(Un)forbidden fruits
The influence of culture, nature and place on fruit and berry picking in Skarpnäck

Jonna Lidmark

Human Geography, advanced level, master thesis for master exam in Environmental Social Science, 30 ECTS credits.
Supervisor: Danielle Drozdzewski.
Language: English.

Abstract

Standardised systems of food production where food is brought into cities from far away is accompanied with high emissions from both production and transport. Simultaneously, food growing in the urban surroundings is not picked and left to rot. This thesis is concerned with urban foraging, the practice of picking edibles in the urban landscape, a practice often overlooked by research and policymakers. The case study area is Skarpnäck, southern Stockholm and the focus is specifically on foraging of fruit and berries from public vegetation. Using a qualitative mixed methods approach where a questionnaire was followed by interviews, the aim has been to assess how the practice is perceived in the case study area and if there are certain cultural norms that limit picking activities. Results suggest that foraging is perceived to be out of place in the urban area. Although some people do pick, others feel it is inappropriate and do not want to be seen picking fruit or berries and therefore limit picking. The thesis concludes that urban foraging has the potential to increase urban sustainability, but efforts are needed for foraging to be a culturally accepted practice.

Keywords

Urban foraging, fruit, berries, picking, food trees, norms, cultural ecology, Skarpnäck.

*Image on front page depicts apple tree in Matparken in Skarpnäck, author’s own picture.*
## Contents

**Figures** .................................................................................................................. 3  
**Glossary** .................................................................................................................. 4  
**1. Introduction** ......................................................................................................... 5  
  1.1. Relevance ........................................................................................................... 6  
  1.2. Problem statement and aim ............................................................................. 6  
  1.3. Research questions .......................................................................................... 7  
  1.4. Research location ............................................................................................. 7  
  1.5. Thesis structure .............................................................................................. 7  
**2. Literature review on urban food foraging** ......................................................... 8  
  2.1. Background and motivations for foraging ...................................................... 8  
  2.2. The urban – rural, and human – nature divide ............................................. 9  
  2.3. Foraging as an act of non-conformity ............................................................ 10  
  2.4. Foraging as a cultural practice ...................................................................... 11  
**3. Theoretical framework** ....................................................................................... 12  
  3.1. Cultural ecology ............................................................................................ 12  
**4. Research approach** ............................................................................................ 14  
  4.1. Mixed methods approach .............................................................................. 14  
  4.2. Questionnaire .................................................................................................. 15  
  4.2.1. Sample ......................................................................................................... 15  
  4.3. Semi structured interviews .......................................................................... 16  
  4.3.1. Sample and procedure ............................................................................. 17  
  4.4. Visual elements ................................................................................................ 17  
  4.5. Limitations ........................................................................................................ 17  
  4.5.1. Reliability and replicability ...................................................................... 18  
  4.5.2. Validity ......................................................................................................... 18  
  4.6. Ethics ................................................................................................................ 19  
  4.7. Data analysis .................................................................................................... 19  
**5. Results and discussion** ....................................................................................... 20  
  5.1. The act of picking as culturally inappropriate. .............................................. 23  
  5.2. Picking as an act of non-conformity ............................................................... 28  
  5.3. Becoming food .................................................................................................. 30  
  5.4. Perceptions of food waste .............................................................................. 32  
  5.5. Cultural understandings of food and nature .................................................. 34  
  5.6. Picking as out of place in the city ................................................................... 35  
  5.7. Reconnecting with nature .............................................................................. 37  
  5.8. From normative assumptions to environmental stewardship ....................... 39  
  5.9. From symbolic barriers to symbolic enablers ............................................... 42  
  5.10. Knowledge as constructed through culture .................................................. 44  
**6. Conclusion** .......................................................................................................... 46  
  6.1. Policy recommendations ............................................................................... 47  
**7. Bibliography** ....................................................................................................... 48  
**Appendix** ............................................................................................................... 52
Figures

Figure 1. Percentage of respondents that pick fruit or berries. ........................................... 20
Figure 2. Crosstabulation of picking frequency and gender. .................................................. 21
Figure 3. Ranking of environmental commitment. ................................................................. 21
Figure 4. Percentage of respondents that pick mushrooms or forest berries. .................... 22
Figure 5. Answers chosen to why fruit and berries are not picked........................................ 23
Figure 6. Respondents agreeing or disagreeing with statement about acceptance .......... 24
Figure 7. Respondents agreeing or disagreeing with statement about difference .......... 24
Figure 8. How far respondents would consider going to pick. .............................................. 28
Figure 9. Percentage of respondents considering picture Q1 as food waste. .................... 32
Figure 10. Percentage of respondents considering picture Q2 as food waste. .................... 32
Figure 11. Respondents agreeing or disagreeing with statement about experience. ...... 37
Figure 12. Answer to question 4 on percentage of apples imported. ................................. 39
Figure 13. Answer to question 5 on how much apples are wasted. ................................. 39
Figure 14. Likelihood of picking in the future. ................................................................. 40
Figure 15. Respondents agreeing or disagreeing with statement about accessibility. ..... 41
Figure 16. Answers to why respondents have never picked ................................................. 44
Glossary

Foraging
In the literature the terms forager, gatherer and harvester are used by different authors to describe people actively looking for and picking edible (or otherwise useful) materials in either urban or rural surroundings. In this thesis I have used the term forager when referring to people who pick edibles, either in group or by themselves, as well as the term forage to describe this practice. However, as the term forage does not easily translate to Swedish, being equivalent to something like ‘actively seeking for something and picking it’ in presenting the results from interviews and questionnaire, as well as in discussion of these, I have used the simpler term pick to describe the act of picking edibles.

Fruit and berries
The focus of this thesis is on edible produce in the form or fruit and berries growing on public vegetation in the urban landscape. The term ‘fruit and berries from public vegetation’ will be used to describe all types of edible fruit or berries that grow on trees or bushes in the urban surroundings (such as apples, cherries, raspberries etc.), while ‘mushrooms and forest berries’ describe mushrooms and low growing berries that usually grow in forests (blueberries, lingonberries etc.).

Public vegetation
The term public vegetation refers to trees and bushes growing on public land, in this specific case, urban or semi-urban public land, such as streets, parks, squares and other areas that are not part of private gardens and are open for the public.
1. Introduction

Foraging was recently named the hottest food trend by Elle Food and Wine (2018), an affiliate to a Swedish fashion magazine. However, the act of foraging is hardly a new practice. For most of human history, all people were hunter gatherers, surviving by hunting animals and gathering whatever food could be found in the surrounding environment. About twelve thousand years ago this way of life started to change with the domestication of certain plants and animals, which led to the rise of agriculture allowing the population to grow and become more sedentary (Sutton and Anderson 2014). Since then, the world has become increasingly urbanised. Most urban centres do not produce enough food to sustain their populations; food is brought from outside the city, often far away, to feed urban communities. Today, most food consumed in the Global North is produced through intensive industrial agriculture, with the accompanying high emissions and biodiversity loss (Clark and Nicholas 2013). The production of food has a high environmental impact, notwithstanding the scale of waste disregarded. In 2016, Sweden produced 1 255 000 tonnes of food waste. This amount was around 129 kg per person, an increase of 10 kg per person since 2012 (Naturvårdsverket 2016). Yet this figure is an underrepresentation because any non-commercial food is not included in such official statistics.

Stockholm is an example of a city importing most of its food. CO₂ emissions emerging from any type of production in Stockholm are quite low, as it has a predominantly service-based economy. However, using a consumption perspective¹, compared to other large cities in Sweden, Stockholmers have a larger carbon footprint per capita (Bradley, Hult, and Cars 2013). Sweden imports about twice as much agricultural products than it exports. While some products cannot be grown in Sweden (such as bananas), many are (for example raspberries and apples), leading to competition on the market between imported products and locally grown products (Jordbruksverket 2018). Taking the example of fruit, a large share of fruit consumed in Sweden is imported. For example, in 2011 82 percent of all apples consumed in Sweden were imported (Wallentin, Sandén, and Saberski 2016).

An apple consumed in Sweden, but grown in France generates twice the emissions as one grown in Sweden, and one imported from New Zealand generates four times the emissions (Naturvårdsverket 2008). Concurrently, a lot of fruits and berries growing in gardens or on public land are left to rot on trees, bushes and eventually on the ground. Around 265 000 tonnes of apples go to waste in gardens around Sweden every year (Gustavsson and Eriksson 2016). In response to this waste several private initiatives such as fruktförmedlingen and fruktkartan have developed across Sweden. Fruktförmedlingen (Äkta vara 2019) comprises a database where private people can add their excess fruit and berries so others can come and pick it. Fruktkartan (Fruktkartan n.d.) is an open database comprised of trees and bushes on public land where people can pick the produce. However, at least in Stockholm there is no official initiative. Despite these initiatives, the act of gathering², once one of the pillars to human existence and still remaining important for many people around the world, has become a marginal practice in cities in the Global North notwithstanding the status as the hottest food trend.

¹ A consumption perspective allocates CO₂ emissions from all stages of production to the final consumer.
² Gathering will from here on be referred to by the term forager, referring to someone looking for and picking edibles, as explained in glossary
1.1. Relevance

The practice of urban foraging is often overlooked by both researchers and policymakers (Shackleton et al. 2017) and the field is not well researched. Conversely, the ecosystem services provided by trees in urban areas are the subject of much research. Trees can absorb both carbon dioxide and pollutants at the same time as lowering the temperature in cites, important mitigating aspects amid climate change. A plethora of research attests to trees and urban green providing cultural ecosystem services and being good for human health. However, urban provisioning ecosystem services, such as food provision, is not as widely researched (Russo et al. 2017). As an exception, a study by Clark and Nicholas (2013), has examined the potential of food trees in the context of urban sustainable development. They found that there is substantial potential for food trees to contribute to urban sustainability on both an ecological and social context. Such potential involves issues of increased food security, human wellbeing and landscape multifunctionality.

In the Swedish context research on foraging is limited even though Sweden has ‘the right to public access’. This right allows people to pick wild growing berries, herbs, mushrooms, fruits etc. on private or public land (outside of gardens or farmed land), an act forbidden in most other countries. The right to public access makes it quite clear what can be picked in rural areas but its application in urban areas is relatively unexplored; it is not as clear when it comes to what you are allowed to pick from built areas, such as a flowerbed in a park\(^3\) (Bengtsson 2004). For example Shackleton et al. (2017), describe a survey on officials in charge of management of parks in Stockholm that uncovered an uncertainty even among officials as to what was allowed or not. While some officials were positive or tried to promote foraging and even planted trees for that purpose, others referred to official statements prohibiting picking from planted or wild vegetation. Shackleton et al. (2017) argued that these differences may be due to the uncertainty on how the right to public access should be applied.

A review of the literature on urban foraging by McLain, Buttolph et al. (2012) showed that research on foraging in urban areas is scarce overall and that the few studies conducted in the Global North mostly revolved around motivations of those that forage on a regular basis or consider themselves as foragers. I believe that there is value in researching not only the reasons to why many people do forage, but also the reasoning of those that do not.

1.2. Problem statement and aim

Representatives from the City District Administration in Skarpnäck, an area in southern Stockholm, has noticed that a lot of the fruit and berries growing on public land was not being picked. They expressed a desire to create an official fruit and berry map to inform the community of their location and encourage people to pick fruit and berries in the district\(^4\) (Örnevik 2018). Departing from the assumption of the Skarpnäck City District Administration, who presume that informing the public where trees and bushes grow will increase the likelihood of people picking the produce, this thesis is concerned with investigating the attitudes towards foraging among Skarpnäck residents.

---

\(^3\) In interpreting the right to public access, Bengtsson (2004), has pointed to how the right, being a bit outdated, does not clearly state how it should be applied in certain circumstances such as vacant lots, planted flowerbeds or ornamental bushes.

\(^4\) I contacted representatives that I had previously been in contact with, as a member of a community gardening group, they presented the map idea and the subject of this thesis was decided upon together.
The case of Skarpnäck is interesting not only because of the concern from the administration but also due to the existence of many fruit trees and berry bushes growing on public land (Fruktkartan n.d.). Skarpnäck is also the part of Stockholm that has the highest amount of allotment gardens (Roxell 2009). The interest within this specific community to grow and pick fruit and vegetables is thus relatively high, making the question as to why the fruit and berries are not picked even more interesting. Moreover, in Sweden there is also a strong culture of mushroom and berry picking in forests. In Stockholm, mushroom picking and picking of forest berries (such as blueberries and lingonberries) is very common while picking of other berries and fruits is less common (Shackleton et al. 2017). This juxtaposition suggests that the culture of mushroom and forest berry picking is disconnected to picking of fruit and berries of trees and bushes in the urban areas of Stockholm.

This thesis will investigate how the act of picking is perceived and examine whether a lack of knowledge provides rational for the unpicked produce, or whether cultural barriers hinder people picking fruit and berries in the area. The aim is to develop a better understanding of how cultural norms influence fruit and berry picking. To do so the theoretical framework of cultural ecology will be applied. The goal of the research is to both contribute to a gap in the literature, while also providing the Skarpnäck City Administration with information to help efforts to map trees and bushes. In the wider perspective, the intent is to broaden the picture of urban foraging and open discussions on urban food production, edible landscapes and trees as provisioning ecosystem services.

1.3. Research questions

- How is the act of picking, and the edibles present, perceived in Skarpnäck?
- In what way do the underlying cultural mechanisms (or cultural norms) influence individual picking decisions and can these act as barriers to urban foraging?

1.4. Research location

This research will focus on the area of Skarpnäck, also known as Skarpnäcks gård. The city of Stockholm is divided in to 14 city districts. One of these, located in the south of Stockholm is Skarpnäck city district. The district of Skarpnäck consists of several different neighbourhoods, one being Skarpnäck’s gård. Located on an old airfield, right next to the Nacka Nature Reserve, this area was built in the 1980s. The area was planned with an environmental profile, with aims to limit traffic and enable recycling. The buildings are in blocks, with vegetation in courtyards between them, where many fruit trees and berry bushes are present. It also had a social agenda and aimed towards community building (Roxell 2009). Today the area has a population of 11 399 and comprises mostly of multifamily housing with a mix of condominiums and rentals, but also some single family housing (Stockholm stad 2018a).

1.5. Thesis structure

After having presented the background and aim of this thesis in Chapter 1, a review of previous literature on urban foraging and the theoretical framework of cultural ecology will be presented in Chapters 2 and 3. The research approach, as well as methods used, a questionnaire and semi structured interviews are described in Chapter 4. The results of the data gathered are presented thematically and discussed in relation to theory and precious research in Chapter 5. Chapter 6 will conclude the thesis.
2. Literature review on urban food foraging

Although the research conducted on urban foraging in the Global North is quite scarce, recent studies from USA (Seattle and Baltimore for example) and also some from Europe (London and Berlin) demonstrate an increasing interest. The literature on urban foraging, gathering or harvesting all use a range of terminologies and it is not always clear what their use of the terms entails. In this literature review I have included studies that engaged with some kind of picking of edible materials in urban or peri-urban areas, in locations considered as the Global North, and use the term foraging to describe this practice (as described in glossary).

