third World countries and issues like poverty and the capitalistic economy. It was argued that social theories should be more engaged with human–environmental relations and vice versa.[7] Most political ecology research conducted was concerned with environmental degradation,

5 Berlin 1992: 103–108; Uusitalo & Suomalainen 2023.

6 Piha 2018: 135–141; de Smit 2019.

7 Neumann 2005: 22.

which includes a wide range of environmental problems, such as soil erosion and the loss of biodiversity.[8] Although political ecology is often connected to research advocating against social injustices in relation to environmental issues, there is a significant amount of research dedicated to power relations between knowledge and science.[9] As have so many other frameworks, political ecology has gone through the plant turn, and a subfield often referred to as vegetal political ecology has emerged. A fair amount of attention has been given to the characteristics or abilities of different plants: the 'plantiness' of plants and how the plantiness of different plant species is entangled with society and culture, or the human sphere. Plantiness is a concept that was advanced by the political ecologists Lesley Head, Jennifer Atchison and Alison Gates (2012) in what they framed as an 'assemblage of material properties and expressive capacities that prefigure plant relations with people'.[10] Plantiness is said to describe the way people now see plants in their own terms, and it is through plantiness that plants actively co-produce the world.[11]

The question of alienness – being an alien or categorised as an alien – is at the heart of our exploration. The terms native and alien have been used in botany since the 1840s.[12] Like other more ecology-derived terms, they are connected to movement: species that have travelled between countries or continents with human help are called invasive species, archaeophytes or neophytes; plants that do so without human help are alien species; and plants that spread from gardens are garden escapees. Native species, on the other hand, are plant species that are perceived to occupy their natural spatial range. Such plants may form part of the national landscape.[13] These terms carry meanings of values and belonging: the word 'alien' suggests that a plant is non-native, a foreigner, something that does not belong where it is, as it infers displacement from a supposedly natural environment. The term 'invasive' emphasises both human perception and the harmfulness of the (alien) species. Among the humanities and social sciences, several accounts

8 e.g., Robbins 2012 [2004].

9 e.g., Berkes, Colding and Folke 2000; Fischer 2000; Sonck-Rautio 2019; Sodikoff 2012.

10 Head, Atchinson and Gates 2012: 27.

11 Duran and Sundberg 2022: 190–191.

12 Davis et al. 2011.

13 See e.g., Jones and Cloke 2002.

have contested the alien/native dichotomy and highlighted that these categories are coined from a cultural bias that promotes national identity and encourages discrimination against anything 'foreign'.[14]

According to Argüelles and March (2022), conservation organisations and governments very commonly apply the narrative of local plants being the victims of invasive species, which are labelled as biodiversity-threatening. From the point of view of political ecology, it is more crucial to note that 'it is not species, but sociobiological networks that are invasive'.[15] In fact, as our case here demonstrates, invasiveness is more of a socio-cultural (and political) notion than one objectively ecological, derived from the culturally defined categories of belonging and non-belonging. It has been argued that the invasiveness of a plant is related to three key points: the origin, behaviour and impact of the plant.[16] The behaviour of plants is seen as part of their plantiness, whereas the impact of the plant is at the core of the political ecology of alien species. The central questions then remain: who is impacted in what way, and who determines whether the impact is 'good' or 'bad'? Judging from these three key points, a plant species will be ruled to either belong or not to belong in a certain environment.

The framing of certain plant species as belonging or invasive is a cultural practice. It leaves little space for plantiness, the wide possibilities of the plant itself, or the agency of the plant. Nevertheless, these practices should not be seen as cultural or political practices only imposed by humans, but as the entanglements of plants, people, other species and the landscape, all both constraining and enhancing one another.[17] In ecology, humans are often assumed to be disturbing or damaging natural biodiversity rather than potentially enhancing it;[18] and sometimes humans are left out in ecosystems analysis altogether – although palaeoecological evidence shows that the human impact on ecosystems has a long history, and not necessarily always a damaging one.

14 Argüelles and March 2022; Warren 2007.

15 Robbins 2004: 140.

16 Kull and Rangan 2015.

17 See Head, Atchison and Gates 2012.

18 See e.g., Ellis and Ramankutty 2008: 445; Rival 2006.

BELONGING: THE EUROPEAN SPRUCE

The European spruce is commonly considered a native plant in Finland. During its existence in Finland it has gained numerous meanings that have bound it tightly to Finnish culture.

A pre-Christian tradition of sacred trees (*uhripuu*) indicates the importance of the European spruce to the Finnish people. Across the country, it was a tradition to worship spruces or other trees that grew in people's yards or further away from human settlements in hills or islands, and to sacrifice food and drinks to them. Sacred trees that grew in gardens were believed to protect people's homes. In eastern Finland, spruces were also used as *karsikkopuu* (marked tree) or *kalmakuusi* (death spruce), marked and pruned in order to keep a deceased person from returning home after they died, to celebrate a turning point in a person's life, or as landmarks (Figure 1).[19] The Christmas tree (*joulukuusi*, *joulupuu*) tradition has also highlighted the cultural importance of the European spruce, since it has traditionally been the 'the only right' tree to be used as a Christmas tree.[20] Nowadays, more and more Finns buy cultivated Serbian spruce or fir trees, but many still favour the 'native' spruce as their Christmas tree.[21]

The nativeness of European spruce can also be examined through plant etymology. Plant names may have different ages, and thus they may represent different eras. The Finnish word for spruce, *kuusi*, is part of the oldest lexical stratum in Finnish. It has counterparts in the most distant related languages of Finnish, namely, the Samoyedic languages in Siberia.[22] The word's reconstructed predecessor **kusa* existed in the Proto-Uralic language, which dates back 4,000–5,000 years. It is important to note that, at the time, the Proto-Uralic speakers did not yet inhabit the area of today's Finland, and Finnish speakers' ancestors migrated to the area later.[23] If only the age of the word were noted, it would seem that spruce trees have 'always' been in Finland.

19 Luttinen 2012: 270–78.
20 Päivänen 1993: 2–4.
21 Ibid.: 11–14.
22 Häkkinen 2004.
23 Saarikivi 2022: 55–58.

FIGURE 1.
Kalmakuusi in Oravivaara, Finland, photographed in 1915 by Samuli Paulaharju.
Source: Finnish Heritage Agency. Shared under CC BY 4.0.

When examined through palaeoecology and with a geological timeline, the European spruce is a relatively new addition to Finland's ecosystems, especially in the west. At the end of the last glaciation, the

areal extent of most plant species in Finland differed greatly from today's. The rapid increase in temperatures and retreat of the continental ice sheets opened up vast new areas for plants to colonise. The tree species that came to Finland after the Ice Age, about 10,000 years ago, were mostly birches and pine.[24] The highest abundance of temperate deciduous tree species was reached during the Holocene Thermal Maximum, c. 6000–3000 BCE.[25] The dominance of these trees, however, ended about 4500 BCE, when spruce spread westward to eastern Finland in high population densities, causing the decrease in the distribution of the former mixed conifer-deciduous forests.[26] Spruce gradually spread further westward. About 3500 BCE, the eastern half of southern Finland had already developed into the boreal ecosystem, while the western half was still dominated by mixed conifer-deciduous forest. By about 1000 BCE the whole of southern Finland was occupied by boreal forest. In the Åland Islands, the spruce became common around 350 CE.[27]

When examining a long period comprising thousands of years, many 'native' species can be considered aliens, like the European spruce in Finland, or anthropochores (plant species deliberately or accidentally distributed by humans). As Jones and Cloke point out, in order to be considered 'native', a plant species has to have existed somewhere for a certain amount of time.[28] We add another condition: to be granted belonging (or to be granted it more quickly), a non-native species must also have physical and biological characteristics – a certain plantiness – that are useful to humans economically and culturally. The plantiness determines whether the plant will succeed, flourish, spread, crossbreed or disappear in a certain area. Research regarding the agency of plants from the point of view of human experience has shown that humans experience plantiness in positive ways as long as it offers them some aesthetic value or mental health benefit, but these perceptions become negative if the plantiness is beyond human control or the plant cannot be utilised somehow.[29]

24 e.g., Donner 1971; Hyvärinen 1975.
25 Heikkilä and Seppä 2010.
26 Giesecke and Bennett 2004.
27 Sarmaja-Korjonen et al. 1991.
28 Jones and Cloke 2002: 31.
29 See e.g., Jones and Cloke 2002.