2.1. Background and motivations for foraging

There is considerable diversity in people who forage. Shackleton et al. (2017) determined that although motivations for foragers may vary, urban foraging is practiced by both those considered rich and poor, employed and unemployed, as well as migrants and long-term residents. This finding is supported by two other studies. McLain et al. (2014) found a wide demographic diversity in those that forage and Robbins, Emery, and Rice (2008) concluded that foragers have different socioeconomic backgrounds and include people with different income levels, race, education and housing situations. In cities all over the world, people forage, they are not of a specific gender or income group but come from varied cultural backgrounds. The motivations for foraging differ, as do the species picked and the local practices on how to forage also vary between contexts (Shackleton et al. 2017). Although being practiced by a variety of people across the world, such findings do not mean that no differences exist, but open space for further studies. For example, Palliwoda, Kowarik, and von der Lippe (2017) have suggested that gender is a determinant in human-plant interactions in parks, and this variable may be relevant in the case of foraging even though none of the studies reviewed here has found gender to be a determinant in foraging activities.

My review of the literature echoes the conclusions posed by Shackleton et al. (2017), such that a common characteristic found is that of high levels of local ecological knowledge among those that forage. What the literature does not tell us is whether those that forage do so because they already have this knowledge, or if they have become knowledgeable from foraging. However, Poe et al. (2014) have pointed out that many foragers speak of how they have gained a deeper knowledge of nature and the city through foraging. Further, in gaining particular knowledge of place and nature, a sense of space and belonging was also fostered. The specific types of ecological knowledge foragers possess include species identification and seasonal understanding (Poe et al. 2013). Most foragers in the study from Seattle by Poe et al. (2013) also practiced sustainable harvesting techniques and possessed strong environmental stewardship ethics. Drawing conclusions from five studies on urban foraging, McLain et al. (2014) found consistent examples of environmental stewardship practiced by foragers. Such stewardship practices were also identified by Landon-Yamagata, Kowarik, and Fischer (2018) in researching foraging practices in Berlin where they found that most foragers have self-imposed rules on how to forage sustainably, and that many foragers actively take care of plants.

Foragers were often guided by moral judgements when choosing where and what to forage, as demonstrated in research from Seattle by Charnley, McLain, and Poe (2018). These judgements often related to the fact that it is illegal to forage in parks in Seattle, but nonetheless almost all
foragers engaged in sustainable picking and conveyed stewardship practices such as minimising impact and taking care of plants. The different moral calculations occurred regardless of whether foraging was legal, illegal or unclear. Most of those that foraged had limited knowledge on rules regarding foraging in public parks. When foraging in areas of ambiguous ownership foragers had feelings of guilt and fear of their activities being questioned (Charnley, McLain, and Poe 2018). In many locations there are physical barriers to foraging, for example a gate that is locked at night, in others there are symbolic ones. These symbolic barriers can be informal property rights, for example when something is growing near one’s home or when a group claim to a certain place which excludes others (Charnley, McLain, and Poe 2018). These ambiguous conditions may provide the reason for Landor-Yamagata, Kowarik, and Fischer's (2018) finding that the preferred sites for foraging were those where with the most space and fewest other people. Despite informal barriers and formal regulations against foraging activities in USA, the study by McLain et al. (2014) found that foraging of a large variety occurs in all four cities that took part in their study.

A consistent theme within the limited literature on urban foraging has been identifying motivations of those that forage. In a study from Baltimore, Synk et al. (2017) found that the most frequent motivations for foraging were enjoyment, economic and health benefits, as well as connection with nature. Lack of time, lack of knowledge and safety were the most common barriers identified. Another example from Svizzero (2016: 21) concluded that the main motivation for urban foragers was ecological, “the wish to commune with the nature”. Further, McLain and Buttolph et al. (2012) concluded that people forage for many reasons. Some people forage to find materials that are otherwise hard to obtain, while others forage as a recreational activity, a reason to be outside and/or spend time in nature. At the same time many people forage as part of family and cultural tradition (discussed further in section 2.4.). For some foragers it is a means to make income or find food that could otherwise not be afforded (McLain and Buttolph et al. 2012).

2.2. The urban – rural, and human – nature divide

In a study on urban foraging in London, Nyman (2018) argued that there are many different reasons for foraging, but specifically for those involved in fruit picking networks the concern over food waste was the main motivation. These networks also involved picking of fruit on private land (from homeowners), and there was a clear difference in the perception of waste of food growing on private land, as opposed to edibles growing wild. The “distinction between cultivated plants or domestic space” and that of “natural or wild spaces” was important in the perception of food waste, when growing wild it was considered “not waste as such” (Nyman 2018: 6). Thus, food growing in the wild that was not picked was not perceived as waste. Nyman (2018) highlighted that the act of picking was a moment of meaning-making. In this way, it was in the act of a fruit being picked that a fruit became food. Here Nyman (2018) explored the ontological uncertainty of what food actually is. He detailed how the understanding of what is food is as relational, dependant on the relationship between people and environment, space and time (Nyman 2018). Whether something becomes food depends on context, such as cultural, legal, spatial, and economic conditions. For these reasons, there could be an abundance of edible produce growing in the city, but there is still no guarantee that it is considered as food.

Food is not only produced in the manufacture of the produce, but also by the “social, spatial and temporal conditions” of how it is constructed (Nyman 2018: 4). A normative meaning-making condition for many food products is consumption (Nyman 2018). The historic process of urbanisation, where food production has been of moved from the urban consumers has led to a cultural understanding of the spatial ordering of food. Culture and environment, as well as
nature and cities are often viewed as dichotomous (Pellegrini and Baudry 2014). Replicated by the cultural dualism of the urban and rural, food growing in cities is thus perceived as “out of place” (Nyman 2018: 8). Classens (2015) argued that normative views on urban agriculture are grounded in a separation of nature and society, which reinforce the boundaries between plants and the city and lead to the city as a whole not being considered as a proper place for food production. As has been argued by Gobster (2007), conservation of nature in cities has favoured vegetation providing ecological services, and not a source of human needs. This preference has led to what he calls a museumification of nature, where urban landscapes are places for people to look at and recreate in, however not to forage in. Establishing that these normative views can be reformed Poe et al. (2014) demonstrated that for many people, foraging led to a blurring of the boundaries between the urban and the wild.

McLain et al. (2014) have also pointed to how foraging as a practice is USA has been perceived as out of place, and something to be discouraged as normative assumptions are that urban nature is not a provider of resources for human consumption. Decision makers and managers have generally defined productive food practices as rural, and not appropriate in cities while citizens have been positioned as users and not stewards or co-producers of nature. However, recent changes in this assumption has led to possibilities of seeing urban foraging as an acceptable practice (McLain et al. 2014). In an example from Seattle, the official forest management policy had mostly focused on forest as providers of services rather than goods. Yet alternative visions of urban forests, promoted by urban fruit-foraging groups, now opened up ideas about urban forests including edible landscapes and as sites of both services and goods. Although this research is an exception, it demonstrates how such ontological shift can create new public spaces for fruit production and have led to foraging for fruit being seen as a more legitimate activity (McLain, Poe et al. 2012).

2.3. Foraging as an act of non-conformity

The notion of non-conformity relates to the assumption that most human needs are met by the market, and hunger and poverty is due to market failure. Emery and Pierce (2005) argued that according to traditional economic theory, subsistence practices should not exist in a first world setting except as failure of the system. However, a lot of subsistence activities exist globally, outside of market systems. Although these practices may be of particular value for Indigenous people, they include people from different ethnic backgrounds (Pierce 2014). An act of non-conformity means to act in a way that does not conform to common ways. Since subsistence activities, according to market principles should not exist in a society based on market economy, foraging deviates from the standard practice, positioned as out of place, and can be an act of non-conformity (Nyman 2018).

In contrast to the above mentioned fruit picking networks in London described by Nyman (2018), Robbins, Emery, and Rice (2008) found that most forager are not part of a ‘community’, nor do they take part in any type of organised economy. They argued that foraging should not be viewed as a community or informal economy, but rather as a practice (Robbins, Emery, and Rice 2008). Because these practices operate outside of the formal economy, even outside of alternative markets they do not represent an alternative economy, but a practice of daily life. However, these practices can still be seen as ways to envision alternative conditions within the capitalist system urging them to instead go to the store. Every item picked (not to be sold), is one not purchased at the store, which can be seen as an act of non-conformity to the system (Robbins, Emery, and Rice 2008).
Poe et al.’s (2014) research saw foraging not only positioned as an act of picking but as a demonstrated political and moral act, one constituted by the idea of belonging in nature and a rebellious act against normative assumptions of human and nature. Poe et al. (2013) detailed that foraging can be a way for people to assert their rights to subsistence or non-capitalist exchange. In their study foragers claimed that wild food was a right, a right to not take part in the capital economy. We forage “because it’s our right. Our bodies are our right, and nature is our right, and we can’t just be a consumer of the commercial world” (Poe et al. 2013: 416). Nyman (2018: 8) also viewed foraging as an “act of non-conformity” when within the city as an otherwise controlled area. Foraging is a “non-capitalist practice”, collected for free, without market exchange (Nyman 2018: 8). Yet it should not be viewed as devoid of capital or labour as a significant amount of labour from both foragers and nonhumans is involved.

2.4. Foraging as a cultural practice

Nature-based activities, such as berry picking, are culturally rooted and cultural ideas differ in terms of what is considered to be food (Poe et al. 2014; Nyman 2018). Often, the cultural practices of berry picking and nature-based activities are part of family traditions and cultural identities “embedded in people’s everyday relationships with nature, urban, or otherwise” (Poe et al. 2014: 904).

Knowledge about foraging is learned and passed on in different ways, often through family and friends. This knowledge transfer is essential to preserve foraging practices as some species are toxic to humans (Poe et al. 2013). McLain et al. (2014) found that people described acquiring and passing on knowledge on foraging and plants to and from family and friends. Landor-Yamagata, Kowarik, and Fischer (2018) also found that most foragers had family members who also foraged and had childhood experiences of foraging. Svizzero (2016) has argued that the cultural component of foraging is a motivation, the wild resources picked are not valued in terms of money but valued for their social and cultural symbolism. Both Anderson, Chavez, and Blahna (2000) and Carroll, Blatner, and Cohn (2003) critique the idea of commercial or economic interest as the main reason for foraging. Foraging has often been seen as an economic activity. Yet Carroll et al. (2003) have demonstrated how picking of huckleberry in Washington state, was part of cultural tradition and identity and had a deep historical meaning. Anderson, et al. (2000) also found that foraging was not an economic, but a social and recreational activity with cultural meanings and demonstrate how different cultural groups display different attitudes towards picking certain crops.
3. Theoretical framework

3.1. Cultural ecology

As it has been suggested that nature-based activities such as berry picking are culturally rooted and that cultural ideas differ in terms of what is considered to be food (Poe et al. 2014), cultural ecology will be applied as the theoretical framework in this thesis. Cultural ecology is a theoretical framework that focuses on how humans are influenced by culture in the way they act in their local environment. Cultural ecology has been criticised for being close to environmental determinism (Head 2007), the environment as a single factor determining human behaviour. The view of culture and environment today is however not that dialectic, humans have a great impact on the whole system, but environment and humans interact in a relationship. Humans are not outside or beyond nature. Cultural ecology is also influenced by Actor Network Theory, which views the separation of nature and culture as a social construction. Humans, plants and other actors all have agency in the system, thus a landscape comprises a collective endeavour (Head 2007).

Culture is a complicated word, because of the historical development in many different languages it has no universal meaning, but it is also an important and widely used concept in many different disciplines (Williams 2008). Culture is a system, organised by different components, for example economic, political, religious and social (Sutton and Anderson 2014). Many times, culture is equated with tradition, but often culture is new. Traditions are often thought of as long-term, but they often change and are adapted (Shurmer-Smith 2002). The concept of culture as applied in this thesis relates to the practices and knowledge associated with human behaviour and social norms which exist and are performed in different societies. Culture can be made up of contagious ideas and is something that is practiced, not owned. It is what people do, and “the communicating, sense-making, sharing, evaluating, wondering, reinforcing, experimenting qualifier of what people do” (Shurmer-Smith 2002: 2, original emphasis).

All humans belong to a cultural group, a group sharing “basic but unique pattern of learned behavior” (Sutton and Anderson 2014: 113). The cultural system can be influenced by the natural environments, in traditional societies to a large degree, while in more industrialised cultures the influence of the environment is mediated by other characteristics, such as socioeconomic conditions. Knowledge on how to live in the world, spanning from basic survival skills to moral rules, are learnt through culture. Inherent to understandings of culture are systems of classification, “a cultural construction of reality” (Sutton and Anderson 2014: 123). Each culture has different institutions to deal with problems faced by individuals, these include “rules, principles, laws, social contracts” (Sutton and Anderson 2014: 114) and organisations around to keep circle. According to Sutton and Anderson (2014) it is culture that determines what solutions are valid and/or applied by individuals on a daily basis. The interest of cultural ecology lies in learning how and why people or cultures choose one solution over the other.

Cultural ecology investigates the relationships and interactions between humans, their cultures and the environment (Sutton and Anderson 2014). Historically, cultural ecology has had an interest in how humans adapt to the environment, the idea being that cultural adaption occurs from different environmental conditions. The other main concern of cultural ecology is how humans alter the environment for their needs (Warf 2010). Thus, cultural ecology explores both how the local environment influences human behaviour and how people impact the
environment (Robbins 2004). For example, cultural ecology has a tradition of studying subsistence (Sutton and Anderson 2014). Subsistence includes all aspects of survival, and comprises a complex system involving resources, technology, organisation and settlement patterns, all relating to culture (Sutton and Anderson 2014). The main focus of subsistence studies is often on food, as it is one of the basic needs for living. While the research on the Global South is common in cultural ecology, changes in relationships with the environment globally are important to consider. Since the rise of agriculture people have become dependent on domesticated species for food and this has also led to big changes in human organisation. Cities have grown to require complex infrastructure and bureaucracy, and a huge quantity of resources to support their inhabitants (Sutton and Anderson 2014). The perspective of cultural ecology is well suited to understand how the transition in production and consumption has had effects on cultural changes related to diet and gardening practices (Basett and Zimmerer 2003).

The perspective of human-plant geographies, a continuation of cultural ecology, described by Head and Atchison (2009) highlight how the everyday practices of people are related to cultural identities and views of nature. These everyday practices can be difficult to change since they are part of a culture and wrapped up in identities, norms and values (McLain, Buttolph et al. 2012). Cultural changes are complex and requires changes in individual, societal and institutional structures and applying cultural ecology can help understand the complex workings of culture (Head 2010).
4. Research approach

The aim of this thesis is to explore attitudes, views and cultural understandings of the specific phenomena of urban fruit and berry picking in Skarpnäck. The goal of the research is not to generalise the results to a bigger population but rather to understand the meanings of individual behaviours and therefore the overall research approach is qualitative and interpretative. Flyvbjerg (2006) argued that a case does not need to be generalisable in the formal sense to contribute to a research field. This research is qualitatively driven; it seeks a deep understanding of social reality. The method used in research is dependent on your research agenda and not the other way around and therefore in this thesis I will not be limited to using only qualitative methods. According to Johansson (2003) a common methodological feature in a case study is the combination of different methods to illuminate a case from different angles. Hesse-Biber (2010) has argued for a mixed methods qualitative methodology, which is what this research will be based on. Here I have used a qualitative framework, but applied methods associated with both qualitative (semi structured interviews) and quantitative studies (questionnaire). Analysis and discussion of results, although sometimes presented in charts and tables, is mostly qualitative. The process of this thesis is inspired by grounded theory (Bryman 2012), where insights gained during the research process has guided the direction of the thesis.