The political ecology really lies within the questions of how the plants' plantiness is perceived, for whom they create benefits, for whom they are a nuisance and the type of ecosystem considered worth protecting. Not all aspects of the spruce's plantiness have been appreciated by humans in the long run. On some rare occasions, the European spruce has been described as an alien species. In his non-fiction book on alien and invasive species, biologist Seppo Turunen describes spruce as 'an annoying occupier' that is edging closer to the habitat of oaks and lime trees and possibly suppressing them with light deficiency.[30] From an ecological perspective, spruce is an ecologically competitive, shade-tolerant species becoming dominant especially on mesic and nutrient-rich sites. Palaeoecological evidence shows that its invasion changed the forest structure, suppressing the shade-intolerant temperate deciduous tree species such as oaks, lime trees and hazel.[31]

We cannot say for sure how contemporary people felt about these changes, but can suggest something about how different tree species were valued and used by people since the Neolithic era. Palaeoecological findings from eastern Finland have shown that foragers during the Neolithic in Finland were not just passive users of the environment, but actively manipulated it.[32] Conscious and unconscious human–plant interactions affected the vegetation dynamics, and the deliberate manipulation of plant resources in particular had an impact on the abundance and distribution of certain species. Archaeobotanical data from Stone Age sites in mainland Finland have provided evidence that various nuts, fruits, roots and seeds originating from wild plants were gathered.[33] Edible plant species present in Finnish macrofossil materials include species such as raspberry (*Rubus idaeus*), juniper (*Juniperus communis*), hazel (*Corylus avellana*), wild strawberry (*Fragaria vesca*) and sorrel (*Rumex*) species. Hazel and lime were an important source of materials. Lime bast was widely in use as a raw material for different textiles and cordage during the Stone Age.[34] Most of these species had a competitive advantage and were growing more abundantly among the

30 Turunen 2015: 45.
31 Giesecke 2005; Seppä et al. 2009.
32 Alenius et al. 2021.
33 Vanhanen and Pesonen 2015.
34 Alenius et al. 2017; Mannering, Gleba and Hansen 2012.

early successional communities. In this context, due to its invasion into the region, the spruce could well have been considered an annoying occupier already by Stone Age people, as it suppressed the hazel and lime communities and other useful species that they favoured for food and other resources.

In southern Finland the period of highest biomass of spruce roughly dates to 2000 BCE–500 CE.[35] After this, the declining trend coincides with the dawn of forest clearance and farming. Spruce, preferring relatively nutrient-rich and moist soils,[36] was growing densely at the sites that were also best suited for cultivation. The first forest types cleared for slash-and-burn cultivation – the traditional Nordic means of clearing the land for cultivation – were therefore the spruce forests.[37] Instead of annoying occupiers, the people likely saw the spruce forests as a pristine source of various provisioning services such as food, firewood and material for buildings and utensils.[38] Daily life in the Middle Ages and pre-urban period (1000–1600 CE) in Finland was to a considerable extent based on utilisation of wood and wooden products, and there were no restrictions on forest utilisation. In the long run, wasteful forest resource use resulted in large-scale deforestation in the vicinity of villages and towns.[39] In the eighteenth century, the demand for timber began to increase in Europe, and spruce became an important raw material for the sawmill industry. Its plantiness was now appreciated.

At the end of the nineteenth century, nature conservation took shape as a conceptual entity and an idea with certain goals and a programme. Interestingly, from the perspective of nature conservation, the European spruce can be seen as a threat. Turunen, the biologist calling spruce 'an annoying occupier', describes how in some nature conservation areas spruces are logged to clear space for broad-leaved trees such as oaks.[40] Turunen also tries to control spruce in his own yard with the help of a bow saw. He writes that during the last hundred years the European spruce and the pest insects favouring this tree such as European spruce

35 Seppä et al. 2009.
36 Diekmann 1996.
37 Soininen 1974; Pitkänen et al. 2002.
38 Vuorela 1975.
39 Roiko-Jokela 2016.
40 Turunen 2015: 46, 176.

bark beetle have become more abundant partly due to changes in Finnish forestry. Turunen further argues that the spruce's presence has caused major ecological changes. This can result in cutting down spruces in the name of ecological restoration or habitat management. As historian Peter Coates states, the national citizenship of problem species can be easily contested.[41] If the European spruce is seen as a problematic occupier, its national identity or right to become abundant in Finland or in certain regions can be challenged.

NON-BELONGING: THE BEACH ROSE

The case of the beach rose underscores the question asked by political ecologists engaged in multispecies studies: who decides which species or varieties are and are not allowed to exist, and how is it in fact decided which species are worthy of love and care? [42] Furthermore, as advocated by Paul Robbins, an examination of sociobiological networks should be undertaken, rather than focusing on the beach rose as a species.[43] The terminology that describes and grants spatial belonging to plant species often assigns values to them, which further emphasises the political ecology of belonging. Many archaeophytes are viewed positively (such as cultivated plants that are useful to humans). Species that are classified as invasive species or garden escapees, on the other hand, are viewed as intruders that do not belong in Finnish ecosystems. This rests on the idea that invasive species and escapees may threaten species that are deemed native and thus decrease biodiversity.[44]

The beach rose is an example of a plant species whose cultural place and meaning has shifted. It was first welcomed in Finland as a new delight in Finnish gardens and flower beds, but nowadays it is, alongside its white-flowered form, *Rosa rugosa* 'Alba' categorised as an invasive alien species that does not belong in Finland. This species of rose was brought to Europe from northeast Asia in the late eighteenth century and arrived in Finland around the turn of the nineteenth and twentieth

41 Coates 2007: 188.

42 See e.g., Sodikoff 2012; Lorimer 2015; Rose, van Dooren and Chrulew 2017.

43 Robbins 2004: 140.

44 Coates 2007; Davis et al. 2011; Jones and Cloke 2002.

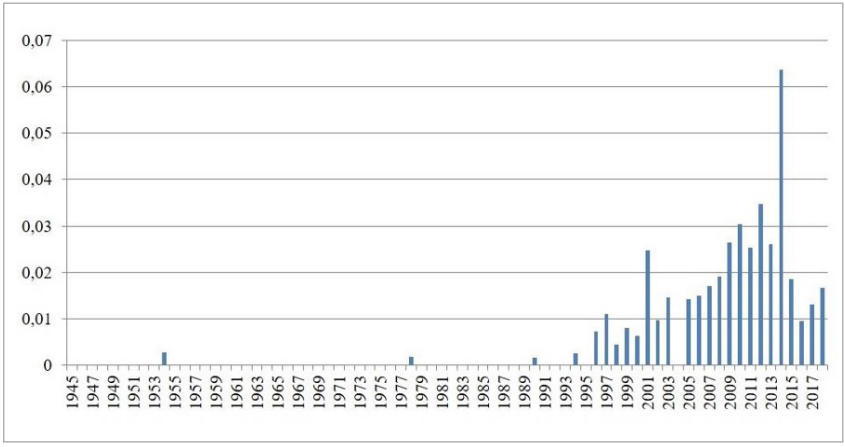

FIGURE 2.

References to *kurtturuusu* (*Rosa rugosa*) in the Finnish-language press from 1945 up to 2018.

centuries.[45] The Latin name *Rosa rugosa* was first mentioned in an advertisement in 1885. The Finnish compound word *kurtturuusu*, 'beach rose' (literally, wrinkly rose), is a much newer word in the Finnish language than *kuusi* (spruce). It appears in written sources in the mid-twentieth century and verifiably in 1954. Even before that, the plant had Finnish names, such as *kurttulehtiruusu* (wrinkled leaf rose), *jaapaninruusu* (Japanese rose) and *äkäruusu* (peevish rose).

Figure 2 shows the references to *kurtturuusu* (beach rose) in Finnish-language newspapers and journals. The annual figures were normalised by dividing the number of hits with the number of digitised pages per year. This revealed how frequently the beach rose's character as an alien plant received attention toward the end of the twentieth century.

Roses in general have many strong meanings in Western culture and Christian symbolism.[46] Even though the beach rose has not gained the same remarkable cultural importance as the European spruce in Finland, its plantiness has been considered beneficial by humans. The beach rose

45 Jauni and Seppälä 2017.

46 e.g., Liitiä 2006.

has edible rosehips, leaves that can be brewed as tea and petals that can be preserved as jam, which is similar to how other species of roses have been used for centuries. In his book about useful plants, which was published during the Continuation War 1941–44 and the subsequent austerity era in Finland, Toivo Rautavaara described the beach rose as the most important and recommended rose species because its rose hips contain high amounts of vitamin C.[47] Rautavaara encouraged people to plant them along roadsides and in parks, yards and even woodlands. The beach rose is still highly valued among collectors and consumers of wild plants.[48] Besides the species' edibility, its strength and resistance were appreciated and valued throughout the twentieth century. As it tolerates salt, it was planted in gardens near the coast and central reservations of motorways, which are continuously salted during the cold season as salt prevents roads from icing over. In 1997, the beach rose was chosen as the 'shrub of the year' in Finland due to its ability to flourish in nutrient-poor and dry soils and because it tolerates wind, salt and air pollution.[49] It is also valued for its longer flowering time than other wild roses, with blooms from June to late autumn.[50]