4.1. Mixed methods approach

While most researchers base their research on a specific research strategy, meaning that they use either qualitative or quantitative methods, mixed methods are a valid alternative (Bryman 2012). Essentially, qualitative research, for example based on semi structured interviews may bring light to meanings or relationships, while quantitative research, for example analysis of survey data, can show patterns and broad relationships (Elwood 2010). In this case, when designing the study, I have found that neither one of these research strategies alone was enough to answer the research questions.

Mixed methods have been subject to critique relating to epistemological positions (Bryman 2012). This criticism has to do with the idea that different research methods are embedded in distinctive epistemologies. Every research method is rooted in a particular idea of what knowledge is and how it can be achieved. Methods used are expressions of epistemological positions based on interpretivism or positivism that define methodology, and according to some critics, such diverse views cannot be compatible (Bryman 2012). Although acknowledging the importance of epistemology, instead of only seeing the problems with the different positions, I argue that the possibilities of mixing methods extend beyond singular epistemological approaches and can bring new knowledge to many fields of research. Instead of being in a fixed epistemological position, mixed methods can be a more flexible way of knowledge application and has the potential to bridge not only research strategies but also different fields. As I believe that knowledge can be gained in multiple ways but come from a general interpretive/constructivist position in understanding that there are multiple realities, I used different methods to gather data, yet the analysis of results was an interpretive one.

A combination of methods was used to gather data for this thesis. First a short questionnaire was distributed to 92 inhabitants in the area to gain a broad understanding of the phenomenon. After the results from the questionnaire had been received, an interview guide was created, and semi structured interviews were conducted. For both the questionnaire and interviews visual methods were used as a complement, to compensate for the season of data collection.
4.2. Questionnaire

The idea when first producing the questionnaire was to walk around the community and conduct structured interviews with inhabitants following the questionnaire format. However, when conducting a pilot study, it became clear that it was better to simply let the respondents answer the questions themselves on a tablet. This way the respondent’s answers were anonymous, and they were not steered by me to answer in any direction. The questionnaire was conducted through an internet-based survey tool, Google Forms. The idea of the questionnaire was to gain a broad idea of the commonality and perception of fruit and berry picking in the area. It was not however, conducted by a random sample of respondents, see further discussion under sample, and therefore does not provide results that can be quantified. The data gathered from the questionnaire was used as a result in itself and was also used to inform the formulation of questions for the semi structured interviews conducted with other participants.

The questionnaire (see appendix) was relatively short and took around five to seven minutes for respondents to complete. The questionnaire operationalised the assumption that gathering of different kinds of data could give a better understanding of the research problem, as explained in methodology. The questionnaire was designed with mostly closed but also some open questions. Some questions were quantifiable to provide a basic presentation of the respondent’s understanding, with potential to be developed in interviews. While being time consuming to code, the advantage of open-ended questions was that respondents could answer on their own terms rather than being steered in a certain direction, these questions opened up potential for answers not previously thought of (Bryman 2012). Most closed questions also had the option of “other”, where respondents could fill their own answer.

There are many benefits and disadvantages of using a questionnaire. One of the advantages is that it is easy and fast to create, to gather data and register them. The online survey registers all answers without any processing by the researcher, limiting processing error (Bryman 2012). However, the main disadvantage of a questionnaire is that respondents are not given the option to explain their answers and as they are anonymous it limits the possibility to gather further data (Valentine 2005). These reasons prompted the inclusion of other methods. Respondent’s misunderstanding questions can also lead to measurement error (Bryman 2012). Problems with the questionnaire can arise from the respondents answering but also in analysing their answers and in the creation of the questionnaire. To limit these problems, I tested the questionnaire for multiple times and conducted a pilot study before gathering answers from respondents.

The questionnaire conducted through Google Forms consists of ten questions, of four questions differed depending on whether respondents had ever picked fruit or berries or not (see appendix). If respondents had picked fruit or berries, they were given questions related to how far they would go to pick fruit and why they believe others do not pick. If respondents state that they had never picked fruit or berries they were given the question of why they had not, followed by a few questions related to the import and waste of apples, ending with if they would consider picking fruit or berries based on this information. The questions given to all respondents aimed to find how views differ from picking mushrooms or forest berries and perceptions of food waste.

4.2.1. Sample

The sample of respondents for the questionnaire was a non-probability sample, and a purposive one (Bryman 2012). I would say it is not a convenience sample but a purposive sample. I did not aim for a representative sample but an illustrative one (Valentine 2005). The point of the questionnaire was to ascertain an approximation of community views. Following the approach of on-site recruiting (Longhurst 2010), answers to the questionnaire were gathered in three
different locations in the study area (see map in appendix). Around 20 answers were gathered at each location. The data was gathered on one weekday, one evening of a weekday and one day on a weekend.

As I had a wish to reach a variety of people, including those that one perhaps does not come across walking the streets in the community, and the Skarpnäck City Administration had a will to gather as much data as possible on existence of trees and bushes, the questionnaire was also distributed in a local Facebook page, although it did not yield much response. After reviewing the results however, it became clear that both those people that were walking around in the area, and the ones that answered on Facebook may have been the people that are mostly interested in the outdoor environment. The people that choose to answer the questionnaire from the Facebook group exhibited higher fruit and berry picking habits in relation to the general respondents. Although face-to-face interviews may be preferred in qualitative research, using internet-based solutions can help reach people that could otherwise not be reached. As proposed by Opdenakker (2006) this type of technique can be used in research when social cues are not so important and anonymity is requested.

4.3. Semi structured interviews

After responses to the questionnaire had been gathered and analysed, an interview guide for semi structured interviews was created and interviews conducted with five participants. The semi structured interviews had both prearranged questions but also opportunity for taking different paths, this can be understood as “a conversation with a purpose” (Valentine 2005: 111). McLain and Buttolph et al. (2012: 56) have argued that using ethnographic methods, such as semi structured interviews and visual methods “have proved particularly effective for studying everyday human interactions with plants and for identifying the range of individual and cultural meanings, values, and norms associated with particular plants and types of landscapes.”

There are multiple advantages and disadvantages of using semi structured interviews. Semi structured interviews can present rich and detailed answers that give a deep understanding of the research problem (Valentine 2005). The interactive nature of the interview meant that I could gain clear and complete answers (Alshenqeeti 2014), while at the same time encounter answers that were both complex and challenging (Valentine 2005). Questions were relatively open, so interviewees could answer outside of predetermined answers and explain responses, while also giving the interviewee the chance to ask for clarifications. The disadvantage to semi structured interviews was that they were much more time-consuming and harder to code, while also requiring more interpretation by the researcher (Longhurst 2010). To limit problems of interpretation during interviews I asked the interviewees to clarify at any time that I felt the least unsure about if I interpreted the answer correctly. The semi structured interviews were based on a specific set of questions or topics from an interview guide. The interview guide (see appendix) had around 30 specific questions relating to four different themes, but these were adapted depending on answers and follow up questions were often asked although they had not been predetermined.
4.3.1. Sample and procedure

Semi-structured interviews were conducted with five interviewees living in Skarpnäck who were either members in a local community gardening group, have allotment garden or were part of a pro-environmental activity in the community. The interviewees were found through snowball sampling (Bryman 2012). Since these interviewees all engaged in some type of pro-environmental behaviour, the presumption was that they would be more likely to engage in some type of fruit or berry picking activities. These respondents could therefore be considered as sort of a control group. Since I am myself part of a community gardening group this was my starting point for the snowballing process. Therefore, a person or persons who did not regularly pick fruit or berries from public vegetation and who agreed to be interviewed was sampled from the gardening group. The remaining participants were contacted through a snowball sample. A snowball sample can be criticised for the increased likelihood of participants sharing the same views, in this case, as I wanted to interview people interested in nature, but that had not picked, this was the intention. The interviews took place outside in a park, simply because the weather presented this opportunity and the questions mostly related to outdoor activities.

4.4. Visual elements

When gathering data outside of fruit and berry picking season, it can be hard for participants to imagine vegetation being full of produce to pick. Trying to mitigate this circumstance I have added visual elements both in the interviews and in the questionnaire. In the questionnaire, additional to pictures representing fruits, berries and mushrooms in two question about whether respondents ever pick these, respondents were also given two different pictures for to the question relating to food waste (see appendix). The first picture (Q1) was of store-bought fruit discarded in a container and the second picture (Q2) was of an apple tree in the district where fruit has fallen to the ground. When conducting the semi-structured interviews outdoors visual elements are obviously present in the landscape, but I chose to add pictures to this method as well to get participants to imagine that fruit and berries were present on vegetation. The interviewees were presented with pictures (I1 and I2) of two different trees, one at a time, and asked to reflect on how they would feel picking in this location. By using this type of visual materials the idea is to contextualise questions for respondents (Mason 2002).

4.5. Limitations

More women than men answered the questionnaire. The reason for this was that mostly women answered the questionnaire from seeing it on Facebook. About 90 percent of those people were women. Why this is one can only speculate, but studies have shown that women are more likely to answer surveys (Smith 2008). Results are skewed mostly towards women but probably also towards those that are interested in picking fruit and berries due to sharing the questionnaire on social media. The people that chose to answer the questionnaire online were most likely those that already had the interest. I decided to share the questionnaire with the idea to reach various different people, but most likely it had the opposite effect and attracted a homogenous group of people. A high percentage of the people answering the questionnaire had actually picked fruit and berries from public vegetation. This could be because there are many allotment gardens in the area and people answering the questionnaire could be on the way to or from them, these people could be more likely to have picked since they are interested in gardening activities. Those people who are found walking around in the community may be more likely to pick fruit

\[\text{To preserve the anonymity of the interviewees I will not specify who is a member of what or how many are from each group}\]
or berries as they spend time outdoors. Since the questionnaire was not intended to be used for statistical analysis, I believe it is still valid as a representation of different views in the area, although not to how many people represent these views.

There are other possible methods that could have been used in this thesis, either to substitute or complement methods used. One of these is participant observation, a method often used together with interviews. Observation is a way to find what people are doing, instead of interviews that represent what people are saying (Valentine 2005). The season of data collection however limited the possibility to use this method. The only observation possible has been to observe locations of trees and bushes in the landscape, which was done once (described in results), although this was also limited due to season. Although the city administration has stated that the public trees and bushes are not being picked, the mapping of trees on fruktkartan.se show that there are people picking fruit in the area. However, I have worked from the assumption that the majority of fruit and berries are not picked and that most people do not pick fruit and berries as the literature (Shackleton et al. 2017) and city administration both suggest. As this research has been conducted out of fruit and berry picking season this assumption reflects an unavoidable temporal limitation. The inclusion of visual elements (as previously described) in the research design sought to rectify the possibility of direct participant observation.

4.5.1. Reliability and replicability

Reliability relates to whether the results of a study are trustworthy and able to be replicated (Alshenqeeti 2014). A study in social science is however not often repeatable in the sense that the exact same results could be reproduced. Even the most homogenous group contains large variations. A varied result could also be a reliable result, for example as interviewees were not influenced by the researcher to give a certain answer. In the case of the semi structured interviews, people were selected because of having similar interest and the fact that they do not pick, which may have increased the likelihood of people answering in a similar way. However, as I received a large variety in answers, I do not believe the homogeneity of the group had any effect on reliability. The result from the questionnaire is however less reliable due to the sample it was based on. As it has only been used to give an idea on views in the community, it is still reliable to give this indication.

4.5.2. Validity

The validity refers to if a study investigates what it aims to investigate (Alshenqeeti 2014). One example that can limit validity relate to potential misunderstandings in interviews, either by the interviewer or the interviewee. If questions or answers are misunderstood, the answer is potentially not valid (Alshenqeeti 2014). In the semi structured interviews, interviewees were given clarifications and/or examples if they did not understand the questions and I also asked for clarification to understand what they meant aiming to increase validity. In the questionnaire some answers suggest that there was a misunderstanding of what types of berries were referred to. I specifically distinguished between picking of berries from public bushes, such as currants or raspberries, and picking of low-growing forest berries, such as blueberries or lingonberries (see glossary). However, possibly not reading the question properly two respondents were found that seemed to have answered yes to picking berries from public bushes, while they had actually meant picking of forest berries causing them to go in a different direction in the questionnaire. As results of the questionnaire were not quantified, I believe that the results are still valid towards an understanding of the other questions answered.
4.6. Ethics

Regardless of the research topic, any researcher needs to be aware of possible effects the study may have upon the research subjects and take steps to ensure no participants come to harm. Confidentiality and anonymity are two important ethical considerations when conducting interviews (Longhurst 2010). Before agreeing to be interviewed, participants were told what the study was about and the questions aims. Participants were presented with a consent form where they were informed the information provided would be anonymous, that answers would be kept in a confidential manner, data would not be identifiable and that they were free to withdraw from answering at any time. When conducting the interviews participants gave consent to being taped. When taking the questionnaire respondents were presented with information on what the study was about, and that consent was tacit.

My research topic was not of a very sensitive nature and therefore I do not believe that respondents came to harm by answering my questions. I have asked questions on where respondents live, which is sensitive information, however I have not asked for a specific address but rather an approximate place, but if respondents did not want to give this information, they had the option not to do so. All respondents to the questionnaire were given contact information and were asked to contact me if they had any questions but none did.

As an interviewer it is important to be reflexive. A researcher can never be completely neutral and thus one needs to think about how they can influence the interview. After each interview I have reflected on how it went and if there was something that may have affected the interview. Reflecting on how my own identity or perception shape interactions with respondents in terms of my own positionality, I see myself as an insider in the community. I live in the district and I’m also part of a community farming group in the area. However, I did not grow up in the area, so I probably do not know it as well as many others do. The fact that I’m considered an academic when meeting participants may be of influence in how I am perceived which is something to reflect on, but I do not think this position had a large bearing on my project.

4.7. Data analysis

As previously described, this thesis uses a mixed method approach to data gathering but takes an interpretative stance. The analysis of the results has been a qualitative one as the results gained do not offer any interesting data for a quantitative analysis. Some quantification is however used to illustrate certain points, but to achieve the purpose of this thesis and gain a deep understanding of urban foraging the qualitative data has been the most important. Data gathered from the semi structured interviews, and open questions in questionnaire, were coded though thematic analysis (Bryman 2012). The result of this coding is detailed in the result section, presented in themes. Each interview was transcribed, written down word for word. All data collection was conducted in Swedish. The interviews were transcribed the original language and the coding of both interviews and questionnaire was done in the original language. The translation took place when the results were written down, as they were analysed and transferred to English to present the meaning of what is being said. Only when using direct quotes have they been directly translated to English word for word. In cases where words are not wholly translatable, I have translated the meaning but left the Swedish word in parenthesis.
5. Results and discussion

In this section the results from the questionnaire and interviews will be presented together and discussed through the theoretical perspective and in relation to previous research on urban foraging. I will focus on how results suggest that there is a cultural aspect involved in the perception of picking and views of crops and places. I will also discuss how culture plays a part in the dissemination of knowledge. For clarity I will refer to those that answered the questionnaire as respondents and those that participated in the semi structured interviews as interviewees. If referring to both respondents and interviewees they will be called participants. If relevant, the number of participants that answered the questionnaire in a certain way will be presented in a parenthesis, (X).