A major shift in the plant's cultural meaning from a useful and resistant plant to a harmful invasive species took place in the 2000s. In 2011, the *EU Biodiversity Strategy to 2020* was issued to halt biodiversity loss and combat invasive alien species.[51] By 2020, invasive alien species were supposed to be identified, priority species controlled or eradicated, and pathways managed to prevent new invasive species from disrupting European biodiversity. In the *Finnish National Strategy on Invasive Alien Species* published in 2012, 157 invasive alien species were identified, and one of them was the beach rose.[52] Since June 2022, it has been illegal to breed, cultivate, sell or release beach rose or its white-flowered form into the wild. Interestingly, cultivated beach rose hybrid varieties are not

47 Rautavaara 1943: 273–275.

48 Laitio-Ramone 2016.

49 STT [Finnish News Agency] 1997.

50 Rautio 2013: 4.

51 https://environment.ec.europa.eu/strategy/biodiversity-strategy-2030_en (accessed 21 February 2024).

52 https://mmm.fi/documents/1410837/1894125/Finlands_national_strategy_on_invasive_alien_species.pdf/ (accessed 21 February 2024).

regulated. There is ongoing discussion about which species should be categorised as harmful.[53]

One reason that the beach rose was included in these international and national strategies and listed as an unwanted invasive alien is the fact that it is originally a garden escapee. It spread from roadsides and people's gardens to wastelands and sandy, rocky seashores in the beginning of the twentieth century. Many biologists have highlighted that on the few sandy Finnish beaches, the beach rose has spread, formed wide growths and replaced native vegetation due to its rhizomes.[54] The need and urge to eradicate beach rose is therefore linked to the idea of protection of seashores and native plants.

The beach rose and other invasive species and garden escapees are sometimes referred to as enemies, and this language can resemble that used in relation to unwanted human foreigners.[55] The extermination of the beach rose has even been referred to as warfare. For instance, the *Länsi-Savo* newspaper wrote on 31 March 2011 that a war had been declared against alien species such as the beach rose.[56]

Nevertheless, not all Finns see the beach rose as a non-belonging invader. Some biologists and ecologists have debated the harmfulness of beach rose and argued that even though the species should be eradicated from sandy beaches, it has a right to exist in gardens.[57] It seems that the beach rose is almost violently out of place when it spreads to the seashore, yet its right to exist in gardens is open to debate. Besides biologists, many other people view the beach rose as a cherished and traditional garden plant, and some have criticised the decision to place it on the list of invasive aliens.[58]

In modern language, people's perceptions and attitudes toward the beach rose can be linguistically studied, using online discussions, for example. A popular research source for this is the Suomi24 (Finland24) discussion forum.[59] All its discussions are stored by the Language Bank

53 Turunen 2015: 186.

54 Cajander 2018: 42; Louna-Korteniemi 2019; Turunen 2015: 186, 188.

55 See also Coates 2007.

56 Nikkilä-Kiipula 2011.

57 See e.g., Turunen 2015; Cajander 2018; Kasvi 2019.

58 Konttinen 2017.

59 https://www.kielipankki.fi/corpora/suomi24/ (accessed 21 February 2024). See e.g., Lehti et al. 2020; Uusitalo and Suomalainen 2023.

of Finland and can be searched with the *Korp* concordance tool, a web-based tool that can be used for corpus queries based on morphosyntactic analysis and other features.[60] The data is accumulating, and at the time of composing this paper it includes writings from the period 2001–2020.

A search for *kurtturuusu* ('beach rose') provided 789 results, including singular and plural forms in all cases. The contexts in which the word is used varies from racist human immigration references to neutral nature discussions. In this case, when focusing on the nature-related comments, a language-focused content analysis was performed.[61] The analysis revealed mixed emotions toward beach rose, which were evident, for example, through the affectiveness of the adjectives used. While some commentators had a positive attitude toward beach rose as part of Finnish natural heritage, many others did not. The following examples are English translations and the original Finnish comments are provided in footnotes.