All interviewees participating in the semi structured interviews lived in Skarpnäck and have never or rarely picked fruit or berries from public vegetation (described in sample section). Each interviewee considered themselves to be a somewhat environmentally conscious person.

- Interviewee 1 was a woman aged 35.
- Interviewee 2 was a man aged 42.
- Interviewee 3 was a woman aged 61.
- Interviewee 4 was a woman aged 39.
- Interviewee 5 was a man aged 48.

The questionnaire was answered by 92 people living in Skarpnäck, whereof 35 were men, 51 were women, 5 preferred not to answer, while one chose ‘other’.

How often do you pick fruit (apples, plums or similar) or berries (currant, raspberries or similar) growing in public?

92 responses

![Figure 1. Percentage of respondents that pick fruit or berries.](image)
How often do you pick fruit or berries from public vegetation * Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Female</th>
<th>Male</th>
<th>Did not answer</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>11</td>
<td>27</td>
<td>1</td>
<td>1</td>
<td>40</td>
</tr>
<tr>
<td>Rarely</td>
<td>11</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>18</td>
</tr>
<tr>
<td>Occasionally (few times a season)</td>
<td>18</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>21</td>
</tr>
<tr>
<td>Frequently (at least once a month in season)</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Regularly (at least once a week in season)</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
<td>35</td>
<td>5</td>
<td>1</td>
<td>92</td>
</tr>
</tbody>
</table>

Figure 2. Crosstabulation of picking frequency and gender.

How would you rank your environmental consciousness/commitment?
92 responses

Figure 3. Ranking of environmental commitment.

In total, 40 respondents to the questionnaire answered that they had never picked fruit or berries from public vegetation (Figure 1), 27 men and 11 women (one chose other and one preferred not to answer) (Figure 2). Out of those that answered that they did pick fruit or berries from public vegetation, only 13 picked frequently or regularly, at least once a month in season (Figure 2). Respondents ranked their environmental commitment on a scale from 1 to 10 and the average answer was 7 (6.97) (Figure 3).
In the questionnaire 52 respondents answered that they have actually picked fruit and berries from public vegetation. Although this was the case, it was less frequent than picking of mushrooms and forest berries (Figure 4). As results from the questionnaire are skewed (as discussed in method section), I had to presume that many people do not pick as it is not possible to conduct any observation, the results discussed will mostly relate to that many people do not pick, as is also demonstrated in the results that will be discussed further on.

Throughout the conversations relating to the feeling and perception of picking it was noted that female interviewees were more hesitant to picking than men. As gender has been showed to be a determinant in how we act in parks (Palliwoda, Kowarik, and von der Lippe 2017) it is interesting to consider whether gender is a variable in picking behaviour. Although cultural differences between men and women were not specifically looked at in this thesis some interesting differences were found during interviews. A significant feeling from interviews was that the female interviewees were more worried about how they would be perceived when picking. The male interviewees did not make as many remarks at all about how they would feel questioned or stared at. Although Interviewee 3, who was a woman stated that she would probably not feel questioned as she knew where it was allowed to pick, she did portray the image that picking of fruit and berries was not really accepted in society. The three female interviewees also did not believe that a map would be enough to change people’s perception while both the men did. Interestingly, in the questionnaire more women than men answered that they had picked fruit or berries from public vegetation, such finding could potentially show that women pick more than men (Figure 2). However, as more women than men answered the questionnaire and it was not conducted by a random sample (why this could be has been discussed in method section) it remains pure speculation. Despite limitations, the results thus indicate that more women pick fruit and berries from public vegetation, while at the same time, the women in interviews were more conscious about picking. This result warrants further investigation in later studies.
5.1. The act of picking as culturally inappropriate

<table>
<thead>
<tr>
<th>Answers</th>
<th>Number of times chosen or written</th>
</tr>
</thead>
<tbody>
<tr>
<td>People do not know that they are allowed to pick the fruit and berries</td>
<td>29</td>
</tr>
<tr>
<td>People do not know where fruit or berries are</td>
<td>22</td>
</tr>
<tr>
<td>People do not want to be seen picking fruit or berries in public</td>
<td>19</td>
</tr>
<tr>
<td>Lack of time</td>
<td>13</td>
</tr>
<tr>
<td>People think the fruit and berries are no good</td>
<td>13</td>
</tr>
<tr>
<td>People prefer store-bought fruit and berries</td>
<td>11</td>
</tr>
<tr>
<td>It is not culturally accepted</td>
<td>10</td>
</tr>
<tr>
<td>Trees (cherries, plums) are too high up to be picked</td>
<td>3</td>
</tr>
<tr>
<td>People do pick</td>
<td>2</td>
</tr>
<tr>
<td>Some people seem a bit scared (fega): “Can you really do that?</td>
<td>1</td>
</tr>
<tr>
<td>I don’t know what others may have done with them. People threw poison in to the dog park just a week ago. They could do that to fruit and berries as well.</td>
<td>1</td>
</tr>
</tbody>
</table>

Figure 5. Answers chosen to why fruit and berries are not picked.

In the questionnaire, the answer “people do not want to be seen picking” was the third most chosen answer (chosen by 19) to the question of why most people do not pick fruit or berries from public vegetation (Figure 5). This suggest that picking is an activity people do not want to be seen doing. To understand this, interviewees were asked to think about how they would feel, for example whether they would feel questioned or uncomfortable if they were picking fruit or berries. Interviewee 2, 3 and 5 all answered that they would probably not feel uncomfortable if they were picking in a park for example, where they knew it was allowed. Interviewee 2 and 5 stated that they would not pick if they did not know who owned the land, but Interviewee 2 said that he would then first find out who owned it. Interviewee 3 explained that the reason she would not feel questioned was that she would only pick in locations where she knew it was allowed, and as she had lived in the area a long time, she was sure she would know this. Interviewee 4 stated that because she (at least before this interview) did not know if it was allowed or not, she would feel questioned if picking. If picking for example in a park she would consider the fact that someone might see her and instead choose not to pick. For Interviewee 1 the risk of feeling questioned meant that she would probably not pick fruit as anyone saw her doing it. If considering picking fruit in a park with people present, she stated that she might do it, but a bit secretly. Even if she knew it was allowed, she would act similarly. “Like, it would feel strange to pick if people walked by (Interviewee 1, 29 April 2019).”

Results suggest that there is something other than knowledge that limit picking. The risk of being questioned and the feeling of being looked at hindered some interviewees in picking. This, as well as the idea of how other people would perceive you when picking meant that some of the interviewees would most likely pick when there were no other people around. It has previously been established by Lander-Yamagata, Kowarik, and Fischer (2018) that the most popular places to forage were those with much space and few other people, and this was also demonstrated in this study. These feelings of not wanting to be seen picking suggest that fruit and berry picking goes against cultural norms.
Cultural ideas of how to act in the urban sphere has an effect on what is considered to be allowed or not. Even though it is not stated that you are, or are not, allowed to pick fruit or berries, it is often perceived to be out of place. In Seattle, Charnley, McLain, and Poe (2018) found that foragers were guided by moral calculations despite of legality and often had guilt and fear of being questioned when foraging. During interviews these types of feelings were brought up at several occasions. Interviewees stated that if picking they might feel embarrassed and were afraid of being stared at. Fear of being questioned or that someone would think you were weird were indicated as impacting picking activities. In the questionnaire, people do not want to be seen picking was an answer often chosen. Interviewees suggested that one would pick when no one was looking, and that people did not want their neighbour to see you picking. These statements were made although interviewees, when thinking about it understood that it ought to be allowed to pick from public land. These types of statements indicate that there are cultural norms hindering picking as it is seen as something that is not really right doing.

**Picking mushrooms or forest berries is more culturally accepted**

92 responses

![Figure 6. Respondents agreeing or disagreeing with statement about acceptance.](image)

**There is no difference**

92 responses

![Figure 7. Respondents agreeing or disagreeing with statement about difference.](image)
In the questionnaire, respondents were asked to reflect on the difference between picking of fruit and berries from public vegetation and picking mushrooms or forest berries and presented with statements on a Likert scale. Most respondents agreed with the statement that “picking mushrooms and forest berries is more culturally accepted” (Figure 6). This suggest that there was a difference in how the act of picking different produce was perceived. At the same time, the statement that “there is no difference” gave quite an inconclusive result (Figure 7), with about the same amount of answers on each side of the scale, indicating that the same amount of people agreed to and did not agree to the statement. The statement that “there is no difference” came before the one relating to whether it was more culturally accepted, and it may be that many respondents did not think there was a difference but when given an example of what could be different, they understood mushroom and forest berry picking to be more culturally accepted. It could be that they had not really thought about it when answering the first statement, as will be argued further on in this thesis, the act of picking in urban landscape is not a common sight, thus it is something many people have previously not thought of.

All interviewees were asked to reflect on whether the act of picking fruit or berries was cultural. Interviewee 4 stipulated that it could be that picking fruit or berries is something you just don’t do in Swedish culture. “It could be considered a bit… not frowned upon but more like a bit unusual. Not weird but more like uncommon. Or well, maybe weird to some.” (Interviewee 4, 10 May 2019) Interviewee 1 reflected on how the fact that many pick mushrooms and forest berries, but not fruit and berries from public vegetation was a sign that it is a cultural thing. She further explained that it could be that it is considered a bit strange, “you don’t want to look weird you know” (Interviewee 1, 29 April 2019). One example she gave was that you would not want your neighbour to see you picking, as he or she might think it would be a bit cheap (snålt). As a contrast she added that picking mushrooms is not perceived to be cheap, rather it just means that you are an outdoorsy person. Implying that there is a cultural difference in the perception of mushroom picking and fruit and berry picking.

Interviewee 5 stated that the fact that picking of fruit and forest berries is uncommon has to do with the way we are in Sweden. “Like, not wanting to go out and pick something if we don’t know it’s allowed. We probably do like everyone else, and if they don’t pick, we don’t either” (Interviewee 5, 11 May 2019). Culture is as a system made up of contagious ideas (Shurmer-Smith 2002). Basically, this means that we learn to act in the way others do. As suggested by Interviewee 5, that many people do not pick fruit and berries from public vegetation, can be because others do not either. People do what everyone else do and if they do not pick, others do not either. Interviewee 1 pointed to that she believes that Swedes do not want to stand out, as you do if you are picking fruit or berries in the park. “People will look at you, and you don’t want that. You should not do that, stand out I mean, that’s the law of Jante” (Interviewee 5, 11 May 2019). The law of Jante is an unwritten social law claimed to be present in the Swedish (or Scandinavian) mentality (Johansson and Jönsson 2017). The meaning of the law of Jante is that you should not see yourself as better than anyone else. An expression of this being that you should fit in, and you should not stand out. Picking fruit or berries in the urban landscape does stand out which was portrayed in interviews. It was mentioned that it could be viewed as unusual or a bit weird, something you do not want to be seen doing. Picking fruit and berries from public vegetations can thus be an activity that does not fit the Swedish mentality. As people do not want to stand out, they do not want to do anything that could be considered unusual and thus do not pick fruit.

To consider fruit picking from an outside perspective, interviewees were asked what they would think if they saw someone else picking fruit or berries. Interviewee 2 and 3 believed they would think it was good that someone was picking the fruit. Depending on how much that person picked, Interviewee 5 would probably not react to it unless that person picked bunches of it.
Interviewee 1 also related to how much was picked, “I would probably not think it was wrong if someone else did it. I would assume that the person knows it’s allowed. But if that person was filling lots of bags of fruit, I would probably think he or she should save some for others. A bit greedy you know” (Interviewee 1, 29 April 2019). When asked if being greedy was what she was afraid other people would think of her she explained “maybe not greedy, but maybe a bit cheap” (Interviewee 1, 29 April 2019). Interviewee 4 assumed that she would possibly consider if it was allowed or not. If she believed it not to be allowed, she would not ask the person picking as that “is just not something I do” (Interviewee 1, 10 May 2019).

To describe how you would feel doing something that you have never done may be quite hard if you cannot imagine how it would go about. Since the trees and bushes in Skärpnäck did not offer any fruit or berries to look at or talk about when conducting interviews, pictures were used as a means to contextualise the situation and further conversation, as discussed in method section. To get a sense of how interviewees would feel and think about picking at certain locations they were shown two different pictures, one at a time. The first picture (I1) portrayed an apple tree close to a residential building by a parking lot, and the second one (I2) pictured an apple tree in a park.

When presented with the first picture (I1), Interviewee 1 was the most hesitant to whether she would consider picking fruit at the location and most of all if she would feel good doing it. “It would feel a bit embarrassing, like picking from someone’s tree almost” (Interviewee 1, 29 April 2019). She further stated that since not knowing if it was the city or the housing cooperative owning the land, she probably would not pick there. She would be afraid of someone coming and asking her “like, hey what are you doing” (Interviewee 1, 29 April 2019)? Interviewee 4 was also hesitant to picking, “I wouldn’t pick there, I would feel stared at” (uttittad) (Interviewee 4, 10 May 2019). Interviewee 5 felt he would probably question if it was allowed or not, but also that he would probably feel alright picking one apple, “but probably wouldn’t go with like a bucket and gather a lot” (Interviewee 5, 11 May 2019). Both interviewee 2 and 3 related to the idea that since no one had picked the fruit they would feel it was alright to pick. Interviewee 2 stated that “apparently, no one has picked it so it’s up for grabs. Sure, it’s
close to the house but they don’t own it I am sure” (Interviewee 2, 2 May 2019). Interviewee 3 stated that if someone questioned her, she would just say that it goes to waste otherwise.

The second picture (I2), of an apple tree in a park, derived much less hesitation. Interviewees were much more certain about how they would act in this situation. Interviewees 2, 3, and 5 stated that they would feel good picking here. Interviewee 4 advised that it would be much more likely that she would pick here as opposed to the previous location, although indicating that it was not very likely she would pick here anyway as she did not have an interest in picking. Interviewee 1 supposed that she would feel better about picking here than she would at the other location (picture I1), but she “would probably do it when no one was looking. Just to not be questioned” (Interviewee 1, 29 April 2019). In explaining why this is, she returned to how it would feel strange to pick if someone saw her. If someone saw her picking, they could potentially think that it was a bit weird, and she did not want to be known in the community as the “weird fruit picking lady” (Interviewee 1, 29 April 2019).

In interviews it was suggested that picking fruit could be viewed as cheap and that it is considered to be respectable to be able to buy expensive imported fruit. Interviewee 1 discussed how the things we buy are status symbols, stating that “it can be that it is considered respectable (fint) to be able to afford to buy the most expensive food [...] it shows that you don’t have to think about money” (Interviewee 1, 29 April 2019). Picking fruit and berries in the park however could be considered uncouth (fult) and “a bit poor” (Interviewee 1, 29 April 2019). She described that even though people may not be aware of this they often have the idea that it is good to buy nice things, and this goes for food as well. In relation to what could get people to pick more fruit and berries, Interviewee 4 also mentioned that she saw picking as a potential for people that do not have much money, indicating that picking is perceived as something done by poor people. The idea that foraging is conducted by poor people is based on a cultural understanding of what is considered to be respectable behaviour and what is not. Understandings of culture builds on a system of classification (Sutton and Anderson 2014). To make sense of things we classify them. The simplest way to classify things are as opposites. If it is considered to be respectable to buy expensive imported fruit, the opposite, picking fruit in the surroundings, is not respectable. Therefore, it can be imagined to be done by those with low economic means and this is not something most people want to be seen doing.

The statement that picking fruit and berries from public vegetation is not culturally accepted was the least chosen option in the questionnaire, as to what respondents believed to be the reason others did not pick. This fact suggested that picking was considered appropriate behaviour. However, the statement that people do not want to be seen picking was one of the most chosen answers (Figure 5), which suggested that it was not viewed as appropriate. These are two contradictory results. It could be that respondents did not understand the idea of it not being culturally accepted, although they seemed to do so with regards to Figure 6, but culture is a wide scope term (Williams 2008). It could also be that it was not the first thing that came to their minds. How we classify things can be viewed as a cultural construction of reality (Sutton and Anderson 2014). This cultural construction though, is an underlying condition to the way we act and think, and not something one might be aware of. The way that those that had never picked fruit or berries from public vegetation answered to why they had not, most not indicating any cultural reason, I believe that even though cultural reasons might be present, these are not the ones first thought of. Culture is an underlying mechanism, and even though very present in the daily life, it is something most people probably do not think about on a regular basis.

The interviewees were all somewhat aware of existence of trees or bushes and understood picking was allowed, and they all displayed an interest in fruit and berries, but only one of them remembered ever picking fruit and berries from public vegetation. As knowledge on how to
exist in the world is learned through culture, cultural norms determine what solutions are applied by individuals on a daily basis (Sutton and Anderson 2014). Interviewee 1 remembered thinking about whether it was allowed to pick in a certain spot. She has once passed through a residential area with single family housing where there was a currant bush full of perfectly ripe berries growing right next to the walkway. When she passed it, she thought about if it belonged to someone’s property, but it clearly did not. Even though she knew it was allowed to pick fruit and berries in public she thought about if it was accepted, this suggests that cultural norms made her react in that way. Culture influence everyday practices, displayed in the norms and values people possess and exhibit (Sutton and Anderson 2014). These cultural norms can be hard to change, even if people know it is allowed, these norms are deeply embedded, making people act in a certain way.

5.2. Picking as an act of non-conformity

Most of the interviewees displayed an interest and would consider picking fruit and berries in the future. Only Interviewee 4 stated that she was not really that interested in picking fruit and berries, if she would she would only do if fruit and berries were exceptionally good and grew close by her home. Both Interviewee 3 and 5 considered distance to be determinant in whether to pick or not as they would consider picking but only if it was close by. Interviewee 2 could see that he would pick fruit for example on his way home from work. Only Interviewee 1 would consider going farther away (more than 5 km) if knowing where there was particularly good fruit or berries. In the questionnaire, the majority of respondents answered that they would not consider going more than 3 km to pick fruit or berries, although 14 respondents would consider going farther (Figure 8). Interviewee 5 reflected on how much time it would take to go out and pick fruit and berries for his whole family and concluded it would be too much hard work. The same conclusion was drawn by Interviewee 3 stating that “I cannot bear to go out and find it” (Interviewee 3, 3 May 2019). Even if she had a map this would not be a guarantee that she would find the spot or that there would be fruit or berries left on that location.

That fruit and berries on public vegetation are not picked can be seen as an expression of how we spend our time today. Results indicated that lack of time may be a reason to people not
picking fruit and berries and if they were to pick, they would only choose to pick the one growing fairly close to home. It was also suggested in interviews by Interviewee 3 that people today spend most time indoors and would not go out to pick fruit or berries and that people would not go to pick simply because there was a tree, they would need to know there would be good fruit to pick to make the effort to go there. Nyman (2018) argued that we should not view foraging as being devoid of capital and labour as it requires a lot of time and labour by both humans and non-humans. The way that Stockholmers are sustained with food today is through capitalism. This means that people put their time and labour in to work. For this they are awarded with money. This money is used to buy food. The more time you spend working (obviously there are exceptions), the more money you will have and the more food (or other things) you can buy. This system, although criticised and with many problems not at least environmental ones, functions largely unhindered. For people, that have money to spend and food to put on their table, there is no pressure to break out of the system. As already mentioned it came up during one interview that food can be a status symbol, it is considered respectable to be able to buy expensive, organic food. The value of people in this system is determined by the economic output. Instead of putting time and labour in to the capital economy, to go out and pick fruit or berries for free, would be to act outside of the system, something outside of the cultural norm.

Interviewees were open to existing and further possibilities to pick fruit and berries for free in the city. Interviewee 1 suggested that if more information was provided, more trees could be planted which would be beneficial to society. Speculating on the benefits of certain trees Interviewee 5 considered fruit trees to be just as good as any other type of tree, and therefore saw no reason to not plant even more trees. As all interviewees argued that fruit picking should exist for free in society and many considered picking more and buying less in the future. This could potentially be an act of non-conformity, as Robbins, Emery, and Rice (2008) argues that every item picked, instead of purchased, is an act against the ruling system. As some interviewees stated earlier, that picked fruit felt much better than the one from a store, it was implied that they are not satisfied with what is provided through the current system and picking fruit and berries can thus be an act against that system.

Interviewee 4 believed picking was something that should be allowed for those that wanted to, suggesting that it was important “for those that want to live off nature” (Interviewee 4, 10 May 2019). Interviewee 2 could potentially see picking as a political act. He argued that foraging was a possibility for those that want to be more self-sufficient, for people that “do not want to be so dependent on society” (Interviewee 2, 2 May 2019). Picking fruit could potentially be a way to have more freedom to “decide for yourself what you want to do with your money” (Interviewee 2, 2 May 2019). As has been determined, picking in urban landscapes is outside of the cultural norm. In this way it can be seen as an act of non-conformity. Even though it is not illegal, it is not a standard practice, and acting against cultural norms can be seen as an act of non-conformity. Although the idea is that most people do not want to stand out from the norm, for some people the act of foraging can be an active way to assert the right to stand out from the norm. In this way foraging is used to claim a right to the city and/or nature and be an act against the common ideas in society. As proposed by one interviewee, most people do not want to stand out because of the law of Jante, and according to the law of Jante you should conform. As argued by Nyman (2018) foraging is an act of non-conformity in the city, as the city is as a controlled area (Nyman 2018). For Poe et al. (2013) foraging could be a way to assert a right to subsistence or non-capitalist practice. The results suggest that through foraging people can claim a right to be more self-sufficient and instead of being dependent on society to decide for them what to buy, which can be seen as a non-capitalist practice.
5.3. Becoming food

In interviews the idea of something becoming food when processed was discussed. Even though it may not be considered as food, and was not by some, if used to make jam, juice or soup, it could become food. It could become commons foods that are often purchased in stores. Interviewee 1 asserted that there were probably many edibles that she did not know about, and thus not considered picking “like those you can make juice from or something. Then you need to know those things. What is edible and what is poisonous” (Interviewee 4, 10 May 2019). Interviewee 4 stated that Swedes are used to the imported apples and therefore do not want the Swedish fruit, but that “they could be used to make juice or something” (Interviewee 4, 10 May 2019). When reflecting on what people could potentially pick, Interviewee 1 meant that some berries were probably not considered to be food by other people, but in a processed state it would be considered to be food. “Some things one might not consider to be food, like rose hip that is not good to eat just like that, but if you make rose hip soup from it, it becomes food” (Interviewee 1, 29 April 2019). Giving an example she points to how rose hip is often sold as an expensive powder in health stores. As what is food relates to context, there are many edible crops growing wild that may not be perceived as food. However, if packaged and processed in a way appealing to consumers, things growing in the wild can be sold for a lot of money. This means that the same crops that can be gathered for free in the wild, is not seen as food. However, when packaged and sold expensively at a store, it has become food.

With regards to fruit and berries growing in public being wasted, Interviewee 4 acknowledged that it was unnecessary that all this fruit and berries were disregarded but pointed to how imported apples and apples grown in a Swedish garden or in a park was not really the same thing as store-bought fruit. She held Swedish apples to be “small, ugly and sour” (Interviewee 4, 10 May 2019), alleging that she would never pay for those type of apples. Obviously, the Swedish climate is not optimal for growing the types of fruit and berries many Swedes are used to seeing in stores. This does not mean that much fruit and berries cannot be produced here, but they may be of smaller size, and this is not what the Swedish consumer is used to. Interviewee 4 would not consider all fruit and berries to be food, only certain species and “if it was clean and fresh”, similar to “what can be bought in a store” (Interviewee 4, 10 May 2019). As stated by (Nyman 2018), the idea of what is food is produced through the social conditions of how it is constructed. This means that produce growing in the wild may not be perceived as food just because they are edible. Interviewee 4 suggested that even though she did not really see it as an alternative for her, people with less money could pick fruit, suggesting that for her some things were not food, but she could imagine it being food for someone else. Although she understands it is edible, and therefore logically could be viewed as food, it is not food for her. Food is not valued simply for the economic value, but rather for the symbolic value (Svizzero 2016). For this specific interviewee the symbolic value of store-bought fruit and berries weighted very high, limiting her abilities to see fruit and berries growing in the city as food. What this demonstrated is that what is food is relational (Nyman 2018) and dependant on context.

All interviewees except one who was hesitant, were open to picking more in the future. However, when asked if they could consider relying (seasonally) on picking fruit and berries instead of buying them from a store the interviewees were more hesitant. Interviewee 1 was the most positive to this, stating that she would consider this if there was enough fruit and berries in the area, although to a point. What she suggested was that some edibles could be processed and stored for later use, “you can put berries in the freezer and make jam”, but for other it would not be possible “sometimes you just want a fresh fruit in winter” (Interviewee 1, 29 April 2019). She gave an example of wanting to make an apple pie in February, then “you would have had to remember to pick fruit in September” (Interviewee 1, 29 April 2019). Thinking about how she would go about relying on picked fruit and berries she concluded that she would have to try
to eat more seasonally before starting such an endeavour. Interviewee 2 would only consider to seasonally rely on fruit such as apples. The other interviewees could not consider this. Interviewee 4 specified that some fruits cannot grow in Sweden, like oranges and bananas and held that “I couldn’t consider eating an apple when I wanted a banana. I need my bananas” (Interviewee 4, 10 May 2019). It was clear that these interviewees had very specific ideas on what fruit and berries they wanted to eat and had a hard time considering alternatives for this. The interpretation of this when thinking about picking they consider it to be a valid complement to the food they would but at the store. There is still a difference between what is picked and what is purchased, and for the most part they would not consider picking as a reliable food source.

When reflecting on the difference between bought and picked fruit Interviewee 1 and 2 related to how much better it feels to eat a fruit that you have picked yourself, rather than one having been bought from a store. The two also specified that knowing where the fruit comes from was part of that feeling. The transition in production and consumption, where today the city is dependent on food from outside to be brought in to the city has led to cultural changes in diet and separated the urban people from places of food production (Sutton and Anderson 2014). The system that sustains the urban population with food today is complex system and most often people do not know where it comes from. Food is purchased from stores with the only connection to the origin being that it is written on the label. The Swedish consumer is used to being able to buy what they want, when they want it. On the idea of going out to pick fruit on a regular basis, Interviewee 4 claimed that “we are so used to buying everything at the store. And people do not have time to go out in the woods to find a snack” (Interviewee 4, 10 May 2019). Interviewee 4 had mentioned that some foods cannot grow in Sweden, but none mentioned the fact that some things growing in the wild cannot be bought, I will argue that this duality is not something considered, and most people are more aware of food existing in stores than in the local environment. Historically, you could not survive without knowing where to find food in the local environment or what species were edible, now this is no longer common knowledge.

The idea of consumption as meaning-making was discussed by Nyman (2018). For people that are used to only buying food at a store, it is the act of consumption that makes something valid as food. The act of consumption being important for something being food was evident in results from interviews. Interviewee 4 noted that the feeling of store-bought produce was much better. Explaining how she felt, she stated that “even if you know it has pesticides it just feels cleaner” (Interviewee 4, 10 May 2019). The feeling of cleanliness was important for Interviewee 4, which was also reflected in the question if she would consider picking more fruit and berries in the future. In debating with herself on whether she could consider picking if she knew that the fruit and berries grew in a spot not frequently visited by many people, she concluded that she would probably not pick anyways because “who knows who might have pissed on that bush” (Interviewee 4, 10 May 2019)? For this interviewee the idea of store-bought fruit and berries was much better than wild growing crops, even though it may contain pesticides. It also became evident that for Interviewee 4 only fruit or berries that were comparable to the ones you can buy in a store had potential to be considered as food. In reflecting on whether any special knowledge was needed to pick fruit or berries, Interviewee 3 informed that you only need common knowledge, but then considered how common knowledge may be special knowledge to many people today, “things that everyone used to know. The kids today don’t know what quince is, or that cucumbers don’t grow with plastic on them” (Interviewee 3, 3 May 2019). The idea being that they only know of food coming from a store. The understanding of how nature produces food has to a sense been lost. Someone else has grown the food we eat but we do not know how.
5.4. Perceptions of food waste

Do you consider this to be food waste?
92 responses

Figure 9. Percentage of respondents considering picture Q1 as food waste.

Do you consider this to be food waste?
92 responses

Figure 10. Percentage of respondents considering picture Q2 as food waste.
Two questions in the questionnaire related to what respondents considered to be food waste (Figure 9 and 10). When presented with two pictures, one at a time, over 85 percent of respondents considered picture Q1, of store-bought food in a dumpster, to be food waste (Figure 9). Only about 10 percent answered that they did not consider it to be food waste. Other responses were that is should be considered as “compost material” (Respondent 10, 27 April 2019) and “only until a dumpster diver finds it” (Respondent 68, 2 May 2019) suggesting it was waste if nothing was done with it. As a response to picture Q2, of an apple tree with fruit rotting on the ground, only about 44 percent of respondent answered that they considered it to be food waste (Figure 10). A similar number of respondents, 46 percent answered that they did not consider it to be food waste. This indicates there is a big difference in the perception of edibles growing in the city as opposed to what can be purchased in a store. What is considered to be food, and thus food waste, depends on context (Nyman 2018), and interestingly, three respondents pointed out that they considered picture Q2 to be food waste after thinking about it in the context of the questionnaire (Figure 10). These statements suggest that when put in context, people might change their mind about what they view as food and food waste. The idea from the Skärpnäck City Administration was that produce not picked is wasted food, if the fruit and berries not picked is not perceived to be wasted it may be less likely that people will be motivated to pick it.