Some commentators expressed mixed feelings, as can be seen from one of the comments (equivalent adjective translations underlined or bolded):

> It is a pity about the beach rose, it is so **pretty**, but I guess it is <u>harmful</u> in its own way and needs to be removed.[62]

Sometimes people found the public discussion around the beach rose amusing. The following example shows a writer who imitated political jargon ironically:

> Beach rose must be eradicated from the country, and [Finland must be] the first one in the EU [to monitor it] strictly with a conditional fine. Finland, as the first one in the world, will move to an era without beach rose and will lead the way for others toward developing a society without beach rose. Beach rose and combustion engines do not belong to Finland, and they will be removed despite the objections of reactionary forces.[63]

60 Korp Concordance Tool, The Language Bank of Finland. https://korp.csc.fi/korp/#?corpus=&cqp=%5B%5D&lang=en (Accessed 28 February 2023).

61 See e.g., Herring 2004: 4–5.

62 *Sääli vain sitä kurtturuusua, se olisi niin **nätti**, mutta kai sekin on omalla tavallaan <u>haitallinen</u> ja siis poistoon sekin.*

63 *Kurtturuusu on hävitettävä maasta ensimmäisenä EU:ssa ja tiukimmin uhkasakoin. Suomi ensimmäisenä maailmassa siirtyy kurtturuusuttomaan aikaan ja on samalla tiennäyttäjä muille kurtturuusuttoman yhteiskunnan kehittämisessä. Kurtturuusut*

The out-of-placeness and non-belonging of the beach rose is created and strengthened not only through language, but also through practices of control and prevention. Biologists and officials have encouraged Finnish citizens to use different methods to remove the species. People need to identify the species first, and then control it by pulling and digging it out manually or mechanically with the help of machinery (such as pruning shears, brush saws, tractors), to make sure that all the roots are removed. It can also be controlled with the help of grazing animals.[64] Natural scientists Jauni and Seppälä noted that the beach rose can further be controlled by collecting its rosehips or 'starving it' for several years, which in effect means cutting all the young branches and shoots annually until the plant dies.[65] In Finland, people have voluntarily eradicated local beach rose populations in events organised by municipalities and nature conservation organisations. The characteristics of the thorny, densely growing and well-rooted beach rose make it a difficult plant to get remove. Nevertheless, Finns have devised many ways to destroy beach rose populations.

CONCLUSIONS

In this paper, we have reflected on the political ecology of belonging and the notions of alienness and nativeness through the concept of plantiness. We selected two species, the European spruce and beach rose, which are different biologically, culturally and economically, as the focus of our attention. We have argued that transdisciplinary approaches – here, the combination of palaeoecological, historical, cultural and linguistic studies – can help clarify why people perceive, feel and behave in certain ways toward plants. We have applied political ecology to better understand the political rather than only the ecological, cultural and social attitudes behind the emotions and actions taken. Categorising plants as belonging and non-belonging, as native or alien and invasive, is also always about power, especially if these categories are then used as arguments for or against the plants in conservation or provisional

ja polttomoottorit eivät kuulu Suomeen ja ne lähtee taantumusvoimien vastustuksesta huolimatta.

64 Ikonen, Kekki and Räikkönen 2009; Cajander 2018.

65 Jauni and Seppälä 2017: 281.

strategies, for example. The political ecology framework here also demonstrated that we should focus on sociobiological networks, instead of singling out specific species and one-sidedly categorising them.

Attitudes to invasive species have also varied and changed, as the example of the beach rose reveals: Finns were once encouraged to plant beach roses in their gardens, but nowadays the law demands that they be eradicated. People seem to have mixed feelings about the species. While some people support the eradication, others think that it is unnecessary. Meanwhile, the European spruce has had important economic and cultural relevance over a very long time horizon, even though it can be considered originally to have been an alien species. It is difficult to draw a line between native and non-native, especially if a long time has passed since the arrival of the plant. Considering the long history of human land use and exploitation of forests, there are almost no truly natural areas remaining in Fennoscandian forests. Scholars therefore need to view forests and the many plant species there as existing in different stages of naturalness.[66]

Linguistic and palaeoecological perspectives may be helpful when drawing conclusions about the times before written sources, while cultural historical and ethnological perspectives, as well as linguistics, are crucial for analysing historical and modern times. Combining disciplines with different time scopes can help scholars see and understand that their environment and the perceptions, attitudes and affections to plants have been formulated and have changed through time. We encourage scholars to develop more transdisciplinary perspectives when studying human–plant relations.

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66 Peterken 1996; Brumelis et al. 2011.

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