Most of the interviewees did relate to the fruit and berries growing in public as food and when presented with the idea of fruit and berries growing in the wild being left to rot, most of them considered it to be waste. Although it was not straightforward that simply because it was edible it became food waste if not eaten. Discussing whether or not to consider wild growing edibles to be food waste Interviewee 2 argued that it depends on what it is and if someone would have wanted to eat it, “if no one wants it, it is not waste” (Interviewee 2, 2 May 2019). As explained by Nyman (2018) what is considered to be food is relational. Food is not only produced in the manufacturing process, but also by social conditions where it is created. For foragers, in the research by Nyman (2018), the act of picking was meaning-making, it was when something was picked that it became food. Before this it was not wasted. Interviewee 1 meant that if fruit or berries not picked, could instead have been used it to make juice or jam, it is wasted. However, she also reflected on how berries can be eaten by birds and then they would not be wasted. “It is better that they eat it than that no one does” (Interviewee 1, 29 April 2019). Interviewee 4, as previously mentioned, would not consider all fruit and berries to be food, only certain species and “if it was clean and fresh”, similar to “what can be bought in a store” (Interviewee 4, 10 May 2019) and therefore if it was not, it was not waste. The cultural aspect is displayed in what is considered to be food, and also what is seen as food waste, which is portrayed in the results from both questionnaire and interviews. Although interviewees mostly thought fruit and berries not being picked were wasted there was a clear difference to the store-bought fruit. Fruit and berries growing in urban areas, although being edible, are not always considered as food and therefore not seen to be food waste if not picked.

Sweden produce 1 255 000 tonnes of food waste each year (Naturvårdsverket 2016). Simply looking at the statistics, where non-agriculturally produced food is excluded, relates to how it is not perceived to be food. Often the food wasted is food that could have been eaten by humans, as it is or in a prepared form. People throw away edible food daily for different reasons, perhaps because it has passed its expiration date, and goes out and buy new food. It seems that we have lost our natural instincts as to what is edible and if we throw away food that we have actually payed for, it is no wonder that respondents do not see the fruit and berries falling to the ground as waste. It was suggested in an answer to the questionnaire with regards to the fruit fallen to the ground as to be viewed as food waste (Figure 8) that “there is a difference in production that needs to be considered” (Respondent 62, 5 May 2019). Agricultural food production
requires a lot of input of labour and energy, for example in the form of fertilisers, water and transport. If the crops produced are then disregarded as waste, all this input is wasted. When an urban tree not specifically tended to produces food, it does not require any additional resources, only the water and nutrition taken from the soil. It can thus be argued that the fruit and berries growing untended to is not food waste in the same sense, at it has not wasted a lot of energy input. However, it could also be argued that the fruit and berries growing untended that is not picked is an unused resource, one that could have been eaten as an alternative to the fruit and berries that require a lot of input, leading to less energy being used, and potentially less food waste in total.

5.5. Cultural understandings of food and nature

When reflecting on the differences between picking mushrooms or forest berries compared to picking fruit or berries from public vegetation interviewees pointed to how picking in forest landscapes is more common and differs from picking in urban areas. Interviewee 1 reasoned that it simply feels different. When thinking about why this is, she explained that it could have to do with norms, which according to her were related to how common the practice is. “It is very common to see people picking mushrooms or blueberries, so it is considered more normal” (Interviewee 1, 29 April 2019). She seasonally picked mushrooms and blueberries and would not think that anyone would think that was weird. “But if I were to be picking from a bush in public, I would reflect on that. I would think of how it looked” (Interviewee 1, 29 April 2019).

Also stating that mushroom picking is more common, Interviewee 3 suggested that “it is hip to do that” (Interviewee 3, 3 May 2019), and therefore people do it. Interviewee 5 had the feeling that a lot of people pick mushrooms but not so many pick fruits. Speculating on why this is he said “it is quite strange actually, because it is probably harder to pick mushrooms. I mean knowing what kinds are edible or toxic. You do not want to risk anything. But fruit on trees, anyone can pick them” (Interviewee 5, 11 May 2019).

In the questionnaire 40 (of 92) respondents answered that they had never picked fruit or berries from public vegetation (Figure 1). As a contrast, only 16 respondents never picked mushrooms or forest berries (Figure 4), indicating that mushroom and forest berry picking are more common activities, as previously demonstrated by Shackleton et al. (2017). To get an understanding of how normative views of fruit and berry picking differ from those related to picking of mushrooms and forest berries, interviewees were asked to reflect on how these different picking activities came up in their everyday lives, if they had ever discussed these topics with friends or how common it was to talk about. All interviewees except Interviewee 4 whom had not really discussed anything related to picking with anyone, identified both mushroom picking and forest berry picking to be a more common topics than fruit or berry picking in urban areas. This difference was described by Interviewee 2 who referred to social media: “people put on Facebook and Instagram all the time about picking mushrooms, but I have never seen anyone picking fruit in public on Instagram” (Interviewee 2, 2 May 2019). Further, Interviewee 1, remembering two conversations she had with a friend, in one they had talked about picking blueberries in the forest and the other about raspberries growing in public (by the friend’s house), resonate that the latter was as exception. Although she has talked to that particular friend about both, fruit and berry picking is seldom talked about while mushrooms picking is something she (seasonally) talks a lot to friends and family about.

Results thus show that there is a difference in how common mushroom and forest berry picking is in relation to fruit and berry picking from public vegetation, but also how it is perceived. As culture is something that is practiced (Shurmer-Smith 2002), what you do is a cultural expression. How we act in the everyday landscape is something that is learnt through culture.
Therefore, as mushroom and forest berry picking is more common, something being done more often, it is not surprising that is also perceived different from something that is not as common. As was suggested by one interviewee, relating to norms, because blueberry picking was more common it was considered to be more “normal” (Interviewee 1, 29 April 2019). As displayed by (Anderson, Chavez, and Blahna 2000), different cultural groups had differing attitudes towards picking certain crops. The view of a certain crop being appropriate for picking depends on cultural understanding. If other members of your cultural group consider something to be valid as food, it is more likely that you will too. Public fruit and berry picking was a topic not often discussed with friends and family or seen on social media. It is thus evident that cultural understandings of activities differ in between picking of fruit and berries from public vegetation and picking of mushrooms or forest berries. Results further indicate that place is also relevant in this perceived difference.

5.6. Picking as out of place in the city

A question all interviewees were asked related to whether they knew if there was any difference in how the right to public access should be applied in urban areas, as opposed to forest or rural areas. All of them had a general idea of what the right entails although no one could fully state what the right specifically says. Interviewee 1 pondered on whether there was any difference but eventually decided that there probably were no real differences in the right, but rather that it may be harder to understand boundaries in the city. She also pointed out that “you learn in childhood that in the forest you can go wherever you want. In urban areas you only know you are not allowed to go in to someone’s garden” (Interviewee 1, 29 April 2019). The idea that it may be easier to understand the right in the forest is supported by Interviewee 2 who states that “it may be clearer in the forest because there are no buildings close and property lines may be clearer. Or maybe not clearer but not so close” (Interviewee 2, 2 May 2019). Interviewee 5 pointed to how the right is “blurry in the city because there can be so many different owners” (Interviewee 5, 11 May 2019). He assumed that there were different rules for different buildings and who owns the land in courtyards, between walkways or next to a patio. Thus, many of the interviewees portrayed the idea of the right to public access being easier to understand in the forest or rural areas than in the city. Previous research have found that most people foraging (in Seattle) had limited knowledge on rules and were guided by moral calculations (Charnley, McLain, and Poe 2018). It seems to be that people perceive actions in the city differently than in the forest, although they do not specifically know that there is a difference in what you are allowed to do. In this way they are rather guided by normative assumptions instead of legality.

One interesting response in questionnaire, given to the question of why this person had never picked fruit or berries from public vegetation, was very negative to trees and bushes and hinted to how this type of vegetation and activities are inappropriate, giving cherry trees as an example to why. The respondent wrote that “I do not like that there are trees and bushes with edibles, before the fruit and berries are ripe the children have climbed the trees, the trees are destroyed, and the fruit makes a mess” and she also indicated that “this destruction only increases” (Respondent 17, 27 April 2019). The respondent meant that these types of trees should not exist in the urban environment as for example “berries from cherry trees by entrances to courtyards fall on the ground and get stuck on shoes and come in to people’s homes” (Respondent 17, 27 April 2019). For this respondent, fruit trees and berry bushes were definitely out of place in the city which was also evident in the response to the question of food waste (Figure 10) where it was stated that this was what it looked like “after the children’s ravaging, remove the tree!” (Respondent 17, 27 April 2019). The answers given by the respondent suggest that both food trees and picking activities were out of place, as trees make a mess and children destroy them.
when climbing, perhaps to pick. This suggest that ornamental trees instead of productive ones is what she would have preferred.

Nature and cities, as well as culture and environment, are often viewed as binaries (Pellegrini and Baudry 2014). This normative idea separating nature and city also means that trees in cities are not thought of as potential sources of food. Interviewee 4 mentioned she knew of several cherry trees in the area, as she had seen them blossom at springtime, but had never reflected on the fact that cherries would grow on them. The idea of urban trees as providers of fruit had not crossed her mind, as was also the case for many that respondents that answered that they did not know or had not thought of it (Figure 5). In relation to the mentioned cherry trees I think of a cultural phenomenon in Stockholm very present in social media, the annual cherry tree blossoming in Kungsträdgården. The trees in Kungsträdgården are of a Japanese kind, planted for the decorative flowers (Stockholm stad 2018b). According to Gobster (2007) urban park or tree programmes are often guided by discourses on urban trees as providers of ecological services, and not providers of services for human consumption, leading to a museumification of green spaces and trees in cities. Trees are planted for their ecological, or in the case of Kungsträdgården aesthetic function, for people to view as objects at a museum, perfectly good to look at but not to interact with.

Three interviewees did see the city as an appropriate place to grow food. Although some of them said that when thinking of where food comes from, they saw rural landscapes, they could also see food growing in the city. Interviewee 1 said that “there is a lot of such things going on. Urban farming, allotment gardens and stuff like that” (Interviewee 1, 29 April 2019), and also argued that there should be more food growing in the city, for example on roof tops and in parks. Interviewee 2 and 5 also mentioned allotment gardens as a place where a lot of food is grown. Interviewee 5 said that he saw no problems with more food growing in the city, although pollution could possibly be an issue but “people eating from allotment gardens do not die from that to my knowledge” (Interviewee 5, 11 May 2019). Both Interviewee 3 and 4 implied that when thinking of a place to grow food they did not really see the city as a good alternative. Interviewee 4 thought that the countryside was a more appropriate place to grow food. This was due to pollution in cities and more space where growing could be more productive. As a response to why fruit and berries are not picked, one respondent hinted towards produce growing in the city to be problematic as other people may have done something to the fruit or berries, giving the example of poison being thrown in to a dog park which “could be done to fruit and berries as well” (Respondent 31, 27 April 2019).

Reflecting on what is considered appropriate or not, Interviewee 4 identified that people act differently in different places, suggesting that in the woods you are free to act how you wish but in urban areas you need to follow certain rules. “You act more civilised in the city” (Interviewee 4, 10 May 2019). The city is a cultural place, while forest or rural areas are representations of nature or environment and therefore one should act in a certain way in the city. The societal organisation, where food is brought in to the city from outside, influence the normative understandings of food production and the city is not seen as a proper place for food production (Classens 2015). Food growing in cities is seen to be out of place (Nyman 2018) and the urban environment is not considered to be a provider of food for human consumption. Interviewee 4 for example meant that berries growing in an uncontrolled setting within the city did not feel clean. Views of the environment affect how we act in our daily lives (Head and Atchison 2009), if people do not see urban areas as a place of edibles, they will not pick them. The separation of city and nature however, is a social construction (Head 2007). As has been shown, foraging can lead to a blurring of these boundaries (Poe et al. 2014), potentially leading to the city being viewed as a proper place for food production.
Place being a determinant in deciding whether to pick or not, as has been previously displayed by Nyman (2018), was displayed in discussions regarding the picture I2. As this picture derived much less hesitation with regards to whether interviewees would feel comfortable picking there in comparison to picture I1 although the trees contained the same type of produce, place was the main determinant. Reflecting on the differences in picking in the city and in the forest, Interviewee 1 argued that it felt more “normal” to pick in the forest. “A bush or a tree in the city feels more planned you know. Blueberries grow wild so it does not feel like anyone put them there. If I think of mushrooms growing in a park, I would probably feel different about picking them than if they grew in the forest” (Interviewee 1, 29 April 2019). This statement also indicate place as the main determinant in deciding whether to pick or not. Pointing to how a tree in the city is more planned implies that it would feel wrong picking from a planned tree, but not from unplanned tree in the forest. The results thus suggest that picking is perceived as out of place in the city. There is a distinction in what is perceived to be allowed and appropriate in different places. People act in a certain way in the city. The city is a planned area where people act civilised. This cultural perception of what is an appropriate activity in urban surrounding may be a barrier towards local fruit and berry picking.

5.7. Reconnecting with nature

Picking mushrooms and forest berries is part of a nature experience that is not given in urban areas

92 responses

Figure 11. Respondents agreeing or disagreeing with statement about experience.

In the questionnaire, respondents were presented with different statements on a Likert scale. When presented with the statement that “picking mushrooms and forest berries is part of a nature experience that is not given in urban areas”, the data showed that most respondents agreed with the statement (Figure 11). Several studies have shown that spending time in nature is a motivation for foraging (Synk et al. 2017; Svizzero 2016). As results show that there is a difference between mushroom and forest berry picking and picking in the urban landscape, in both perception and how common it is, the wish to spend time in nature can be part in this difference. The idea of the forest playing a role in how mushroom picking is more of an experience or activity was discussed by several interviewees. Interviewee 5 suggested that the reason many people pick mushrooms, and not fruit and berries in urban areas, could be because they like to be in the forest. Interviewee 1 stated that “it is a nature experience to pick
mushrooms, to go out in the forest an autumn day is really nice” (Interviewee 1, 29 April 2019). She reflected on the fact that many people go with others to pick mushrooms and therefore it could also be a social activity. She implied that it was not only the act of picking that attracted mushroom pickers to the forest, but that “the thing about picking mushrooms is more than mushrooms you know, it is more like an excursion” (Interviewee 1, 29 April 2019). Interviewee 2 also stated that mushroom picking feels more like an activity, “when you go out in to the forest with your rubber boots and thermos” (Interviewee 2, 2 May 2019). In relating it to fruit picking, she meant that it is the nature experience that was important when picking mushrooms, “fruit in the city would be like you pick it when you pass by” (Interviewee 2, 2 May 2019). One example was also given by Interviewee 1 to how going on excursions (utflykt) to the forest are part of Swedish traditions, something you do in school and preschool. Reflecting on this the Interviewee also reminisced about going to the forest to pick blueberries with her grandparents.

Mushroom picking, as demonstrated in results from the interviews, was more than just the act of picking mushrooms, it was more of an activity or experience. Knowledge transfer through family and friends has been shown to be essential for foraging (Poe et al. 2013). It has for example been demonstrated that those that foraged mostly had family members that also foraged (Landor-Yamagata, Kowarik, and Fischer 2018). Pointed out by Interviewee 1, you learn in childhood what you can do in the forest, and by Interviewee 1 how forest excursions are a part of Swedish traditions, this suggest there is a knowledge transfer occurring in relation to picking of mushroom and forest berries. In combination with how it was previously mentioned that mushroom and berry picking were activities discussed and practices with friends and family, but not necessarily picking from urban vegetation, this leads me to understand that the knowledge transfer on this practice is much less common. This means that knowledge transfer on foraging in urban areas is much less present. Knowledge on for example what species are edible in the urban landscape is either not transferred and thus being lost or it did not exist in the first place.

Classens (2015) has argued that normative views of urban plants are grounded in this idea of the city and nature as binaries. For urban trees and bushes to be seen as appropriate for producing food for human consumption, the underlying assumptions first needs to be questioned. As this dialectic relationship between the city and nature is a social construction (Head 2007), I would argue that it can be changed. But for this people need to reconnect with nature and understand that the city is not present outside of nature. People are not outside of nature. It is all part of a larger system, interacting in a complex relationship. As argued by Head (2007) a landscape is created collectively and all actors have agency in the system. Previous research has pointed to how foragers display high levels of ecological knowledge and stewardship as well as that foraging can break down the dichotomous view of city and nature. An increase in urban foraging practices could lead to the breaking of the boundaries for more people. This would potentially lead to a higher knowledge transfer, and in turn more people would forage. However, to get more people to see foraging as an accepted practice and take part in urban foraging activities, these boundaries would need to be blurred first. As cultural ideas are hard to change since they are wrapped up in identities, norms and values (McLain, Buttolph et al. 2012), this is not an easy task.

Most interviewees (all but Interviewee 4 who would only imagine picking if it was very close by and similar to what could be found in a store) stated that they would consider picking fruit and berries in the future although they had not previously. This hints to that for those already somewhat knowledgeable, or already interested in nature, a nudge may be what is needed. For people already believing fruit picking to be a valid activity, a map or something similar that would bring this activity to mind, could get them to start, or assist them in picking. However, suggested by Interviewee 4, was that although a map could get some people to pick, it would
not change anyone’s perception. It would only be those that already perceive fruit picking to be a valid activity who would then do it if they knew where it was. Those that do not care, do not want to pick, or were negative to picking would not pick anyways. What has already been established, views of nature affect how we act in the environment and foraging is an activity that can help people connect to nature (Head and Atchison 2009), but those that need to connect with nature are those that do not have a connection. It is these people, that have never thought of picking fruit or berries that need to be influenced in order to pick. Recognising that knowledge is not the sole determinant, something other than knowledge is needed to change people’s behaviour. It is only if these people would consider fruit and berry picking to be a valid alternative that it could become culturally accepted.

5.8. From normative assumptions to environmental stewardship

What percentage of apples consumed in Sweden are imported?
40 responses

![Pie chart showing percentage of apples imported](image)

Figure 12. Answer to question 4 on percentage of apples imported.

The commercial supply of apples is 120 000 ton each year. How many tonnes of non-agricultural apples goes to waste each year?
40 responses

![Pie chart showing waste of apples](image)

Figure 13. Answer to question 5 on how much apples are wasted.
All respondents that had never picked fruit or berries from public vegetation were asked to estimate the imported percentage of apples consumed in Sweden, and how much non-commercially grown apples go to waste each year (Figure 12 & 13). Results show that most respondents underestimated both percentage of imported apples, that was 82 percent (Wallentin, Sandén, and Saberski 2016) and amounts wasted, actually over 250 000 tonnes (Gustavsson and Eriksson 2016).

**Given these facts, how likely are you to consider picking fruit or berries from public vegetation?**

40 responses

![Figure 14. Likelihood of picking in the future.](image)

When presented with the actual numbers, many respondents answered that it was likely that they would consider picking fruit and berries more often (Figure 14). Interviewees were presented with the same numbers, and all of them initially reacted in the same way, stating how unnecessary and what a waste it was. Suggestions that this should be coordinated (Interviewee 1) and organized in some way (Interviewee 5) were made. When being told that there were a couple of small-scale initiatives to this, both Interviewee 2 and 5 responded in a similar way, that they had not previously known this but might look in to it. In previous research it has been pointed out that high level of ecological knowledge is present among those that forage (Shackleton et al. 2017). Although not all participants in this study do forage, all participants have portrayed a relatively high ecological understanding, interviewees were part of either a community gardening group or having allotment gardens and stating an interest in nature, respondents rating their environmental commitment relatively high (Figure 1). However, as most respondents underestimated amounts imported and wasted, this indicates a limited understanding of the whole situation.
Respondents were also given the statement “picking from urban vegetation is more accessible to me than mushrooms and forest berries” and asked whether they agreed with the statement or not. Answers to this statement did not present majority responses and were widely spread (Figure 15), but slightly more respondents (38) indicated that they did not agree with the statement as opposed to those that did (32). Proximity of Skarpnäck to the Nacka reserve, where mostly blueberries but also lingonberries and mushrooms are present (personal observations), may play a role in this result. I would however argue that for many people living in Skarpnäck, picking from an urban tree or bush is more proximate. The results to this statement thus indicated a low local ecological knowledge. Some statements in interviews also indicated a low local ecological understanding, as Interviewee 4 for example advised that she would never pick something that she does not know what it was, stating that “apples I could pick for example, you do not die from apples”, but then followed this with a question back, “there are no poisonous apples, right?” (Interviewee 4, 10 May 2019). It could simply be that people overestimate their environmental commitment, as was done in a survey by Konsumentverket (2018) showing that Swedish consumers rank their environmental choices to be higher than they actually are. It is also often assumed that knowledge of environmental issues will lead to pro-environmental behaviour. Many studies however show that this is not the case (Lundholm 2011; Stern 2000; Kollmuss and Agyeman 2002). It has been presumed that knowledge of existence of fruit trees and berry bushes could lead to people deciding to pick them, however as there is no straight correlation between knowledge and action, this is not necessarily the case. Although you need to know what is edible and where it grows in order to pick it, such knowledge may not be enough.

Previous research has demonstrated foragers practice environmental stewardship (Landor-Yamagata, Kowarik, and Fischer 2018; Poe et al. 2013). Foragers were guided by moral judgements and often strive towards minimising impact (Charnley, McLain, and Poe 2018). These types of practices were brought up during interviews. When considering picking, Interviewee 5 stated that he “would probably not pick so many anyways, so that others can pick as well.” (Interviewee 5, 11 May 2019) and Interviewee 1 meant that she would perceive someone picking differently depending on how much they picked. As was also indicated in relation to picture I1, Interviewees 2 and 3 felt they could pick fruit from the tree with a lot of
apples, many who had fallen to the ground, as there was a lot of it. Interviewees 2 and 5 also established that they would only pick if they knew it was allowed. It was thus evident that when picking people did try to minimise impact. In this there is a potential, more people picking would not necessarily cause any problems. If more people pick fruit, it can increase local environmental stewardship, this would mean people were more aware of environmental issues and take care of the local area, which would be beneficial for all involved. Fallen fruit can cause problems, as for example those previously mentioned suggested by Respondent 17. However, if the fruit is picked it becomes less of a problem. Increased environmental stewardship could also, for example, help fallen fruit become biogas. Even the most negative respondent, even though not stated, would probably think it was good that the fruit was picked as it would limit the “mess” and “destruction” mentioned (Respondent 17, 27 April 2019).

5.9. From symbolic barriers to symbolic enablers

There are both physical and symbolic barriers towards picking fruit and berries (Charnley, McLain, and Poe 2018). In this study both types were identified and excluded people from picking. A physical barrier found was that of cherry trees being very tall and trimmed in a way making it hard to pick berries. Even though you may want to pick, it can be difficult. One respondent reported in the questionnaire that “cherry trees are trimmed in a way making it impossible to pick” the cherries (Respondent 41, 28 April 2019). Interviewee 3 also brought up this topic, she said that it was common knowledge in the community that the cherry trees were too tall, and the lower branches were cut so you could not pick, indicating that this may be a conscious strategy from the city. To confirm these statements, I made observations of cherry trees by the Skarpnäck cultural center as it was one of the places mentioned in the questionnaire.
From my observation, I found that cherry trees are very tall and trimmed in ways making it very difficult to pick all berries (Picture O1). My observation thus supports these statements, although cherry trees being high can hardly be a conscious strategy to hinder people picking.

In relation to the creation of a fruit and berry map, three of the interviewees believed that a map would not be enough to change people’s perception on picking but something else was needed. Interestingly all these were women while the two male interviewees thought that a map would help change people’s ideas. Although claiming that people probably would not put in the effort and go outside, Interviewee 3 stated that people would need to know specifically where there is good fruit, not only where a tree is, to actually go there with the intention to pick. She also brought up the idea that a ladder or fruit picker may be needed to get to the fruit growing high up in trees. This suggestion, using different technical solutions to aid fruit picking, could be a way to overcome the physical barrier of fruit or berries growing high up in trees.

Symbolic barriers were found in relation to discussions of picture I1, an apple tree close to a residential building. The fact that the building was so close acted as a barrier towards picking for some interviewees. Interviewee 1 stated that it felt almost like picking from someone’s tree. The right to public access states no difference to how it should be applied in urban areas in relation to the forest, however as discussed earlier, there is a difference to how it was perceived. In this case it was not a physical barrier, but it could be seen to be a symbolic barrier. Previous research has showed that perceptions and normative ideas of foraging can be changed (McLain et al. 2014). According to interviewees the symbolic barriers could also be overcome. Simple solutions could indicate that picking was allowed, removing the mentioned symbolic barriers. Interviewee 1 suggested that efforts like putting up signs, information, guided tours, and perhaps a harvest day or harvest festival could get people interested in picking. Interviewee 4 also thought that maybe more people would pick if fruit and berries grew in a more controlled setting, “like if bushes grew in pallet collars, it would feel cleaner. You don’t want to pick from something growing in the ditch” (Interviewee 4, 10 May 2019). Further she also suggested signs by trees and bushes on what kind of fruit and berries are growing there and what can be done with them. The interviewee’s suggestions could be a way to further validate picking as an appropriate activity in the area. These types of efforts or activities could help create an ontological shift (McLain et al. 2014), where fruit picking activities go from being seen as out of place to an appropriate activity in the urban landscape.

It was implied in by Interviewee 3 that the trimming of cherry trees was a conscious strategy from the city. As they are now aiming towards the cherries being picked, I would assume it is not currently, although that does not rule out it has previously been such a strategy. The fact that it is perceived to be a conscious strategy hints to the idea of people believing that picking is an activity to be discouraged. Even though the City Administration wants to promote picking it is perceived to be discouraged. Many people answering the questionnaire had actually picked fruit or berries from public vegetation, although the Skarpnäck City Administration did not believe that to be the case. Why the Administration did not believe people pick fruit can be related to stewardship ethics in combination with cultural norms. People picking fruit do not pick much of it as they want to save fruit for other people or animals. Neither do they want to look greedy and in combination with the idea that people do not really want to be seen picking, how much fruit and berries are actually being picked may be more than what the City Administration initially has understood. The fact that they might have underestimated the phenomenon could simply be because they have not properly looked in to it. In this case it is a representation of the normative idea that foraging is not something very present in the urban life, only practiced as an exception. The current discourse, or rather non-existence of discourse, is that it is not a common activity.
5.10. Knowledge as constructed through culture

<table>
<thead>
<tr>
<th>Why have you never picked fruit or berries on public trees or bushes?</th>
<th>Number of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have never thought of it</td>
<td>7</td>
</tr>
<tr>
<td>I'm not interested</td>
<td>5</td>
</tr>
<tr>
<td>I pick elsewhere (garden, allotment etc.)</td>
<td>5</td>
</tr>
<tr>
<td>I don't know where/or if allowed</td>
<td>4</td>
</tr>
<tr>
<td>I Have not known</td>
<td>4</td>
</tr>
<tr>
<td>I guess I didn't know</td>
<td>3</td>
</tr>
<tr>
<td>I don't eat fruit or berries</td>
<td>2</td>
</tr>
<tr>
<td>It could be poisonous</td>
<td>2</td>
</tr>
<tr>
<td>I'm unsure if it's allowed</td>
<td>2</td>
</tr>
<tr>
<td>It's easier/better to go to store</td>
<td>2</td>
</tr>
<tr>
<td>It feels a bit odd</td>
<td>1</td>
</tr>
<tr>
<td>It's hard to pick</td>
<td>1</td>
</tr>
<tr>
<td>I have not needed</td>
<td>1</td>
</tr>
<tr>
<td>I just moved here</td>
<td>1</td>
</tr>
<tr>
<td>I don't like that there are fruit or berries in public</td>
<td>1</td>
</tr>
</tbody>
</table>

Figure 16. Answers to why respondents have never picked.

The results from the questionnaire demonstrated that many of those that answered that they had never picked fruit or berries from public vegetation have never done so because they did not know where to pick fruit or berries and/or they did not know that it was allowed (Figure 16). Common answers were for example, “I guess I did not know” (3), “did not know/have not known” (4) or “I have never thought of it” (7). The most chosen reason by the respondents that have picked fruit or berries to why they believe that many other people do not pick is that they do not know that it is allowed. The second most common answer is that they do not know where to pick. Out of the 40 that had never picked fruit or berries from public vegetation, 19 indicated lack of knowledge as the reason to not picking. Knowledge (or lack thereof), both of location of fruit and berries, and whether you are allowed to pick these or not, is thus indicated to be one decisive element to fruit and berry picking in the area.

The interviewees, having been chosen for participation because of their environmental commitment, were quite aware about fruit trees and berry bushes. Although four of the five interviewees stated that they have never picked fruit, and one seldom do it (had done it many years ago), three out of five were aware of existence of trees or bushes. Although recognising that there are fruit and berries in a park, Interviewee 1 specified that she did not know this before last summer and had previously never thought of it. She also believed that many other people do not know, while also reflecting that most people probably know that you are allowed to pick if they would think about it, although they have probably never thought of it. Interviewee 3 suggested that most people were not aware of fruit and berries because they spend most of their time indoors, and when being outdoors, they are on their way somewhere, not observing their surroundings. A similar statement was made by Interviewee 5 who said that people, including himself, were not paying attention. Although Interviewee 4 first stated that she was
not aware of there being fruit and berries crowing on public land, she later advised that she had noticed that there were cherry trees in the area but had never considered the fact that there would grow cherries on them. However, in relation to whether picking (or lack thereof) in urban landscape was related to culture, only one interviewee believed it not to be cultural, simply stating that “it is more that people do not know” (Interviewee 2, 2 May 2019). This suggests that although knowledge, or lack thereof, both of location of fruit and berries, and whether you are allowed to pick these or not, is a decisive element to picking, but it is not the only one.

That the respondents indicated a lack of knowledge as a reason for not picking is unsurprising, as you would need to know where and if you are allowed in order to pick. What is interesting in the case of this study is rather why people are not aware of fruit and berries or if they are allowed to pick it. Most interviewees were somewhat aware of trees and bushes in the local area, but still did not pick fruit or berries. As has been portrayed in this discussion, people are affected by culture in how they act in the local environment (Sutton and Anderson 2014). Culture is expressed in the daily life as a continuation of learned behaviour (Shurmer-Smith 2002). I will thus argue that it was this learned behaviour, passed down through a cultural setting, which not only made people hesitant towards fruit and berry picking, but also unaware of this being an alternative. As it was not something people had learned to do, it was not something they had ever thought about. What we know is passed down through a cultural setting, our actions are influenced by this and we may not even understand why we act in certain ways. When people stated that they do not know that they were allowed to pick fruit or berries, if they were to think about it and consider the right to public access most would probably understand that they were allowed to pick it. At least in locations of clear ownership. The fact that most people actually stated that they did not know, can come from a cultural understanding of what was perceived to be allowed. There seems to be a disconnect between what was perceived to be allowed and what people know as allowed. Foraging for fruit and berries in the urban landscape was not illegal. However, norms influence people’s behaviour even if they were not aware of this. Norms influence what was perceived to be appropriate actions in urban areas, and picking has been showed in this study to be viewed as inappropriate, it was not known to be wrong, it was seen to be wrong. As knowledge is gained in a cultural setting, it is not only lack of knowledge that hinder people to forage in the city, there are cultural norms influencing what is known.

The way of life is learned through culture, and so is knowledge. Since picking was allowed, and most people knew picking was allowed in the forest, but many people answer that they did not know (if it was allowed or where there was fruit and berries), I would argue that many had simply not reflected on what was actually allowed or not. One interviewee had previously never thought of it, and another reflected that it would logically be allowed indicates that they had not known it was allowed because they had never reflected on it. As has been shown in this study, urban foraging does not come up in everyday conversations, it is rarely talked about in society. Common responses from respondents in the questionnaire was I guess I didn’t know, and I had never thought of it. It is not that people were aware of not knowing if they are allowed, they have not previously thought of it. If they think about it, they would probably know it was allowed. Most of them have probably not looked in to their surroundings, and never thought of trees bearing fruit or what could be done with berries on bushes, simply because they have never had to. Culture is built on a system of classification (Sutton and Anderson 2014). The people that have not picked fruit have not classified it as legal or illegal, it is simply not classified at all. The normative discourse is not manifesting that it is not allowed, it is rather that there is no discourse at all, which leads to an assumption that it is not allowed.
6. Conclusion

In this thesis it has been shown that foraging was seen to be out of place in the city. There was a difference as to what was considered to be allowed in the forest and the urban landscape, and picking was an act not appropriate in cities. There seemed to be strong cultural traditions of mushroom and forest berry picking, which were not related to picking of fruit and berries from urban vegetation. The place of picking appeared to be a determinant, as dichotomous perception of the city and nature influenced what was seen to be a proper place for food to grow. Place was a dominant factor in how picking was perceived, and how one would feel when picking. Most people preferred to pick where there were few people, and no one saw you picking, suggesting it was culturally inappropriate. The way of life, where a lot of time is spent working and food is purchased at the store, means that there was not much time to forage or connect with nature. The normative assumption was that food comes from a store, and what grows in the wild was not equal to the food you purchase in a store. As not a lot of resources go in to these trees and bushes, it was not seen as food waste in the same sense as food from a store.

One of the inquiries towards the act of picking was if knowledge was the main determinant in whether people pick or not. Although it was determined that those not picking seemed to lack knowledge on legality and where to pick, and knowledge is necessary for people to pick, the main point in relation to this is that knowledge is cultural. The act of picking in the urban landscape was not a common subject of the daily life of people, neither was it often seen to take place in the area. This means that there was no or very little knowledge transfer. As knowledge transfer is important for the practice of foraging, if one does not know this practice as an alternative, one cannot decide whether to do it or not. As culture is a pattern of learned behaviour, and knowledge is learned through culture, what is not learned is not practiced, and as culture is something that is practiced, what is not practiced is outside of the cultural norm. What I have argued is that there was no discourse relating to foraging being inappropriate, rather there was no discourse at all, leading to assumptions that it was discouraged. The way that the activity was perceived, to be outside of the norm, influences individual picking decision as most people do not want to stand out from the norm.

What this thesis has tried to do is to put the spotlight on urban foraging as a practice to be considered in both academia and policymaking. I have sought to bring attention to how trees and bushes can be provisioning ecosystem services and part of edible urban landscapes. Standardised food production is accompanied with high emissions, both in production and transport. The unpicked produce that grows in the urban or semi-urban landscapes is an unused resource and urban food production has potential for providing the urban population with food created with less emissions, at the same time as contributing to both social and ecological sustainability in the city. Urban foraging has been shown to increase ecologic knowledge and increase local environmental stewardship which can be beneficial for both the community and the Administration. The potential for foraging and food trees to increase sustainability in cities, although results from this thesis are not directly transferable, is also valuable for other places.

Knowledge is a stepwise process. People learn on a daily basis, and this learning takes place in a cultural setting that most people probably do not think about. The practice of picking needs to become normalised to be a valid option in the daily life, and this will not be done only through knowledge. In the questionnaire respondents were provided with information, and many were interested in picking fruit and berries. However, knowledge does not necessarily lead to action. Knowledge needs to be put in to practice, as it is what we do that has an effect, therefore a set of policy recommendations, based on the suggestions by participants will follow.
6.1. Policy recommendations

As picking was perceived to be outside of the norm, for people to pick the idea of picking must be normalised. The idea of the representatives from the Skarpnäck City Administration was that a fruit and berry map would get people to start picking. During the process of constructing this thesis, I have met many people in the local community and almost all of them were positive towards picking, although many were surprised as they had not previously thought of the idea of picking in the urban landscape. As people were positive there is potential to get people to start picking. However, being positive does not mean people will change their habits and start picking simply if being provided with a map. People need to view the option of picking as a valid alternative and see how it fits in to their lives. I would argue that a map is not enough to change most people’s behaviour, this as the cultural aspect is acting as a barrier that is hard to overcome. In addition to a map, the Administration would also need to normalise the activity, otherwise only those already interested in picking will use the map.

Departing from the suggestions made by interviewees and respondents there are things that could be done to overcome both physical and symbolic barriers. As it was suggested by four different participants that cherry (and plum) trees grew to high up to be picked this is an apparent physical barrier. Tools to overcome this could for example be ladders or fruit pickers. A suggestion was that these could be borrowed from the library or the cultural center, otherwise they would probably have to be tied to trees. However, as I have argued, the symbolic barriers, that are part of a cultural understanding of what is appropriate behaviour also needs to be overcome for people to pick. Actions to normalise the practice of picking as suggested by interviewees are for example signs (in parks or by trees and bushes) and information (for example about when it is appropriate to pick the produce and how it can be used). A harvest day or harvest festival as well as guided tours were also suggested to get people to start picking, this would inform them of that picking is available and allowed while at the same time showing that picking is encouraged. These types of arrangements could lead to the act of picking being seen as appropriate in the community and get other people to start picking. It is both the physical and symbolic barriers that need to be overcome, for cultural barriers to weaken as well.
7. Bibliography


Appendix

Map of Skarpnäck

1. Matparken. Location of interviews and distribution of questionnaire.
2. Skarpnäcksparken. Location of distribution of questionnaire
3. Brandparken. Location of distribution of questionnaire
Questionnaire

Picking the (un)forbidden fruit (translated from Swedish)

This survey is conducted as part of a master’s thesis in Human Geography and Environmental Social Science examining the barriers and potentials for local fruit picking in Skarpnäck. All answers are anonymous, and you are free to withdraw from answering at any time. Consent is tacit.

If you have any questions, contact jonnalidmark@gmail.com
*Compulsory

Section 1

I. Do you live in Skarpnäck? *
Select only one oval.
- Yes
- No → Send form
- Other: ___

Section 2

1. How would you rank your environmental consciousness/commitment? *
Select only one oval.
1 2 3 4 5 6 7 8 9 10
Non-existent Very high

2. How often do you pick the following?
Mushrooms or forest berries (blueberries, lingonberries or similar) *

(Sommarström 2015) (Silarski 2005)

Select only one oval.
- Never
- Rarely (if someone asks me to go with them, but otherwise only rarely)
- Occasionally (a few times a season)
- Frequently (in season I go at least once a month)
- Regularly (in season I go at least once a week)
- Other: ___

Fruit (apples, plums or similar) or berries (currant, raspberries or similar) growing in public *

(Sommarström 2015) (Silarski 2005)
Select only one oval.

Never → Open section 3
Rarely (if someone asks me to go with them, but otherwise only rarely) → Open section 5
Occasionally (a few times a season) → Open section 5
Frequently (in season I go at least once a month) → Open section 5
Regularly (in season I go at least once a week) → Open section 5
Other: ___ → Open section 5

Section 3

3. Why have you never picked fruit or berries on public trees or bushes? *

4. What percentage of apples consumed in Sweden are imported?
Answer what you believe.
Select only one oval.

0–19%
20–39%
40–59%
60–79%
80–100%

5. The commercial supply of apples (on sale in stores in Sweden) is 120 000 ton each year. How many tons of non-agricultural apples goes to waste each year? *
Answer what you believe.
Select only one oval.

50 000 ton (equivalent to around 10 000 elephants)
100 000 ton (equivalent to around 20 000 elephants)
150 000 ton (equivalent to around 30 000 elephants)
200 000 ton (equivalent to around 40 000 elephants)
250 000 ton (equivalent to around 50 000 elephants)
300 000 ton (equivalent to around 60 000 elephants)
350 000 ton (equivalent to around 70 000 elephants)

Section 4

82% of all apples consumed in Sweden are imported and 250 000 ton non-commercially grown apples goes to waste each year.
6. Given these facts, how likely are you to consider picking fruit or berries from public vegetation? *  
Select only one oval.

1 2 3 4 5
I would still not pick fruit or berries I would consider picking fruit or berries more often

→ Open section 6

Section 5

7. Where within Skarpnäck have you picked fruit or berries?  
*If possible, give an address, or explain place. What type of tree, bush etc. If picking has taken place outside of the city district you can leave answer blank.

8. How far would you consider going to pick them? (from home, work or similar)  
Select only one oval.

☐ Up to 1 km
☐ Up to 3 km
☐ Up to 5 km
☐ More than 5 km
☐ Other: ___

9. Where do you live?  
*Answer address or area. If you prefer not to give out this information you can leave answer blank.

10. Why are fruit or berries growing on public vegetation not picked?  
*A large part of fruit and berries are left on trees and bushes.  
Answer what you believe.  
Tick all that apply.

☐ It is not culturally accepted
☐ People do not want to be seen picking fruit or berries in public
☐ People do not know where fruit or berries are
☐ People do not know that they are allowed to pick the fruit and berries
☐ Lack of time
☐ People prefer store-bought fruit and berries
☐ People think the fruit and berries are no good
☐ Other: ___

→ Open section 6

Section 6

11. Compare picking of fruit and berries from public vegetation to picking mushrooms or forest berries, how do they differ?  
*There is no difference  
Select only one oval.

1 2 3 4 5
Do not agree at all Completely agree
Picking mushrooms or forest berries is more culturally accepted
Select only one oval.

1 2 3 4 5
Do not agree at all Completely agree

Picking mushrooms and forest berries is part of a nature experience that is not given in urban areas
Select only one oval.

1 2 3 4 5
Do not agree at all Completely agree

Picking from urban vegetation is more accessible to me than mushrooms and forest berries
Select only one oval.

1 2 3 4 5
Do not agree at all Completely agree

12. Food waste
Food waste is food that is discarded or thrown away uneaten, the waste occurs at all stages of producing, processing, retailing and consuming. Around 100 kg of food waste per person is generated in Sweden each year, excluding non-commercial food.

Do you consider this picture as food waste? *

("Trashed Vegetables in Luxembourg” 2013)

Select only one oval.

☐ Yes
☐ No
☐ Other: ___

Do you consider this picture as food waste? *
Select only one oval.

☐ Yes
☐ No
☐ Other: ___

Section 7 - General

13. Age
Select only one oval.

☐ 0-19
☐ 20-39
☐ 40-59
☐ 60 +
☐ Prefer not to say

14. Gender
Select only one oval.

☐ Female
☐ Male
☐ Prefer not to say
☐ Other: ___
Consent form – Semi structured interviews

Information om deltagande i studie. Intervju om frukt och bärplockande.

Jag är en student som just nu skriver min masteruppsats inom samhällsvetenskapliga miljöstudier på kulturgeografiska institutionen på Stockholms Universitet och i samarbete med Skärpnäcks stadsdelsförvaltning.

Syftet med studien
Skärpnäcks stadsdelsförvaltning har under flera år märkt att frukt och bär som växer på träd och buskar på allmän mark inom stadsdelen inte plockas. På grund av detta vill de skapa en frukt- och bärkarta för att uppmärksamma stadsdelens invånare kring var det finns frukt och bär samt uppmana dem att plocka. Denna studie undersöker underliggande barriärer kring frukt- och bärplockande. Är det endast kunskapsbrist som gör att frukt och bär förfaller eller finns det andra orsaker? Denna information kan sedan användas av stadsdelsförvaltningen i deras fortsatta arbete.

Intervju

Hantering av inspelat material

Du välkommen att kontakta mig: Jonna Lidmark, på 0704798703 eller jonnalidmark@gmail.com

Handledare på Stockholms universitet är Danielle Drozdzewski, danielle.drozdzewski@humangeo.su.se

Namn

_______________________________

Underskrift

_______________________________

Datum
Interview guide – Semi structured interviews

Generellt
- Ålder? Kön?
- Ser du dig som en miljöengagerad och/eller naturintresserad person?

Plockning
- Är du medveten om att det växer frukt och bär på stadens mark?
- Vet du om du får plocka den eller inte?
- Brukar du plocka frukt eller bär som växer på stadens mark?
- Om ja, hur ofta?
- Hur tror du andra ser på frukt och bär. Tror du att andra vet om att det finns frukt och bär som får plockas?
- Kan du berätta om någon gång du reflekterat över huruvida du får plocka på ett visst ställe eller inte?
- Hur skulle du känna om du plockade? Skulle du känna dig ifrågasatt?
- Hur skulle du känna om du plockade frukt här? (specifikt plats)
- Vad skulle du tänka om du såg någon annan som plockade frukt?
- Vad behövs det för speciella kunskaper för att plocka frukt och bär på stadens mark?

Skillnader
- Brukar du plocka svamp eller bär i skogen?
- Om ja, hur ofta?
- Brukar du prata med andra om att plocka svamp eller bär i skogen? Gör du samma med frukt och bär i staden?
- Hur ser då på att plocka svamp eller bär i skogen jämfört med att plocka frukt eller bär i staden? Är det någon skillnad?
- Om ja, vad är det som utgör skillnaden? Omgivningen?
- Om du tänker på en plats där det växer mat, vad ser du då? Kan du se stadsmiljön?
- Om du tänker på allemansrätten. Vad är det för någon skillnad på vad som är tillåtet att göra i stan eller i skogen?

Mat och matsvinn
- Frukt och bär som växer i staden, hur upplever du de om du tänker kring mat?
- Om frukt och bär som växer fritt inte plockas, är det slöseri då?
- Om du plockar eller köper en frukt, är det någon skillnad på hur du känner för den?
- Över 80 procent av äpplen konsumerade i Sverige är importerade, men dubbelt så mycket äpplen som totalt konsumeras ruttnar varje år, vad tänker du om det?
- Skulle du kunna tänka att under säsong plocka frukt eller bär istället för att köpa på affären?
- Tycker du att det ska finnas möjligheter att plocka gratis frukt och bär i samhället?

Intresse för plockning
- Skulle du kunna tänka dig att plocka (mer) frukt och bär i framtiden?
- Vad tror du skulle göra att du skulle plocka mer, eller att andra skulle göra det?
- Tror du att endast en frukt- och bärkarta skulle ändra folks uppfattning? Vad behövs annars?
- Skulle du röra dig inom ditt område eller utanför för att plocka?
- Är det något annat som du tänker på?